DISTANCE EDUCATION QUALITY COURSE DELIVERY FRAMEWORK: A FORMATIVE RESEARCH STUDY

by

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DISTANCE EDUCATION QUALITY COURSE DELIVERY FRAMEWORK: A FORMATIVE RESEARCH STUDY

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Abstract

In the Fall 2010 semester, student enrollment in distance education courses increased in the United States to over 6.1 million students taking at least one distance course. Distance education allows institutions to meet increasing demands from the government and business sectors for more graduates in ways that face-to-face courses cannot meet with physical space, faculty resources, and class size limitations. Faculty and administrators express concerns about poor academic quality in online courses and programs. Existing models such as Sloan-C Five Pillars of Quality Online Education and Quality Matters do not adequately address course delivery quality. This Formative Research study was an effort to develop an instructional delivery framework for online courses that would meet requirements from (a) accreditation and regulatory agencies, (b) faculty and administration concerns about how to design and implement quality distance courses, and (c) maintenance of pedagogical flexibility for faculty. The study produced a quality instructional delivery model that was developed through iterative cycles of faculty use and feedback with the framework. Data were analyzed using the Three C's Model. This developed model provides a flexible, comprehensive, and quality-oriented model for the delivery of distance courses in a traditional university environment. The framework enables faculty of various disciplines and experience with online instruction to design a course for distance delivery that meets quality demands while allowing for the freedom customary for faculty membership. The framework produced an appealing, effective, and efficient instrument that can support the growth of quality distance courses and programs within institutions.

Dedication

My wife told me that the dedication should read, “To my wife and children, without whom I would have been done three years ago.” I can emphatically state that while this might have been completed earlier it was through their unwavering support, love, and respect that I was able to complete this at all. More importantly, it was the times between reading, studying, researching, writing, and thinking that made this accomplishment more worth my energy and time. To my wife, Maggie, and my children, Olivia and Nathan, you all provide me the encouragement to dream big and accomplish those dreams. Thank you to my muse for the late nights, inspiration, and freedom to explore these ideas. Finally, I dedicate this work to my professional network of excellent scholars and researchers. A daily reminder that this work is not only possible, but also needed. Thank you all for without you this would be an unfulfilled dream.

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This dissertation was only possible with the expert guidance of my committee: Dr. Gary Berg, Dr. Mark Kass, and Dr. Ronald Schenk. I was fortunate to get these scholars to take a personal interest in my work and ensure that the project would be a meaningful contribution to the field of distance education. My committee chairperson, Dr. Berg who possesses a discerning command over a vast range of literature in distance education, was an invaluable resource for me. Dr. Kass and his expertise in qualitative research provided important direction and support for my research. Dr. Schenk's insights into higher education and faculty dynamics helped me to find a voice for this project. I would also like to acknowledge and thank Dr. Mimi Harris-Steadman who engaged me in daily dialogue that helped me focus on the goal of creating excellence in teaching and learning. The other scholars I met throughout this process have all had great influence on how my thoughts evolved and are too numerous to mention by name.

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Chapter 1: Introduction

Smith (2011) indicated that online education allows institutions to meet increasing demands from the government and business sectors for more graduates in ways that face-to-face courses cannot meet with physical space, faculty resource, and class size limitations.

In the Fall 2010 semester, student enrollment in distance education courses increased in the United States (U.S.) by approximately 560,000 over the previous year to over 6.1 million students taking at least one distance course (Allen & Seaman, 2011). This growth in online enrollment was slower than in the previous decade, but still exceeded traditional face-to-face enrollments in the same period (Allen & Seaman, 2011). The present study resulted in the development of an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state that meets requirements from accreditation and regulatory agencies, faculty and administration concerns, and maintenance of pedagogical flexibility for faculty.

The small liberal arts institution, herein referred to with the pseudonym Magdalene University or Magdalene, that is the target of the study has increased the number of distance education courses from 9 in the 2002-03 academic year to 55 in the 2009-10 academic year (P. L. Beaman, personal communication, April 10, 2012). Administrators are seeking to increase the number of distance education courses to 25% of all courses offered. Magdalene University faculty at are concerned that the expansion of distance education may not be associated with adequate support or attention to issues of quality and desire a system that, while maintaining academic quality and rigor, will support faculty development of distance education courses (M. S. Brogan, personal communication, July 22, 2011). The subject of the Formative Research study was the development of a quality course delivery framework upon which the expansion of

distance courses and programs could take place and that reflects the combined objectives of faculty.

Background of the Problem

A recent indicator of growth for distance education is the advent of Massively Open Online Courses or MOOCs (Vardi, 2012). In the Fall 2011 semester, approximately 450,000 students enrolled in three computer science courses offered by Stanford University via the MOOC format (Vardi, 2012). Smith (2011) indicated that university leadership views booming enrollment in online programs as one reason to consider adding or expanding online programs at their respective institutions. Despite the growth in online enrollments across the higher education industry, distance education scholars submit that administrators and faculty continue to indicate concern with online course quality (Austin, 2010; Endean, Bin, & Ruo, 2010; Forsyth, Pizzica, Laxton, & Mahony, 2010; Hoskins, 2009; Kee Meng & Mayadas, 2010; Picciano, 2009; P. S. Smith, 2011; Westerfelt, 2011; Wickersham & McElhany, 2010). Harvey and Williams (2010) posited that higher education regulators and accreditors also reported concern with quality and increased oversight in this modality of higher education. Faculty and administrators show an interest in achieving and monitoring quality for online education in response to institutional planning, online enrollment growth, and accreditation, but existing models including regional accreditation guidelines, Sloan-C Five Pillars of Quality Distance Learning, and Quality Matters do not address quality at the course delivery level (Battin-Little, 2009; Bourne, Harris, & Mayadas, 2005; Pollacia & McCallister, 2009; Westerfelt, 2011; Wickersham & McElhany, 2010).

Smith (2011) noted that within colleges and universities the responsibility for instructional quality traditionally has resided with faculty and departments, thereby creating

disparities and inconsistencies in institutional reporting of quality. Such practices also pertain to the delivery of distance education courses as an extension of the department offerings or programs (Smith, 2011). Driven by the increased scrutiny and oversight of distance programs by accrediting agencies for higher education, the need for quality assessment has moved from a faculty or departmental approach to a more institution-wide approach (P. S. Smith, 2011). Traditionally campus-focused institutions lack the ability to monitor effectively distance course and program quality, but concomitantly recognize online quality as one element of a school's academic reputation (Forsyth et al., 2010). Traditional structures, resources, processes, and governance practices are not effectively equipped to meet the quickly evolving practices and regulation standards for evaluating online program quality (Endean et al., 2010; P. S. Smith, 2011).

Some distance education scholars proposed that to be effective and efficient quality evaluation should include systematic resources, support, and communication (Forsyth et al., 2010). Technology-based quality monitoring tools and rubrics enhance the ability of schools to create and sufficiently evaluate course quality in distance learning programs (Postek, Ledziska, & Czarkowski, 2010; P. S. Smith, 2011). The lack of quality standards presents challenges with accreditation, compliance, and a quality student experience (Endean et al., 2010). Quality measurement instruments do not exist for institutions new to teaching or monitoring quality online courses (Endean et al., 2010).

Westerfelt (2011) described two popular quality instruments, Quality Matters and Sloan Consortium rubrics, as tools to assist institutions with measuring online quality. Quality Matters provides institutions with an evidence-based and peer-reviewed evaluation of online and hybrid course organizational design, but does not determine effectiveness with regard to learning

interactions, course delivery, or institutional support for online courses and programs (Battin-Little, 2009; Pollacia & McCallister, 2009; Westerfelt, 2011). The Sloan Consortium instrument provides a framework for determining online quality at the institution level, but does not evaluate course delivery practices (Bourne et al., 2005; Kee Meng & Mayadas, 2010; Westerfelt, 2011).

One criticism of online program evaluation instruments is the lack of flexibility traditionally associated with narrative-style assessments used in face-to-face learning (Forsyth et al., 2010). Instruments for distance learning often limit assessors to rigid structures and evaluation standards that frequently control the delivery and evaluation of online learning (Forsyth et al., 2010). Distance education researchers have advised that course development, delivery, and evaluation have often been the responsibility of faculty, and quality instruments should provide flexibility and freedom for the faculty to create and conduct courses in an online environment while providing guidance about quality practices (Forsyth et al., 2010; Picciano, 2009; P. S. Smith, 2011; Wickersham & McElhany, 2010). D'Alessio and Avolio (2011) and Forsyth et al. (2010) further described faculty expertise in the creation of academically sound and high quality courses and programs. Some scholars have suggested that an instrument that guides quality in distance courses should combine the ability to support and monitor the essential elements of course quality, flexibility, and academic freedom with faculty support for continual improvement and skills development for conducting high quality programs (Picciano, 2009; Wickersham & McElhany, 2010).

Statement of the Problem

Middle States Commission for Higher Education, the United States Department of Education, and New York State Department of Higher Education require that higher education institutions establish and monitor quality with regard to post-secondary, distance-based, degree

granting, programs in a discipline agnostic approach rather than prescribing one set of guidelines for programs (Middle States Commission on Higher Education, 2011, New York State Education Department Office of College and University Evaluation, 2011). Distance education scholars proffer that administrators and faculty continue to indicate concern with distance education course quality throughout the various disciplines and departments within their respective institutions (Austin, 2010; Endean et al., 2010; Forsyth et al., 2010; Hoskins, 2009; Kee Meng & Mayadas, 2010; Picciano, 2009; P. S. Smith, 2011; Westerfelt, 2011; Wickersham & McElhany, 2010). The problem is that quality evaluation processes for distance education do not account for the complex differences in pedagogical approaches and instructional delivery across disciplines or institutions (Endean et al., 2010; Forsyth et al., 2010; Picciano, 2009; Postek et al., 2010; P. S. Smith, 2011; Westerfelt, 2011).

Magdalene University has slowly grown the number of distance education courses from 9 in the 2002-03 academic year to 55 in the 2009-10 academic year (P. L. Beaman, personal communication, April 10, 2012). Administrators are seeking to increase the number of distance education courses to 25% of all courses offered (M. S. Brogan, personal communication, July 22, 2011). Magdalene University faculty express concern that institutional goals for the expansion of distance education are not associated with adequate support or attention to issues of quality (Graham & Jones, 2011; LaPrade, Marks, Gilpatrick, Smith, & Beazley, 2011; Lee et al., 2010; Singleton & Session, 2011). Magdalene faculty members desire a system that supports accomplishing the distance education expansion goal while maintaining academic quality and rigor and supporting faculty development of distance education courses (M. S. Brogan, personal communication, July 22, 2011). Magdalene University is also initiating a fully online graduate program and have a need, under both New York State higher education regulations and Middle

States Commission on Higher Education, to have quality guidelines, tools, and support in place prior to enrolling students (Middle States Commission on Higher Education, 2011, New York State Education Department Office of College and University Evaluation, 2011).

The study follows the Formative Research method's constructivist and collaborative nature to provide evidence for the iterative revisions and final acceptance of the quality course design framework. The method respects scholarly recommendations that issues of curricular quality are best investigated and solved by interdisciplinary collaboration among interested parties including faculty and instructional designers (Pratasavitskaya & Stensaker, 2010). The population of this study was made up of faculty members from the small liberal arts university where the study took place. Participants were encouraged to participate by following usual communication channels including email requests. Study participants came from a wide range of academic disciplines with both tenured and non-tenured faculty, both part time and full time, and have a variety of experiences teaching distance education courses.

Purpose of the Study

The purpose of the Formative Research study was to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state. The framework meets requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based, and institutionally sound to provide adequate guidance to experienced and inexperienced distance education faculty.

Selection of ten study participants was purposive to include both full and part time professors and instructors from a range of disciplines and those who have and have not

experienced teaching distance learning classes. Data collection techniques included using observations of study participants, semi-structured interviews (see Appendix D), and focus groups (see Appendix E). Accurate transcription, member checking, and triangulation eliminated researcher bias in the data collected (Lichtman, 2013).

Significance of the Problem

Significance of the study. The Formative Research study is significant because the study develops a course delivery framework that addresses design and pedagogical techniques that allow for flexible, evidence-based, and supported instruction of distance courses at the institution. A literature review revealed an incomplete and unbalanced body of knowledge about quality of distance education programs, which could be addressed with an adequate course delivery framework that provided guidance to faculty designing and teaching online courses. The framework also supports departments and administration in reporting quality delivery of distance courses for institutional assessment and accreditation purposes. Determining and supporting quality in distance education course delivery is difficult because existing models such as Sloan-C Five Pillars of Quality in Distance Learning and Quality Matters do not address the pedagogical delivery of such courses (Battin-Little, 2009; Bourne et al., 2005; Endean et al., 2010; Forsyth et al., 2010; Kee Meng & Mayadas, 2010; Picciano, 2009; Pollacia & McCallister, 2009; Postek et al., 2010; P. S. Smith, 2011; Westerfelt, 2011). The literature reveals that a lack pedagogical and technological skills exist with which to deliver effective instruction due to the numerous and changing techniques, tools, and practices in online courses among faculty (Al-Salman, 2011; Daukilas, Kaciniene, Vainoriene, & Vaščila, 2008; Graham & Jones, 2011; Hae-Deok, Wei-Tsong, & Chao-Yueh, 2011; Kupczynski, Mundy, & Maxwell, 2012; LaPrade et al.,

2011; Lee et al., 2010; Orr, Williams, & Pennington, 2009; Sarrico, Rosa, Teixeira, & Cardoso, 2010; Singleton & Session, 2011; Tabata & Johnsrud, 2008).

Significance of the study to leadership. The gap in literature regarding the quality of distance education assessment processes poses risks for the academic and administrative leadership of higher education due to the increasing external demands to deliver and report the quality of distance learning programs and courses (Daniel, Kanwar, & Uvali-Trumbi, 2006; Gaytan, 2009; Jung, Wong, Chen, Baigaltugs, & Belawati, 2011; Peinovich, 2008; Sener, 2010; Seok, 2007). Addressing this breach in distance education quality requires the development of institutionally specific systems and processes and models that integrate quality into the delivery of courses (Al-Salman, 2011; Forsyth et al., 2010; Graham & Jones, 2011; Hae-Deok et al., 2011; Huett, Moller, Foshay, & Coleman, 2008; Kupczynski et al., 2012; Lee et al., 2010; Orellana, 2006; Orr et al., 2009; Postek et al., 2010; Schuck, Gordon, & Buchanan, 2008; Singleton & Session, 2011; Tabata & Johnsrud, 2008). The Formative Research study provides higher education leadership both a framework to deliver quality courses and a model to implement within their individual institutions to support institutional assessment and accreditation processes.

Nature of the Study

Overview of the research method. To support the faculty of Magdalene University and prepare the institution for the expansion of distance education courses and programs, the study followed a Formative Research method to design a new quality course delivery framework. Formative Research is a qualitative case study-based research method appropriate for use with the development or improvement of an instructional design theory, model, or framework (Reigeluth & Frick, 1999). The method is constructivist in nature and uses collaborations among

interested parties to create or redesign instructional design related models, theories, or frameworks (Reigeluth & Frick, 1999). The research followed a five-step process:

1. Create a case in supporting the new instructional design framework.
2. Collect and analyze formative data.
3. Revise the instructional design framework.
4. Repeat steps two and three until the research reaches a point of saturation.
5. Fully develop the tentative instructional design framework. (Reigeluth & Frick, 1999; Reigeluth, 2009)

The fourth step of the research processes repeats within the cycle until the research reaches the point of saturation where no significant changes or improvements are suggested by the study participants (Reigeluth & Frick, 1999). Study participants receive an introduction to the quality framework for designing and delivering distance courses along with a case example applicable to the framework. Data were collected by observation of participants, design of a course with the framework, individual interviews (Appendix D), and focus group interviews (Appendix E). Data were transcribed and analyzed leading to revisions of the model. This process repeated until the study reaches saturation and no more revisions were deemed valuable or sought from participants and the framework was finalized (Appendix F).

Overview of the design appropriateness. The Formative Research study method is implemented with a group of participants in a collaborative experience to find and develop enhancements of instructional design theories, models, or frameworks (Reigeluth & Frick, 1999). The method is appropriately applied to curricular quality in higher education. Instructional quality is improved when instructors and supporting administration collaborate on solving issues related to course quality (Daukilas et al., 2008; Jordens & Zepke, 2009). Specific to distance

education, scholars concur that collaborations between administrators and faculty on distance learning quality lead to superior results for the institution, students, and faculty (Gaytan, 2009; Jordens & Zepke, 2009; Seok, 2007). Formative Research is an established method in education when it is applied to system improvements (Doblar, 2010; Schankman, 2006), instructional technology and design (Enfield, 2012; Hsu, 2009; Roskos, Burstein, You, Brueck, & O'Brien, 2011; Squire, 2008; F. Wang & Hannafin, 2005) and specifically to issues of instructional design in distance learning (Halverson, 2006; Snyder, 2006; Yagodzinski, 2012).

Research Questions

Research questions help focus the study and guide the research as it progresses (Denzin & Lincoln, 2011). The goals of a Formative Research study with the purpose of designing a new instructional design framework are to meet the demands for appeal, ease of use or efficiency, and effectiveness (Reigeluth & Frick, 1999). This Formative Research study was an effort to explore the following research questions:

RQ1: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework is appropriate and appealing to them?

RQ2: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework will meet their needs for effectiveness in delivering quality online courses?

RQ3: What are the perceptions and attitudes of faculty in a small university about how a proposed framework will meet their needs for ease of use?

Definition of Terms

The following definition of terms provides an understanding of concepts and notions used throughout the Formative Research Case Study. These terms were selected based on the relevance of the term to the study. For the purposes of the present study, the following definitions assist with clarity, context, and understanding.

Academic auditing. Academic auditing is investigation regarding educational practices in an institution of higher learning (Dill, 2010).

Academic quality. Academic quality is a multifaceted concept in post secondary learning that demonstrates the academic integrity and rigor possible in a college or university and is determined through regulatory, accrediting, administration, and faculty expectations (Harvey & Green, 1993).

Course delivery. Course delivery is the conveyance of instructional content, activities, and learning assessments to students (Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010).

Course logistics. Course logistics are the class management aspects of course design including class size, statements of responsibility, computing technology, accessibility to class (Orellana, 2006).

Educational quality. Education quality is a multifaceted concept in post secondary learning that demonstrates the academic integrity and rigor possible in a college or university and is determined through regulatory, accrediting, administration, and faculty expectations (Harvey & Green, 1993).

Faculty-student interactions. These are typically collaborations between teachers and learners that support accomplishing course objectives (Graham & Jones, 2011; Singleton & Session, 2011).

Globalization. As used in higher education, globalization is the multinational expansion of institutions of higher education (Daniel et al., 2006).

Higher education quality. This is a multifaceted concept in post secondary learning that demonstrates the academic integrity and rigor possible in a college or university and is determined through regulatory, accrediting, administration, and faculty expectations (Harvey & Green, 1993).

Infrastructure. Infrastructure is the set of systems, physical resources, technological resources, personnel, policies, and practices of a college or university (Khan & Iqbal, 2011).

Instructional activities. These are the actions and events in a course between faculty and students (Daukilas et al., 2008; S. A. Lei & Gupta, 2010).

Instructional delivery. Delivery is the conveyance of instructional content, activities, and learning assessments to students (Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010).

Learning activities. These activities are the in-class actions that support understanding of the content and accomplishment of the course objectives (Bers, 2008).

Modality. Modality is a manner of teaching and learning, for example, distance education, face-to-face, or hybrid learning (Peinovich, 2008).

Pedagogical flexibility. This term is defined as the flexibility of faculty members to select and implement the correct practice, technique, or activity into the course as deemed appropriate (Peinovich, 2008).

Scaffold. A scaffold is a logical ordering or instructional items where the former provides support for the latter (Ascough, 2011)

Student-student interactions. Collaborations between learners in a class that promote accomplishing assignments, activities, and course objectives are termed student-to -student interactions (Graham & Jones, 2011; Singleton & Session, 2011).

Assumptions

The purpose of this Formative Research study was to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state. The framework meets requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based and institutionally sound to provide adequate guidance to experienced and inexperienced distance education faculty. Data were collected using observations of study participants, semi-structured interviews, and focus groups.

The framework allows faculty to determine the right design and pedagogical techniques to address course objectives while supporting their choices with evidence-based suggested practices. The assumptions for the study involved an understanding of the nature and issues surrounding distance education and instruction of online courses. Faithful transcription, member checking, and triangulation were used to eliminate researcher bias in the data collected (Lichtman, 2013). Qualitative research requires the expertise and influence of the principle investigator to more completely understand the application and reality of the study (Lichtman, 2013; Reigeluth & Frick, 1999).

It was assumed that there are multiple facets, perceptions, and definitions associated with quality in higher education and distance education and no singular standard approach would be most accurate (Filippakou, 2011; Harvey & Green, 1993; Sarrico et al., 2010). To address this concern, participants were instructed to create the sample case as they would normally develop a course for their discipline or individual preference. Study participants were guided to apply any standard of quality or rigor that would be common to their department or discipline.

The study included an assumption that faculty members could deliver quality distance education courses if properly supported through a systematic framework that provided evidence-based pedagogical techniques (Al-Salman, 2011; Daukilas et al., 2008; Graham & Jones, 2011; Hae-Deok et al., 2011; Harvey & Green, 1993; Kupczynski et al., 2012; LaPrade et al., 2011; Orr et al., 2009; Sarrico et al., 2010; Singleton & Session, 2011; Tabata & Johnsrud, 2008). This assumption was addressed by providing participants instructions about using the sample case and instructional delivery framework. Participants were free to ask questions about using the instrument and seek guidance and support as needed.

Finally, it was assumed that addressing delivery of distance education courses affects overall programmatic and institutional academic quality (Al-Salman, 2011; Forsyth et al., 2010; Graham & Jones, 2011; Hae-Deok et al., 2011; Huett et al., 2008; Kupczynski et al., 2012; Lee et al., 2010; Orellana, 2006; Orr et al., 2009; Postek et al., 2010; Schuck et al., 2008; Singleton & Session, 2011; Tabata & Johnsrud, 2008). Addressing this assumption, the design of the instructional delivery framework included course related regulations, guidelines, and best practices that lead to quality course delivery. The instrument included links to guidelines from specific disciplinary fields where faculty could seek external standards of quality related to course delivery.

Scope

The study took place at a small, private, liberal arts four-year university in western New York state referred to in this study with the pseudonym Magdalene University or Magdalene. In 2011, the institution had a full time enrollment of 3,005 students (Institute of Educational Sciences, N.D.). The university where the study took place employs 119 full time professors and 149 part time instructors (Institute of Educational Sciences, N.D.). Selection of participants was purposive to include both full and part time professors and instructors from a range of disciplines and those who had and had not experienced teaching distance learning classes. Magdalene University offers undergraduate, graduate, and clinical doctorate degrees in 17 academic disciplines (Institute of Educational Sciences, N.D.). The study required the participation of ten full and part time faculty members from the Magdalene University. Research took place in a span of 8 weeks.

The purpose of the Formative Research study was to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state. The framework meets requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based, and institutionally sound to provide adequate guidance to experienced and inexperienced distance education faculty. Data were collected using observations of study participants, semi-structured interviews, and focus groups. The research process included the development of a drafted instructional design framework, collection of data, transcription of data, analysis of collected data, and development of a tentative instructional design framework specific to the purpose of the study.

The scope of the study included the development of a drafted instructional design framework and associated case to provide study participants with a means to apply the framework and generate opinions and experiences. The framework and case related specifically to the design and delivery of a distance education course. The scope also included the observation of faculty members from the institutional site in the application of the instructional design framework. The study also included the use of individual and group interviews about the design experience using the instructional design framework.

Data were collected from ten study participants consisting of faculty members from the research institution probed through use of researcher notes and audio recordings of observations, semi-structured interviews, and focus groups. Notes were transcribed accurately and analyzed for improvements to the instructional design framework. Collected data was used to make improvements to the framework and repeated the cycles of observation, data collection, analysis, and improvement to the framework until the study reached the point of saturation. Finally, a fully developed tentative instructional design framework (Appendix F) was created to support faculty designing and delivering distance education courses

Limitations

Research studies have inevitable limitations that must be addressed to mitigate issues of validity (Cone & Foster, 2006). The limitations of this study stemmed from the foundational theory used to build the Formative Research method. Formative Research is modeled after a single holistic case study method (Reigeluth & Frick, 1999). Yin (2009) suggested that single holistic case studies or Type 1 studies contain limitations in generalizability beyond the single case, shifting or changing case aspects during the research, and lack of sufficient rigor.

Formative Research addresses these limitations in the addition of research phases specific to instruction design concerns (Reigeluth & Frick, 1999).

Yin's (2009) supposition that single holistic case studies limit the generalizability of the research beyond the specific case situation is a concern in the present study. The limitation is addressed with the focus on one instructional design theory, model, or framework (Reigeluth & Frick, 1999). The highly individualized institutional approach to determining quality in higher education and distance learning provide rational for using such a model (Pratasavitskaya & Stensaker, 2010).

Type 1 case studies as the foundational theory supporting Formative Research are also limited due to shifts and changes that occur during the research phase (Reigeluth & Frick, 1999). This limitation was addressed by the iteration of observation, collection, analysis, and framework revision stages through the research phase (Reigeluth & Frick, 1999). The use of different study participants whenever possible through the iteration stages increases the likelihood that most concerns, interests, styles, and perceptions are addressed (Reigeluth & Frick, 1999).

Finally, single holistic case studies can lack sufficient rigor and are often criticized as the experiences of the principle investigator or research team chronicled throughout the situation (Yin, 2009). In Formative Research this limitation is addressed by using rigorous data collection, accurate transcriptions thorough analysis techniques, member checking, and triangulation to ensure that bias is minimized and results are as true to the study as possible (Reigeluth & Frick, 1999).

Delimitations

The study was delimited by the decision not to select participants, but instead rely on requests from institutional site leadership for volunteers. The population was delimited to those

that expressed an interest, had the available time to participate, and teach at Magdalene University. It is recommended, but not necessary, for the iterative steps of observation, data collection, analysis, and framework revision to use different study participants for each cycle whenever possible (Creswell, 2012). The potential study participant pool was limited by the institutional staffing as well.

Summary

In this chapter, the Formative Research study was introduced. The problem was stated as quality evaluation processes for distance education do not account for the complex differences in pedagogical approaches and instructional delivery across disciplines (Endean et al., 2010; Forsyth et al., 2010; Picciano, 2009; Postek et al., 2010; P. S. Smith, 2011; Westerfelt, 2011). The purpose of the Formative Research study is to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state referred to with the pseudonym Magdalene University. The framework meets requirements from accreditation and regulatory agencies, faculty, and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based, and institutionally sound to provide adequate guidance to both experienced and inexperienced distance education faculty. Data were collected using observations of study participants, semi-structured interviews, and focus groups.

Chapter 2: Review of Literature

The previous chapter provided the problem, purpose, background, and nature of this Formative Research study aimed at creating a quality instructional design model appropriate for online course delivery. The purpose of the Formative Research study was to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state. The framework meets requirements from accreditation and regulatory agencies, faculty, and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based, and institutionally sound to provide adequate guidance to experienced and inexperienced distance education faculty. Data were collected using observations of study participants, semi-structured interviews, and focus groups.

The purpose of Chapter 2 is to provide an overview of the literature related to quality in higher education, distance education, and online course design. Scholarly books, seminal journal articles, research documents, doctoral dissertations, and higher education news articles were reviewed through the University of Phoenix library system. Database searches included EBSCOhost, ERIC, Google Scholar, ProQuest, ProQuest Social Sciences, SAGE Journals, and ProQuest Dissertations and Theses, Dissertations and Theses at University of Phoenix. Internet searches through Google, Bing, and Yahoo provided information related to the research study. Bibliographic and reference listings were accessed from appropriate titles discovered within the review process. Approximately 425 current scholarly publications concerning higher education quality, academic quality, educational quality, distance education, distance education quality, distance education quality instruments, online education, online education quality, distance

learning, distance learning quality, pedagogical quality, teaching quality, pedagogical flexibility, faculty concerns, administrative concerns, student concerns, institutional assessment, accreditation, course design, instructional design, instructional delivery, course delivery, teaching, and learning were reviewed and 154 scholarly resources were used in this study.

Quality in Higher Education

The need for the development of a quality instructional design model for distance education courses requires investigating what is meant by higher education quality, the public concerns surrounding quality in higher education, and benefits of quality to the institution. Increasing external pressure from parents, students, and government agencies signals a shift from discussing whether or not institutions should implement quality management processes to internal discussions about how quality should be ensured in academic content and course delivery (Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010). Quality in higher education consists of such factors as rising tuition costs, increased globalization of higher education programs (Baird, 2009; Daniel et al., 2006; Daunorienė, 2011; Singh, 2010; Southerland, Merlo, Robinson, Benekos, & Albanese, 2007) and political disparities between what is asked of quality and what institutions provide (Brink, 2010). This section of the chapter provides an overview of major definitions of quality, external factors influencing higher education quality, internal factors of quality in higher learning, and institutional assessment issues that lie at the center of demonstrating quality for colleges and universities.

Defining quality. The definition of quality in higher education varies by different stakeholders and individuals associated with the industry (Filippakou, 2011; Harvey & Green, 1993; Sarrico et al., 2010). Generally, the definition of quality in higher education is relative to the processes or outcomes associated with that person, group, or organization (Filippakou, 2011;

Harvey & Green, 1993; Sarrico et al., 2010). Harvey and Green (1993) argued that quality has no absolute definition and instead is relative to groups concerned. Higher education quality is an interrelated network of concerns in the areas of academics, administration, instruction, models, and approaches (Filippakou, 2011). Because numerous stakeholders define quality differently stakeholders need to better define and understand the idea of academic quality (Filippakou, 2011; Harvey & Green, 1993; Sarrico et al., 2010). Further, institutions and stakeholder groups must realize that there are varying approaches to educational quality and should attempt to alternate between definitions and models dependent on the audience of the conversation (Filippakou, 2011). Harvey and Green (1993) in a widely cited report defined higher education quality with six major philosophies: Exception, Perfection, Fitness for Purpose, Driven by Mission, Value for Money, and Transformative.

Exception. Closely associated with the traditional thinking about quality in that institutions of high value are distinctive and unique from others is the Exception philosophy of higher education quality (Harvey & Green, 1993; Singh, 2010). Some scholars have suggested that the Exception philosophy is akin to elitism and not determined by assessment practices but rather an assumption that distinctiveness and inaccessibility together define quality (Brink, 2010; Harvey & Green, 1993; Jung et al., 2011). Harvey and Green (1993) suggested that the Exception model of quality is associated with a dialogue of excellence where the institution proclaims that the right things are done and better than competing schools. In many cases, this model demands that a set of standards is set internally, but systems of quality monitoring and reporting are often hidden, protected, or obscured from easy review (Brink, 2010; Harvey & Green, 1993).

Despite the obscurity of quality measurement and reporting, the Exception philosophy does adhere to conformance to a set of static standards that it holds are the same for all institutions, ignoring potential differences that may exist (Brink, 2010; Harvey & Green, 1993; Jung et al., 2011). In this philosophy of educational quality, it is also commonly understood that checking standards is the only way to showcase the quality of the institution (Brink, 2010; Harvey & Green, 1993). This philosophy holds that academic quality increases only when institutions raise standards (Brink, 2010; Harvey & Green, 1993).

Perfection. Unlike the Exception philosophy, the Perfection philosophy of academic quality shifts the focus in excellence from inputs and outputs to perfections in the educational process and seeks to eliminate imperfections (Harvey & Green, 1993). Rather than standards to achieve, this model creates specifications to measure quality (Harvey & Green, 1993). This approach creates an atmosphere of preventing errors rather than on inspecting existing activities and processes for quality adherence (Harvey & Green, 1993). Everyone in the organization becomes responsible for monitoring, reporting, and correcting quality specifications within their own processes making the whole model a distributed system of adherence (Harvey & Green, 1993).

The Perfection model of higher education quality does allow for schools to distinguish themselves from others by allowing for individual institutional establishment of quality specifications (Harvey & Green, 1993). Within this model, even if the product or educational output is poor, the institution could consider it high quality provided the school followed established specifications (Harvey & Green, 1993). This means, as Harvey and Green (1993) illustrated, that researchers cannot effectively compare institutions provided the schools are adhering to their own individual specifications making quality determinations difficult. Harvey

and Green (1993) concluded that higher education is not necessarily about meeting specifications, but about producing a high quality graduate that other institutions would recognize.

Fitness for purpose. The Fitness for Purpose approach to academic quality suggests that the determinant for quality is the alignment of the product or service to the purpose of the organization (Harvey & Green, 1993; Sarrico et al., 2010). Such a quality model is inclusive of all stakeholders and seeks input on both the purpose and fitness of the educational product or service to that established purpose (Harvey & Green, 1993). An academic product is considered low quality if it fails to meet the collectively established purpose (Harvey & Green, 1993; Sarrico et al., 2010).

The expectations of the customers of higher education often guide this approach to quality (Harvey & Green, 1993). Institutions following this model, in whole or part, must monitor and reevaluate academics frequently to determine if the customer expectations are met (Harvey & Green, 1993). The challenge in adhering to customer expectations is three-fold. First, trends are often fluid and difficult to establish for long periods, making quality approaches difficult to adhere to or understand (Harvey & Green, 1993). Second, as Harvey and Green (1993) suggested, people unfamiliar with higher education might base expectations in an unachievable reality, on false beliefs, or born from misleading or incomplete marketing and media. Third, industries like higher education have several interrelated stakeholders making it difficult to know who the customers of education are or who among them has the priority (Harvey & Green, 1993).

Driven by mission. This approach determines educational quality by the fulfillment of the institutional mission (Harvey & Green, 1993; Martinez-Argelles, Castan, & Juan, 2010). The

institutions' viability in the region determines the appropriateness of the mission and achievement of quality (Harvey & Green, 1993). This is a common philosophy in U.S. institutions of higher learning as it aligns well with assessment and accreditation practices (Harvey & Green, 1993). This philosophy of higher education quality is not an adherence to standards or specification but rather establishes processes and management practices by which the school ensures that the desired and appropriate academic quality (Harvey & Green, 1993).

Martinez-Argelles et al. (2010) suggested that to be successful in an increasingly competitive market, institutions must align quality initiatives to student satisfaction. Harvey and Williams (2010) concurred suggesting that with more choices in higher education the emphasis on quality has shifted from the supply side to the demand side and caters directly to increasing the number of students through satisfaction scores. Scholars caution that the danger of this model is that sole reliance on student satisfaction is incorrect and leads to reduced quality (Harvey & Green, 1993; Harvey, 2008; Schuck et al., 2008). Quality systems that heavily rely on student satisfaction create both informal and formal monitoring systems making it difficult to assess and determine quality accurately (Harvey & Green, 1993). Reliance on student satisfaction as a mark of quality risks falling academic standards to meet student learning expectations (Brink, 2010). The fallacy of this model is the notion that students might understand short-term needs, but lack a complete picture of quality and institutional mission, thus forcing rapid and dangerous shifts in the delivery of education (Harvey & Green, 1993). These rapid changes potential fail at aligning the academic content and quality to the mission of the institution (Harvey & Green, 1993).

As an element of determining teaching and course quality student satisfaction can play an important role to reflective practioners desiring to make improvements or provide a better

learning experience for students (Bie & Meng, 2009). This shift in factoring student satisfaction into the determination of course quality indicates a pedagogical shift from learners as passive to active stakeholders in higher education (Bie & Meng, 2009). Bie and Meng (2009) caution students sometimes do not rate their sole satisfaction, but feel compelled to rate the quality of instruction on behalf of others in the class. Despite the active role students play in assessing instructional quality, and similarly to academic quality mentioned above, the factor should not be the exclusive means to report quality (Bie & Meng, 2009).

Value for money. Subscribers to the Value for Money philosophy of higher educational quality determine quality as a sole factor of cost (Brink, 2010; Harvey & Green, 1993; Jung et al., 2011; Sarrico et al., 2010). Those higher education stakeholders following this model often ignore past academic performance in favor of cost of education (Brink, 2010; Harvey & Green, 1993). Quality is achieved by continually decreasing the cost of education (Brink, 2010; Harvey & Green, 1993). This model is becoming popular in U.S. institutions (Harvey & Green, 1993) creating political pressure for administrations are reducing educational services and availability to students, thus lowering the quality of education as defined by other philosophies (Bandyopadhyay & Lichtman, 2007).

The Value for Money philosophy often features the creation of performance indicators that are sometimes crudely linked to academic quality (Harvey & Green, 1993; Jung et al., 2011; Sarrico et al., 2010). Some examples of performance indicators common in this philosophy are student-to-staff ratios, revenue indexes, public versus private funding ratios, market share, and examination results (Harvey & Green, 1993). Quality concerns arise when acceptable parameters for established cost indicators fall out of compliance (Jung et al., 2011). Harvey and

Green, (1993) cautioned that quality becomes a concern, too, when these indicators fail to account or consider other quality factors not associated with cost.

Transformative. Higher education quality in the Transformative approach centers on the idea that institutions evolve over time and quality only exists when institutions are changing (Harvey & Green, 1993; Houston, 2008; Jung et al., 2011). Harvey and Green (1993) suggested there are two forms of Transformation: enhancement and empowerment. The enhancement approach measures quality in respect to the change in students through the educational process (Harvey & Green, 1993). Empowerment seeks to inspire student learning through a set of quality practices and processes (Harvey & Green, 1993). These include use of student course evaluations, charters, student course selection and advisement, learning for life initiatives (Harvey & Green, 1993). Empowerment and enhancement approaches within the Transformative model of quality tend to focus on the course-related experience of students and institutions often adopt interdisciplinary teams designed to foster improvements in quality and course delivery (Jordens & Zepke, 2009).

Harvey and Green (1993) advocated that the Transformative philosophy lie at the center of any higher educational quality model or conversation and suggested that the model can link easily to other frameworks. The model should extend beyond in-class or course-related experiences of students (Houston, 2008; Martinez-Argelles et al., 2010). Some scholars have suggested that the future of higher educational quality models should focus on a balance of accountability measures common in other approaches and the academic transformation of students and institutions (Harvey & Williams, 2010; Pratasavitskaya & Stensaker, 2010; Singh, 2010).

External factors influencing educational quality. Numerous factors influence quality in higher education (Harvey & Williams, 2010). Two important factors in the U.S. are the issues of rising costs (Bandyopadhyay & Lichtman, 2007; Daunorienė, 2011; Ewell, 2009; Harvey & Green, 1993; Hersh, 2007; Z. Lei, 2009) and increasing international growth of colleges and universities (Baird, 2009; Daniel et al., 2006; Daunorienė, 2011; Singh, 2010; Southerland et al., 2007). The increasing external pressure on the higher education sector evolves from the conversation about quality about whether or not to implement quality measures to how to implement those measures (Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010). This section address these two factors and provides rationale for implementing more complete quality models for institutions of higher learning.

Rising costs. College-related expenses are increasing to students, families, and governments causing concern about the quality received from higher education and creating increased scrutiny of educational performance for the industry (Bandyopadhyay & Lichtman, 2007; Daunorienė, 2011; Ewell, 2009; Harvey, 2008; Hersh, 2007; Z. Lei, 2009). Many stakeholders concerned with the cost of a college degree attribute quality directly to tuition costs and ignore the past performance of the institutions (Daunorienė, 2011; Harvey & Green, 1993). As a result, school administrators are dealing with popular reductions in financial support forcing hiring freezes, non-replacement of employees, increasing faculty loads, increasing class sizes, and use of lower-qualified instructional staff that, in turn, reduces quality (Bandyopadhyay & Lichtman, 2007). Quality in higher education is elusive, but still understood as integral to both student success and reporting student achievement (Daunorienė, 2011; Z. Lei, 2009). Brink (2010) suggested that there is a political tension between what is being asked of quality by stakeholders and what institutions are providing in terms of quality processes and reporting. As

a result, colleges and universities are pressured to provide credible and transparent evidence of academic achievement for students and graduates (Ewell, 2009). Francis (2010) argued that stakeholders need to understand higher education as both a mission to educate students and a business that must be responsible to ensuring success.

The pressure from governments and citizens about the cost of higher education has given rise to demands for greater and more independent oversight of colleges and universities (Dill, 2010). Dill (2010) suggested that a national agency charged with education quality needs to be responsible for quality measurement and reporting of student outcomes, external evaluations procedures, academic auditing, and comparisons of quality between schools and agencies. Ewell (2010) concurred suggesting that the mounting external attention on higher education is shifting focus away from the traditional assessment practices toward a more quantitative perspective of student outcomes and learning.

Kristensen (2010) posited a counter-perspective suggesting that the creation of an external agency or increases in external agency procedures would only be as comprehensive as the institutional systems they are monitoring. Internal, institutional, quality systems remain more responsive to changes in the higher education landscape than a large external, governmental, organization (Kristensen, 2010). Brink (2010) countered this argument suggesting that the public is not protected from spin and is uncertain of the accountability of institutions reporting their own quality information.

Increasing globalization. Another factor driving the concern with quality is the globalization of higher education through extended campuses and distance education programs, raises questions about how and how well colleges and universities in developed countries will offer programs in developing nations (Baird, 2009; Daniel et al., 2006; Daunorienė, 2011; Singh,

2010; Southerland et al., 2007). Increased marketing efforts driving the expansion of higher education into international markets creates more attention on issues of academic quality (Harvey & Williams, 2010; Southerland et al., 2007). Brink (2010) informed that global higher education rankings consist of academic quality and student experience in courses, which adds pressure to account for quality in the educational process. As such, becoming or remaining competitive in the global higher education marketplace requires establishing systems that encourage, monitor, and report on quality issues related to education (Daunorienė, 2011; Harvey & Green, 1993; Hersh, 2007).

Internal factors influencing educational quality. Quality in higher education cannot be attained without the consideration of all interested parties and concerns (Francis, 2010). Any academic quality program is at risk when it represents only a narrow group of stakeholders and alienates the broader group of interested parties (Houston, 2010). This section provides an overview of internal factors that influence higher education quality in colleges and universities. The section is an exploration of faculty concerns, benefits to the institution, and institutional assessment factors.

Faculty concerns. Faculty serve an integral role in the development and monitoring of quality programs and courses (Bandyopadhyay & Lichtman, 2007). Faculty often remain at a distance from conversations and practices of academic quality despite their importance in establishing and maintaining the same (Houston, 2010). Raban (2007) suggested that a culture of auditing academics inhibits their willingness to participate in quality processes. Raban (2007) continued by suggesting that the audit culture in higher education contributes to an atmosphere of examination and worsens the feeling of faculty disengagement from quality efforts. Another consequence of the audit-heavy culture in postsecondary education is the growing feeling of

distrust and diminished support for making quality enhancements to academics (Raban, 2007). Banta (2010) suggested that faculty involvement in quality matters often does not occur because institutions do not reward faculty for focusing on issues of academic quality. Banta (2010) further suggested that if institutions desire faculty involvement they should offer financial incentives for performance of quality practices. Administrators struggle with allocating heavy resource and staffing to quality efforts because infrastructures can sometimes be costly and returns are not often immediate (Khan & Iqbal, 2011).

Whether the reason for faculty disengagement is financial as Banta (2010) suggested, or audit-rich cultures as Raban (2007) suggested, schools should create a participatory culture of quality that is respected by faculty (Francis, 2010). A quality culture in higher education should involve the collective of interested parties and groups to best develop a representative model of quality suitable for public understanding and consumption (Francis, 2010). The culture should arise from a commitment to enhance educational quality and integrate into the resource, budgetary, and strategic decision making of college governance (Raban, 2007). Houston (2010) concurred that a collaborative approach to quality is best, suggesting that establishing institutional level models of quality should involve all stakeholders, including faculty, and represent the whole of institutional thinking, rationale, and adoption of quality practices. Harvey and Williams (2010) also concurred suggesting that postsecondary quality is a highly political conversation that should include all interested parties. The risks of weak integration, as Raban (2007) advised, are that resources will not be allocated to monitoring academic quality.

As a matter of public trust, Brink (2010) agreed with Houston (2010)'s supposition that individual institutional models are better able to meet the demands of quality. Brink (2010) posited that the creation of collaborative quality programs within institutions and made widely

available would build public trust and understanding about how quality in higher education is assured. This development of a collective institutional quality culture should become a fundamental part of how all stakeholders in the industry act and think (Banta, 2010; Harvey & Williams, 2010).

Institutional growth and change. Changes in higher education arise from the implementation of quality assurance processes (Houston, 2010). Quality programs that account for failure and build in learning opportunities about those failures allow institutions to grow and evolve (Francis, 2010). Some scholars recommend that quality be an internal concern that integrates administration and faculty together, thus improving not only educational quality, but also the whole organization (Sarrico et al., 2010; Schulte, 2010). These improvements in quality and organizational efficiency also allow the institutions to more effectively respond to changes imposed from external agencies and accreditors (Kristensen, 2010; Sarrico et al., 2010; Schulte, 2010).

Higher education should not detach quality from the purpose of the institution to grow and educate students and in turn the institution as well (Harvey & Williams, 2010). As a result institutions should use quality assurance methods in the areas of research, teaching, learning, and civic responsibility (Brink, 2010). When implemented throughout the academic process and programs, regardless of teaching or research focus, quality practices should aid the institution in strengthening those programs (Fitzpatrick, 2006).

Institutional assessment. Institutional assessment remains a steadfast method for colleges and universities to document and provide evidence of academic quality (Ohia, 2011). In conjunction with accreditation programs, institutional assessment informs schools about organizational strengths and weakness so the institution can plan and implement improvements

in quality (Goswami, Gupta, & Shukla, 2010). Brink (2010) advised that a political pressure exists between what external stakeholders believe about quality and what institutions are providing in terms of quality reporting and assurance. A tension that some scholars suggested exists between rituals of quality and quality as a fundamental process owned by all concerned parties (Banta, 2010; Harvey & Williams, 2010; Kristensen, 2010; Raban, 2007). This section explores institutional assessment issues that suggest the formation of more effective quality models for institutions of higher learning. The overview provides information about concerns with institutional assessment, creation of more effective quality and assessment models, and an increasing call to focus on course instruction.

Trends in current assessment practices. Increasing pressure from outside higher education about quality shifted focus from traditional assessment methods toward a more quantitative emphasis on student outcomes and learning (Ewell, 2010). Current higher education stakeholders require that institutions report or demonstrate the return expected from the investment in tuition costs (Ascough, 2011). This shift confuses the notion of accountability in higher education with quantifiable outcome statistics (Shulman, 2007) and lends itself to the Value for Money philosophy of educational quality where quantifiable information drives decision making about quality practices like assessment (Reigeluth & Frick, 1999). The heavy reliance on quantifiable information encourages the creation and reporting of performance indicators like student satisfaction, student-to-staff ratios, and test results (Brink, 2010; Harvey & Williams, 2010). These sometimes crudely determined statistics do not fully explain the quality of the institution or academics (Brink, 2010; Harvey & Williams, 2010). The danger of relying greatly on such quantitative information is that institutions become tempted to compromise educational quality practices in favor of improving the reported number, for

example, student satisfaction (Brink, 2010). Quantitative measures regarding quality are not inherently in error, but should remain true to the original intentions of academic quality and balance with proven qualitative approaches that relate to the core values of the institution (Sarrico et al., 2010; Shulman, 2007).

Similar to the movement toward more quantifiable quality reporting, there is encouragement for institutions to adopt a standardized approach to measuring higher education outcomes (Banta, 2010; Ewell, 2009; Hersh, 2007; Shulman, 2007). Some research suggests that institutions should become more similar in their services and education to favor standardization and ease the burden of institutional assessment (Shibli, 2009). Ohia (2011) agreed that easing the burden of institutional assessment is possible with standardized processes and simplified models. The risk of standardizing education and assessment is that singular models do not adequately address institutional differences (Banta, 2010; Brink, 2010) or delve deep enough into what is happening in terms of educating students (Banta, 2010; Ewell, 2009; Hersh, 2007; Shulman, 2007). National frameworks, agencies, and standard measures threaten institutional assessment and academic quality by eliminating trust from the process, reporting only the easily comparable, and failing to address the full narrative of what is happening to provide a quality education to students (Harvey & Williams, 2010).

Both the quantification and standardization of institutional quality and assessment give rise to the creation and growth of external agencies seeking to guide, monitor, and report on aspects of academic quality (Harvey & Williams, 2010; Raban, 2007). The creation of such external systems, while convenient as Shibli (2009) suggested, disenfranchises faculty and administrators who demonstrate trust in both providing and reporting educational quality (Harvey & Williams, 2010; Raban, 2007). Further, and similar to standardized assessment

practices, external agencies are incapable of understanding the full spectrum of activities aligned to providing a quality education (Harvey & Williams, 2010; Raban, 2007). Kristensen (2010) cautioned that an external system of institutional assessment in higher education would only be as effective as the weakest of the individual institutional quality monitoring and reporting system and thus risk devaluing all of education or the external quality process. Finally, despite the increasing focus on external assessment and accreditation processes no single agency produces a quality ranking suggesting that these agencies cannot fully compare and contrast individual institutions quality practices (Brink, 2010).

The call for quantifiable quality reports, standardized assessment and quality practices, and external monitoring of higher education is a result of growing public concern to more transparently demonstrate academic quality (Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010). Some scholars agree that some external monitoring would support institutions in effectively implementing, monitoring, and reporting educational quality (Brink, 2010; Dill; Ewell, 2009; Ohia, 2011; Shibli, 2009). The risk is a devaluing and worsening environment for providing a quality education to students (Harvey & Williams, 2010). Academic quality is not merely an objective or standard report that is agnostic of disciplinary and institutional differences (Jordens & Zepke, 2009). An institutionally specific blended model of quantitative and qualitative quality outcomes reporting provides a complete picture of the quality delivered to students (Sarrico et al., 2010; Shulman, 2007).

Need for a new institutional assessment approach. Institutional assessment is a long held practice for schools to provide evidence of educational quality (Ohia, 2011). The practice meets three needs for institutional value: continued progress toward effectiveness, pedagogical improvement, and accountability to external agencies (Ohia, 2011). The institutional assessment

process relies on subjective measures accounting for the social phenomena associated with education and objective measures that sometimes are misapplied to subjective criteria such as end of course evaluations (Juceviciene, 2009). External pressure is mounting for the creation of more external oversight, better transparency, more quantifiable measurements, and standardized approaches to assessing institutional quality (Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010). Because of this external pressure, assessment practices are sometimes force fit into overall models that apply results across the industry in an attempt to compare and contrast institutions but fail to address individual institutional differences and varying pedagogical factors within those institutions adequately (Pratasavitskaya & Stensaker, 2010).

Institutional assessment is often a burden on organizations because it remains inadequately resourced and absent of a reliable infrastructure (Khan & Iqbal, 2011). This lack of resources often means rushed or delayed assessment activities when reports are scheduled or requested (Khan & Iqbal, 2011). Because of the external pressures to make transparent the quality practices of institutions of higher education, the misinterpretation or misapplication of assessment results, and the inadequate institutional focus on institutional assessment some scholars suggest the creation of more flexible, proactive, and embedded approaches to assessment practice within the college or university (Banta, 2010; Bers, 2008; Harvey & Williams, 2010; Jordens & Zepke, 2009; Juceviciene, 2009; Kristensen, 2010; Pratasavitskaya & Stensaker, 2010; Sarrico et al., 2010; Schuck et al., 2008; Shulman, 2007).

Stemming from the variances in defining quality, institutional assessment also varies from one institution to another based upon the schools' individual philosophies and academic approaches (Harvey & Williams, 2010; Juceviciene, 2009; Schuck et al., 2008). A disparity exists between what institutions provide in terms of assessment reporting and what concerned

public stakeholders are requesting from those schools (Brink, 2010). To this end, the assessment practice should include new and flexible approaches that more completely explain what level of quality is in place at any given institution (Juceviciene, 2009; Schuck et al., 2008). The flexible approach should include both quantitative and qualitative measures that remain true to the original intent of measuring quality throughout the organization from institutional to course level objectives (Sarrico et al., 2010). The inclusion of these measures should not alienate important participants in the process like faculty (Bandyopadhyay & Lichtman, 2007; Raban, 2007). It is understood that properly addressing educational quality is done by invested faculty and administrators versus non-invested personnel or outside agents (Sarrico et al., 2010).

As an occasional practice, institutional assessment is sometimes poorly planned for which results in delays and frustration in the process (Khan & Iqbal, 2011). Integrating assessment into the resource planning, budgeting, and strategic planning, helps the institution realize greater benefit (Raban, 2007). Once integrated into the daily planning of the institution it embeds throughout processes, procedures, and practices of the institution including course instruction (Bers, 2008; Raban, 2007; Shulman, 2007; Singh, 2010). Updating traditional systems of gathering, monitoring, and reporting assessment will lessen the burden by becoming more streamlined (Jordens & Zepke, 2009; Ohia, 2011; Shulman, 2007). Investment in new technologies will make assessment less onerous on the institution, administration, and faculty, new technologies (Jordens & Zepke, 2009; Shulman, 2007). Finally, a new quality and assessment approach should provide for follow through to ensure good quality continues and areas in need of improvement are adequately planned for enhancement (Harvey & Williams, 2010; Jordens & Zepke, 2009).

A focus on pedagogy. Increasing attention on institutional assessment practices is partially because of the degradation of rigor and increased leniency about quality instruction (Sarrico et al., 2010). To some degree, traditional assessment practices and popular external oversight requests fail to address the quality of teaching and learning at the course level in a proactive manner (Pratasavitskaya & Stensaker, 2010). Institutions should make certain that assessment activities include clear statements about learning objectives, student performance, and student assessment measures to address pedagogy in assessment more effectively (Bers, 2008; Ziliukas & Katiliūtė, 2008). Daily assessment activities should link student outcomes to learning objectives through course activities like instructional delivery, learning activities, student collaboration, and student assessment (Bers, 2008; Ziliukas & Katiliūtė, 2008). This increased focus addresses faculty concerns that pedagogical quality is not adequately addressed, external concerns that teaching is not meeting expectations, and embeds assessment practices into the daily activities of institutions (Sarrico et al., 2010).

Quality in teaching. One study demonstrated an increased focus on academic quality processes improved pedagogical techniques, faculty development, curricula, and student support in 146 institutions of higher learning within the U.S. (Banta, 2010). A focus on teaching quality should be evidenced by the level of instructor preparation, planning, delivery of instruction, and characteristics (Almadani, Reid, & Rodrigues, 2011; Ulmer, Watson, & Derby, 2007). The examination should review instructional elements such as course objectives, instructional content, structure, learning activities, course rigor, faculty support of students, and student assessment (Ginns, Prosser, & Barrie, 2007; Spooren, Mortelmans, & Denekens, 2007). Institutional level models of quality should consider this multidimensional evaluation and support of teaching as it is central to pedagogical quality (Ginns et al., 2007). The inclusion of

these factors into an instructional design model is shown to improve faculty adoption of quality teaching techniques and improvements in teaching and learning excellence (Ascough, 2011). This section provides a review of literature surrounding issues of pedagogical quality that highlights considerations for improving teaching quality through collaborative experiences, flexible instruction, and instructional quality models.

Increasing criticism from without higher education is creating a demand for more standardized quality models that include teaching-level criteria (Banta, 2010; Ewell, 2009; Hersh, 2007; Shulman, 2007). The dangers of implementing a standardized instructional quality framework is that uniform modeling does not account for the variances in teaching expertise that are at the center of educational philosophy and does not respond to the variances in learners (Yair, 2008). Quality concerns from outside higher education should be carefully considered and included where those demands meet the goals of education (Jordens & Zepke, 2009). This can include the addition of quantitative measures like test results, surveys, and grade comparisons, heavily favored by those calling for accountability, but should also include narrative and explanatory discussions that provide a more complete perspective about the teaching happening in the course, program, department, and institution (Banta, 2010; Sarrico et al., 2010; Spooren et al., 2007). Such blending of external concerns, internal concerns, quantifiable data, and narrative explanations should also include evidence that the instructional practices are research-based showing quality techniques and outcomes (Oermann, 2007; Sarrico et al., 2010).

Curriculum and teaching quality is improved when members of the community of practice collaborate to establish criteria and best practices for instruction (Jordens & Zepke, 2009). Evidence suggests that this community of practice include both faculty and those that support quality instruction within an institution (Pratasavitskaya & Stensaker, 2010). Požarnik

(2009) suggested that these inclusion of supporting roles like assessment professionals and instructional designers provide faculty development and support that in turn increases academic quality. The goal of these collaborations is the creation of interdisciplinary frameworks that promote quality instructional design, delivery, and evaluation (Jordens & Zepke, 2009).

An instructional quality model should not seek to limit faculty into teaching with specific techniques, styles, or practices but instead leverage the collaborations of instructional personnel to ensure that instructional techniques are well researched and evidence based (Oermann, 2007; Pratasavitskaya & Stensaker, 2010; Yair, 2008). The ability for faculty to make pedagogical decisions about course design and delivery is directly linked to student success and course satisfaction (Mancuso, 2009; McLawhon & Cutright, 2012; Selwyn, 2011). The use of evidence creates a defensible, but flexible approach allows for the teaching freedom necessary to instruct different disciplines, topics, and learners (Pratasavitskaya & Stensaker, 2010; Yair, 2008).

Scholars agree that exemplary faculty would reject a rigid instructional design model as they do not feel constrained or reverent to the such structures (Kirkwood & Price, 2008; Yair, 2008). These faculty members report that allowances for flexibility enable them to better meet the needs of the student in relationship to the content and through a variety of pedagogical practices (Kirkwood & Price, 2008; Mancuso, 2009; Yair, 2008). As a matter of attitude toward teaching, faculty members report a more positive approach to instruction when they can vary their instructional activities to demonstrate their breadth of knowledge on both the subject area and teaching practice (Ching- San, Farn-Shing, Chen-Tung, Fang- Chung, & Chia-Yu, 2009; Mustafa & Dalen, 2006; Yair, 2008).

The need for flexibility in a quality instructional design framework echoes student concerns as well. There is an increasing shift from traditionally lecture-rich instruction toward

more flexible and varied student-centric approaches that include active learning, multiple methods of delivery, goal-based learning, and increased student feedback (Požarnik, 2009). Students agree that quality instruction is critical to their success and that quality is directly attributed to educational experiences that flex with the needs of the course and students (Ahmad & Bahi, 2010). The ability for a teaching professor to vary the instruction in a course creates a learning environment that increases student success and performance (Ascough, 2011; Mustafa & Dalen, 2006; Yair, 2008). In terms of student ratings of faculty members, high performing students rated their experience higher when the faculty member exhibited a high degree of autonomy and flexibility with the course instruction (Mustafa & Dalen, 2006)

In sum, creation of a quality framework in support of pedagogical excellence meets the needs of external critics and concerned parties while allowing for a teaching-centric collaboration. Such a model would not only support high quality instruction directly (Jordens & Zepke, 2009) but also provide faculty development in the areas of quality course design and instruction (Požarnik, 2009). Finally a quality process for constructing and teaching courses provides faculty, departments, and institution a reflective process that is supported by evidence and meets the needs of a wide range of stakeholders (Sarrico et al., 2010). As such, a course-level quality framework enables the faculty and administration to easily build in assessment and quality monitoring practices and support improvements in quality, confidence, and value to students (Bandyopadhyay & Lichtman, 2007).

Quality in Distance Education

Distance education provides a mechanism for colleges and universities to expand internationally, provide broader access to potential students, and increase enrollments in existing or new programs (Daniel et al., 2006; Jung et al., 2011; Seok, 2007; Singh, 2010). One indicator

of growth in higher education is student enrollment; student enrollment in online courses exceeded 6.1 million students in the Fall 2010 semester, a growth of over one half million enrollments from the prior year and exceeded the growth of face-to-face course enrollment in the same period (Allen & Seaman, 2011). The growth indicates significant demand for this modality of learning (Daniel et al., 2006; Jung et al., 2011; Peinovich, 2008; Seok, 2007). Despite the intensification of online learning, the modality has failed to eclipse traditional higher education (Peinovich, 2008). Instead, distance learning has become a viable option for some students and faculty as it is offered in a diverse landscape of instructional modalities (Peinovich, 2008).

The emergence of distance education as an option in traditionally face-to-face institutions came largely from the impetus of a few interested faculty members or as a specific mandate from school administrations (Gaytan, 2009). Concerns about quality persist and are fueled by expansive growth in online student enrollments (Daniel et al., 2006; Jung et al., 2011; Peinovich, 2008; Seok, 2007). Peinovich (2008) posited that concerns specifically about quality in distance education are an important aspect of the greater public concern about higher education quality. A complicating factor in the discussion about online quality is the disparity in understanding and consensus about higher education quality in general (Harvey & Williams, 2010; Tanner, Noser, & Totaro, 2009b).

Some scholars advocate for well established institutional processes including a quality framework and policy reviews to assure the public that quality exists, students are protected, and the public investment in education is safeguarded against low quality online courses (Jung et al., 2011; Sener, 2010). Quality in distance education should focus on nine areas: access, learning interactions, technical support, curriculum and instruction, evaluation and assessment, institutional commitment, infrastructure and budget, and learning resources (Gaytan, 2009).

Some researchers suggest specifically designing quality protocols and guidelines for online course delivery that encompasses course design, instructional development, delivery, and pedagogical strategies used to conduct online courses (Chien, Durrington, & Olinzock, 2004; Gujar & Vadnere, 2011). Those people involved with distance education are becoming more learned about what constitutes quality in distance education (Betts, Hartman, & Oxholm, 2009). Online course design quality becomes a central issue to the retention and persistence of students enrolled in distance education courses and programs (Betts et al., 2009; Chien et al., 2004). This section of the literature review provides information related to quality in distance education and covers aspects of faculty concerns, administrative concerns, regulatory and accreditation issues, current quality models, and instructional elements related to online course development and delivery.

Faculty perspective. Faculty members contribute directly to distance education in terms of development and instruction making it important to understand their perspectives about the quality of online course delivery (Graham & Jones, 2011; Tanner et al., 2009b). Faculty perception of distance education does is influenced by benefits for faculty (S. A. Lei & Gupta, 2010) and concerns about the pedagogy and support present in online instruction (Singleton & Session, 2011; Tabata & Johnsrud, 2008). Faculty concerns with distance learning evolve from personal apprehensions relating to a lack of awareness regarding tasks concerned with effectively managing online courses and pedagogical concerns about the impact on student learning (Graham & Jones, 2011; Hae-Deok et al., 2011).

Benefits of distance education to faculty. Distance education faculty members can realize benefits from a good experience teaching online. Most importantly, a well-constructed and delivered online course can result in learning gains for students (S. A. Lei & Gupta, 2010).

These learning gains not only apply to knowledge about course content but also the use of computing technology providing an added benefit post-graduation (S. A. Lei & Gupta, 2010). An additional benefit to faculty, and students, is the flexibility of online instruction and its ability to promote an easier work-life balance (S. A. Lei & Gupta, 2010). Similarly, distance education provides greater access to students thus extending the reach of the education made possible by the faculty member (Graham & Jones, 2011; Picciano, 2009)

Some faculty argue that the nature of an always-on Internet course creates the false perception of being available all day every day (Schulte, 2010). The ease of access and continual availability makes interacting with students less cumbersome than traditional office hours (Schulte, 2010). Schulte (2010) contends that effective online faculty members establish parameters and expectations with their students promoting not only a proper work-life balance for the faculty member, but also the students.

Support and necessary skills. Faculty members often do not have the initial or continuing training necessary to teach effectively at a distance (Graham & Jones, 2011; LaPrade et al., 2011; Lee et al., 2010; Singleton & Session, 2011). A lack of familiarity amongst faculty with the necessary computing technology, poor past experiences with teaching in the modality, and anxiety about using computers can serve as barriers to quality distance education (Singleton & Session, 2011; Tabata & Johnsrud, 2008). Research suggests that faculty members familiar with technology and believe that it is critical to the profession of teaching are more likely to effectively participate in distance education (Tabata & Johnsrud, 2008). Some scholars contend that the creation of faculty development opportunities and support systems for faculty around the use of technology and teaching at a distance are critical to success (Al-Salman, 2011; Graham & Jones, 2011; Hae-Deok et al., 2011; Lee et al., 2010; Orr et al., 2009). Concomitantly, faculty

members express a desire to participate in skills development to improve their ability to instruct online courses (Al-Salman, 2011; Graham & Jones, 2011; Lee et al., 2010).

Faculty express concern that there is an increased amount of time needed to develop and teach a course in a distance environment (Cook, Ley, Crawford, & Warner, 2009; Graham & Jones, 2011; Orellana, 2006; Orr et al., 2009; Sener, 2010; Singleton & Session, 2011). In addition to the general concern about increased development and instruction time is the concern that administration does not recognize or support the additional time necessary to teach at a distance (Cook et al., 2009; Graham & Jones, 2011; Orr et al., 2009; Sener, 2010; Singleton & Session, 2011). Both faculty and administrators understand this concern and agree that time investment for online courses is front-loaded and diminishes over the life of a course (Bolliger & Wasilik, 2009). Research is still unclear about the time required to teach a single online course (Van de Vord & Pogue, 2012). One aspect that makes this time investment research unclear is that the use of instructional time and interactions is different between distance and face-to-face courses (Van de Vord & Pogue, 2012).

Administrators, it is believed, do not support distance education in terms budget and human resources (Graham & Jones, 2011; Singleton & Session, 2011). Some faculty contend that administrators do not adequately support demands for the migration of courses and teaching to a distance education format through financial compensation or incentive (Graham & Jones, 2011; Singleton & Session, 2011). Some faculty argue that institutions of higher education do not adequately account for distance education efforts in promotion and tenure processes (Graham & Jones, 2011; Singleton & Session, 2011). When institutional policies and budgeting properly account for the use of online learning faculty engaged in distance education report a higher degree of satisfaction with distance education (Bolliger & Wasilik, 2009; Orr et al., 2009).

Pedagogical concerns. Not dissimilar to the call for a standardization of higher education assessment is the demand for standardizing the delivery of instruction, particularly online instruction (Huett et al., 2008; Peinovich, 2008). Distance education creates an environment that contributes to the easy risk of standardizing content and instructional delivery (Huett et al., 2008). Faculty must not be given a prescribed model of distance education to ensure a quality course (Schuck et al., 2008). There is a need for models of distance education that provide evidence-based approaches to implementing high quality courses online (Huett et al., 2008).

Included among the pedagogical concerns that distance education creates is an atmosphere of isolation for students. Online students report difficulty in correctly receiving and interpreting course materials, for example (S. A. Lei & Gupta, 2010). Faculty express concern that it is difficult to monitor and be aware of student emotions and attitudes throughout the course creating more anxiety about isolated learning (S. A. Lei & Gupta, 2010). Research indicates that surveyed faculty and students both expressed a feeling that students must teach themselves the content without much connection to the faculty member of the course (Tanner et al., 2009b). Contrary research suggests that the level of interactivity is greater between faculty and students in an distance course (Cook et al., 2009; Orellana, 2006; Singleton & Session, 2011; Tanner et al., 2009b). Similarly, while faculty reported that distance courses lacked the important outside of class interactions, students placed little emphasis on these out-of-class exchanges (Tanner, Noser, & Michael, 2009a; Tanner et al., 2009b). It is unclear that isolation and interactivity are universal concerns but could be a factor of individual course development and instruction (Orellana, 2006).

Continuing concern about interactions includes the aspect of ease of use. Teaching distance courses makes impromptu discussions, immediate feedback, and in-person assistance more difficult than in traditional face-to-face courses (S. A. Lei & Gupta, 2010). As stated, faculty members express great concern with the interactivity of supporting students in and out of class situations, but find this difficult to accomplish in distance courses (Tanner et al., 2009b). As such, faculty are concerned that the desired interactivity to ensure quality takes more technological skill and time than is generally afforded for a single course or group of courses (Cook et al., 2009; Orellana, 2006; Singleton & Session, 2011). This is due, in some part, to faculty dissatisfaction with the computing software commonly used to deliver instruction online as they do not yet replicate face-to-face interaction (Graham & Jones, 2011; Singleton & Session, 2011). This perception of technological difficulty might be due to a lack of familiarity and skills development in using the software (Orellana, 2006).

Another aspect of pedagogical concern about interaction in distance courses is the comparison of face-to-face exchanges with online course interactions. In teaching distance courses, faculty express an affinity toward face-to-face interactions and report missing such activity in teaching online (Tanner et al., 2009b). Students, by contrast, placed less value on such face-to-face interactions in the same study (Tanner et al., 2009b). School administrators shared a lower emphasis on this course activity than faculty and were more closely aligned to student perceptions (Tanner et al., 2009a). This could be due to the frequency in which faculty members interact with students and participate in valuable synchronous exchanges (Tanner et al., 2009b). Still, faculty holds that the technology that enables faculty-to-student and student-to-student interactions does not meet the standards of synchronous face-to-face (Graham & Jones, 2011; Singleton & Session, 2011). It is also held that faculty do not all possess the skills needed

to work with such technologies in a way that promotes quality distance courses and interactions (Al-Salman, 2011; Graham & Jones, 2011; LaPrade et al., 2011; Lee et al., 2010; Singleton & Session, 2011).

A major concern among faculty teaching in a distance education environment is the factor of class sizes. Faculty contend that large class sizes combined with the high levels of interaction believed to be integral to a quality distance course creates an unnecessary burden on faculty (Cook et al., 2009; Orellana, 2006; Singleton & Session, 2011). Confounding this factor is the suggestion that administrators are concerned, in part, with the optimization of class sizes and faculty workloads (Mancuso, 2009; Orellana, 2006). Administrators are reported to sometimes hold that online courses will enable an instructor to deliver content to more students without consideration of the required quality components of interaction, assessment, and learning activity (S. A. Lei & Gupta, 2010). Anecdotal evidence suggests that smaller class sizes equate to a more balanced and appropriate level of interactivity (Orellana, 2006). Orellana (2006) researched online courses of varying size and interaction levels and found little correlated evidence supporting claims that smaller classes have better levels of interactivity leading to student success. To this end, Orellana (2006) suggested that institutions establish their own guidelines about class sizes, interactivity, and student success.

The growth of distance learning creates faculty questions and concerns about the best methods for instructing an online course (Kupczynski et al., 2012). Faculty concerns about the quality teaching of distance education courses evolve from concerns due to a lack of familiarity with the modality, to concerns about skills and abilities in teaching in this environment, to concerns about the success of students (Graham & Jones, 2011; Hae-Deok et al., 2011). These concerns are abated with a widely supported technological infrastructure that includes support

for technical skills development and flexible course technologies (Graham & Jones, 2011; Hae-Deok et al., 2011; Orr et al., 2009). Institutions should also encourage faculty to participate in distance education by offering financial incentives and course load balancing (Graham & Jones, 2011; Hae-Deok et al., 2011; Orr et al., 2009). Finally, faculty hesitation and concern can be lessened with faculty development and support systems that focus on course design, curricular quality, attainment of learning objectives, faculty-to-student interactions, and use course technology (Al-Salman, 2011; Chien et al., 2004; Graham & Jones, 2011; Hae-Deok et al., 2011; Lee et al., 2010; Orr et al., 2009).

Administrative perspective. Higher education administrators authorize and fund distance education initiatives at their respective institutions making it important to understand the issues and concerns this group of individuals faces with regard to quality in distance learning (Tanner et al., 2009a). Administrators are concerned with how to expand online learning to remain competitive while encouraging and supporting faculty to meet the increasing demand for this method of learning (Gaytan, 2009; Orr et al., 2009). Higher education administrators maintain a careful watch over rapidly tightening budgets and demands for a growing infrastructure that supports effective distance education programs (S. A. Lei & Gupta, 2010). This section provides a review of literature that addresses the concerns of administrators in higher education.

Demand and faculty encouragement. In a 2011 published report, 65% of U.S. institutions of higher education reported distance education was an integral part of their strategic planning (Allen & Seaman, 2011). To remain competitive and relevant in an increasingly diverse marketplace for higher education, traditional school administrators are strategically planning and encouraging the growth of distance education programs (Bolliger & Wasilik,

2009). In a 2009 study regarding administration perspective about online education, 85% of administrators surveyed reported that their college or universities would continue or increase offering distance education courses (Gaytan, 2009).

Administrators are concerned with faculty interest in creating distance education as a viable option for students at their institutions (Hae-Deok et al., 2011). The conflict between administrators who desire more distance education courses and reticent faculty stems from concerns that the decision was made to move more courses online without adequate investigation into the time demands, infrastructure required, class size limits, role of the institution in the marketplace, and required technical literacy skills for students (Bolliger & Wasilik, 2009; Gaytan, 2009; Singleton & Session, 2011). Administrators are also concerned with the ability of faculty to instruct from a distance without the proper skills development and support systems in place (Gaytan, 2009; Orr et al., 2009).

In a 2009 published study about administrator perspectives on the growth of distance education at their institutions, 88% of respondents encouraged the growth of online learning, but only 34% reported an understanding of the time demands required to develop a distance course and only 14% felt the time demand was greater than that of a face-to-face course (Gaytan, 2009). The disparity between faculty and administrators about the time demands for development and instruction of a distance course can serve as a barrier to moving courses to that learning modality (Bolliger & Wasilik, 2009; Sener, 2010). Anecdotally, it is understood that faculty who wish a higher degree of interaction, which is linked to high quality courses, should prepare to spend more time on distance courses than face-to-face sections of the same course (S. A. Lei & Gupta, 2010).

Increased budget and resources. Higher education administrators are charged with authorizing and funding distance education when institutions elect to include this learning option into their offerings (Tanner et al., 2009a). As such, administrators are concerned with the cost and resourcing issues surrounding infrastructure, development, and ongoing support for distance education (S. A. Lei & Gupta, 2010). Administrators are also concerned with issues like optimizing class sizes, faculty workloads, and quality of instruction (Mancuso, 2009; Orellana, 2006).

For some, the lure of distance education was a method to reduce the cost of materials and instruction by creating easily replicated and distributed content to a wider audience (Betts et al., 2009; S. A. Lei & Gupta, 2010). While innovations like distance education do have some ability to optimize the costs of education thus keeping tuition better controlled, the costs of distance education are often hidden in other services and departmental budgets (Betts et al., 2009). Institutions must factor into their distance education budget the direct and indirect costs of course materials development by faculty or other professionals, faculty skills development, computing hardware and software, technical support for students and faculty, and academic support for students (S. A. Lei & Gupta, 2010). When factoring in the all the costs of distance education including the increased costs of supporting faculty and students in a reliable ecosystem, the myth of reducing costs through online learning is somewhat dispelled (S. A. Lei & Gupta, 2010).

Despite the cost reduction myth, the growth of distance education demand means institutions must take seriously offering this option to students (Bolliger & Wasilik, 2009). Schulte (2010) suggested that distance education demands from students and faculty are due, in part, to the flexible workflow of the modality. Schulte (2010) argued that the flexibility promotes a healthier work-life balance and extends the reach of education to students. Further,

distance learning offers a flexible format that accommodates student and faculty schedules but also because it alleviates pressure on overused physical plants, parking, and institutional services (S. A. Lei & Gupta, 2010).

Quality concerns for administrators. Administrators, like faculty, are also concerned with the quality of instruction delivered through distance learning platforms (Gaytan, 2009). In a 2009 published study regarding distance education offering from colleges and universities, 85% of administrator respondents indicated that they believed quality is possible for distance education courses (Gaytan, 2009). In the same study, administrators shared a faculty concern that distance courses quality was not as high as face-to-face courses due to the lack of interactivity between faculty and students (Gaytan, 2009). Another 2009 study indicated that administrators are less concerned than faculty that interaction leads to quality instruction (Tanner et al., 2009a). As a factor of quality, distance education technologies do not replicate face-to-face interaction and thus are not considered the same leading some professionals to the perception that interaction is not possible or as good as face-to-face classes (Graham & Jones, 2011; Singleton & Session, 2011).

External appeals on matters of academic quality, cost, and increased service to students are driving not discussions on whether or not quality should be considered but how quality should be implemented internally to the institutions (Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010). Distance education, particularly, requires institutions to establish quality measures to assure the public that the online courses meet expectations and organizational mission (Daniel et al., 2006; Jung et al., 2011; Peinovich, 2008; Seok, 2007). Kristensen (2010) suggested that the formation of internal quality systems help institutions remain accountable to external and internal demands as well as be more responsive to changes in

the environments. Administrators agree that quality is integral to the continuation and expansion of distance education and that it is possible with the use of quality frameworks that support development and implementation of online courses (Chien et al., 2004; Gaytan, 2009). A framework for quality distance education courses should focus on general curricular quality, attainment of learning objectives, faculty-to-student interactions, student-to-student interactions, academic integrity, and student assessment and feedback (Chien et al., 2004).

Distance education accreditation issues. Regional accreditation agencies collaborated on an interregional guideline for the assessment and quality of distance programs (Hoskins, 2009; Seok, 2007). The criteria were deliberately set broadly and left open to regional and institutional interpretations as to fit a quickly evolving learning modality (Seok, 2007). Seok (2007) indicated that the six regional commissions for the accreditation of institutions of higher education hold very similar or identical standards based on the interregional guidelines originally drafted by the regions. As such, each region must meet a similar benchmark for distance education courses and programs (Seok, 2007).

The growth, change, and evolution of distance education techniques and technologies caused the regional accrediting bodies to evolve new guidelines that still ensure quality, but also allow for institutional flexibility in using new tools and achieving student learning (Qi, 2006). While external pressure on colleges and universities desire a standardized model of quality assurance, implementing a uniform framework for distance education throughout the industry dilutes the institutional differences and lessens the values of the institutions (Sarrico et al., 2010). Enforcement of a distance education standardize quality model would also provide policy makers and the public at risk for receiving incorrect information due to complex analysis and reporting procedures (Sarrico et al., 2010; Seok, 2007).

Continuing research with pedagogical techniques and uses of learning technology in distance education have encouraged regional accreditors to require member institutions to develop their own framework for ensuring quality (Seok, 2007). These individual frameworks should provide evidence-based and research-driven guidelines for conducting a class that illustrate quality elements of a course but allow for pedagogical flexibility within the course environment (Seok, 2007). An institutional framework should incorporate the experiences and needs of faculty members as the main delivery conduit for instructional content (Seok, 2007). Institutional quality frameworks for distance education should support existing accreditation, academic integrity, and quality processes at the college or university (Seok, 2007). Scholars hold that this individualized approach to accreditation and quality concerns enables institutions to develop effective online courses that utilize best practices for design, evidence-based instruction, professional development for faculty, and well-founded learning assessment techniques (Sarrico et al., 2010; Seok, 2007).

In terms of accreditation, distance learning is not a separate set of guidelines, but an extension of the institutional quality and academic integrity guidelines already adopted by member institutions of the regional accrediting bodies (Middle States Commission on Higher Education, 2006; Seok, 2007). The guidelines for distance education are meant to assist colleges and universities develop institutional frameworks for quality online course delivery while maintaining general standards for educational quality (Seok, 2007). The Middle States Commission on Higher Education (2006) suggested that institutions are expected to exhibit distance education options to students that meet institutional standards for academic quality, rigor, and educational effectiveness. To this end, the regional accrediting bodies adopted the *Best Practices for Electronically Offered Degree and Certificate Programs* or *Guidelines for the*

Evaluation of Electronically Offered Degree and Certificate Programs developed by the Western Cooperative for Educational Technology or WCET (Middle States Commission on Higher Education, 2011; Seok, 2007). The standards, adopted by all six U.S. regional accrediting bodies, covers nine assurances of quality for distance education programs and course as follows:

The Nine Hallmarks of Quality

1. Online learning is appropriate to the institution's mission and purposes.
2. The institution's plans for developing, sustaining, and, if appropriate, expanding online offerings, are integrated into its regular planning and evaluation processes.
3. Online learning is incorporated into the institution's systems of governance and academic oversight
4. Curricula for the institution's online learning offerings are coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats.
5. The institution evaluates the effectiveness of its online offerings, including the extent to which the online learning goals are achieved, and uses the results of its evaluations to enhance the attainment of the goals.
6. Faculty responsible for delivering online learning curricula and evaluating the students' success in achieving the online learning goals are appropriately qualified and effectively supported.
7. The institution provides effective student and academic services to support students enrolled in online learning offerings.

8. The institution provides sufficient resources to support and, if appropriate, expand its online learning offerings.
9. The institution assures the integrity of its online learning offerings. (Middle States Commission on Higher Education, 2011, p. 3)

Throughout the nine benchmarks of distance education quality are guidelines for the development and maintenance of an institutional quality framework for distance education. Within each standard are varying levels of quality that apply to institutional, programmatic, or course levels of distance education (Middle States Commission on Higher Education, 2011). Particular to quality course design the standard should be analyzed for course-level recommendations. Institutions should develop a quality model for distance education courses that address issues of appropriate class size, student responsibility for the course, faculty-to-student interactions, student-to-student interactions, learning activities, student assessment, and end of course evaluations (Middle States Commission on Higher Education, 2011).

Current quality models. Development of macro-models regarding quality in distance education that prescriptively direct the development of online courses limits the flexibility faculty need to effectively convey the content in meaningful ways to students (Sarrico et al., 2010). Such models create potential problems with institutional leadership and higher education policy makers because it creates difficulty discerning institutional differences in educational philosophy and approach (Sarrico et al., 2010). The vast array of differences between institutions is accounted for in the regional accreditation process regarding distance education by encouraging member institutions to develop their own benchmarks and frameworks of quality (Seok, 2007).

Several individual models do exist as guidelines for institutions developing or needing to evaluate distance education course quality (H. Wang, 2008; Y. Wang & Miller, 2006). These include frameworks from the National Education Association, American Distance Education Consortium, American federation of Teachers, Quality Matters, and Sloan-C (H. Wang, 2008; Y. Wang & Miller, 2006). Of the models in existence, two remain popular and most widely used: Quality Matters, and the Sloan-C Five Pillars of Quality in Distance Learning (Battin-Little, 2009; Bento & White, 2010; Bourne et al., 2005; Kee Meng & Mayadas, 2010; H. Wang, 2008; Y. Wang & Miller, 2006; Westerfelt, 2011).

Quality Matters model. Quality Matters is a faculty-centered and peer-reviewed model for organizing distance education courses (Battin-Little, 2009; Bento & White, 2010; Pollacia & McCallister, 2009). The Quality Matters model was developed from evidence-based research and applied to distance courses through a collaborative and collegial process that focuses on continual improvement of the course (Battin-Little, 2009; Bento & White, 2010). The model focuses on an evidence-based approach to eight key areas: course introduction, learning objectives, assessment, resources and materials, learner engagement, course technology, learner support, and accessibility (Battin-Little, 2009; Bento & White, 2010; Pollacia & McCallister, 2009). Within these eight areas the rubric provides 40 individual standards of excellence for instructional developers and faculty to follow while developing an online course (Bento & White, 2010). When applied, the model requires that a team of reviewers evaluate an existing course and provide a rating scale with feedback from each member to the team (Battin-Little, 2009; Bento & White, 2010).

The Quality Matters model encourages a better alignment of the course design to the learning objectives of the course (Battin-Little, 2009; Bento & White, 2010; Pollacia &

McCallister, 2009). It enables faculty members and instructional developers to select better materials, clearly schedule course activities, and determine assessment devices for the course (Bento & White, 2010). Quality Matters also promotes clarity about course organization for students making it easier both to navigate and access important information in the course environment which can lead to higher degrees of student satisfaction and success (Bento & White, 2010).

An advantage of the Quality Matters model is that it provides an easy-to-follow guide for faculty members to design their own online course using research-based evidence to support the course building (Battin-Little, 2009; Bento & White, 2010; Pollacia & McCallister, 2009). The model does not effectively account for the new and evolving dynamics of distance education, learner interactions, and new distance learning technologies (Bento & White, 2010). Likewise, the model does not account for faculty or developers that are unfamiliar with the various types of distance education technologies, tools, or techniques that can be implemented within a distance course (Battin-Little, 2009). The model, while effective at addressing issues of design, does not address the issues of course delivery (Battin-Little, 2009; Pollacia & McCallister, 2009). This can make it easier for novice distance education faculty to review the setup and design of the course but does not adequately address how effective the course was at delivering education to the students through various pedagogical methods (Battin-Little, 2009; Pollacia & McCallister, 2009). A model that addresses issues of delivery and faculty development of pedagogical techniques as simply as Quality Matters addresses course design would better support institutional development of online learning, quality reviews, and continual improvement for distance education (Battin-Little, 2009; Pollacia & McCallister, 2009).

Sloan-C Five Pillars model. The Sloan Foundation began as a philanthropic foundation focused on improving learning outside the classroom, and with the expansion of distance learning naturally evolved to include initiative (Bourne et al., 2005). In advancing the awareness and improvements for distance learning, the foundation began a program to guide distance education program development for higher education (Bourne et al., 2005; H. Wang, 2008). The Sloan-C Five Pillars of Quality Distance Learning consists of five critical areas to guide institutions: learning effectiveness, access, student satisfaction, faculty satisfaction, and cost effectiveness or scale (Bloemer, 2009; Bourne et al., 2005; Clark, Holstrom, & Millacci, 2009; H. Wang, 2008). Each of these pillars is focused on the institutional development, support, and evaluation of distance learning programs and provides guidance in each area (Bourne et al., 2005; H. Wang, 2008). This quality model suggests that by focusing on the stated five areas related to distance learning, institutions will be continually improving the quality of their online offerings (H. Wang, 2008).

Learning effectiveness pillar. The learning effectiveness domain of this model evaluates the degree to which students completing the distance program represents the institutional goals for that degree (H. Wang, 2008). This assessment of learning effectiveness can take the form of an course development framework or post-course evaluation that examines how well the course design aided in achieving the course objectives (Clark et al., 2009). Likewise, institutions can interpret this to be an evaluation of grades and grade point averages of graduating or completing students (Bloemer, 2009). Determining learning effectiveness of the distance education program might include studying graduation rates (Bloemer, 2009).

Access pillar. The access domain focuses on the degree to which students entering an online program complete the program (Clark et al., 2009; H. Wang, 2008). Institutions consider

the areas of academic support, administrative support, and technical support (H. Wang, 2008). To effectively determine the institutions progress in this area schools should consider all levels of academic support from entrance examinations and remedial plans to ongoing support from various units like the library and academic support services (Clark et al., 2009). Robust examinations investigate the ability for students to effectively use these services, computing infrastructure, and their coursework (Clark et al., 2009). To a lesser degree institutions can also examine the enrollment processes that enable access to the programs in general (Bloemer, 2009).

Student satisfaction pillar. The student satisfaction domain measures the satisfaction of the graduates with the academic quality of the program and individual courses (Bloemer, 2009; H. Wang, 2008). The evaluation of this domain can include student end-of-course surveys and course enrollments which includes during course changes in enrollment numbers (Bloemer, 2009). Detailed examinations can also include evaluation of the out-of-class learning and social environments, and national surveys of students satisfaction (Clark et al., 2009).

Faculty satisfaction pillar. Faculty satisfaction is a domain that determines the degree to which the instruction meets the needs and beliefs of the faculty with regard to quality (H. Wang, 2008). This domain is an assessment not only of faculty contentment with course quality, but also the extent to which faculty members can effectively provide quality instruction (Clark et al., 2009). As such, evaluations of this domain include assessments of faculty development and faculty technical support (Bloemer, 2009; Clark et al., 2009). This domain can also determine effective course loads for faculty, number of full and part time faculty appointments in distance education, compensation, release time for developing new courses, and ongoing research in the field (Clark et al., 2009).

Cost effectiveness pillar. Cost effectiveness or scale is a domain that measures the value of the program compared to the overall costs to run it and continue expansion for new enrollments (Clark et al., 2009; H. Wang, 2008). Determining the success of the institution in this area requires that schools examine distance education budgets to ensure a sustainable financial foundation for the program (Bloemer, 2009; Clark et al., 2009). Assessment in this area also requires determining enrollment projections to effectively budget for ongoing programs (Clark et al., 2009). A complete evaluation would consider both the direct cost of instruction and the indirect costs associated with distance education such as faculty development, support service budgets, partnership opportunities, and student retention (Clark et al., 2009).

Analysis of the pillars. The Sloan-C Five Pillars of Quality Distance Learning provides institutions a guideline for the development of full programs to deliver online to students (Bourne et al., 2005; H. Wang, 2008). Through the five domains, institutions have a wide range of interpretative ability that enables them to determine their own level and attainment of distance education quality (H. Wang, 2008). The model loosely addresses the delivery of course materials in the learning effectiveness domain, but it is more focused on the construction and institutional support of the course (Bourne et al., 2005; Clark et al., 2009; H. Wang, 2008). While effective at the institutional assessment level of quality, it fails to adequately address uses of distance education technology, teaching practices, or learning activities in online courses (Bourne et al., 2005; Kee Meng & Mayadas, 2010; Westerfelt, 2011). As such, the institutions should develop an internal quality framework to support and evaluate course delivery in the online classroom (Bourne et al., 2005; Kee Meng & Mayadas, 2010; Westerfelt, 2011).

Quality considerations in distance course delivery. The current and most widely used quality models for distance education, the Sloan-C Five Pillars of Quality in Distance Learning

and Quality Matters rubrics, address different levels of quality for distance education, but do not address the delivery of instruction in online courses (Battin-Little, 2009; Bourne et al., 2005; Kee Meng & Mayadas, 2010; Pollacia & McCallister, 2009; Westerfelt, 2011). Some scholars propose that faculty members teaching in distance courses do not have the initial or ongoing skills to deliver quality online courses due to the variety of techniques, distance learning technologies, and pedagogical practices possible in online coursework (Al-Salman, 2011; Graham & Jones, 2011; Hae-Deok et al., 2011; LaPrade et al., 2011; Lee et al., 2010; Singleton & Session, 2011; Tabata & Johnsrud, 2008). Distance education is an evolving modality of learning, and as such, many institutions struggle with adopting a macro-level model of quality because they do not address the delivery needs of their online courses (Daukilas et al., 2008; Sarrico et al., 2010) and thus have a need to create their own frameworks for the delivery of distance courses (Daukilas et al., 2008).

Distance education faculty must choose the interactions, activities, and pedagogical practices they deem best suited for the course content and objectives (Tanner et al., 2009b). Students are not interested in traditional content-centric models of course design and delivery, but rather want to see robust and high quality engaging content, activities, interactions, and assessments (Ascough, 2011). The challenge is for colleges and universities to develop distance courses that capture what is good about face-to-face classes, leverage the right technology for the instructional goals for the course, and still allow for flexibility in the teaching and learning experience (Schulte, 2010). As such, institutions must invest resources into supporting faculty members in creating quality courses that properly use a variety of learner-centric items in distance courses (Schulte, 2010; Tanner et al., 2009b). The development of such models for

effective distance course delivery should be undertaken using a collaborative approach of faculty and instructional designers (H. Wang, 2008).

Distance courses should address issues of course logistics, course design and organization, faculty-to-student interactions, student-to-student interactions, learning activities, student assessment, and course evaluation (Gaytan, 2009; Martinez-Argelles et al., 2010). As inclusions to an institutional model for quality course delivery it provides a substantial portion of the satisfaction and success of students (Martinez-Argelles et al., 2010). Faculty members are more inclined to instruct distance courses when quality course delivery and design are accounted for using a framework that supports effective teaching and learning (Tabata & Johnsrud, 2008).

Course logistics. Class size or faculty-to-student ratio is an important aspect of the logistics and management of a distance course and contributes directly to the quality of the course (Orellana, 2006). In a 2009 published study of distance education administrators, 88% of respondents felt that online courses allowed the institution to enroll more students in a given section (Gaytan, 2009). An earlier 2004 published study about administrator concerns in distance education indicated that respondents did not feel distance courses had the potential for large enrollments (Chien et al., 2004). Gaytan's (2009) report indicated that 38% of administrator respondents had knowledge that lower class sizes were more effective for student learning.

Faculty members, in some cases, report that distance courses had enrollments exceeding 100 students with an average of over 30 students per course section (Tanner et al., 2009b). A 2006 published study regarding class sizes for online courses indicated a mean average of 22.8 students with most course enrollments falling below 20 (Orellana, 2006). Distance education faculty reported that class sizes over 20 students jeopardized the levels of interaction, feedback,

and assessment that instructors can provide in an online class (Schulte, 2010). Schulte (2010) also reported that when class sizes exceeded 20 faculty were often reluctantly forced to take shortcuts or seek out alternative approaches to provide the minimally acceptable level of instruction to all students.

Some research suggests that to have a highly engaging and interactive class less students per section is needed (Gaytan, 2009; Orellana, 2006). This links course interactivity to the effort and time of the faculty member responsible for the delivery of the course (Orellana, 2006). Orellana (2006) suggested that class sizes are best determined by comparing the number of students in a distance course to the types of interactions desired by the faculty member. These interactions include: instructional activities, social engagement, interactivity of technology, student participation and faculty involvement (Orellana, 2006). This suggests that class size for courses with lower desired interactivity could have higher enrollments and vice versa (Orellana, 2006).

Another important aspect of course logistics is the concept of learner responsibility in the online course (Daukilas et al., 2008; S. A. Lei & Gupta, 2010). Students taking distance courses need to exhibit a high degree of self-management and motivation to be successful (Daukilas et al., 2008; S. A. Lei & Gupta, 2010). In addition, students need to have a high degree of comfort or competence with using the technology required for the course (Daukilas et al., 2008). Research indicates that students do not fully understand the tacit skill development possible in course activities and assignments and as such it is critical to link these activities to both the responsibility of the student and potential learning outcomes intended in each activity (Ascough, 2011). Statements of student responsibility in distance courses should include aspects of

readiness for independent learning, confidence with technology, comfort with using student support systems, and accessibility to the instructor (Conrad & Pedro, 2009).

A similar facet of course logistics is the responsibility of faculty members (S. A. Lei & Gupta, 2010). Students taking online courses vary in their approach to learning from passive to active learners; faculty members should determine students' perspectives of learning and align those to the course objectives (Kirkwood & Price, 2008). The nature of distance courses often means that faculty members find themselves as facilitators of knowledge, which requires establishing clear guidelines and expectations for both students and themselves (Mancuso, 2009). These guidelines should include a clear statement of the faculty member's philosophy of teaching and learning and how that will manifest in the teaching of the course (Ascough, 2011). Finally, faculty members in distance courses should create more methodical and consistent approaches to the delivery of the course ensuring that can adequately interact and support students (Al-Salman, 2011; S. A. Lei & Gupta, 2010).

The underlying structure of any distance course is the technological infrastructure that supports student learning and success (Daukilas et al., 2008). It is important to understand that computing technology should not dictate the pedagogy of the course (Kirkwood & Price, 2008; Schulte, 2010). Instead, technology should be selected when it meets the needs and expectations of the faculty, students, and course objectives (Schulte, 2010). When selected, the computing and distance education technologies should allow students and faculty members to effectively and easily collaborate, and engage the content of the course (Kurtz & Sponder, 2010). Use of technological tools in distance education varies by course and instructor, to this end, faculty member should be careful to outline course-specific use of any technology included in the course (Kirkwood & Price, 2008). Finally and importantly, faculty members should ensure that

computing technology works effectively to meet the needs of the course prior to the course beginning (Ward, Peters, & Shelley, 2010).

A last important aspect of course logistics is the notion of accessibility to learning (Daukilas et al., 2008). Early distance courses did not consider the idea of students with disabilities or different learning needs and thus limited access to those that could participate with without accommodation (Engleman, 2005). Accessibility improvements were initially legally required but now accessible learning falls into the universal design mindset which makes learning available to a variety of students not merely those with accommodation needs (Engleman, 2005). When establishing courses faculty members should make students aware of any support services available at the institution, but also within the content by way of multiple forms of content delivery, activity participation, and assignment choice (Engleman, 2005).

Course design. Course design concerns the instructional design of the distance course (Daukilas et al., 2008). Faculty members should carefully organize the course so it follows a logical, clear, and methodical format that is predictable and easy for students to navigate (S. A. Lei & Gupta, 2010). Students in distance courses indicated a high level of success and satisfaction when they could easily locate, use, and interact with the content of the course (S. A. Lei & Gupta, 2010).

Learning objectives are an important element in any course design and should state clearly the knowledge, skills, behaviors, and attitudes students are expected to demonstrate upon successful completion of the course (Bers, 2008). Objectives should scaffold properly from lower order thinking skills to higher order thinking skills to help student effective complete the course (Ascough, 2011). Students express satisfaction with the course and outcomes when

faculty not only outline what is expected, but also what return on student investment is possible when completing each objective (Ascough, 2011).

Student assessment in distance course is different than a face-to-face course (S. A. Lei & Gupta, 2010). Faculty members should consider more alternative or authentic style assessment activities that leverage the technology used in the online class (S. A. Lei & Gupta, 2010). Assessment devices should be clearly linked to course objectives to help students understand why the assessment is important and what they are expected to do as part of the activity (Ascough, 2011; Bers, 2008; S. A. Lei & Gupta, 2010). Faculty members should provide clear and detailed directions and requirements for assessments to aid students in understanding the expectations of each assignment (Ascough, 2011). Outputs for each assessment device should also be demonstrably clear to students and utilize as much objectivity as possible to avoid misunderstandings between the student and faculty member (Ascough, 2011).

Instructional activities. Instructional activities form the largest portion of any distance course (Daukilas et al., 2008; S. A. Lei & Gupta, 2010). The area encompasses activities between faculty and students, for example, class synchronous and asynchronous discussions, content delivery, use of multimedia to inform students (Daukilas et al., 2008; S. A. Lei & Gupta, 2010; Schulte, 2010; Stewart, Harlow, & DeBacco, 2011). The instructional activities area also includes interactions amongst students such as formal and informal discussions, collaborative projects, and social interactions (Daukilas et al., 2008; Kupczynski et al., 2012; S. A. Lei & Gupta, 2010; Riley & Anderson, 2006; Stewart et al., 2011; Ward et al., 2010; Zembylas, 2008). Learning activities are interactions in the class that promote the understanding of course materials and take many forms within the online class such as use of blogs, collaborative projects, presentations, journaling (Brodahl, Hadjerrouit, & Hansen, 2011; Chang, Morales-

Arroyo, Than, Tun, & Wang, 2010; Gaytan, 2009; S. A. Lei & Gupta, 2010). Finally, student assessment forms another part of the instructional activities area of online course delivery and takes the familiar form of examinations, papers, projects, and other assignments (Furnborough & Truman, 2009; Schulte, 2010; Ying, Huamao, Ronghuai, Yanhua, & Jingjing, 2008).

Distance courses are sometimes perceived as isolated learning experiences for students (S. A. Lei & Gupta, 2010). The experience does not need to be a solo endeavor for students when faculty plan and execute deep and well-researched interaction activities between themselves and the students in the class (Gaytan, 2009). Interactions between students and faculty members should encourage students to evaluate and share their responses to the materials (Zembylas, 2008). Well executed faculty-to-student interactions can provide a deeper learning experience, promote higher order thinking skills, and create an class environment that motivates students to think critically (S. A. Lei & Gupta, 2010; Zembylas, 2008). As such, these types of instructional activities are an important element in both faculty and student satisfaction with distance education (Bolliger & Wasilik, 2009). Effective faculty-to-student interactions should be aligned to the course objectives, materials, and lesson goals (Al-Salman, 2011). Such interactions should also promote a sense of community and collegiality including the use of both synchronous and asynchronous tools like video, chat board, and discussion forums (S. A. Lei & Gupta, 2010; Schulte, 2010; Stewart et al., 2011).

As Gaytan (2009) illustrated, distance learning is not an isolated or solo experience for students. In addition to faculty-to-student interactions, a faculty member should include student-to-student activities that engage students in collaborative dialogue and projects (Al-Salman, 2011; Bolliger & Wasilik, 2009; Dixson, 2010; Gaytan, 2009). Student-to-student activities are ones that encourage students to work together on creating a deeper understanding of important

course topics (S. A. Lei & Gupta, 2010; Stewart et al., 2011). In many instances these interactions amount to facilitated discussion boards amongst the full class or learning groups (Kupczynski et al., 2012; Riley & Anderson, 2006). These types of inclusions into a course create the added benefit of students engaging in a social environment where they are more likely to explore their thoughts, emotions, and feelings about a particular topic (Kirkwood & Price, 2008; Zembylas, 2008).

Another facet of instructional activities in a distance education course is the concept of learning activities that engage students with an active task to deepen their levels of understanding about the course or lesson topics (Dixson, 2010; Gaytan, 2009). These activities should be aligned to course objectives and explained to students in a way that promotes their understanding of the goals of the course and their learning (Ascough, 2011; Gaytan, 2009). Research indicates that when included into distance courses student engagement and time on content mastery increases (Dixson, 2010). When implemented in the online class these learning activities often take the form of small projects, current event assignments, lab work, journaling, collaborative documents, and similar activities that support larger student assessment practices (Brodahl et al., 2011; Chang et al., 2010; Dixson, 2010; S. A. Lei & Gupta, 2010). As such, these learning activities provide more opportunity for faculty to work with students and students to collaborate together promoting the other areas of this type of course inclusion (Dixson, 2010).

Lastly, instructional activities include the use of student assessment in distance courses as a means to for both students to demonstrate understanding, but also for faculty to provide valuable feedback to students about competency and progress (Furnborough & Truman, 2009; Ifenthaler, 2010; Ying et al., 2008). Assessments often take the form of examinations, tests, or quizzes in an online course, but research does not clearly indicate whether or not students can

adequately demonstrate knowledge of course materials using online testing activities (Kirkwood & Price, 2008; Schulte, 2010). Faculty should plan and implement alternative and authentic types of assessment such as written assignments, study guides, projects, portfolios, and other devices that adequately align to course objectives and provide clarity into student understanding (Grabe & Flannery, 2010; Kirkwood & Price, 2008; Schulte, 2010). Students enrolled in distance classes require frequent and quality feedback on assessment activities and perceive a cause and effect relationship feedback has on their individual success in the course (Furnborough & Truman, 2009). Feedback on assessment also encourages students to confidently engage with faculty and classmates promoting a social and collaborative learning environment (Ifenthaler, 2010; Ying et al., 2008).

Gap in Research and Literature

Some scholars advised that assessing and implementing academic quality for distance education courses is limited by existing quality models that do not adequately address the delivery of instruction in online classes (Battin-Little, 2009; Bourne et al., 2005; Endean et al., 2010; Forsyth et al., 2010; Kee Meng & Mayadas, 2010; Picciano, 2009; Pollacia & McCallister, 2009; Postek et al., 2010; P. S. Smith, 2011; Westerfelt, 2011). The literature reveals that many faculty members teaching in distance education courses lack pedagogical and technological skills to deliver effective instruction due to the numerous and evolving techniques, tools, and practices possible in online courses (Al-Salman, 2011; Daukilas et al., 2008; Graham & Jones, 2011; Hae-Deok et al., 2011; Kupczynski et al., 2012; LaPrade et al., 2011; Lee et al., 2010; Orr et al., 2009; Sarrico et al., 2010; Singleton & Session, 2011; Tabata & Johnsrud, 2008). This breach in academic quality processes poses risks for institutions of higher education due to the increasing external and internal demands to deliver and report the quality of distance learning programs and

courses (Daniel et al., 2006; Gaytan, 2009; Jung et al., 2011; Peinovich, 2008; Sener, 2010; Seok, 2007). Some scholars suggest that addressing this breach in distance education quality processes requires the development of institutionally specific systems and processes by which faculty members are supported in selection of pedagogical activities that provide the freedom and flexibility to meet course objectives using well-research and evidence-based techniques (Al-Salman, 2011; Forsyth et al., 2010; Graham & Jones, 2011; Hae-Deok et al., 2011; Huett et al., 2008; Kupczynski et al., 2012; Lee et al., 2010; Orellana, 2006; Orr et al., 2009; Postek et al., 2010; Schuck et al., 2008; Singleton & Session, 2011; Tabata & Johnsrud, 2008).

Summary

Chapter 2 provided a literature review of the topics: quality in higher education and quality in distance education with topical areas pertinent to the present Formative Research study of developing a quality framework for delivery of distance education courses at a small liberal arts institution in western New York state. Quality in higher education is a broad subject with many facets and topical areas to be covered, it is suggested that regardless of macro-level models or major philosophies that institutions design their own approach to quality using a variety of approaches and factors (Harvey & Green, 1993; Pratasavitskaya & Stensaker, 2010; Singh, 2010; Tanner et al., 2009b). Narrowing the topic of quality in higher education to the modality of distance learning, there is equal pressure on institutions to provide evidence of quality instruction in distance learning courses (Daniel et al., 2006; Jung et al., 2011; Peinovich, 2008; Seok, 2007). Like the broader quality in higher education issue, macro models for quality in distance learning do not provide an adequate model for portraying the delivery of instruction at the course level (Daniel et al., 2006; Gaytan, 2009; Jung et al., 2011; Peinovich, 2008; Sener, 2010; Seok, 2007). To this end, institutions are encouraged by some scholars to develop a quality tool that provides

faculty members guidance, support, training, and quality guidelines specific to course level instructional delivery as part of the overall quality program (Al-Salman, 2011; Forsyth et al., 2010; Graham & Jones, 2011; Hae-Deok et al., 2011; Huett et al., 2008; Kupczynski et al., 2012; Lee et al., 2010; Orellana, 2006; Orr et al., 2009; Postek et al., 2010; Schuck et al., 2008; Singleton & Session, 2011; Tabata & Johnsrud, 2008).

The purpose of the present Formative Research study was to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state. The framework must meet requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items should be well-researched and evidence-based to provide adequate guidance to experienced and inexperienced distance education faculty. Data were collected using observations of study participants, semi-structured interviews, and focus groups. This chapter provided a review of literature on topics relating to higher education quality, distance education quality, and course design, and course delivery and the content of the research questions evolved from the discussions. The following chapter contains information regarding the present study at Magdalene University including elements of research design and research methodology.

Chapter 3: Research Method

Scholars concerned with quality in distance education demonstrate a gap in current practice and empirical research by advocating for institutional-specific and delivery focused quality frameworks to be constructed for support of distance education faculty (Al-Salman, 2011; Forsyth et al., 2010; Graham & Jones, 2011; Hae-Deok et al., 2011; Huett et al., 2008; Kupczynski et al., 2012; Lee et al., 2010; Orellana, 2006; Orr et al., 2009; Postek et al., 2010; Schuck et al., 2008; Singleton & Session, 2011; Tabata & Johnsrud, 2008). The purpose of this Formative Research study was to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state referred to with the pseudonym Magdalene University. The framework meets requirements from accreditation and regulatory agencies, faculty, and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based, and institutionally sound to provide adequate guidance to experienced and inexperienced distance education faculty. The Data were collected using observations of study participants, semi-structured interviews, and focus groups.

Chapter 3 provides the research methodology to be used in responding to the research questions. Topics treated in this chapter include: research design and appropriateness, research questions, population, geographical location, informed consent, role of the researcher, data collection, issues of validity and reliability

Research Design and Appropriateness

Formative Research is a developmental methodology that focuses on explaining to educators how to design instruction not on defining instructional design which is integral to an

applied field like education (Reigeluth & Frick, 1999). The method draws from an instructional design process known as formative evaluation and case study methods with focus on an instructional design process (Reigeluth & Frick, 1999). The methodology is used for two major categories of instructional design research: designed case studies and naturalistic studies (Reigeluth & Frick, 1999). Designed case studies are used to develop a new or improve an existing instructional design theory, model, or system (Reigeluth & Frick, 1999). Naturalistic studies focus on the creation or improvement of instructional design systems not ascribed to a particular theory but serving the same goals as a designed study (Reigeluth & Frick, 1999). Corresponding to the purpose of the study, the present research followed the Designed Case Formative Research approach to design a new instructional delivery framework appropriate for quality online course development. The Designed Case Formative Research follows a five-step process that contains an iterative cycle at step four:

1. Create a case in supporting the new instructional design framework.
2. Collect and analyze formative data.
3. Revise the instructional design framework.
4. Repeat steps two and three until the research reaches a point of saturation.
5. Fully develop the tentative instructional design framework. (Reigeluth & Frick, 1999; Reigeluth, 2009)

This differs from a Designed Case that seeks to improve an existing theory or model where the process begins with the selection of a that theory or model (Reigeluth, 2009). The following process was followed in the present study.

Step One: Create a case for supporting the new instructional design framework. In step one, a situation is selected that best exemplifies common situations in which the new model

was applied, then develops a case that applies to the situation (Reigeluth & Frick, 1999). It is common for the case be a product, implementation of a product, process, or a combination thereof (Reigeluth & Frick, 1999). The case is developed from experience, intuition, knowledge, and education of investigator or research team (Reigeluth & Frick, 1999). The research provides guidelines for the selection and use of the individual elements to support the case becoming an instance of the model being developed (Reigeluth & Frick, 1999).

Step Two: Collect and analyze formative data. With a case developed that provides study participants with the present instructional delivery process, formative evaluation of the case and model begins. Formative evaluation data is collected from study participants through observations of their interactions with the present model, reviews their produced work based on the model, conducts singular interviews with participants, and engages focus groups in discussions. Reigeluth and Frick (1999) contended that the use of observation, document review, and interviews are the most useful data collection techniques when performing a Formative Research Case Study. Interviews and focus groups take place as soon after study participants have applied the model to increase external validity of the research (Reigeluth & Frick, 1999).

Step Three: Revise the instructional design framework. The model is revised based on formative evaluation data gathered from the study participants (Reigeluth & Frick, 1999). This process can begin at any point during Step Two when it is determined that the information provide has value (Reigeluth & Frick, 1999). A detailed change log is kept to track both the revisions to the model as well as future studies (Reigeluth & Frick, 1999).

Step Four: Repeat steps two and three until saturation. Collection of formative evaluation data and revisions of the framework repeat until no further substantive revisions are provided by the participants (Reigeluth & Frick, 1999). To the extent possible participants'

academic disciplines are identified (Reigeluth & Frick, 1999). These variances are intended to increase generalizability and identify anomalies where some aspects of the framework work differently for different situations (Reigeluth & Frick, 1999).

Step Five: Fully develop the tentative instructional design framework. Upon reaching a point of saturation, final revisions to the design framework are completed and a tentative framework is published (Reigeluth & Frick, 1999). Any inclusive weaknesses, anomalies, or inadequacies are published with the model (Reigeluth & Frick, 1999). Finally, the published framework corresponds with suggestions for future studies that could aid in continued improvement of the framework (Reigeluth & Frick, 1999).

Appropriateness of the method. Qualitative research crosses disciplinary boundaries and enables the exploration of the interconnectedness and complexities of issues without narrowly attempting to prove or disprove a set of variables (Denzin & Lincoln, 2011; Lichtman, 2013). In the field of education, use of qualitative research is appropriate because many aspects of the field use non-numerical data largely in the form of words or visual images whereas any quantitative research would require the use of numerical data (Lichtman, 2013). Where quantitative research methodologies seek to test hypotheses and look for cause and effect as related to several variables, qualitative studies seek to understand and interpret whole social phenomena (Denzin & Lincoln, 2011; Lichtman, 2013). Quantitative research is difficult in the field of higher education because the variables that erode reliability and validity are difficult to isolate in such a social environment (Van de Vord & Pogue, 2012). Finally, qualitative methodologies use inductive reasoning by beginning with the observations of specific items and using that data along with researcher interpretations to provide an understanding of some larger concept (Lichtman, 2013).

Formative Research, as a qualitative research method, is derived from the case study methodology. Specifically, Formative Research follows the exploratory holistic single case procedures (Reigeluth & Frick, 1999; Reigeluth, 2009). Single holistic case studies or Type 1 case studies are appropriate for use when no clear sub-unit of the case exists and when the underlying theory of the case is holistic in nature (Yin, 2009). Formative Research follows Yin's guidelines for appropriate use of Type 1 studies because the research is focused on the development of one instructional design theory, model, or framework (Reigeluth & Frick, 1999).

Yin (2009) cautioned that single-holistic case studies can change or shift during research, creating problems for investigation and interpretation. Formative Research includes an iterative cycle that requires to continuing of data collection, analysis, and revisions until the study reaches a reasonable level of saturation (Reigeluth & Frick, 1999). This iterative cycle addresses any shifting or evolving issues that might cause interpretation difficulties throughout the investigation (Reigeluth & Frick, 1999). Another concern with single holistic case studies is that these studies can unintentionally remain abstract and theoretical (Yin, 2009). Since Formative Research is intended to apply instructional design theories or models of practice and action, the danger of being abstract is diminished by the process (Reigeluth & Frick, 1999). Yin (2009) explained that some researchers criticize case study methodology for lacking sufficient rigor. This criticism is addressed in Formative Research when issues of construct validity, rigorous data collection, sound analysis processes, and a focus on generalizability are addressed (Reigeluth & Frick, 1999). Single institution case studies regarding quality in higher education offer insight and knowledge about institutional approaches and can be relevant to other similar colleges or universities (Pratasavitskaya & Stensaker, 2010).

Formative Research requires that the principle investigator and study participants engage in reflective thinking about their instructional practices and courses to find improvements throughout the research process, particularly in the iterative collection, analysis, and revision phases (Reigeluth & Frick, 1999). This reflective thinking aspect of the research design mirrors calls for reflective thinking about higher education quality. Quality processes in post-secondary education should include reflective thinking about instruction by an engaged group of faculty (Daukilas et al., 2008; Jordens & Zepke, 2009; Oermann, 2007; Pratasavitskaya & Stensaker, 2010). This processes supports the constructivism where reality is a product of interpretations and contributions of the individuals involved, which parallels what is called for in the Formative Research study method (Juceviciene, 2009; Reigeluth & Frick, 1999).

Reflective thinking of participants was captured through audio recording and accurate transcription of observations, semi-structured interviews, and focus groups. These reflections were verified through member checks of transcriptions made available to each participant. Audio recording and noting reflective thinking aided in developing rationale for making changes to the design theory (Reigeluth & Frick, 1999). The capture of my reflective thinking was accounted by noting the nature of each revision made (Reigeluth & Frick, 1999).

Appropriateness of the design. The Formative Research study method engages a group of practioners to find and implement improvements in instructional design models (Reigeluth & Frick, 1999). This method is appropriate to the problem of supporting quality in higher education. Curriculum quality is enhanced when a group of concerned practioners come together in a community of practice around issues of course quality (Daukilas et al., 2008; Jordens & Zepke, 2009). Because course quality is neither objective nor standard, it requires the collaboration of educational communities to provide their understanding and clarity around

academic quality issues like course design and delivery (Jordens & Zepke, 2009). Distance education administrators and leadership promote a collaborative approach when working with issues of course design and implementation (Seok, 2007). Such project studies benefit from utilizing faculty in planning, developing, implementing, and ongoing evaluation of distance courses (Gaytan, 2009; Jordens & Zepke, 2009).

Formative Research is an established research method and used in a variety of studies relating to the present research. As a method to investigate systemic and evaluation models Formative Research was used by Doblar (2010) and Schankman (2006). In the study of incorporating technology into instruction the method was used by Enfield (2012), Hsu (2009), Roskos, et. al. (2011), Squire (2008), and F. Wang and Hannafin, (2005). Specifically, the Formative Research method was used for distance education design studies by Halverson (2006), Snyder (2006), and Yagodzinski (2012).

Research Questions

Research questions focus the study and guide the research as it progresses (Denzin & Lincoln, 2011). The goals of the Formative Research study with the purpose of designing a new instructional design frameworks are to meet the demands for appeal, ease of use or effectiveness, and efficiency or ease of use (Reigeluth & Frick, 1999). The Formative Research study explored the following research questions:

RQ1: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework is appropriate and appealing to them?

RQ2: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework will meet their needs for effectiveness in delivering quality online courses?

RQ3: What are the perceptions and attitudes of faculty in a small university about how a proposed framework will meet their needs for ease of use?

Population

The study participants were faculty members of Magdalene University. Potential participants were invited to participate by electronic mail invitation sent from the administrative director at Magdalene University (Appendix B). An electronic mail reminder was sent ten days after the original electronic mail invitation (Appendix B). Volunteers were asked to contact the principle investigator directly to volunteer as participants for the research. Study participants came from a wide range of academic disciplines including arts, sciences, health, and human service related departments. Study participants were both tenured and non-tenured faculty currently teaching at the research site institution. Study participants had a variety of experiences teaching distance education courses ranging from no familiarity to substantial proficiency with this modality. The study concluded with ten faculty members included in the research study. Formative Research requires the investigator to continue iterative cycles of data collection and revision until participants offer no substantive revisions to the instructional delivery framework (Reigeluth & Frick, 1999).

Informed Consent

A letter was sent prior to initiation of the research proposal to the senior academic administrative leader at the Magdalene University for permission to use the location and faculty for the study, which was returned with an affirmative answer. The letter included a statement of

the study purpose, expectations, and assurances of confidentiality and legitimacy of the study. Upon confirmation of the research proposal by the Institutional Review Boards at the university that is the target of the study and the University of Phoenix pursuant to the U.S. Federal Government Department of Health and Human Services (2009) regulation 45 CFR § 46.10, the Formative Research study commenced. 45 CFR § 46.10 states the probability and magnitude of harm or discomfort anticipated in the research should not be greater in and of themselves than any ordinarily encountered in daily life, or during the performance of routine physical or psychological examinations or tests, and the results are that the study was deemed to be one of minimal risk to participants pursuant to the law.

A list of the Magdalene University electronic mail addresses of all faulty was obtained. Potential participants were invited to participate by electronic mail invitation sent from an administrative director at Magdalene University (Appendix B). A subsequent electronic mail reminder was sent ten days after the original electronic mail invitation (Appendix B). Volunteers were asked to contact me directly to volunteer as participants for the research. The invitation contained a clear statement of the research study, expectations of the study participants, assurances of confidentiality and privacy protections, statement of risks and benefits, procedure for how to discontinue as a study participant, and request to contact me directly to participate. Once study participants agreed to take part in the research study they were provided an informed consent form (Appendix C) that outlined all the information contained in the recruitment email. Interviews and focus group sessions were audio-recorded.

A purposive selection of participants was made from those who responded positively to the letter of invitations to ensure that a cross section of disciplines and faculty were included in the interviews and focus groups. A time and place convenient to both parties was selected and

individual interviews were no longer than 1 hour in length. Each participant participated in multiple forms of data collection as noted in a following paragraph. An Interview Protocol (Appendix D) was used to ensure consistency across all interviews. Interviewees were asked a group of 13 questions related to the three research questions. The questions were purposively constructed from Formative Research studies and derived from Reigeluth and Frick's (1999) seminal guidance on this research method. The questions were designed and organized to address the three areas of Formative Research: appeal, effectiveness, and efficiency or ease of use (Reigeluth & Frick, 1999). Interviewees were allowed to diverge from the interview questions as desired. The interviewer recorded observational notes. A transcription of the recordings of individual interviews was implemented, and interviewees were provided with an opportunity to review the transcriptions for accuracy.

A Focus Group Protocol (Appendix E) was used to ensure research objectives are met. The questions were purposively constructed from Formative Research studies and derived from Reigeluth and Frick's (1999) seminal guidance on this research method and the Interview Protocol from this study (Appendix D). The questions were designed and organized to address the three areas of Formative Research: appeal, effectiveness, and efficiency or ease of use (Reigeluth & Frick, 1999). Participants were asked six questions to prompt discussion. The focus group participants were allowed to deviate from the questions. An audio recording was taken of each focus group proceeding. A transcription of the recordings of focus group was implemented, and participants were provided with an opportunity to review the transcriptions for accuracy.

Only I have access to the interview and focus group data. Transcripts of data were coded (example: 1001 for first interviewee). Audio recordings were deleted from the password

protected computer and device once transcriptions were complete. A master code list connecting names of subjects to code numbers is stored in a locked cabinet in principle investigator's office and will be destroyed in 3 years after publication of the dissertation. Upon the request of a participant, the principle investigator who has sole and full access to the secured and protected research documents, will remove and shred all data related to any participant including focus group data that specifically identifies or originates from the participant. All data pertinent to the study will remain in a safe location for 3 years after publication of the dissertation, after which is will be destroyed.

Geographic Location

The research took place, with permission, at a western New York state private, not-for-profit four-year university. The institution provides degree programs at the Bachelors, Masters, and clinical doctorate levels in areas of humanities, sciences, and health sciences. The university operates on a semester system with a January session and two intersessions. The influencing criteria for selecting Magdalene University as the research site was the location of the school.

Within western New York state, the institution lies in Erie County. As of 2011, Erie County has a population 918,028; of which 81.1% are White, 13.9% are Black, 4.7% are Hispanic, and approximately 5% are of other decent ("Erie County QuickFacts from the US Census Bureau," n.d.). The population is comprised of 51.7% female and 48.3% male persons ("Erie County QuickFacts from the US Census Bureau," n.d.). Educationally, 88.9% of the Erie County population over the age of 25 have a high school of higher degree and 29.8% of the population of Erie County 25 years or older possess a Bachelor degree or higher ("Erie County QuickFacts from the US Census Bureau," n.d.). The research site institution has an immediate geographic enrollment source from 96 public school districts with a total of 117 public high

schools (“WNYRIC School Districts□: Western New York Regional Information Center (WNYRIC)□: Erie 1 BOCES,” n.d.).

Data Collection and Analysis

Data collection in Formative Research is influenced by thoroughness and credibility (Reigeluth & Frick, 1999). Thoroughness of data collection is enhanced when data collection procedures include advanced preparation of the study participants, emersion in data collection process with gradually decreasing obtrusiveness, and iterative phases of data collection and analysis until the study reaches saturation (Reigeluth & Frick, 1999). Credibility or reliability of data collection is established using triangulation of data collected, rigorous chains of evidence collection, and member checks (Reigeluth & Frick, 1999).

Data were accurately transcribed and analyzed using triangulation techniques that utilize multiple study participants in iterative rounds of collection, analysis, and revision (Reigeluth & Frick, 1999). Each study participant took part in multiple forms of data collection: observation of study participants applying the instructional design framework, individual interviews conducted either face-to-face or via web conference technologies, and focus group interviews.

Yin (2009) suggested that data collection should follow a strict chain of evidence that is clear and precise. Focus study participants gathered in a private location where their interactions with the instructional design framework were observed. Participants were individually interviewed in a private location that disallows outside interference or distraction; interviews were recorded digitally and transcribed into a database, the audio file deleted from the recording device once transcription is complete and confirmed. Focus group Data were recorded via digital voice recorder; Data were transcribed accordingly into the evidence database and the audio file deleted from the original sources.

Data were analyzed for concepts or themes and confirmation throughout the iterative cycles of data collection, analysis, and revision until the study reaches a point of saturation. Iterative cycles utilized different participants to increase the generalizability of the study (Reigeluth & Frick, 1999). Any differences that occurred in the iterations were noted and attached to some measure of specific situation and participant experience then accounted for in the framework to ensure more generalizability and usability by a variety of practioners (Reigeluth & Frick, 1999). Data were also be analyzed for duplicated evidence to support elements and revisions to the design framework (Reigeluth & Frick, 1999).

Role of the Researcher

The role of the researcher in qualitative research is a critical element to the study (Lichtman, 2013). Interpretations in the study were based upon my experience, education, and background (Lichtman, 2013; Reigeluth & Frick, 1999). As an administrator at Magdalene University, there is frequent contact with potential study participants and administrators. Daily responsibilities include issues of course development, instructional design, teaching and learning, and educational technology including online courses.

Validity and Reliability

This Formative Research study focused on the design of a new instructional design framework for delivering quality distance courses. Qualitative research that investigates the description of a situation or phenomena typically addresses concerns of validity and reliability (Reigeluth & Frick, 1999). Since Formative Research focuses on the design of a theory, model, or framework validity takes the form of preferability (Reigeluth & Frick, 1999). Likewise, reliability takes the form of generalizability (Reigeluth & Frick, 1999).

Validity when viewed through the lens of preferability focuses on the users' experiences with the instructional design framework (Reigeluth & Frick, 1999). Preferability is generally ascribed to issues of effectiveness, efficiency, and appeal (Reigeluth & Frick, 1999). Effectiveness is determined the extent to which the design framework met the intended goal and usually measured by a numerical scale (Reigeluth & Frick, 1999). Efficiency is measured by considering the effectiveness of the design framework compared to the time involved for the users of the framework (Reigeluth & Frick, 1999). Appeal refers to the enjoyment users of the design framework express when applying the framework to their work (Reigeluth & Frick, 1999). The research included interview questions that uncover participants' feelings about effectiveness, efficiency, and appeal through a semi-structured interview protocol that asked about positive and negative aspects about using the framework to design a course.

Reliability in Formative Research is expressed in terms of generalizability (Reigeluth & Frick, 1999). Reliability was determined by using research and analysis methods that increase the generalizability of the study as stated in the Data Analysis section above. The study uses triangulation of data, rigorous chains of evidence, and member checks. The study uses iterative cycles of data collection, analysis, and revision using varying groups of study participants with different situational or disciplinary concerns to increase the generalizability of the framework across interdisciplinary application.

Summary

This Formative Research study followed a qualitative case study methodology with a focus on creating a new instructional design framework (Reigeluth & Frick, 1999). The study designed a quality framework for use in determining what to include and how to utilize instructional activities in a distance education course. The study took place at Magdalene

University in western New York state and was comprised of faculty members from that institution. Chapter 3 provided the research methodology used in responding to the research questions. Topics treated in this chapter included: research design and appropriateness, research questions, population, geographical location, informed consent, role of the researcher, data collection, and issues of validity and reliability.

Chapter 4: Analysis and Results

The purpose of this Formative Research study was to develop an instructional delivery framework for distance education courses at a small private not-for-profit university in western New York state referred to with the pseudonym Magdalene University in this study. The framework meets requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based, and institutionally sound to provide adequate guidance to experienced and inexperienced distance education faculty.

Chapter 4 presents the analysis and results of the research creating the instructional delivery framework. The chapter provides demographic information about the ten participants in the study, data collection procedure, restatement of the research questions, and analysis of the data collected. Presentation of data analysis uses a narrative format derived from the described procedure for coding, categorizing, and development of concepts of themes.

Participant Demographics

The ten participants selected were a purposeful sample. Purposeful sample was selected to better understand the perceptions and attitudes college faculty regarding the appeal, effectiveness, and efficiency of the instructional delivery framework. Potential participants were invited to volunteer for the study by electronic mail invitation sent from an administrative director at Magdalene University (Appendix B). A subsequent electronic mail reminder was sent ten days after the original electronic mail invitation (Appendix B). The invitation contained a clear statement of the research study, expectations of the study participants, assurances of confidentiality and privacy protections, statement of risks and benefits, procedure for how to

discontinue as a study participant, and request to contact me directly to participate. The invitations was sent to 119 full time professors and 149 part time instructors (Institute of Educational Sciences, N.D.). Thirteen members of the faculty agreed to participate in the study and three were excused from the study once saturation of the feedback was obtained. Formative Research determines saturation when no substantive changes are requested or suggested by study participants (Reigeluth & Frick, 1999). Once study participants agreed to take part in the research study they were provided an informed consent form (Appendix C) that outlined all the information contained in the recruitment email. Interviews and focus group sessions were audio-recorded.

Only some demographic information was collected about the participants to inform the purposeful selection of sample sets and avoid redundant departmental representation in the sample sets. This information included department, experience with distance courses, and employment status. The study population included seven full time and three part time faculty members. Amongst the population three members served as faculty in the Division of Health and Human Services while seven served in the Division of Arts and Sciences. The academic disciplines represented in the study population were Athletic Training, Education, English, Healthcare Studies, Anthropology, Mathematics, Modern Language, Natural Sciences, and Psychology. Involvement with distance education was unnecessary for participation in the research and participants casually remarked about their teaching experience with distance education technology. Five of the study participants had no experience with teaching distance courses, one had taught in only a hybrid or blended class modality, and four had experience teaching fully online courses. Table 1 provides a demographic explanation of the participants in the study.

Table 1
Participant Demographics

Study Group	Participant	Academic Discipline	Distance Education Experience
Group 1	1001	Education	Fully Online
	1002	Modern Language	Fully Online
	1003	Athletic Training	No Experience
	1004	Psychology	No Experience
Group 2	2001	Mathematics	No Experience
	2002	Modern Language	Hybrid
	2003	Healthcare Studies	Fully Online
	2004	English	No Experience
Group 3	3001	Natural Sciences	Fully Online
	3002	Anthropology	No Experience

Data Collection Procedure

Data collection strictly followed the data research protocol described in Chapter 3: Research Methods. Once approval from the Institutional Review Boards was obtained an invitation was sent by electronic mail invitation from an administrative director at Magdalene University (Appendix B). A subsequent electronic mail reminder was sent ten days after the original electronic mail invitation (Appendix B). Volunteer participants were organized into purposeful sample sets of no more than four members each. Three sample sets were used for this study. Sample sets were constructed based on order of volunteer inquires into the study and participant availability with consideration of disciplinary focus to avoid duplicate department representation in any sample set. Participants in the study were informed that the goal of the research was to develop a new instructional delivery framework for distance education courses. The participants were instructed to be critical of the instructional delivery framework and to look for weaknesses in the model through each of the data collection steps (Reigeluth & Frick, 1999). Data were collected through observations, individual interviews, and focus group that included questions about direct use, perceptions, and attitudes of the participants regarding the use of the

instructional design framework provided. All study participants took part in all three methods of data collection. Ten Magdalene University faculty members participated in the study with varying employment statuses, disciplinary foci, and experience with distance education.

Qualitative research that investigates the description of a situation or phenomena typically addresses concerns of validity and reliability (Reigeluth & Frick, 1999). Since Formative Research focuses on the design of a theory, model, or framework validity takes the form of preferability whereby the research procedures determine the desirability in terms of effectiveness, efficiency, and appeal of the proposed framework (Reigeluth & Frick, 1999). Data collection included interview and focus group questions that uncover participants' feelings about effectiveness, efficiency, and appeal through a semi-structured interview and focus group protocols (Appendices D and E) that asked about positive and negative aspects about using the framework to design a course.

Reliability in Formative Research is expressed in terms of generalizability and was determined by using triangulation of data collected between participants and in reference to literature, rigorous chains of evidence collection, and member checks of transcribed data (Reigeluth & Frick, 1999). The study uses iterative cycles of data collection, analysis, and revision using varying groups of study participants with different situational or disciplinary concerns to increase the generalizability of the framework across interdisciplinary application.

Research Questions

Research questions focus the study and guide the research as it progresses. The goals of the Formative Research study with the purpose of designing a new instructional design frameworks are to meet the demands for appeal, effectiveness, and ease of use or efficiency (Reigeluth & Frick, 1999). The Formative Research study explored the following research questions:

RQ1: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework is appropriate and appealing to them?

RQ2: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework will meet their needs for effectiveness in delivering quality online courses?

RQ3: What are the perceptions and attitudes of faculty in a small university about how a proposed framework will meet their needs for ease of use?

Analysis and Results of the Study

This section provides a qualitative data analysis regarding the implementation of a new instructional delivery framework intended to assist faculty in developing and implementing quality distance education courses. Within this section the data analysis procedure, research question analysis, and final instructional delivery framework analysis are treated.

Data analysis procedure. Formative Research studies use data analysis to make revisions to and understand the impact of an instructional model, theory, or framework (Reigeluth & Frick, 1999). Data analysis was conducted for each of the three research questions.

Each research question analysis followed Lichtman's (2013) Three Cs model where the transcribed data were analyzed using the following steps:

1. Initial coding that summarizes data.
2. Revisiting initial coding to eliminate redundancies and consolidate codes
3. Initial development of categories for finalized codes
4. Modifying categories based on additional reading of data
5. Revisiting categories to eliminate redundancies
6. Moving from categories to concepts (themes).

During the analysis, the transcribed data were annotated using codes befitting the content and purpose of the study. Coded data were revisited and new codes were ascribed to eliminate redundancies and consolidate data into categories. A document for each category was created and the appropriate coded data were copied from the transcriptions into those documents. Categorized data were read and reflected upon for critical meaning that formed the concepts or themes used to address each research question (Lichtman, 2013). The concepts for the analysis are pedagogical flexibility, teaching and learning quality, support and necessary skills, framework organization, and comprehensiveness.

Conceptual understanding: Pedagogical Flexibility. Coded responses and categorical grouping indicated that being able to flex pedagogical practices was important to the participants. To promote instructional quality in distance learning institutions should not constrain or limit faculty with regard to instructional methods, tools, or techniques. Instructors require the ability to freely select and implement instruction as they deem appropriate to their abilities and course goals (Kirkwood & Price, 2008). Scholars support this pedagogical flexibility concept by suggesting that faculty members are better equipped to make pedagogical decisions for their

courses and students (Mancuso, 2009; McLawhon & Cutright, 2012; Selwyn, 2011). The decisions faculty members make range from agreeing and disagreeing with teaching practices to selection of practices based on course objectives and needs (Ching- San et al., 2009; Mustafa & Dalen, 2006; Yair, 2008).

Conceptual understanding: Teaching and Learning Quality. Quality in distance education is achieved when pedagogy, not technology, comes first in the instruction (Kupczynski et al., 2012; Sarrico et al., 2010). Systems that focus on pedagogy and incorporate technology as means to achieve teaching and learning goals contribute to a higher degree of quality and faculty willingness to engage in distance education (Graham & Jones, 2011). The creation of such a system or framework should not rigidly prescribe teaching methods that meet quality expectations to avoid low faculty adoption of distance education (Kirkwood & Price, 2008; S. A. Lei & Gupta, 2010). A model or framework that allows faculty the flexibility to determine the best means to meet quality expectations may also encourage faculty to apply it to distance courses (Mancuso, 2009; Schuck et al., 2008; Yair, 2008). These flexible models work most effectively when faculty are able to determine how to link learning objectives, instructional methods, and student assessment (Bers, 2008; Ziliukas & Katiliūtė, 2008).

Conceptual understanding: Support and Necessary Skills. Scholars suggest that faculty resistance to participating in distance education is due to a lack of support and the necessary skills to deliver a course (Al-Salman, 2011; Graham & Jones, 2011; LaPrade et al., 2011; Lee et al., 2010; Singleton & Session, 2011; Tabata & Johnsrud, 2008). Faculty who are more familiar with tools and techniques for teaching at distance report being more willing to teaching online courses (Singleton & Session, 2011; Tabata & Johnsrud, 2008). Support systems

that create faculty the awareness are more likely to encourage faculty to implement the tools and techniques necessary for distance education (Graham & Jones, 2011; LaPrade et al., 2011).

Conceptual understanding: Framework Organization. Scholars agree that faculty are concerned that creating distance courses requires an increased amount of time and resources (Cook et al., 2009; Graham & Jones, 2011; Orellana, 2006; Orr et al., 2009; Sener, 2010; Singleton & Session, 2011). Creating systems that are simple to implement will encourage faculty to create online courses (Graham & Jones, 2011; Singleton & Session, 2011). Assessment practices also demand that pedagogical quality systems be simplified to promote faculty willingness to use them to create and assess distance courses (Ohia, 2011). Creating an instructional design system that is organized and simple to navigate was important to meeting the guidance supported by literature.

Conceptual understanding: Comprehensiveness. Smith (2011) observed that external pressure require institutions of higher education develop comprehensive models addressing quality, institutional assessment, and quality instruction. Some existing models do exist to support quality in distance education but scholars claim that these models do not fully address quality from programmatic assessment to instructional delivery (Battin-Little, 2009; Pollacia & McCallister, 2009; Westerfelt, 2011). In the development of appropriate model for quality instruction, Forsythe, et al. (2010) suggested that a framework be both flexible and provide a comprehensive series of choices to support faculty.

Analysis of Research Question 1. The first research question in this study sought to determine the appeal of the instructional delivery framework for distance education. The question was stated as, “What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework is appropriate and

appealing to them?" In Formative Research appeal is the enjoyment those using the instrument experience while using the instructional design framework (Reigeluth & Frick, 1999). While Reigeluth and Frick (1999) discuss appeal as distinctly separate from effectiveness and efficiency many study participants commented that in order for the framework to appeal to them the items must be both effective and efficient.

Data were gathered following the data analysis procedure described in an earlier section. Specific to this analysis, data were marked with ten initial codes. The codes were revisited and consolidated into five categories. These categories were analyzed for critical meaning, following Lichtman's (2013) Three Cs Model, and placed into the five concepts or themes discussed earlier.

What follows is an analysis guided by the research question broken down by each version of the framework. Each of the three study groups experienced the appropriate version of the framework (i.e.: the first study group used version 1). Each version section described what worked or appealed, what did not work or did not appeal, and what revisions were made based on the information provided by study participants.

Version 1. Participants using the first version of the instructional delivery framework provided several responses that discussed the how the framework appealed to faculty at the research institution.

What was Appealing. All study participants in the first participant pool commented about the concept of Pedagogical Flexibility they experienced in applying the instructional delivery framework to the sample case. Participants acknowledged the ability to make a choice about what was included in their courses was critical to their use of the instructional delivery framework. This sentiment is the pedagogical flexibility concept. Participants felt that having a

comprehensive system of delivery items promoted flexibility and better enabled them to choose what was needed. Kirkwood and Price (2008) validate this sentiment with the notion that quality delivery of distance courses is only possible when faculty members feel free to elect what elements will be in the course. Mancuso (2009) concurred that faculty members are better equipped to determine what is needed than a prescribed system of directives. Participants in the study remarked that being able to choose empowered them to make wise choices that promoted the rigor of the course for student achievement. When asked about the appeal of the framework, participant 1001 commented, "the academic freedom of piecing together whatever I want to in the course with the tension of making sure my students get the rigor they're supposed to get."

Statements and remarks from the first participant pool included items relating to the concept of Teaching and Learning Quality that show the framework as a pedagogy-first approach to delivering distance education. Participant 1002 commented specifically to this concept, "I think the framework helps pedagogy come first." The same participant later stated, "it isn't about the technology; it is about 'what are your learning goals?' and what technology will facilitate that." Graham and Jones (2011) recommended a system be incorporated to abate the trepidations of faculty about distance learning. This version framework provides such a system whereby pedagogical practice is incorporated with technology. Other participants in this sample set also remarked that the technology and distance modality came secondarily to sound teaching and learning practices that promote quality included two statements about how the framework demonstrated that quality online education is grounded in good teaching habits.

The next concept addressed by the group was Support and Necessary Skills. The first version of the instructional delivery framework (Appendix F) contained three primary categories of item support. First was the item name (i.e.: video lecture, discussion board, quiz). Second

was an operational definition or explanation of the specific item. Finally, the framework contained series of recommendations for use related to the specific item (i.e.: directions or suggestions related to the video lecture). This design was purposeful and participants commented through the data collection phases about the support and guidance the framework provided. Participants in this sample set commented about specific items with remarks that indicated some measure of new knowledge, new skills, and new ability to offer that specific tool or interaction in their courses indicating the concept of Support and Necessary Skills. These comments ranged from use of specific instructional elements such as video lecture, quizzes, discussion boards, and tests to non-specific observations about the recommendations for use and explanation sections of the framework (Appendix F). Al-Salman (2011) recommended that in order to increase faculty practicing quality distance courses that skills development was essential. During the interview portion of data collection, participant 1004 remarked, "it externalizes and concretizes a lot of chaos and ambiguity that may be lying internally." The comment suggests that framework provided skills guidance for using specific tools or methods that might be unfamiliar or confusing to a faculty member teaching an online course.

The concept of Organization was mentioned in only a few remarks related to the appeal of the instrument. The instructional delivery framework was designed using a hierarchical format that included references to separate sections concerning course materials, student-student interactions, faculty-student interactions, learning activities, and student assessments (Appendix F). Participants remarked that the framework was simple and straightforward in its hierarchical design.

Framework Organization, the final concept, was most often discussed in conjunction with the comprehensiveness of the instrument. Members of the first study group experienced the

framework as a paper version. Participants discussed the complexity of the instructional delivery framework and tempered their perception of complexity with the need for the instrument to be thorough. The participants also expressed that through a short time of reviewing the instrument it became easier to use. The instructional delivery framework's comprehensiveness was expressed in two different perspectives as well. First that the framework was so comprehensive it could be easily adapted for hybrid and face-to-face modalities.

What was not Appealing. Elements that did not appeal to the participants of the first study group fell only within one concept: Teaching and Learning Quality. Important to teaching and learning quality in distance education is that no single rigid model of instruction works with all courses, programs, or instructors (Kirkwood & Price, 2008; S. A. Lei & Gupta, 2010; Mancuso, 2009; Schuck et al., 2008; Yair, 2008). This is similar to the concept of Pedagogical Flexibility. However, in this concept comments included the need for the framework to account for differences in teaching and learning between disciplines and reverence to the institutionally specific measures of quality. These items were not present in the first version and several comments were made that these were required in order to better support quality instruction. One participant commented that recent discipline-specific accreditation aspects of course design were addressed and suggested that links to existing departmental practices would be helpful if included. Another participant observed that within different disciplines there are standards for teaching and learning and including a link to established guidelines would ease the use of the framework in conjunction with the discipline specifics.

Most of the participants in the first study group observed that no synchronous or live interaction between students was addressed. Participants suggested that while this was absent in the framework the addition of interactivity would better enable students and faculty to remain

connected to the course, content, and faculty member. Tanner (2009b) concluded that having higher levels of interactivity benefited students and enhanced student outcomes for online classes. Including synchronous elements for the course would also diminish the perception or reality of isolation in online courses (S. A. Lei & Gupta, 2010).

Revisions to Increase Appeal. While revisions to the instrument took place based on considerations of all the research questions, each change is attributable to a specific research question (Appendix G). Table 2 provides a summary of changes made to the first version of the instructional delivery framework concerning appeal. With regard to the first research question addressing the appeal of the instructional delivery framework, two changes were made. The first change was the addition of Departmental and Institutional Specific elements to the Course Design page of the framework. Columns were added to the second version of the instructional delivery framework (Appendix F) that provided links to or placeholders for established departmental and institutional procedures, policies, and statements. Empirical evidence supported this revision. Quality and assessment practices for institutions must address the pedagogical and quality standards, practices, and policies of the individual institutions (Pratasavitskaya & Stensaker, 2010).

The second change requested by the participants in the first study group that was attributed to the appeal aspect of the instrument was the addition of Synchronous Electronic Communication in the Faculty-Student Interaction section of the framework. This change was validated through research that suggested both faculty and students express a desire for some synchronous interaction in an online courses (Graham & Jones, 2011; Singleton & Session, 2011). The change included evidence-based recommendations for use. The first recommendation was to incorporate the use of synchronous text conversations that aids student

in constructing knowledge, negotiation, support, and group processing around course tasks (Maushak & Ou, 2007). The second recommendation involved the use of live audio or video communication that was found to reduce perceived barriers in largely asynchronous online courses (Huang & Hsiao, 2012). The final recommendation advises faculty to establish parameters, rules of conduct, and expectations for students with regard to any synchronous communication within the online courses (Huang & Hsiao, 2012).

Table 2
Summary of Revisions to Version 1 Concerning Appeal

Framework Item	Change	Research Question
Course Design	Add Departmental and Institutional specifics to Course Design page. This includes both instructions and links to college web documents.	RQ1: Appeal
Faculty-Student Interactions	Added Synchronous Electronic Communication element. Added description and recommendations for use.	RQ1: Appeal

Version 2. Revision of the instructional delivery framework in the specific areas of appeal and combined with revisions in the areas of effectiveness and efficiency, analyzed, below produced a new version for consideration. Members of the second study group also had statements and remarks that responded to the appeal research question.

What was Appealing. Data gathered from the participants in this study group included remarks aligned with the concept of Pedagogical Flexibility. Participants in this study group felt that the comprehensive instructional choices and recommendations for use enabled them to freely select the most appropriate, effective, or convenient instructional method for the course. Commentary included comfort with agreeing or disagreeing with either the tool or the technique as appropriate for the course or instructor. Participant 2003 stated, “It was very easy to kind of

frown upon [an item] and say nope that is not the option for me." The same participant also remarked that while some options did not fit it was necessary to see the items fully explained. Kirkwood and Price (2008) posited that quality instruction requires faculty to freely select instructional methods, as they deem appropriate.

The second participant group provided information that fell into the concept of Teaching and Learning Quality. Participants working with the second version presented information that relates to the teaching and learning quality concept. Scholars suggest that providing faculty members a system that allows for flexibility also promotes quality in teaching and learning (Kirkwood & Price, 2008; S. A. Lei & Gupta, 2010; Mancuso, 2009; Schuck et al., 2008; Yair, 2008). Participants in this sample group commented that the items, descriptions, and recommendations for use allowed them to adhere to or adopt empirically-based best practices to meet the learning objectives of the course. Scholars concur that faculty members desire evidence-based suggestions for instruction and often seek to validate their ideas about teaching and learning practices with research (Oermann, 2007; Pratasavitskaya & Stensaker, 2010; Yair, 2008).

Participants in this group provided information falling into the concept of Support and Necessary Skills. The participant group commented favorably about the recommendations as guides, suggested activities, and empirically based best practices. Participant 2002 suggested that with that improvement it would provide a basis for discussion more support with the correct technical support staff member. All participants felt that additional instruction was needed at the item level of the framework to support faculty working independently. Specifically, participant 2001 felt the language and wording were unclear for non-technical faculty. Additionally, participants 2003 and 2004 described a need to see how different instructional elements operated

within the context of an online course to better inform their decision making about how it was used or whether to use it at all.

Participants working with version two of the instructional delivery framework provided responses that were coded and categorized in the concept of Framework Organization. Participants in this study group also commented on the organization of the instructional delivery framework. The participant group noted the header color-coding was useful as they worked through the sample case to stay on track. One participant commented that the organization was helpful in keeping the development of the course on track given that it can often be chaotic. The sequence of the items was also helpful to some participants. Specifically, participant 2004 stated, "I like the way the framework foregrounds the description, mission, purpose, and core curriculum. Then takes the more pragmatic application pieces and puts them later."

The second study group remarked about the concept the concept of Comprehensiveness as well. All participants compared the comprehensiveness of the framework to the complexity of the instrument. Participants suggested that while exposure to the instrument was sufficient a detailed set of instructions for the framework would make it a more appealing and effective tool for developing and delivering online courses. This group was offered the framework in both web format and paper format and remarked that while not selected the web format might have been easier to navigate. Despite the complexity of the instrument, the participants noted that the task of delivering distance education courses is a complex one and requires a thorough and comprehensive model for faculty to follow.

*What was not Appealing***.** Participants in the second study group provided information indicating an unappealing aspect in only one concept; Comprehensiveness. All participants compared the comprehensiveness of the framework to the complexity of the instrument.

Participants suggested that while exposure to the instrument was sufficient a detailed set of instructions for the framework would make it a more appealing and effective tool for developing and delivering online courses. This group was offered the framework in both web format and paper format and remarked that while not selected the web format might have been easier to navigate. Despite the complexity of the instrument, the participants noted that the task of delivering distance education courses is a complex one and requires a thorough and comprehensive model for faculty to follow. Research indicates that when faculty members are unfamiliar with the technological tools surrounding online learning these items become a barrier to adoption of quality techniques in the distance classroom (Singleton & Session, 2011; Tabata & Johnsrud, 2008).

Revisions to Increase Appeal. Revisions for the second version of the instructional delivery framework included two changes dealing the appeal of the instrument (Appendix G). Table 3 provides a summary of changes made to the second version of the instructional delivery framework concerning appeal. First, and in conjunction with changes made relating to the other research questions, the participants felt a web-version of the framework would be more appealing and a web-only format was created. Research suggests that the development of web-based tools will better equip institutions of higher education to monitor and deliver quality online courses than traditional tools and processes might do when applied to online learning (Postek et al., 2010; P. S. Smith, 2011). Second, instructions were added to the framework to help acclimate and prepare faculty members to use the framework without leaving the comprehensiveness of the instrument to overwhelm the users. Increasing faculty familiarity with the tools, techniques, and processes surrounding distance education removes barriers to adoption and implementation of quality courses (Singleton & Session, 2011; Tabata & Johnsrud, 2008).

Table 3
Summary of Revisions to Version 2 Concerning Appeal

Framework Item	Change	Research Question
Format	Converted the framework to a web-only format with hyperlinking navigation between sections.	RQ1: Appeal
General Framework	Added Framework Instructions to a new first page.	RQ1: Appeal

Version 3. Participants in the third study group provided data regarding the appeal of the instructional delivery framework in only four of the five concepts. Namely, the data contributed to the concepts of Pedagogical Flexibility, Support and Necessary Skill, Framework Organization, and Comprehensiveness.

What was Appealing. Participants in the third study group expressed that the instructional delivery framework contained pedagogical flexibility. Participant 3002 remarked that due to the instructions and very little additional guidance that there was considerable freedom to make the elections deemed appropriate and useful. Additionally, participant 3001 commented on the inclusion of an ongoing framework additions, changes, and comments protocol, discussed in the second research question analysis, enabled the faculty to freely suggest practices they felt needed to be included. As suggested earlier, scholars recommend that faculty be allowed to select pedagogical elements freely in order to accurately and effectively meet quality and instructional objectives (Kirkwood & Price, 2008; McLawhon & Cutright, 2012; Mustafa & Dalen, 2006; Selwyn, 2011; Yair, 2008).

Comments addressing the concept of Support and Necessary Skills indicated that participants characterized the revised framework with additional instructions as easy to use, links to additional resources, evidence-based best practices, and very clear examples that increased

familiarity with the modality and technique of online instruction. Participant 3001 stated, "You gave provided links to other sources. You've referenced things. So, it is very user-friendly to use." Faculty members who are more familiar with the tools and techniques of delivering online instruction perceive less barriers to producing quality distance courses (Singleton & Session, 2011; Tabata & Johnsrud, 2008).

Participants provided data that contributed to the Framework Organization concept as well. Both participants expressed, that even working independently, the framework was laid out clearly and the systematic design made is simpler to follow and apply to the sample case. The participants commented that the organization and categorization of the tools aided in considering possibilities for the course being designed.

Finally, participants remarked about the concept of Comprehensiveness in the interviews and focus group. Discussions about the third version of the framework stated that the instructions reduced the complexity and allowed the participants to focus on the comprehensive set of considerations. Participants remarked that the instrument was detailed and thorough. The thoroughness provided participants with much to consider regarding what could be included in an online course. In one part of the discussion, participants stated that the collection of items and techniques was far a far greater collection that might be developed on one's own making the resource very appealing as a design and ongoing delivery instrument.

What was not Appealing. Participants in the third study group did not indicate any item, element, or portion of the instructional delivery framework as unappealing. Participant 3002 commented that the ongoing changes protocol was cumbersome with the requests for evidence-based suggestions and indicated a desire to submit an idea for consideration. Contrary commentary from another participant suggested that the in-depth protocol helped maintain

quality, increase faculty awareness of teaching and learning scholarship, and prevent the framework procedure from being bogged down researching suggestions that should come researched. The streamlining of the change suggestion protocol was left unchanged in the framework.

Revisions to Increase Appeal. The third group of participants made no recommendations for improvements to appeal. Areas of adequacy, inadequacy, and suggestions for future research with this framework follow in subsequent sections of this document.

Summary of Research Question 1. The first research question is stated, "What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework is appropriate and appealing to them?" Through data collection in three distinct study groups, it was determined that the appeal of the framework was that the instrument allow for flexibility and freedom to determine what teaching and learning techniques, tools, and inclusions amount to quality in an distance education course. Scholars concur that when flexible models of instruction exist that enable faculty choice about pedagogy result in higher quality course delivery (Kirkwood & Price, 2008; S. A. Lei & Gupta, 2010; Mancuso, 2009; Schuck et al., 2008; Yair, 2008). Appeal of the framework included that the instrument placed pedagogy before technological tool which aids faculty in remaining focused on the learning objectives, course outcomes, and their own experiences instructing students. Graham and Jones (2011) concluded that putting instruction first encourages faculty participation in online learning. Lastly, that a comprehensive, thorough offering of choices, guidance, and instructions increases the appeal of the instrument and thus encourages use. In the following subsections, the areas of effectiveness and efficiency are addressed to provide a complete picture of the adoption of the instructional delivery framework.

Analysis of Research Question 2. The second research question in this study sought to determine the effectiveness of the instructional delivery framework for distance education. The question was stated as, "What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework will meet their needs for effectiveness in delivering quality online courses?" In Formative Research effectiveness is determined by how well the instructional design model or framework meets the goals in a given setting, situation, or course (Reigeluth & Frick, 1999).

Data were gathered following the data analysis procedure described in an earlier section. Specific to this analysis, data were marked with ten initial codes. The codes were revisited and consolidated into five categories. These categories were analyzed for critical meaning, following Lichtman's (2013) Three Cs Model, and placed into the five concepts or themes discussed earlier.

What follows is an analysis guided by the research question broken down by each version of the framework. Each of the three study groups experienced the appropriate version of the framework (i.e.: the first study group used version 1). Each version section described what worked or was effective, what did not work or was not effective, and what revisions were made based on the information provided by study participants.

Version 1. Participants using the first version of the instructional delivery framework provided several responses that discussed the how effective the framework was for faculty in meeting instructional and quality goals at the research institution.

What was Effective. Participants in the first study group provided information about the effectiveness of the framework that supported the concept of Pedagogical Flexibility. This included commentary from participants that the instructional delivery framework, when applied

to various courses, enabled them to make different choices than were selected for the sample case as part of the study. The decision to alter pedagogical methods based on different course objectives is critical to promoting quality instruction and programming at colleges and universities (Ching- San et al., 2009; Mustafa & Dalen, 2006; Yair, 2008). Participants discussed that the framework allowed them to use more, less, or different interactions in various courses at several times during the data collection phases. Participants felt free to agree and disagree with elements of the instructional framework either because of their experience, lack of familiarity with the item, or discomfort with the item in some way. Yair (2008) suggested that this flexibility to agree or disagree with teaching techniques is part of the academic freedom faculty must enjoy in order to ensure a quality course, program, and institution. One specific comment illustrates much of the individual and group discussion on this point. Participant 1004 stated, "Here is what we think what might be important to developing a good online course. Then I can say I agree or I disagree versus searching around in my own experiences about what would be useful or what is good and bad."

Support for faculty teaching at a distance figured in the participant remarks. Lee, at al., (2010) and Graham and Jones (2011) all posited that support systems that encourage faculty, provide guidance, and contribute to online teaching skills are essential to providing quality distance education. Participant 1002 commented that, "when I first started there wasn't a framework so as newer technology was coming in, you were determining how you could apply it." This comment was followed by, "In my view, this framework already maps that out." The participant was referring to the instructional delivery framework's support mechanics for using technology in a distance course. Within the study groups participants expressed varying degrees of familiarity with technology and distance education. Faculty who are more familiar with the

uses of education technology and online learning are more likely to attempt or expand their uses of these forms of teaching (Singleton & Session, 2011; Tabata & Johnsrud, 2008). Participant 1004 commented most significantly on this area and revealed a very limited experience with online courses and from experience and dialogue developed a resistance to teaching at a distance. Upon completion of the application of the instructional delivery framework to the sample case, the same participant said, "…it doesn't seem like the online classes that I am familiar with or that people I know follow this [framework]. If they did I wouldn't have such a negative perception of online learning." This same participant continued, "If I were to do an online course, I'd like to follow this sort of thing. It has everything I can imagine that I would need to be in it." The framework then provided a support system that not only developed skills and provided support but also encouraged faculty who were unfamiliar with distance education to attempt a course or have a more positive outlook on the modality.

Participants in the first study group provided information supporting the concept of Teaching and Learning Quality. Study group members commented on the notion of multiple forms of assessing student learning. Participant 1003 stated, "I think the assessments were helpful in coming up with different ways to assess the students." The frameworks inclusion of varying types of assessment allows faculty to better match learning goals with measurement of student outcomes. Quality in teaching and learning for institutions of higher education needs to create strong links between learning objectives, teaching practices, and assessment of students (Bers, 2008; Ziliukas & Katiliūtė, 2008).

The concept of Framework Organization did appear in the coded dialogues of the participants. Commentary included that the instrument was thoughtful in design and followed a logical workflow. Participant 1003 stated, "I think it is nice that it is laid out the way it is

because it is laid out the way you might expect your syllabus to be laid out." All participants commented that the framework described and ordered the activity by key functional area and that following along was convenient and straightforward.

Participants in the first study group offered little data regarding the concept of Comprehensiveness in relationship to the effectiveness of the instructional delivery framework. Participants felt that comprehensiveness of the model was expressed through the evidence-based item details suggesting that it was academically sound that supported making effective pedagogical decisions. Scholars and research indicated that faculty members are more effective when empirical evidence for instructional delivery techniques, methods, and tools are used (Oermann, 2007; Pratasavitskaya & Stensaker, 2010; Yair, 2008).

What was not Effective. Participants in the first study group did not indicate any aspect of the instructional delivery framework was not effective. While revisions were recommended as they relate to appeal and efficiency of the instrument, this study group provided no data indicating ineffective elements to be changed.

Revisions to Increase Effectiveness. No effectiveness revisions were included in the revision from version one of the instructional delivery framework to version two.

Version 2. Participants using the second version of the instructional delivery framework provided several responses that discussed the how effective the framework was for faculty in meeting instructional and quality goals at the research institution. Participant contribution and coded data supported three of the five mentioned concepts: Pedagogical Flexibility, Support and Necessary Skills, and Teaching and Learning Quality.

What was Effective. Participants provided information that supported the Pedagogical Flexibility concept. These Participants remarked about pedagogical flexibility and the ability to

choose instructional methods. Two participants of the four commented that the instructional delivery framework allows for expansion and should include the ability for faculty to add to it based on their experiences, new ideas, new tools, or experimentation with the instruction. Mancuso (2009) suggested faculty members are better equipped to make recommendations about instruction because of their expertise in the discipline and ability to convey that expertise. Participants agreed that the capacity for the framework to be fluid and scalable with faculty input was essential to using the tool in the delivery of quality distance education courses. The suggestions of the participants were to add the ability of making suggestion to the instrument. Distance education quality is influenced by the ability of faculty to freely select options appropriate to them and discard those that do not fit their needs (Kirkwood & Price, 2008; Yair, 2008). Participants in this study group remarked that without the ability to choose would cause dissatisfaction amongst faculty. Participant 2002 in response to a discussion about how distance education can become rigid remarked, "it can infringe on academic freedom if the college says online courses must be done in this way." Another participant agreed at a later point suggesting that a rigid structure or prescribed method of instruction would inhibit the willingness of faculty to attempt new techniques as they or their courses evolve. Participant dialogue regarding the instrument demonstrated that the ability to pick and choose items, methods, techniques, or tools based on the objectives was important and that the instructional delivery framework did not hinder that freedom and flexibility.

With regard to the Support and Necessary Skills concept, participants offered information that indicated the effectiveness of the instructional delivery framework. Participants in this study group described the second version of the framework as helpful for faculty new to instructing online, the profession, or the institution. This included one remark about the framework being a

self-diagnosing tool during course delivery if an interaction was not meeting expectations. Participants remarked that the framework could potentially serve as a resource for changing the interaction, using an alternative recommendation for use, or determining if the implementation was flawed in some manner.

The Teaching and Learning Quality concept also explained data that was collected regarding effectiveness. The participants in the group suggested three additions to the framework in the Student Assessment area of the instructional delivery framework including drafted work, concept documents for assignments, and collaborative writing (Appendix F). The existing items of formatted and unformatted written assignment categories addressed these recommendations and the participants agreed they could easily adopt the existing assessment devices. The adaption of items on the framework shows the malleability of the instrument for faculty in adherence to literature about the using non-rigid models (Graham & Jones, 2011).

What was not Effective. Ineffective elements of the framework fell into only the Support and Necessary Skills concept derived from the data collected. Participants envisioned the framework, as constructed or with the additional item-level instructions, as training tools that served in-person or self-study programs. Participant 2002 felt that additional step-by-step instructions could bridge the gap between seeing the item in the framework and implementing in a course. This included both technical instructions as well as implemented examples from other faculty members. Participants commented heavily about the inclusion of faculty-use examples into the instrument and also suggested that a submit changes or additions protocol be included. The participants, to build in ongoing effectiveness and relevance of the framework and serve as a source for examples, intended the change submission protocol. Assisting faculty through

development and instructional opportunities promotes quality online instruction (Al-Salman, 2011; Lee et al., 2010).

Revisions to Increase Effectiveness. Three revisions to the second version were sought to improve the effectiveness of the instrument for faculty use in distance education (Appendix G). Table 4 provides a summary of changes made to the second version of the instructional delivery framework concerning effectiveness. Each of these changes related to the Support and Necessary Skills concept. Two of the three revisions to this version were done at the interaction item level in the course materials, faculty-student interactions, student-student interactions, learning activities, and student assessment sections. The third revision was added at the instrument level and was the addition of a change submission protocol.

The first revision was the addition of Faculty Use Examples throughout the subsections of the instructional design framework. Research suggests that distance education quality is more likely to occur when faculty members' online teaching skills are supported and expanded through a system of instruction and encouragement (Al-Salman, 2011; Lee et al., 2010). Within each section a column was added and where faculty use examples existed they were linked in the electronic version of the document. In many cases, existing examples did not exist and could not be included. For the purpose of the research a placeholder was put in the instrument to indicate that it is awaiting proper examples.

The second revision was the addition of Setup Instructions at the interaction item level. Similar to faculty use examples, the intention was to provide faculty members live, just-in-time, support for either understanding or implementing the tool or technique in their online course. Rather than be a use example, the setup instructions build additional online teaching skills helping faculty deliver a higher quality distance course (Al-Salman, 2011; Lee et al., 2010). This

revision included the addition of another column in the framework and links to existing instructions provided by the learning management system company or service company responsible for a tool that could be used with that particular item. Linked instructions include both video and text-based instructions.

The final revision based to enhance effectiveness of the framework is the inclusion of a change protocol by which faculty can submit ideas, comments, suggestions, additions, or changes to the existing framework. Faculty members are closest to instruction and therefore better equipped to determine how and what is needed to meet the learning and quality objectives in distance education (Kirkwood & Price, 2008; Mancuso, 2009). These changes involved the creation of a protocol for users of the framework to follow with a hyperlink connected to email. Emails would be sent to the administrator responsible for maintenance of the instructional delivery framework for consideration and inclusion. The change submission protocol included instructions to provide detailed description of the change or suggestion along with empirical evidence supporting the submission.

Table 4
Summary of Revisions to Version 2 Concerning Effectiveness

Framework Item	Change	Research Question
Interaction Sections	Added Faculty Use Examples or placeholders where no examples exist yet.	RQ2: Effectiveness
Interaction Sections	Added Setup Instructions via linking to video or documentation.	RQ2: Effectiveness
General Framework	Added Submit Changes protocol to a new last page of the framework with hyperlink to email a coordinator.	RQ2: Effectiveness

Version 3. Participants using the third version of the instructional delivery framework provided several responses that discussed the how effective the framework was for faculty in

meeting instructional and quality goals at the research institution. Coded data fell into three of the five concepts: Pedagogical Flexibility, Support and Necessary Skills, Teaching and Learning Quality, and Framework Organization.

*What was Effective***.** Members of study group three provided information that supported the concept of Pedagogical Flexibility. The participants remarked that the instrument provided a list of resources, tools, and techniques for consideration that aided them in meeting the instructional goals. Participant 3002 indicated that the list of resources was not dissimilar from walking into a physical classroom and taking inventory of what was available to meet the course objectives. In this last version of the instrument a set of protocols allowed for faculty input with regard to new techniques, suggestions, or changes to foster more freedom and flexibility. The participant continued to positively comment that the protocol required some evidence-based thinking and not only a recommendation for changes. One participant in this study group expressed that the instructional delivery framework was a living document where the faculty member could revisit their original thinking and revise it based on what was seen in the either the framework or the course.

Participants also provided information about the instructional design framework that fits the concept of Support and Necessary Skills. Participant 3001 concurred offering that the items and recommendations for use provided a base from which instruction could be adapted to meet the needs of the faculty and courses. This version, based on effectiveness revisions from version two, also included visual examples of items in use within a course or support document. Both participants remarked that seeing these examples within the framework better enabled them to make effective choices for their courses. Participant 3002 commented on the increased detail, "there was support material that was helpful to imagine how I might use that and how I might

feel better informed so I can make a better decision or not." Finally, both participants in this study group indicated that not only was the framework helpful for the initial delivery of the course but as a reference tool throughout that could assist them in overcoming problems in the course with interactions or tools. Mancuso (2009) proffered that when adequately supported, faculty are best equipped to make determinations about delivery methods, course inclusions, and pedagogical practice.

The Teaching and Learning Quality concept was represented in the data collected from the third study group. Participants in the third study group remarked that the third version of the instructional delivery framework placed pedagogy first, ahead of technology. Participant 3002 stated, "the framework works for me as a delivery guide to know what tools I have. In that sense not different from trying to figure out what things exist in a physical classroom." The participant remarked that this enabled putting the course goals and vision of instruction first above tools. Kupczynski, et. al. (2012) concurred that quality in distance education is achieved when pedagogy takes the primary role in constructing an online course.

Lastly, participants provided comments that address the concept of Framework Organization. Participants in this subset remarked that the organization of the instructional delivery framework followed a natural flow of working with an instructional designer to develop an online course. Research suggest that in order for distance education to effectively meet quality objectives partnerships between faculty experts and instructional design experts should be fostered (Pratasavitskaya & Stensaker, 2010). This data point shows that the instrument can make working independently more effective by following a natural workflow of partnering with a designer.

What was not Effective. The third group of participants provided no recommendations about improving the effectiveness of the framework. No Data were collected that indicate ineffective aspects of the instrument.

Revisions to Increase Effectiveness. The third group of participants made no recommendations for improvements to appeal. Areas of adequacy, inadequacy, and suggestions for future research with this framework follow in subsequent sections of this document.

Summary of Research Question 2. Effectiveness is a factor in the development of instructional design model, theory, or framework that is determined by how well the instrument assists stakeholders in accomplishing the curricular goals (Reigeluth & Frick, 1999). The second research question determined the attitudes and perceptions of faculty regarding the effectiveness of using the instructional delivery framework for implementing quality online courses. Participants in each of the research groups provided information that improved the instrument to a final version that met the participant needs for effectiveness.

The instrument was effective in meeting the needs for pedagogical flexibility and freedom to choose what interactions, items, techniques, and tools would best meet the course, student, and faculty needs of the course. When faculty members are left to determine the best methods of meeting course objectives, distance courses are better able to meet quality guidelines (Ching- San et al., 2009; Mustafa & Dalen, 2006; Yair, 2008). Participants remarked that the instruments built in support helped them choose and implement their choices in an online course and recommended that more detailed examples and instructions be incorporated.

It was also determined that the detailed instructions would support faculty regardless of experience level with distance education. Supporting faculty in the development of skills and familiarity with distance learning tools is central to offering quality online courses and programs

(Singleton & Session, 2011; Tabata & Johnsrud, 2008). The instrument was shown to be organized in a way that fit natural and established workflows for faculty and their instructional design partners providing an effective framework for either working together or collaboration. Participant 1004 specifically commented that the organization and inclusions of this framework changed his opinion of distance education provided faculty used this instrument. In the following subsection, the area of efficiency is addressed to provide a complete picture of the adoption of the instructional delivery framework.

Analysis of Research Question 3. The third research question in this study sought to determine the effectiveness of the instructional delivery framework for distance education. The question was stated as, "What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework will meet their needs for ease of use in delivering quality online courses?" In Formative Research efficiency is determined by how easily the instructional design model or framework meets the goals in a given setting, situation, or course (Reigeluth & Frick, 1999). In this study efficiency questions relate to how easily, simply, or conveniently the instructional delivery framework was for faculty members. Several respondents commented that discussions about efficiency intersected with questions about appeal and effectiveness stating that the instrument would not appeal nor be effective if efficiency did not exist.

Data were gathered following the data analysis procedure described in an earlier section. Specific to this analysis, data were marked with ten initial codes. The codes were revisited and consolidated into five categories. These categories were analyzed for critical meaning, following Lichtman's (2013) Three Cs Model, and placed into the five concepts or themes discussed earlier.

What follows is an analysis guided by the research question broken down by each version of the framework. Each of the three study groups experienced the appropriate version of the framework (i.e.: the first study group used version 1). Each version section described what worked or was efficient, what did not work or was not efficient, and what revisions were made based on the information provided by study participants.

Version 1. The study group using the first version of the instructional delivery framework provided responses to interview and focus group questions that were categorized into the concepts of Pedagogical Flexibility, Teaching and Learning Quality, Support and Necessary Skills, Framework Organization, and Comprehensiveness.

What was Efficient. Participants in the first study group provided responses that met the conceptual need for Pedagogical Flexibility. Participant 1001 provided numerous statements that the efficiency of the system was found in the choices presented for instruction. Participants remarked that the choices enabled them to quickly and simply extract what was needed to meet the course objectives and implement this in the course.

Comments about Pedagogical Flexibility were closely related to statements from participants about Framework Organization. Participants indicated that the organization of the framework made it clear what items, interactions, and aspects of a distance course should be considered in one location. Participants also remarked that the hierarchical organization of the instrument made it simple and convenient to locate items.

Likewise, participant data about the Teaching and Learning Quality concept were closely related to Pedagogical Flexibility and Framework Organization. Participants commented that the instrument gathered many types of interactions into one place making it easy to consider both what and how to implement items to meet teaching goals. Participant 1003 specifically

commented that the description and recommendations for use provided queues to remind faculty about what to do or what was needed without having to do extensive searching or reflection thus improving the teaching quality more efficiently.

Data gathered from participants about the Comprehensiveness concept closely interrelated with the other four concepts. All participants commented that the data thoroughness of the instructional delivery framework enabled them to quickly see a comprehensive gathering of teaching tools and techniques. The repository aided faculty to easily locate and implement appropriate items for distance education that would allow them to construct a course that met quality expectations.

What was not Efficient. Participants in the first study group made comments about what was not efficient in terms of the Framework Organization and Support and Necessary Skills. Participants commented and agreed that the comprehensiveness of the framework was adequate and suggested that efficiencies could be found by combining similar items. Participants felt that while not a detractor from using the framework it added to a sense of overwhelming that could be prevented. Specifically, the participants felt that in the course materials section items of similar or same nature could be consolidated and the descriptions altered to assist faculty when using that item. Participants agreed that the complexity of the document could also eased with the use of color-coding. Color codes, as suggested by Participant 1004, could be assigned to items in the Course Design section of the framework and the same color used on the related table found later in the framework (Appendix F). Finally, participants agreed that the paper format of the first version was adequate but that a web-based format might provide some efficiency.

Revisions to Increase Efficiency. Based on the data about inefficiencies in the instructional delivery framework four revisions were made. Table 5 summarizes the changes

made to the first version of the framework concerning efficiency or ease of use. First, the Course Technology and Course Instructions items in the Course Design section were combined because technology instructions in an online course are similar or the same as instructions for success in the course. Scholars suggest that a main pedagogical concern with distance courses is that students do not have the proper understanding of what is expected or the direction to complete basics tasks in the course (S. A. Lei & Gupta, 2010). Providing instructions in a clear and concise manner support student success in online courses (S. A. Lei & Gupta, 2010).

The second revision took items in the Course Materials section and combined them where items were the same or extremely similar (i.e.: Video Lecture and Guest Video Lecture). Descriptions were modified to account for the slight differences in focus but recommendations for use were identical. Scholars agree that quality systems should seek to be less onerous and cumbersome for faculty in order to promote ease-of-use and consistent application of quality tools (Jordens & Zepke, 2009; Shulman, 2007).

The third revision was the implementation of color-coding that linked the Course Design section components to the corresponding section. For example, the Faculty-Student Interactions item on the Course Design page was color-coded green and the corresponding table was coded with the same color. Participants indicated that this would make using a paper or web version easier. Quality systems for distance education need to find means reduce complexity and increase ease-of use in order to encourage faculty adoption of the instruments (Jordens & Zepke, 2009; Shulman, 2007).

The final change made to the first version of the framework was the inclusion of a web-based format option. The framework was moved from Microsoft Word to Microsoft Excel to maintain the table format. Microsoft Excel allows for workbooks to be saved as web pages.

Again, making a system of quality more convenient for faculty promotes use and adoption of tools that beget better quality distance courses (Jordens & Zepke, 2009; Shulman, 2007).

Table 5
Summary of Revisions to Version 1 Concerning Efficiency

Framework Item	Change	Research Question
Course Technology	Included Course Technology instructions into the Course Instructions section.	RQ3: Efficiency
Course Materials	Consolidated items that had similar items with the same recommendations into one item with a broadened description.	RQ3: Efficiency
Section Headers	Added color-coding to Course Design page and corresponding with section.	RQ3: Efficiency
Format	Converted the framework from MS Word to MS Excel and added Web-based format as an option.	RQ3: Efficiency

Version 2. The second study group provided responses and data that covered the Teaching and Learning, Framework Organization, and Comprehensiveness concepts.

What was Efficient. Participant discussion provided data that was classified as aspects of the Teaching and Learning concept. Members of the study group remarked that the framework especially with the inclusion of effectiveness changes including faculty use examples mentioned above, is a central process of quality faculty work in distance education. The instrument, as participants described, is a mechanism to foster easy sharing of best practices, examples, and expansion of distance learning quality approaches.

Data from this group were also classified under the Comprehensiveness concept. Participants in this study group felt that the instrument was comprehensive and provided an easy access point for several ideas, tools, and techniques for teaching distance courses. Participants

remarked that the instrument was complicated but not confusing to difficult to use. Specifically, participant 2002 felt that while complex it was fitting the task of implementing a quality online course and that it was appropriately complex given the task.

What was not Efficient. Participant 2003 described the organization of the instructional delivery framework as somewhat out of order and provided a rationale that suggested this was a situation specific to the individual. Reigeluth and Frick (1999) recommend that individual anomalies should be noted and categorized as situations but not necessarily included in the revisions of the theory.

Revisions to Increase Efficiency. Revisions to the second version of the framework did not include changes attributable to the research question of efficiency.

Version 3. Participants in the third study group provided data that fit within the Pedagogical Flexibility, Support and Necessary Skills, Teaching and Learning Quality, and Framework Organization concepts.

What was Efficient. The Pedagogical Flexibility concept was represented in data gathered from participants in the context of providing choices and ongoing growth. Participants in this study group described the choices contained in the instructional delivery framework as a convenient and central repository of items for consideration. The dialogue about this notion continued and indicated that within the choices it was easy for faculty members to carefully select well described and supported instructional interactions for their respective courses. This version of the framework also included a change suggestions protocol. Participant 3001 remarked that this protocol allowed for the instrument to remain relevant and current easily. Whereby faculty could suggest changes following the protocol and those changes, if accepted,

could be added to the document without having complex and lengthy data gathering expeditions throughout the college.

Participants also remarked about the Support and Necessary Skills concept. The expanded instructions and examples for interaction items provided the basis for participant data. Participants in this study group commented that having the recommendations, instructions, and examples contained or linked within the instructional delivery framework made using it simple. Remarks included that the presence of these within the instrument eliminated the need to locate and source multiple references for help.

Regarding the Teaching and Learning Quality concept, participants remarked that the framework provides a singular location for faculty to revisit as the course runs to ensure that interactions are going as intended. Participant 3002 suggested that the framework provides a type of checklist for delivering distance courses to help the faculty stay on track with how to implement the tools in a way consistent with quality practices.

Lastly, the Framework Organization concept was represented in this participant group data. The participants of this group remarked that the hierarchical structure, color-coding, use of links, and instructions provided an easy to use system. Participants discussed that the ease of use helped them navigate and implement the framework efficiently.

What was not Efficient. Participants in this study group did not indicate any items were inefficient or required change.

Revisions to Increase Efficiency. The third group of participants made no recommendations for improvements to appeal. Areas of adequacy, inadequacy, and suggestions for future research with this framework follow in subsequent sections of this document.

Summary of Research Question 3. Scholars conclude that the creation of quality systems for distance education need to be easily and simple for faculty to use or institutions risk a low adoption and use rate (Jordens & Zepke, 2009; Shulman, 2007). This section analyzed the third research question stated as, "What are the perceptions and attitudes of faculty in a small university about how a proposed framework will meet their needs for ease of use?" The data in this area of the study indicated that the efficiency the instructional delivery framework was attained through a series of revisions. The framework was moved from a paper-based system to a completely web-based format where redundancies were eliminated and organizational aids like color-coding was added. Participants indicated that the efficiency of using this instrument was that it provided a comprehensive list of interactions with recommendations for use and instructions to help faculty implement a quality online course.

Summary of version changes. Formative Research is an iterative study method where versions of instructional design theories, models, or frameworks are put into use by study participants (Reigeluth & Frick, 1999). The instrument is continually revised until study participants offer no additional substantive changes to improve the appeal, effectiveness, or efficiency (Reigeluth & Frick, 1999). In this study, three versions of the framework were used until participants provided no data, suggestions, or recommendations that were substantive to the appeal, effectiveness, or efficiency of the instrument. Each version of the instructional delivery framework are available in Appendix F.

The data analysis above outlined the attitudes and perceptions of faculty with regard to the three research questions. The analysis provided a discussion or what worked, what did not work, and revisions that were made. The revisions elements of the analysis are broken down by research question and do not give a homogenized version-to-version change description.

Tables 6 and 7, below, provide an overview of the changes made to the first and second versions, respectively, of the instructional delivery framework based on participant input and feedback. Change suggestions were compared to empirical evidence upon analysis and implemented in the subsequent version. A full change matrix is available in Appendix G.

Table 6
Overview of revisions to Instructional Delivery Framework: Version 1

Framework Item	Change	Research Question
Course Design	Add Departmental and Institutional specifics to Course Design page. This includes both instructions and links to college web documents.	RQ1: Appeal
Faculty-Student Interactions	Added Synchronous Electronic Communication element. Added description and recommendations for use.	RQ1: Appeal
Course Technology	Included Course Technology instructions into the Course Instructions section.	RQ3: Efficiency
Course Materials	Consolidated items that had similar items with the same recommendations into one item with a broadened description.	RQ3: Efficiency
Section Headers	Added color-coding to Course Design page and corresponding with section.	RQ3: Efficiency
Format	Converted the framework from MS Word to MS Excel and added Web-based format as an option.	RQ3: Efficiency

Table 7
Overview of revisions to Instructional Delivery Framework: Version 2

Framework Item	Change	Research Question
Format	Converted the framework to a web-only format with hyperlinking navigation between sections.	RQ1: Appeal
General Framework	Added Framework Instructions to a new first page.	RQ1: Appeal
Interaction Sections	Added Faculty Use Examples or placeholders where no examples exist yet.	RQ2: Effectiveness
Interaction Sections	Added Setup Instructions via linking to video or documentation.	RQ2: Effectiveness
General Framework	Added Submit Changes protocol to a new last page of the framework with hyperlink to email a coordinator.	RQ2: Effectiveness

Summary

The purpose of this Formative Research study was to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state referred to as Magdalene University in this study. The framework meets requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based, and institutionally sound to provide adequate guidance to experienced and inexperienced distance education faculty.

Chapter 4 presented the analysis and results of the research creating the instructional delivery framework. Participants were described to provide demographic information and understanding of the data collected. Research questions were restated and used to organize the presentation of data analysis and results. Data analysis provided detailed descriptions of what

worked, did not work, and required revision until the participants sought no substantive changes. The narrative presentation followed the research questions and discussed five concepts or themes derived from the data analysis: Pedagogical Flexibility, Support and Necessary Skill, Teaching and Learning Quality, Framework Organization, and Comprehensiveness. The chapter summarized version changes to provide a homogenized description of what took place in updating the instructional delivery framework (Appendix F).

Chapter 5 presents a discussion about the instructional delivery framework in the scope of the three research questions. The section offers a discussion of the implications for higher education faculty and administrators. The chapter will conclude by providing a description of the final version of the framework and reviews the areas of inadequacy along with a research agenda for continued development on the model (Reigeluth & Frick, 1999).

Chapter 5: Discussion and Conclusions

The purpose of the Formative Research study was to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state referred to with the pseudonym Magdalene University in this study. The framework meets requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items were well-researched, evidence-based, and institutionally sound to provide adequate guidance to experienced and inexperienced distance education faculty.

The findings of the study will add to the body of knowledge specific to institutional and instructional leadership in higher education with an emphasis on distance education. The empirical data collected included observations, interviews, and focus group. The participants in this study were all full or part time members of the professoriate at Magdalene University. The study focused on the participants' perceptions and attitudes toward the use of an instructional delivery framework designed to support the implementation of quality distance education courses.

To address the gap in research and practice, this study created an instructional delivery framework that provided the support and necessary skills to instruct online courses while maintaining pedagogical flexibility to allow faculty to select tools and techniques appropriate for themselves and their respective courses. At the conclusion of the study, the developed instructional delivery framework was named CourseQ™. The moniker CourseQ™ is a compounding of the words course and quality referring to quality course delivery. CourseQ™ meets literature and research guidance suggesting that institutions develop individual quality

guidelines and instruments to support faculty in meeting quality expectations by providing an appealing, effective, and easy to use instrument. Three research questions framed the Formative Research study and revealed faculty members' perceptions and attitudes regarding the appeal, effectiveness, and ease of use of the instructional delivery framework later named CourseQ™:

RQ1: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework is appropriate and appealing to them?

RQ2: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework will meet their needs for effectiveness in delivering quality online courses?

RQ3: What are the perceptions and attitudes of faculty in a small university about how a proposed framework will meet their needs for ease of use?

Chapter 5 presents a discussion about the CourseQ™ framework. This section begins with a summary of the findings aligned by the research questions of the study. A discussion of the CourseQ™ framework compared to the literature presented in Chapter 2 about quality issues related to both higher education and distance education. The chapter concludes with an analysis of the study documenting the limitations of the study, inadequacies of the instrument, and recommendations for continued research about the developed instructional delivery framework.

Summary of Findings

Chapter 4 presented a detailed reporting of results and narrative analysis of the research project developing the instructional delivery framework, later named CourseQ™, for quality in distance education delivery. Ten volunteer participants took part in the study and were divided into three study groups. The first two study groups had four participants each and the final group

had two members. Participants in this study were full or part time faculty members of the research location and from a range of academic disciplines. Participants had a variety of experiences including no experience, experience taking a course, experience teaching in a blended course, and teaching completely online courses. Members of this study applied the instructional delivery framework to a sample case and were observed, interviewed individually, and took part in a focus group about their respective versions of the instructional delivery framework. Responses from transcribed interactions were coded, categorized, and organized into concepts as described in Chapter 4 (Lichtman, 2013).

Formative Research studies determine the impact of instructional models, theories, or frameworks based on three distinct areas: appeal, effectiveness, and efficiency or ease-of-use (Reigeluth & Frick, 1999). Participants in this study remarked that these three areas overlapped considerably, stating that in order for the model to appeal to them, it must be effective and efficient. Interview and focus group questions were organized according to the stated research questions. Below is a summary of findings pertaining to each of the research questions and aspects of Reigeluth and Frick's (1999) Formative Research protocol.

Appeal of CourseQ™ framework. The appeal of the CourseQ™ was noted throughout the data collection cycles of the study. Through data collection in three distinct study groups, it was determined that the appeal of the framework required that the instrument allow for flexibility and freedom to determine what teaching and learning techniques, tools, and inclusions amount to quality in an distance education course. The ability for faculty members to freely select and apply instructional content, items, and interactions is critical to the implementation of quality in distance education (Kirkwood & Price, 2008; S. A. Lei & Gupta, 2010; Mancuso, 2009; Schuck et al., 2008; Yair, 2008).

Research participants agreed that appeal of the CourseQ™ framework was attributable to the emphasis on pedagogy over technology. The pedagogical focus of the instrument allows faculty to first consider the goals of instruction, learning objectives, and teaching strategies. The decisions of faculty about teaching and learning strategies could then be mapped to technological tools and techniques that are empirically-based, contain examples from other faculty, and include setup guidance to ensure quality implementation of the tool. Stressing pedagogy above technological tools encourages faculty participation in online learning by addressing their overriding concern that technology not limit learning outcomes and student success (Graham & Jones, 2011).

CourseQ™ provides faculty with a thorough system of choices, guidance, and instructions increases the appeal of the instrument and thus encourages use. The comprehensiveness of the instrument can cause confusion and the inclusion of hierarchical organization, instructions, and web-based formats promoted comfort with the study participants and thus increased appeal of the tool.

Effectiveness of CourseQ™ framework. The CourseQ™ framework was analyzed according to the effectiveness of the instrument to design and deliver a distance education courses. Participant data about flexibility and freedom to select what interactions, items, techniques, and tools would best meet the course objectives overlapped with the data about appeal. The model does not prescribe tools or techniques but rather provides these as a method to encourage faculty choice about what is most appropriate for all stakeholders. Providing quality distance instruction is best accomplished when faculty members determine the best methods of meeting course objectives (Ching- San et al., 2009; Mustafa & Dalen, 2006; Yair, 2008).

Effectiveness of the CourseQ™ framework was also attributable to the support provided in the instrument. Participants remarked that the support better enables them choose and implement the correct item, interaction, or tool. Support and skills development includes the inclusion of item name, description, empirically-based recommendations for use, examples of implementation from other faculty, and accurate setup instructions. This collection of support items serves to remind and increase faculty ability to implement a quality distance course. Participant data also showed that the instructions support faculty regardless of experience level with distance education. Scholars agree that supporting faculty skills necessary for online teaching builds familiarity with the modality and is central to effectually delivering quality distance courses and programs (Singleton & Session, 2011; Tabata & Johnsrud, 2008).

The organization of the CourseQ™ instrument follows natural workflows for faculty participants; including partnerships with instructional design administrators. The ability for participants to follow the organization of the framework through a hierarchical organization of tables, links, and instructions increased the effectiveness of the instrument. Quality instruments that require faculty use should strive to provide an efficiencies and not complicate or add to existing work practices in a hindering manner (Jordens & Zepke, 2009; Shulman, 2007).

Ease of Use of CourseQ™ framework. Data regarding the CourseQ™ framework was also analyzed and indicated that the efficiency the instructional delivery framework was attained through a series of revisions. Scholars agree quality systems for distance education need to be easy and simple for faculty to implement or institutions risk a poor adoption of the instrument (Jordens & Zepke, 2009; Shulman, 2007). CourseQ™ was moved from a paper-based system to a completely web-based format where redundancies were eliminated and organizational aids like color-coding was added.

Data from participants showed that the efficiency or ease of use of the CourseQ™ framework largely corresponded with areas of appeal and effectiveness. Analysis of the data indicated that the grouping of comprehensive and easy to access tools and techniques for distance instruction eliminated the need to do extensive searching for the correct item or interaction. The comprehensiveness of the instructional delivery framework was complimented with at-hand support items built into the instrument. These included descriptions, evidence-based recommendations for use, faculty examples of the interaction type, and accurate setup instructions to support implementation.

Participant data also indicated that the hierarchical organization of the instrument was natural and simple to follow. This was complimented by instructions, which clarified and eased the use of a new quality instruction tool. The inclusion of a change and addition protocol, which easily allowed faculty to contribute and grow the document as deemed appropriate.

Discussion of Research

CourseQ™ meets several areas of relevant literature, research, and discussion about quality issues in higher education and specific to distance learning. Development of the CourseQ™ framework was guided by external and internal factors concerning higher education quality, assessment matters, faculty and administration concerns about quality in distance learning, accreditation issues with online education, and addresses gaps that exist in other popular models.

Relationship to quality in higher education. The research and development of the CourseQ™ framework is based on the literature of quality in higher education. The research shows CourseQ™ as an instrument that integrates various approaches to higher education quality. Data from participants showed that the framework addresses external and internal

factors that influence overall quality in higher education. The researched framework also meets the needs for ongoing assessment practices that are evolving in higher education. Collected data from this study also showed that CourseQ™ the focus on quality had the potential to improve pedagogical technique and practice. This section discusses the results of the study in the context of literature presented in Chapter 2 related to elements of quality in higher education.

An integrated quality instrument. One premise in developing the CourseQ™ framework was a need to shift the dialogue from whether to have a quality system or not to internal discussions about how quality should be ensured in academic content and course delivery (Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010). Harvey and Green (1993) classified six approaches to quality in higher education: Exception, Perfection, Fitness for Purpose, Driven by Mission, Value for Money, and Transformative. From these six classifications, the Transformative model figures prominently. Scholars suggest that modern institutional quality models should balance different accountability practices from a variety of quality models with a focus on Transformative quality model characteristics (Harvey & Williams, 2010; Pratasavitskaya & Stensaker, 2010; Singh, 2010). CourseQ™ blends a variety of approaches to quality to meet the contemporary concerns, needs, and issues surrounding distance learning in higher education.

CourseQ™ meets the Transformative precepts by empowering student learning through a comprehensive collection of interactions and course inclusions (Harvey & Green, 1993). Data from participants concluded that the pedagogical priority over technology was important to the adoption of the instrument. Research suggests that Transformative quality models are most effective when the quality instruments focus on the course and learning experiences of the students (Jordens & Zepke, 2009). Transformative quality models also relies on interdisciplinary

collaborations to foster quality course delivery (Jordens & Zepke, 2009). The CourseQ™ framework includes a changes protocol that allows for faculty users to submit suggestions for changes or additions to the instrument. The openness of this change process enables a wide array of disciplines to make suggestions or recommend changes to the document increasing the validity and usefulness of the tool. The Formative Research method used in this study followed the notion of interdisciplinary quality practices through the creation of participant groups representative of different departments and divisions of the research institution. Dialogue between these members created salient data that led to version changes and acceptance.

The adaptations of departmental, institutional, and mission-driven specifications in CourseQ™ were results of data gathered from participants in the first round of collection. The suggestions of participants were that the framework needed to easily link faculty users to department (discipline) specifics and institutional policies that link to the mission of the college to support their inclusion in the course. The Mission Driven model of quality is popular in the United States and befitting smaller institutions with strong missions and assessment practices (Harvey & Green, 1993).

Data gathered from participants about CourseQ™ showed the model using tenets of the Fitness for Purpose quality approach. Fitness for Purpose quality approaches ensure the instruction of the courses are aligned to the purpose of the organization (Harvey & Green, 1993; Sarrico et al., 2010). Harvey and Green (1993) recommended that institutions using aspects of Fitness for Purpose continually monitor the environment to ensure that the purpose is aligned to the external environment. Data from participants indicated that the model allowed them to create instruction that is better aligned established objectives. Participant suggestions to include departmental and institutional specifics into the CourseQ™ framework also facilitated easy

reference and review of specific purposes needed in the courses. Finally, the change protocol element enables faculty, who are closest to changes in the environment and requirements within their disciplines, to encourage an evidenced-based modification to the quality instrument to ensure compliance with changes in the external environment and purpose for instruction.

Addressing influencing factors in educational quality. The instructional delivery framework resulting from this study addresses external factors that impact quality practices at institutions of higher education. One important factor in the U.S. is the issue of rising costs (Bandyopadhyay & Lichtman, 2007; Daunorienė, 2011; Ewell, 2009; Harvey & Green, 1993; Hersh, 2007; Z. Lei, 2009). Data gathered from participants indicate that CourseQ™ creates an easy to use and effective framework for the creation and delivery of distance courses. Participants remarked throughout data collection that framework was straightforward. The collection of instructional tools and techniques for distance learning coupled with detailed recommendations, examples, and instructions provided a single source for efficient and effective implementation of online learning. Participants remarked that such an instrument eliminates the need to excessively search and seek out assistance thus increasing their ability to design and deliver a course. As an instrument of cost reduction, CourseQ™ reduces cumbersome workloads on faculty and increases the ability of the institution to more efficiently use human resources thus realizing more effective production costs for distance courses. It can be assumed that efficiencies in instructional workloads better enable the institution to offer more courses, sections of courses, and programs when instructional development time is reduced through a simple, efficient quality model as produced in this research.

Increasing international growth of colleges and universities is a second external factor influencing quality in education (Baird, 2009; Daniel et al., 2006; Daunorienė, 2011; Singh,

2010; Southerland et al., 2007). Brink (2010) informed that global higher education rankings consist of academic quality and student experience in courses, which adds pressure to account for quality in the educational process. As such, becoming or remaining competitive in the global higher education marketplace requires establishing systems that encourage, monitor, and report on quality issues related to education (Daunorienė, 2011; Harvey & Green, 1993; Hersh, 2007). CourseQ™ evolved through the collection of information from study participants to include an array of interactions that promote quality by providing faculty with detailed recommendations for use, examples from other faculty, and accurate setup instructions to increase alignment to quality guidelines. Institutional competiveness is increased, then, by more accurately assuring potential students and stakeholders that quality is built into the delivery of distance courses available globally.

CourseQ™ also addresses the internal factors presented by faculty concerns about educational quality. Faculty often remain at a distance from conversations and practices of academic quality despite their importance in establishing and maintaining the same (Houston, 2010). Raban (2007) suggested that a culture of auditing academics inhibits their willingness to participate in quality processes. CourseQ™ creates a culture of participation by offering extensive options for instructing distance courses. Participant data that led to the inclusion of examples from other faculty for possible course interactions provides a repository of best practices contributed by members of the professoriate creating collaborations and communication. The addition of the change protocol taken from data furthers the culture of quality by providing faculty a direct voice to evolve the CourseQ™ framework as new ideas, techniques, and tools arise from use. By involving faculty in the research and ongoing use of the CourseQ™ model, the instrument promotes ongoing trust of the content and usage in online

courses. Raban (2007) described trust from faculty as a significant factor influencing the role of faculty in educational quality.

Institutional growth and change is another internal factor that influences quality practices. Changes in higher education arise from the implementation of quality assurance processes (Houston, 2010). Quality programs that account for failure and build in learning opportunities about those failures allow institutions to grow and evolve (Francis, 2010). Some scholars recommend that quality be an internal concern that integrates administration and faculty together, thus improving not only educational quality, but also the whole organization (Sarrico et al., 2010; Schulte, 2010). CourseQ™ was developed through a collaboration amongst faculty participants and an administrator-researcher to ensure that the model was appropriate for use throughout the institution and not a redundant or burdensome instrument within the organization. The framework includes detailed recommendations and instructions for quality implementation and delivery of an online course without overriding the experience and expertise of faculty. Rather, the model provides ready resources to easily support faculty working in a distance course. CourseQ™ integrates institutional and departmental specifics that are unique to the research institution but could be easily replaced by specifications from other institutions in an implementation.

Supporting effective assessment practices. Because of the external pressures to make transparent the quality practices of institutions of higher education, the misinterpretation or misapplication of assessment results, and the inadequate institutional focus on institutional assessment some scholars suggest the creation of more flexible, efficient, proactive, and embedded approaches to assessment practice within the college or university that provide for pedagogical flexibility and faculty experience (Banta, 2010; Bers, 2008; Harvey & Williams,

2010; Jordens & Zepke, 2009; Juceviciene, 2009; Kristensen, 2010; Pratasavitskaya & Stensaker, 2010; Sarrico et al., 2010; Schuck et al., 2008; Shulman, 2007). Data collected throughout the research cycles indicated that CourseQ™ is an efficient model of quality that provided for pedagogical flexibility and faculty expertise. The data suggests that the framework also serves as a repository of best practices and existing courses that make recall for assessment more practical and efficient.

To some degree, traditional assessment practices and popular external oversight requests fail to address the quality of teaching and learning at the course level in a proactive manner (Pratasavitskaya & Stensaker, 2010). Institutions should make certain that contemporary assessment activities include pedagogy in assessment more effectively (Bers, 2008; Ziliukas & Katiliūtė, 2008). Participant remarks collected indicated that CourseQ™ effectively places pedagogical practice ahead of technology and provides enough support to effectively teach students in a distance course. Data also implied for faculty unsure about a teaching technique could follow the framework and create a course that met quality standards, which would aid assessment activities.

Promoting quality instruction. Banta (2010) studied 146 institutions and determined that a focus on quality processes improved pedagogical techniques and faculty development, and curricula. Data collected in this study concurred with Banta's findings. Participants remarked that CourseQ™ provided an extensive collection of best practices that promoted quality teaching in online courses. Data suggested that CourseQ™ could be a tool for faculty development either as a just-in-time learning or through more formal development sessions especially for faculty unfamiliar with the modality or techniques. Ascough (2011) suggested that the inclusion of these factors into an instructional design model is shown to improve faculty adoption of quality

teaching techniques and improvements in teaching and learning excellence. Data collected from participants indicated the appeal and effectiveness of the model is the focus on pedagogy agreeing with Ascough's premise.

An instructional quality model should not seek to limit faculty into teaching with specific techniques, styles, or practices but instead leverage the collaborations of instructional personnel to ensure that instructional techniques are well researched and evidence based (Oermann, 2007; Pratasavitskaya & Stensaker, 2010; Yair, 2008). The ability for faculty to make pedagogical decisions about course design and delivery is directly linked to student success and course satisfaction (Mancuso, 2009; McLawhon & Cutright, 2012; Selwyn, 2011). Data collected from participants in this study imply that CourseQ™ provides a flexible but standardizing model for distance instruction that does not limit but rather empowers faculty by providing choice and empirically based recommendations for use. Scholars agree that exemplary faculty would reject a rigid instructional design model as they do not feel constrained or reverent to the such structures (Kirkwood & Price, 2008; Yair, 2008). The CourseQ™ framework was repeatedly commented upon as not rigid or prescriptive but rather provided a platform for faculty to experiment and use their expertise in the instruction.

Relationship to quality in distance education. The research and development of the CourseQ™ framework is based on the literature of quality in distance education. The research shows CourseQ™ as an instrument addresses faculty concerns about support for online instruction and pedagogy. The data collected also indicated the developed quality framework addresses administrative concerns about faculty adoption of distance courses, budgeting and resources, and quality of online learning. Research in this study indicates that the CourseQ™ framework meets specific demands for accreditation distance education. The current and most

widely used quality models for distance education, the Sloan-C Five Pillars of Quality in Distance Learning and Quality Matters, address different levels of quality for distance education, but do not address the delivery of instruction in online courses (Battin-Little, 2009; Bourne et al., 2005; Kee Meng & Mayadas, 2010; Pollacia & McCallister, 2009; Westerfelt, 2011). CourseQ™ addresses gaps presented in literature related to those models offering institutions additional ability to ensure quality in distance education. As a collective of instructional design elements, tools, and techniques, the data suggests CourseQ™ promotes teaching quality in distance education. This section discusses how the developed instructional delivery framework increases the ability of institutions to offer quality distance courses and programs that meet demands common to online learning and are not adequately addressed by existing quality instruments.

Addressing faculty concerns. A reason faculty struggle to adopt online instruction is reduced levels of support and skills development amongst faculty members (Graham & Jones, 2011; LaPrade et al., 2011; Lee et al., 2010; Singleton & Session, 2011). A lack of familiarity amongst faculty with the necessary computing technology, poor past experiences with teaching in the modality, and anxiety about using computers can serve as barriers to quality distance education (Singleton & Session, 2011; Tabata & Johnsrud, 2008). The CourseQ™ framework evolved from providing a basic level of support to an extensive support system for faculty users. Data gathered in the research provided changes that met with faculty desire and were vetted through research. The developed framework contains interaction descriptions, empirically based recommendations for use, examples of how other faculty use the interaction, and detailed setup instructions. This foundation provides just-in-time support and training for faculty teaching at a distance. The CourseQ™ framework also provides a basis for ongoing institutional training and

collaboration around teaching and learning techniques for distance education. Research suggests that faculty members familiar with technology and believe that it is critical to the profession of teaching are more likely to effectively participate in distance education (Tabata & Johnsrud, 2008). Data from the research indicated that faculty without any or much experience with online instruction could easily apply this model and successfully implement the course. Additional data on this point suggested that as faculty gain experience reliance on the framework could be lessened over time or used when questions or new ideas arise. Participant data about this support was resoundingly positive and was the basis for data collected as it applied to the appeal, effectiveness, and efficiency of the CourseQ™ model.

Another aspect of support is the accounting for time invested in creating, migrating, and instructing online course. Both faculty and administrators understand that time investment for distance education is front-loaded in course creation and reduces over the life of a course provided there are no significant revisions to the course (Bolliger & Wasilik, 2009). CourseQ™ creates an efficient single resource for a collection of tools and techniques and associates these with evidence-based recommendations, examples of use, and detailed setup instructions to reduce development and creation time for faculty. Data collected suggests that the CourseQ™ framework makes searching for tools, techniques, setup instructions, and human resources more effective and efficient by placing much of that information in one place.

Faculty express concern that distance education makes standardizing instruction simpler and risks the pedagogical variety important to higher education (Huett et al., 2008; Peinovich, 2008). The CourseQ™ model was careful to not prescribe a set of tools or techniques but rather offer choices and recommendations for faculty to use within their courses. Data showed that the model encouraged freedom and flexibility for faculty to deliver the course in a way that best suits

their needs or objectives along with support and help for making those interactions more effective. Participants remarked that the comprehensiveness of this framework provided inspiration for trying new tools or techniques and a failsafe to correct activity if the implementation goes wrong during the course.

Research shows that faculty express concern that distance learning does not provide the same levels of interaction and is more prone to creating isolation amongst learners that face to face classes (Huett et al., 2008; S. A. Lei & Gupta, 2010; Peinovich, 2008; Tanner et al., 2009b). Participants commented throughout the data collection cycles that distance learning can provide a more robust learning experience but still lacks the interactivity of face-to-face classes. The inclusion of synchronous interaction addressed these faculty concerns. Contrary research suggests that online classes can provide a greater level of interaction but agree that this is not the same as face-to-face collaborations (Cook et al., 2009; Orellana, 2006; Singleton & Session, 2011). The CourseQ™ model provides recommendations and supporting context to assist faculty with creating an interactive course that meets expectations and accreditation guidelines. Interactivity is sometimes linked to class size and the ability of faculty to interact with a large class size (Cook et al., 2009; Orellana, 2006; Singleton & Session, 2011). CourseQ™ did not address the topic of class size leaving this to institutional and departmental policy. Orellana (2006) addressed this research and concluded that not enough evidence supports whether or not class size has an impact on the level of interactivity.

The growth of distance learning creates faculty questions and concerns about the best methods for instructing an online course (Kupczynski et al., 2012). Faculty concerns about the quality teaching of distance education courses evolve from concerns due to a lack of familiarity with the modality, to concerns about skills and abilities in teaching in this environment, to

concerns about the success of students (Graham & Jones, 2011; Hae-Deok et al., 2011). These concerns are abated and faculty use is encouraged when a widely supported technological infrastructure that includes support for technical skills development and flexible course technologies is in place (Al-Salman, 2011; Chien et al., 2004; Graham & Jones, 2011; Hae-Deok et al., 2011; Lee et al., 2010; Orr et al., 2009). CourseQ™ follows this research by providing a large collection of tools and techniques combined with detailed support including recommendations, examples, and instructions for setup. Creating a system that enables faculty to create on their own or more effectively partner with others to create a course that meets quality expectations.

Addressing administrative concerns. To remain competitive and relevant in an increasingly diverse marketplace for higher education, traditional school administrators are strategically planning and encouraging the growth of distance education programs (Bolliger & Wasilik, 2009). This expansion into online learning is tempered with an awareness that in some cases, faculty lack the necessary skills to effectively instruct a growing number of courses placed online (Gaytan, 2009; Orr et al., 2009). The results of the data demonstrate that CourseQ™ provides not only the support and necessary skills but also serves as platform for seeking more assistance. As technology and technique evolve, CourseQ™ provides a change protocol to assist the framework in meeting the changing demands on distance education. The expansion to online learning is also tempered with concern about rising costs and shrinking budgets at many institutions (S. A. Lei & Gupta, 2010). The developed framework has the potential to help balance cost areas such as faculty workloads, development costs, and streamlining delivery of courses. Results of the data analysis indicate that having all the materials in once simple

interface does help make the design and delivery more efficient by reducing the amount of searching and sourcing various resources and people.

Administrators agree with faculty that quality is integral to the continuation and expansion of distance education and that it is possible with the use of quality frameworks that support development and implementation of online courses (Chien et al., 2004; Gaytan, 2009). Distance education, particularly, requires institutions to establish quality measures to assure the public that the online courses meet expectations and organizational mission (Daniel et al., 2006; Jung et al., 2011; Peinovich, 2008; Seok, 2007). Results of the data indicated that the empirical nature of the CourseQ™ framework assists the delivery of quality distance courses. As an instrument of quality, data show that CourseQ™ puts pedagogical quality ahead of technological implementation of teaching. This aspect of the model enables faculty to effectively determine how best to meet the objectives of the course within the context of the institutional quality expectations. CourseQ™ is the instrument that eases the burden of maintaining quality within the college.

Relationship to distance education accreditation issues. Accreditation in distance education is an extension of traditional accreditation standards and expectations (Middle States Commission on Higher Education, 2011; Seok, 2007). External pressures exist for governing agencies to standardize the assessment of quality in distance education but this devalues institutions be homogenizing instruction in this modality (Sarrico et al., 2010). Seok (2007) recommended that institutions develop or adapt their own model of quality for distance education. CourseQ™ contains instructional elements outlined in the *Best Practices for Electronically Offered Degree and Certificate Programs* or *Guidelines for the Evaluation of Electronically Offered Degree and Certificate Programs* developed by the Western Cooperative

for Educational Technology or WCET and common to all regions of the Higher Learning Commission. This intentional design created design elements that included interactions and support for meeting the expectations of accreditation. Data analysis revealed that the organization and categories included in the CourseQ™ framework guided faculty through that was required to produce a course. Quality elements for this research institution were represented by the links to department and institutional specific policies and practices. Recommendations for use, use examples, and setup instructions were vetted through literature, institutional policy, and implementation instructions from common tool providers.

Addressing gaps in existing models. Several individual models do exist as guidelines for institutions developing or needing to evaluate distance education course quality (H. Wang, 2008; Y. Wang & Miller, 2006). Of the models in existence, two remain popular and most widely used: Quality Matters, and the Sloan-C Five Pillars of Quality in Distance Learning (Battin-Little, 2009; Bento & White, 2010; Bourne et al., 2005; Kee Meng & Mayadas, 2010; H. Wang, 2008; Y. Wang & Miller, 2006; Westerfelt, 2011). Quality Matters while providing an easy-to-follow, research-based, guide for faculty members to design their own online courses does not account for the interactions possible within a distance course environment or address unfamiliar tools (Battin-Little, 2009; Bento & White, 2010; Pollacia & McCallister, 2009). This can make it easier for novice distance education faculty to review the setup and design of the course but does not adequately address how effective the course was at delivering education to the students through various pedagogical methods (Battin-Little, 2009; Pollacia & McCallister, 2009). The Sloan-C Five Pillars of Quality Distance Learning provides institutions a guideline for the development of full programs to deliver online to students (Bourne et al., 2005; H. Wang, 2008). The model loosely addresses the delivery of course materials in the learning effectiveness

domain, but it is more focused on the construction and institutional support of the course (Bourne et al., 2005; Clark et al., 2009; H. Wang, 2008). While effective at the institutional assessment level of quality, it fails to adequately address uses of distance education technology, teaching practices, or learning activities in online courses (Bourne et al., 2005; Kee Meng & Mayadas, 2010; Westerfelt, 2011).

The research data collect demonstrate that CourseQ™ closes potential gaps that exists in both the Quality Matters and Sloan-C Pillars. Quality Matters, while effective at addressing issues of design, does not address the issues of course delivery (Battin-Little, 2009; Pollacia & McCallister, 2009). The CourseQ™ framework provides institutionally-oriented design and delivery guidance as determined both by participants and researched evidence. CourseQ™ specifically and with detail addresses the design and delivery of the distance courses by providing pedagogical level guidance. It is not the intention of this research to supplant existing models but rather address potential gaps in the field that faculty and administrators feel are important to be addressed. Scholars proffer that the creation of new blended models of quality better equip the institution to meet changing and evolving demands from stakeholders and accreditors (Jordens & Zepke, 2009).

Implications for Leadership

The research and development of CourseQ™ has implications for leadership in higher education. The analysis of the research data revealed five concepts or themes: Pedagogical Flexibility, Teaching and Learning Quality, Support and Necessary Skills, Framework Organization, and Comprehensiveness. These concepts applied in various ways to the three research questions relating to appeal, effectiveness, and ease of use.

The first implication of this study to leadership is the method used and resulting framework. The research and methodology presented in this study demonstrates one method of creating a quality instrument appropriate for supporting quality distance education. Seok (2007) recommended that institutions develop or adapt their own models using quality benchmarks that fit the organization best. Through a faculty-administrative collaboration and using a Formative Research method, an institution can confidently provide stakeholders a transparent and rigorous quality model that meets stakeholder expectations, accreditation guidelines, and regulations.

Related to the creation of a model for quality distance instruction, the research provided here presents a model that met faculty appeal, needs for effectiveness, and expectations of efficiency without forgoing a focus on pedagogical flexibility, teaching and learning quality, and support for teaching online. External pressure to standardize assessment and thus instruction in online class environment threatens the variety important to quality collegiate education (Huett et al., 2008; Peinovich, 2008). Scholars contend that providing a rigid and standardized model of instruction or quality to faculty would undermine the intention to create a quality distance experience for students (Schuck et al., 2008). The information presented in this study bridge the need for quality standards and pedagogical flexibility to ensure quality by offering a comprehensive set of choices supported by detailed instructions. The CourseQ™ model is not all encompassing since distance education is a quickly evolving field. Instead, the model provides for growth through and change protocol allowing users to submit evidence or experience-based additions or modifications to the framework. This is particularly important to leadership at institutions that prescribe instructional content for distance learning or limit the pedagogy by demonstrating that it is possible to ensure quality and compliance without sacrificing the flexibility and freedom central to teaching and learning quality.

Scholars contend that leadership decisions made regarding distance education often fail to consider faculty resource, available time, budget, or adequate policies addressing a different instructional modality (Bolliger & Wasilik, 2009; Graham & Jones, 2011; Orr et al., 2009; Singleton & Session, 2011). Implications of this study for faculty and administrative leadership include the efficiencies discovered in using the CourseQ™ framework. Analysis revealed that using the framework made creating an online course easier and more convenient despite the large collection of possible tools and techniques included in the instrument. This could provide information used to make decisions or policies about course load assignments, incentives for instructing online, workforce planning for new distance programs, or periodic accreditation projects.

The use of CourseQ™ in this study and foreseeable application in an institution provides additional implications for leadership in higher education. Use of the instrument should be encouraged amongst faculty and instructional administration. Scholars concur that collaborations amongst faculty and administration produce a climate that actively supports quality and assessment practices (Sarrico et al., 2010; Schulte, 2010). CourseQ™ as recommended instrument without enforcement should be encouraged through faculty development, collection of faculty use examples, and involvement of faculty using the model. It is conceivable that CourseQ™ becomes an institutionally required model but it is suggested that this requirement come with strong faculty involvement and agreement to ensure adoption meets the intended goal of delivering quality online courses. In either an encouraged or compelled use case CourseQ™ should be a peer-reviewed process. Faculty members using the model to deliver quality online courses should participate in a partner or peer-review process where delivered courses are examined to determine how well the class used the instrument and met the quality

objectives. Faculty members using the instrument can easily self-assess their course delivery to assist faculty, departments, and institutions more quickly meet distance education quality goals.

As institutions increasingly use distance learning to expand enrollment, program offering, and global presence, CourseQ™ provides a foundation to make that growth quality oriented. The implications for leadership are this research provides guidance on using quality delivery of online courses to foster institutional growth. Research shows that quality instruction is the most certain method to sustain and scale growth within an institution (Peinovich, 2008).

Limitations of the Study

Reigeluth and Frick (1999) suggest in their research method description that Formative Research will not produce a framework or model that is full tested in every possible situation. The scholars recommend that researchers developing a theory, model, or framework should identify and describe inadequacies or limitations in offering the product to the general public (Reigeluth & Frick, 1999). Researchers should also offer a suggestions for future research and development of the theory, model, or framework (Reigeluth & Frick, 1999).

This research study used ten participants from a range of disciplines and experience with distance education. Within the possible pool of participants, this sample was representative enough to offer valid and reliable data supporting the research. Sample size could have been larger using large study groups or additional recruitment practices.

One area of inadequacy in the design of CourseQ™ is the lack of full semester course testing. The research requested that participants design a sample course and provide feedback through interviews and focus group meetings. The sample case (Appendix H) was a generic, multi-discipline course that participants in the study would recognize and have some understanding of how to teach the topic.

Formative Research studies are related to a Type 1 case study method (Reigeluth & Frick, 1999). This is an appropriate approach for the development of a proposed theory, model, or framework as was done through this study. The restriction to one institutional site is a limitation to the study and future studies can address this by involving multiple research sites and a prolonged study of the CourseQ™ framework within various institutions.

Recommendations for Future Research

Throughout the research suggestions for future studies arose and are provided here for future research in the area of higher education and distance learning. The recommendations relate to the limitations identified above as well as ideas generated from conducting the research.

One limiting factor of this study was the sample size. While the sample for this study was representative of the potential pool of participants, it is area that can be addressed in future studies. It is recommended that extensive recruitment methods be used to expand the sample size and draw additional conclusions about an instructional delivery framework like CourseQ™.

The research leading to the creation of CourseQ™ was intentionally focused on faculty members as the primary designers and instructors of distance education courses. Future research could investigate the perceptions and feelings of higher education administrators regarding such a delivery framework. Related to this recommendation, future research might also include a blended population of faculty and administrators to broaden the impact of CourseQ™ model in institutions of higher learning.

Another limitation of the study was the lack a semester-long research study. The participants took part in creating a fictitious sample course and did so in a focused time frame shorter than a normal working time or semester course. It is recommended that further research be completed that follows study participants through their normal working routines while using

an instructional delivery framework such as CourseQ™. Similarly, future studies should investigate the impact of using such a model through the implementation of the course during a normal instructional period. This extended research should also involve students in the courses and include interviews and focus groups about the appeal, effectiveness, and ease of use of the interactions and tools used in the course designed through this framework.

Formative Research studies are designed to be similar to single case studies and typically only investigate a model within an individual institution (Reigeluth & Frick, 1999). It is recommended that the instructional delivery framework developed in this study be researched in other institutions of varying size in order to increase the generalizability and reliability of the model. It is recommended that CourseQ™ be researched in varying types of institutions including public, private, and for-profit institutions of higher learning. Related to this recommendation, research should be conducted with different faculty employment environments including both union and non-union institutions.

Distance education is subject to speculation and mixed research results about the time demands of course creation and delivery. Data collected in this study suggests CourseQ™ eases the burden of course creation by having a single resource of collected interactions and detailed support. A future study should be conducted that provides information about the efficiency of using such a model for creating a quality distance course.

The CourseQ™ model has potential applications in institutional assessment as described in this chapter. It is recommended that future research study the impact of using the CourseQ™ framework as it relates to assessment practices such as self-studies, accreditation reviews, or programmatic accreditation processes.

A final recommendation for future research is that investigators study the impact of student learning related to the use of a model like CourseQ™ compared to a course that does not use such a model. The information from that study would add to the validity of the model's use in higher education.

Summary

The problem was that quality evaluation processes for distance education do not account for the complex differences in pedagogical approaches and instructional delivery across disciplines or institutions (Endean et al., 2010; Forsyth et al., 2010; Picciano, 2009; Postek et al., 2010; P. S. Smith, 2011; Westerfelt, 2011). The purpose of this Formative Research study was to develop an instructional delivery framework for distance education courses at a small private not-for-profit university in western New York state that met requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. The research presented here shows the development of a proposed instructional delivery framework, CourseQ™, that provides a flexible, comprehensive, and quality-oriented model for the delivery of distance courses in a traditional university environment.

The research conducted indicates that the developed framework enables faculty of various disciplines and experience with online instruction to design a course for distance delivery that meets institutional, accreditation, and regulatory demands while allowing for the freedom customary to faculty membership. CourseQ™ followed a Formative Research method that involved collaboration between faculty and administration to produce an appealing, effective, and efficient instrument that can be implemented within the institution to support the growth of quality distance courses and programs.

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Appendix A: Permission to Conduct Research

[Permission and Authorization Forms redacted and on file with researcher]

Appendix B: Letter of Invitation

E-MAIL SUBJECT LINE: Seeking Research Participants for Formative Research study

Dear Colleague,

You were sent this message because you are on the faculty e-mail list at [College Name Redacted]. Mike Berta, [Title Redacted], is a graduate student in the Doctorate of Education – Curriculum and Instruction Program at The University of Phoenix. As part of his degree requirements, he is conducting a Formative Research study at [College Name Redacted] entitled, "**DISTANCE EDUCATION QUALITY COURSE DELIVERY FRAMEWORK: A FORMATIVE RESEARCH STUDY**".

The goal of his study is to gather opinions, facts, and observations from members of the campus community for the subsequent development and implementation of an instructional design theory for distance education courses that incorporates pedagogies across various disciplines. Data for this study will be collected using observations, semi-structured interviews, and focus groups. He is looking for voluntary participants to discuss the experiences with him.

If you agree to participate in this study, your participation will involve the use of a drafted instructional design framework in application to a hypothetical case while being observed by the researcher, individual interviews with the researcher in person or via video conference technology, focus groups with other study participants. Data will be recorded via audio recording device and transcribed into a secure electronic file. Your participation should not exceed five (5) hours throughout the scope of the study.

The researcher may terminate your participation in this student if you do not attend a study-related appointment without rescheduling or do not participate in one element of the data collection (observation, interview, and focus group). You can decide to be a part of this study or not. Once you start, you can withdraw from the study at any time without any penalty or loss of benefits. The results of the research study may be published but your identity will remain confidential and your name will not be made known to any outside party. He will be asking you questions about your experience with reviewing and applying a drafted framework to a hypothetical case.

The observation phase will take approximately 45 minutes to 1 hour and any discussion will be audiotape-recorded The interview will last about 45 minutes to 1 hour and all the questions as well as your answers, and any discussion, will be audiotape-recorded. You can choose not to answer any of the questions, and you may also choose to end the interview at any time. After the interview, the recording will be transcribed without any identifying information, meaning there will be no way to link you to the study. The recording will then be deleted after the interview is transcribed. The transcribed documents will be shredded after a three-year period. The focus group sessions will last approximately 45 minutes to 1 hour any discussion, will be audiotape-recorded. You can choose not to answer any of the questions, and you may also choose to leave the focus group session at any time.

Your decision to participate or not participate in the study will in no way affect your current employment status at [College Name Redacted]. Your identity will remain confidential and will not be shared with anyone at [College Name Redacted] or at the University of Phoenix. The transcriptions of these interviews will not be released to anyone at any time. A summary of the findings will appear in my dissertation, and the instructional design recommendation will be made to the campus community. To maintain confidentiality, the data will be in summary form and will never contain any identifying information.

If you are interested in participating in the study, please e-mail Mike at: [Contact Information Redacted]

If you have any questions about your rights as a research participant or if you would like additional information to assist you in reaching a decision about participation, please feel free to contact the University of Phoenix IRB at [Contact Information Redacted] or [Institutional Information Redacted]. If you would like additional information about the study, you may contact Mike's dissertation committee chairperson, [Contact Information Redacted]

Sincerely,

[Contact Information Redacted]

The content of this email message has been approved by the Human Subjects Research Review Board (IRB) at [Institution Name Redacted] and the IRB at The University of Phoenix.

Appendix C: Informed Consent Form

INFORMED CONSENT: PARTICIPANTS 18 YEARS OF AGE AND OLDER

Dear Study Participant,

My name is Michael R. Berta and I am a student at the University of Phoenix working on a Doctor of Education degree. I am doing a research study entitled Distance education quality course delivery framework: A formative research study. The purpose of this Formative Research study is to develop an instructional delivery framework for distance education courses at a small private liberal arts university in western New York state. The framework must meet requirements from accreditation and regulatory agencies, faculty and administration concerns about how to design and implement quality distance courses, and maintenance of pedagogical flexibility for faculty. Instructional delivery items should be well researched and evidence-based to provide adequate guidance to experienced and inexperienced distance education faculty. The researcher will collect data using observations of study participants, semi-structured interviews, and focus groups.

Your participation will involve the use of a drafted instructional design framework in application to a hypothetical case while being observed by the researcher, individual interviews with the researcher in person or via videoconference technology, focus groups with other study participants. Data will be recorded via audio recording device for each the observation, interview, and focus group phases of the research. Audio recordings will be transcribed into a secure electronic file and deleted upon transcription. Your participation should not exceed five (5) hours throughout the scope of the study. The researcher may terminate your participation in this student if you do not attend a study-related appointment without rescheduling or do not participate in one element of the data collection (observation, interview, and focus group). You can decide to be a part of this study or not. Once you start, you can withdraw from the study at any time without any penalty or loss of benefits by emailing the researcher. The results of the research study may be published but your identity will remain confidential and your name will not be made known to any outside party. Upon the request of a participant, therefore, the principle investigator has sole and full access to the secured and protected research documents and will remove and shred all data related to any participant at their request including focus group data that specifically identifies the participant or originates from the participant.

In this research, there are no foreseeable risks to you except none.

Although there may be no direct benefit to you, a possible benefit from your being part of this study is the improvement of your knowledge, skill, and ability in designing and implementing distance education courses.

If you have any questions about the research study, please call me at [Contact Information Redacted] or email me at [Contact Information Redacted]. For questions about your rights as a study participant, or any concerns or complaints, please contact the University of Phoenix Institutional Review Board via email at [Contact Information Redacted].

As a participant in this study, you should understand the following:

1. You may decide not to be part of this study or you may want to withdraw from the study at any time. If you want to withdraw, you can do so without any problems.
2. Your identity will be kept confidential.
3. Michael R. Berta, the researcher, has fully explained the nature of the research study and has answered all of your questions and concerns.
4. Observations, interviews, and focus groups will be audio recorded you must give permission for the researcher, Michael R. Berta, to record the observation, interview, and focus group at the time of the event. You understand that the information from the recorded interviews will be transcribed. Once transcribed the audio will be deleted. The researcher will develop a way to code the data to assure that your name is protected.
5. Data will be kept in a secure and locked area. The data will be kept for three years, and then destroyed.
6. The results of this study may be published.

“By signing this form, you agree that you understand the nature of the study, the possible risks to you as a participant, and how your identity will be kept confidential. When you sign this form, this means that you are 18 years old or older and that you give your permission to volunteer as a participant in the study that is described here.”

(CHECK ONE) (☐) I accept the above terms. (☐) I do not accept the above terms.

Signature of the interviewee _____ Date _____

Signature of the researcher _____ Date _____

Appendix D: Interview Protocol

Part I: Notes for the Interviewer

Overview

1. Tape-record the interviews if permission is granted
2. Interview in a neutral setting.
3. Each interview lasts 45 to 60 minutes.

Interview Methodology

Interviews will be implemented with a customized approach allowing for an in-depth investigation. Follow-up questions will be used to stimulate interviewee memory. The interviewer will use a semi-structured question design (Part III). Interview contains:

1. A predetermined set of 10-15 questions
2. All predetermined questions are the same for each participant

Designation of Interviewee: _____

Location of Interview: _____

Date: _____

Start Time: _____

Finish Time: _____

Part II: Components of the Interview

Components of the Interview

1. Introduction (5-10 minutes)
2. Review confidentiality and consent form.
3. Create a relaxed environment
4. Dialogue

Question: Have you received my introductory correspondence explaining my research and the format that will be used?

Question: Have you participated in applying the quality course design framework to the case provided?

Question: Are there any questions?

Explain the purpose of the interview

1. The purpose of this interview is to explore factors that influence your decisions. During the time we have together I would like to get an understanding of your experiences and observations pertinent to the subject matter of the study.

Ask permission to record interview

2. With your authorization, I would like to tape-record our discussion to get an inclusive record of what is said, since the notes I take will not be as comprehensive as I will require. No one other than I will listen to anything you say to me. Only I will have access to the records. The research results will describe what you and others have said predominantly in summation. No responses will be ascribed to you by name. Recordings will be secured upon transcription along with the transcribed interview.
3. The open-ended questions are intended to obtain your personal experience and perceptions. The interview time may take about 1 hour.
4. Would you give me permission to tape the interview?
5. Do you have any questions before we begin?

Part III: Interview Questions

RQ1: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework is appropriate and appealing to them?

1. What specific elements of the framework appealed to you as a faculty member designing your own courses for distance delivery?
2. What specific elements of the framework did not appeal to you as a faculty member designing your own course for distance delivery?
3. What would you keep the same so the framework appeals to you as a faculty member?
4. How would you change the framework so it is more appealing to you as a faculty member?

RQ2: What are the perceptions and attitudes of faculty in the small university about how a proposed distance education quality course delivery framework will meet their needs for effectiveness in delivering quality online courses?

5. How does the framework help you in designing a course for distance delivery?
6. What specific elements of the framework helped you as a faculty member in designing your own courses for distance delivery?
7. What specific elements of the framework did not help you as a faculty member in designing your own courses for distance delivery?
8. What do you recommend be kept the same so the framework helps you design your own course for distance delivery?

9. What do you recommend be changed so the framework is more helpful in meeting your needs in designing your own course for distance delivery?

RQ3: What are the perceptions and attitudes of faculty in a small university about how a proposed framework will meet their needs for ease of use?

10. How simple or convenient was the framework to use in designing the sample case?
11. What about the framework was confusing or difficult to use?
12. What about the framework would you keep the same so it continues to be simple and convenient to use?
13. What about the framework would you change so it becomes simpler and convenient to use?

Appendix E: Focus Group Protocol

Part I: Notes for the Interviewer

Overview

1. Tape-record the focus group if permission is granted
2. Focus group in a neutral setting.
3. Focus group lasts 45 to 60 minutes.

Focus Group Methodology

Focus groups will be implemented with a customized approach allowing for an in-depth investigation. Follow-up questions were used to stimulate participant memory. The interviewer will use a semi-structured question design (Part III). Focus group interview contains a predetermined set of 5-10 questions.

Location of Focus Group: _____

Date: _____

Start Time: _____

Finish Time: _____

Part II: Components of the Focus Group

Components of the Interview

1. Introduction (5-10 minutes)
2. Review confidentiality and consent form.
3. Create a relaxed environment
4. Dialogue

Question: Have you received my introductory correspondence explaining my research and the format that will be used?

Question: Have you participated in applying the quality course design framework to the case provided?

Question: Are there any questions?

Explain the purpose of the focus group

1. The purpose of this focus group is to explore factors that influence your decisions. During the time we have together I would like to get an understanding of your experiences and observations pertinent to the subject matter of the study.

Ask permission to record interview

2. With your authorization, I would like to tape-record our discussion to get an inclusive record of what is said, since the notes I take will not be as comprehensive as I will require. No one other than I will listen to anything you say to me. Only I will have access to the records. The research results will describe what you and others have said predominantly in summation. No responses will be ascribed to you by name. Recordings will be secured upon transcription along with the transcribed interview.
3. The open-ended questions are intended to obtain your personal experience and perceptions. The focus group may take about 1 hour.
4. Would you give me permission to tape the focus group?
5. Do you have any questions before we begin?

Part III: Focus Group Questions

RQ1: What are the perceptions and attitudes of faculty in a small university about how a proposed distance education quality course delivery framework is appropriate and appealing to them?

1. What aspects of the process of using the framework did not appeal to you, as faculty members, designing your own distance courses?
2. What about the framework appealed to you, as faculty members, designing your own distance courses?

RQ2: What are the perceptions and attitudes of faculty in the small university about how a proposed distance education quality course delivery framework will meet their needs for effectiveness in delivering quality online courses?

3. What do you recommend be changed so the framework is more helpful in meeting the needs of faculty in designing courses for distance delivery?
4. What do you recommend be kept the same so the framework to help faculty members design courses for distance delivery?

RQ3: What are the perceptions and attitudes of faculty in a small university about how a proposed framework will meet their needs for ease of use?

5. What about the framework was confusing or difficult to use?
6. What elements in the framework made designing the sample case simpler and less confusing?

Appendix F: Instructional Delivery Framework Versions

Version 1

	Design Element	Definition	Recommendations for Use
Course Design	Course Welcome	Welcome statement that provides general information about the course, the instructor, and the policies of the course. It builds a social or community aspect of the course which is important to student learning, outcomes and student satisfaction with the course (Cherng-Jyh & Chih-Hsiung, 2008; Lear, Isernhagen, LaCost, & King, 2009).	The introduction should include a brief biography of the instructor, goals/objectives of the course, and important course policies.
	Course Instructions	Instructions for students on where, how, and when students should access materials, technology, services, and support for the course	To reduce student anxiety, build familiarity with the course environment, and support student learning an course instructions should include: technology requirements, navigation, access of course materials, course interactivity overviews, and review of student expectations (Carruth, Broussard, Waldmeier, Gauthier, & Mixon, 2010).
	Learning Objectives	Specific outcome statements about what students will exhibit after the course	Learning objectives should be stated clearly and specifically so that students can develop a strategy for learning throughout the course. Objectives that are clear and focused on student outcome enable students to check their performance and activity against the expected course outcomes. (Ying, Huamao, Ronghuai, Yanhua, & Jingjing, 2008). Objectives should be listed on the course syllabus and carried forward into the individual course modules that cover those objectives.

	Student Assessment†	Student assessment instruments and grading systems for the course appropriate for distance education with equal rigor to face-to-face class	See appropriate table below
	Course Materials	Instructional and learning materials for students	See appropriate table below
	Course Organization	How instructional materials, activities, and content are organized in the course site.	Materials should be organized into chronological or topical modules where all the objects for that section are gathered together for easy navigation and access.
	Course Technology	Technology used throughout the course for both students and faculty members	A statement about the computing hardware, software, and connection technology provides students clear expectations about what is needed to be successful in the course.
	Accessibility and Universal Design	Course materials, learning, and instructional activities are equally available for all students	As required by Section 504 Subpart E of the Americans with Disabilities Act, reasonable accommodations will be made for students requiring an adjustment to the learning experience. Universal Design for Learning principles encourage faculty members to proactively make course materials available in different formats, provide students alternative means of expressing their knowledge, and multiple ways to engage with each other. http://www.cast.org/udl/

Instructional Activities	Faculty-Student Interaction*†	Instructional interactions between faculty member and students defined with description, requirements, and techniques outlined	See appropriate table below
	Student-Student Interaction*†	Instructional interactions between students defined with description, requirements, and techniques outlined	See appropriate table below
	Learning Activities†‡	Activities directly linked to stated learning objectives and appropriate for distance education technologies	See appropriate table below

Course Materials

Interaction Type	Explanation or Definition	Recommendations for Use
Textbook	Published reading about the course topic selected by the faculty member or department for the course.	Select a course text that is appropriate for the course based on your experience. Confirm with the publisher that the text is available in print and electronically. Confirm with the publisher that the text confirms to ADA guidelines.
Electronic Journal Articles	An article that appears in a refereed scholarly journal that exists in the school's library databases.	Each journal article for the class should be linked in the LMS through use of permalink available in common article databases (R. Bley, personal communication, March 6, 2013). For articles without a permalink, PDF copies can be placed on electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007). For articles without permalink, PDF copies of the article may be attached to an object within the course site.

Printed Journal Articles	An article that appears in a refereed scholarly journal that exists in the school's library databases.	For print journal subscriptions, articles should be scanned to PDF and placed electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007)
Other Electronic Articles	Electronic articles from magazines, newspapers, journalistic sources, websites, etc. that do not appear in a refereed journal or source.	Each article for the class should be linked in the LMS through use of permalink or URL. For articles without a permalink, PDF copies can be placed on electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007) For articles without a permalink, PDF copies can be placed on electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007).
Other Printed Articles	Articles from printed magazines, newspapers, journalistic sources, websites, etc. that do not appear in a refereed journal or source and do not have an electronic source.	Printed articles should be scanned to PDF and placed electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007).
Video Lecture	A video recorded lecture provided by the instructor of the course. Video lectures	Video lectures can be done in any manner that is comfortable to the instructor (i.e.: sitting in front of a camera, voiced over still or animated images, or green screen with visuals behind). Videos should be constructed to be briefer than a full classroom lecture and address key points succinctly. Supplemental content should be added where expansion is needed. (Hughes, 2009). Provide supplemental materials in areas of the lecture that are known to be confusing (other videos, audio files, websites, worksheets, etc.). (Hughes, 2009) Do not have video of professor inset in another window of video it distracts student attention (Friedland & Rojas, 2008). Include personal still images of the lecturer in the video if no video of lecturer is being provided to students. (Hughes, 2009).

		Audio quality should be clear and free of distracting background noise. Video should be stored remotely to support easy streaming or downloading for a student (YouTube) and secured in a manner consistent with the faculty member preferences. Video should be linked within the LMS through use of a permalink or URL.
Guest Lecture Videos	A video recorded lecture provided by a guest or supplemental lecturer in the course.	Video lectures can be done in any manner that is comfortable to the instructor (i.e.: sitting in front of a camera, voiced over still or animated images, or green screen with visuals behind). Videos should be constructed to be briefer than a full classroom lecture and address key points succinctly. Supplemental content should be added where expansion is needed. (Hughes, 2009). Videos should be broken down into small topic chunks, by key questions, or isolated subtopics. (Hughes, 2009) Provide supplemental materials in areas of the lecture that are known to be confusing (other videos, audio files, websites, worksheets, etc.). (Hughes, 2009) Do not have video of professor inset in another window of video it distracts student attention (Friedland & Rojas, 2008). Include personal still images of the lecturer in the video if no video of lecturer is being provided to students. (Hughes, 2009). Audio quality should be clear and free of distracting background noise.

		Video should be stored remotely to support easy streaming or downloading for a student (YouTube) and secured in a manner consistent with the faculty member preferences. Video should be linked within the LMS through use of a permalink or URL.
Other Video	Video material that was created by someone other than the course instructor that might serve as supplemental or primary video for a lesson, topic, or issue within the course.	Video should be linked within the LMS through use of a permalink or URL. Audio quality should be clear and free of distracting background noise.
Audio-Only Lecture	A lecture recorded using only an audio-format with no visuals or video component.	Audio quality should be clear and free of distracting background noise. Audio should be constructed to be briefer than a full classroom lecture and address key points succinctly. Video should be stored remotely to support easy streaming or downloading for a student (YouTube) and secured in a manner consistent with the faculty member preferences. Audio should be linked within the LMS through use of a permalink or URL.
Other Audio Support	Audio lecture can be used as review materials using common student questions, areas of confusion, and the corresponding answers and clarifications. (Guertin, 2011).	Audio quality should be clear and free of distracting background noise. Audio should be constructed to be briefer than a full classroom lecture and address key points succinctly. Video should be stored remotely to support easy streaming or downloading for a student (YouTube) and secured in a manner consistent with the faculty member preferences.

		Audio should be linked within the LMS through use of a permalink or URL.
Written Lecture	A fully written lecture covering the course topic.	Begin by informing students of the topic to be covered and provide an overview of the full lecture. Break lecture into clear subtopics and label them clearly using different font and bold technique. Make the text of the written document black without embellishing with color. Instead use bolding, italics, and underline to provide emphasis. Provide synthesis to the course readings and other materials to guide students to important points about the topic. Use white space to separate ideas and give the student permission to stop. Consider adding stop and think sections that ask students questions they should be able to answer and annotate.
Guided Notes	Guided lecture notes are documents that provide students the key points of the lecture or topic to aid them in writing complete notes. They are not a transcription of the lecture or other materials but rather a guide with placeholders for students to document their understanding and ensure more accurate coverage of the topic. (Williams, Weil, & Porter, 2012)	Use fill-in-the-blanks sentences that correspond to the lecture and course materials where students must write in the key word or phrase (Williams et al., 2012). Leave white space between typed sections for students to insert their own thinking and understandings. (Williams et al., 2012)

Other Websites	Internet sites that provide accurate, vetted, and valuable information to students.	Review the website for validity, accuracy, and reliability. Post a link and description of the site to the LMS. Provide students the main ideas, key areas, and important learnings you wish them to have while using the website. If the website requires interaction, provide students instructions on how to accomplish the tasks.

Faculty-Student Interactions

Interaction Type	Explanation or Definition	Recommendations for Use
Course Announcements	An informative and brief written notice about course events.	Set announcements to expire after the time of the course event. Link announcement directly to student communication preferences (email, etc.). Use announcements to advertise or remind about important course events, changes in the course, or happenings at the institution.
Student eMails	Direct electronic communication to individual or groups of students	
Assessment Feedback	Instructor comment about student performance and work on assessment devices. This might include assignments, tests, quizzes, projects, or other graded activities in the course.	Establish time frames that inform students about when to expect feedback on assessment activities in the course.
Discussion Board – Faculty Involved	Asynchronous discussion forums that engage student dialogue around a course topic.	Begin course discussions with low stakes introductory or icebreaking questions to promote familiarity amongst students which will support more robust and active discussions (Cheung, Hew, & Ling Ng, 2008). Ask or assign topics that challenge students to think and respond thoughtfully. Topics should not provide a clear either or response unless appropriate to the course topic. Provide students directions and expectations about how to answer and participate in discussions. This might include instruction about asking questions for clarity and understanding (Cheung et al., 2008) Establish deadlines and expectations about participation to foster responsible and ongoing discussions (Cheung et al., 2008)

Summary Activity	A synopsis of student learning provided back to the instructor or class as a record of what learning took place during the week.	Include a summary activity in the discussion forum or elsewhere for students to summarize the discussions had during the week. (Cheung et al., 2008)

Student-Student Interactions

Interaction Type	Explanation or Definition	Recommendations for Use
Discussion Groups		Begin course discussions with low stakes introductory or icebreaking questions to promote familiarity amongst students which will support more robust and active discussions (Cheung et al., 2008) Ask or assign topics that challenge students to think and respond thoughtfully. Topics should not provide a clear either or response unless appropriate to the course topic. Provide students directions and expectations about how to answer and participate in discussions. This might include instruction about asking questions for clarity and understanding (Cheung et al., 2008) Establish deadlines and expectations about participation to foster responsible and ongoing discussions (Cheung et al., 2008)
Learning Groups or Communities	A subset of the full class organized around topics, assignments, and coursework.	Have the team create a team charter and assignment plan to clarify their roles, strengths, weaknesses, and communication preferences. (Hunsaker, Pavett, & Hunsaker, 2011). Provide students support for planning assignments including feedback on the charter, assignment planning, and readiness feedback for executing the assignment (Gomez, Dezhi Wu, & Passerini, 2009) Have students summarize communication amongst the team to aid both in understanding and accountability (Gomez et al., 2009) Include a peer evaluation (Gomez et al., 2009)

Course Blogs	Blogs, Weblogs, or Journals are short-form writing areas used to capture student thoughts, ideas, and reflections about course topics.	Create a blog for the class either as a general blog or blog around a particular topic or activity. Consider using a class blog where individuals can submit postings to a single blog. This promotes peer-review, commentary, and dialogue amongst students (Smith, 2008) Provide students instructions and expectations about contribution including word count, format, and style. Encourage student commenting on individual posts by using the comment feature and posing questions, additional thoughts, or additional resources.

Learning Activities

Interaction Type	Explanation or Definition	Recommendations for Use
Learning Check Quizzes	Quiz assessments that are scheduled at the end of sets of content or course materials that provide students an opportunity to test their understanding and knowledge of the topic (Johnson & Kiviniemi, 2009; Roediger III, Agarwal, McDaniel, & McDermott, 2011)	Include a low-stakes or low point value quiz for each topic module of the course (Roediger III et al., 2011). Use a small number of questions (10) to ensure student completion of the assessment (Johnson & Kiviniemi, 2009) Consider placing the quizzes in the module after the reading and ahead of any lecture materials to ensure students have the baseline of knowledge needed for the lecture (Tao, Fore, & Forbes, 2011) In constructing the quiz include feedback for students; congratulations for correct answers and additional guidance for incorrect answers that send students back to the test (Johnson & Kiviniemi, 2009). Use multiple choice or multiple answer questions along with repeated attempts to help student achieve mastery of the materials (Roediger III et al., 2011)
Course Blogs	Blogs, Weblogs, or Journals are short-form writing areas used to capture student thoughts, ideas, and reflections about course topics.	Create a blog for the class either as a general blog or blog around a particular topic or activity. Consider using a class blog where individuals can submit postings to a single blog. This promotes peer-review, commentary, and dialogue amongst students (Smith, 2008) Provide students instructions and expectations about contribution including word count, format, and style. Encourage student commenting on individual posts

		by using the comment feature and posing questions, additional thoughts, or additional resources.

Student Assessment

Interaction Type	Explanation or Definition	Recommendations for Use
Testing	A scored group of questions that pertain to the course or course topic.	To ensure stable access to test request students have a wired connection to the Internet, maintain only one LMS login session at a time, and have only one browser window during the test. Limit the number of LMS testing options (appear all at once, randomized questions/pools, prohibit backtracking, etc.) to only a few to prevent unexpected disconnections. Grade the questions ahead of time including feedback about correct and incorrect answers. Incorrect answer feedback should include a brief explanation or hint about where to review the topic of the question. Be aware of the multiple attempts feature and use it in accordance with your goals for the course.
Formatted Written Assignments	A written assessment device like a paper using an accepted formatting style (APA, MLA, etc.).	Provide students a rubric that you will use to assess their performance on this assignment.
Unformatted Written Assignments	A written assessment device that does not conform to an accepted formatting style but may be common in the industry (i.e.: memo, executive summary, etc.).	Provide students a rubric that you will use to assess their performance on this assignment.

Presentations	An oral and visually performed demonstration of student knowledge about a topic.	Establish clear parameters about the presentation in terms of time, audience, inclusions, exclusions, and standards of performance. Provide students a rubric that you will use to assess their performance on this assignment. If recorded, have students record on a camera, upload video to some video storage/streaming location and share the link to the video in the LMS If the presentation is live, use web conferencing software to have students join you and present. Create a support section in the course that gives students tutorials and guides about how to perform the technical aspects of the assignment.

Version 2

Course Design				
Design Element	**Definition**	**Recommendations for Use**	**College Specific Requirement**	**Department Requirements**
Course Description	An institutionally accepted description of the class' topics, outcomes, and expectations for students	The course description should be written into a separate item within the course as well as appearing in the syllabus. This should be taken directly from the institutional and/or department website.	Institutional List of Course Descriptions	Place Holder for Department Drop Down with Links
Course Welcome	Welcome statement that provides general information about the course, the instructor, and the policies of the course. It builds a social or community aspect of the course that is important to student learning, outcomes and student satisfaction with the course (Cherng-Jyh & Chih-Hsiung, 2008; Lear, Isernhagen, LaCost, & King, 2009).	The introduction should include a brief biography of the instructor, goals/objectives of the course, and important course policies.		
Mission and Purpose	A statement regarding the mission and/or purpose of both the institution and department	The mission and purpose should be written into a separate item within the course as well as appearing in the syllabus. This should be taken directly from the institutional and/or department website.	Institutional Mission	Place Holder for Department Drop Down with Links

Core Curriculum Statement	An institutional program whereby students must develop skills in key areas according to the academic policy of the institution	The Core Curriculum Statement should be written into a separate item within the course as well as appearing in the syllabus. This should be taken directly from the institutional and/or department website. Details about which aspects of the course meet what core curriculum components should be made clear	Institutional Core Curriculum	
Course Instructions	Instructions for students on where, how, and when students should access materials, technology, services, and support for the course	To reduce student anxiety, build familiarity with the course environment, and support student learning a course instructions should include: technology requirements, navigation, access of course materials, course interactivity overviews, and review of student expectations (Carruth, Broussard, Waldmeier, Gauthier, & Mixon, 2010). A statement about the computing hardware, software, and connection technology provides students clear expectations about what is needed to be successful in the course.		

Course Learning Objectives	Specific outcome statements about what students will exhibit after the course	Learning objectives should be stated clearly and specifically so that students can develop a strategy for learning throughout the course. Objectives that are clear and focused on student outcome enable students to check their performance and activity against the expected course outcomes. (Ying, Huamao, Ronghuai, Yanhua, & Jingjing, 2008). Objectives should be listed on the course syllabus and carried forward into the individual course modules that cover those objectives.		
Student Assessment†	Student assessment instruments and grading systems for the course appropriate for distance education with equal rigor to face-to-face class	Click for appropriate table		
Course Materials	Instructional and learning materials for students	Click for appropriate table		
Course Organization	How instructional materials, activities, and content are organized in the course site.	Materials should be organized into chronological or topical modules where all the objects for that section are gathered together for easy navigation and access.		
Accessibility and Universal Design	Course materials, learning, and instructional activities are equally available for all students	As required by Section 504 Subpart E of the Americans with Disabilities Act, reasonable accommodations will be made for students requiring an adjustment to the learning	Institutional Statement on Disabilities	

		experience. Universal Design for Learning principles encourage faculty members to proactively make course materials available in different formats, provide students alternative means of expressing their knowledge, and multiple ways to engage with each other. http://www.cast.org/udl/		
Faculty-Student Interaction*†	Instructional interactions between faculty member and students defined with description, requirements, and techniques outlined	Click for appropriate table		
Student-Student Interaction*†	Instructional interactions between students defined with description, requirements, and techniques outlined	Click for appropriate table		
Learning Activities†‡	Activities directly linked to stated learning objectives and appropriate for distance education technologies	Click for appropriate table		

* - New York State Education Department Standard

† - Middle States Commission on Higher Education Standard

‡ - National League for Nursing Accreditation Commission Standard

§ - Commission on Accreditation in Physical Training Education

ß - Teacher Education Accreditation Council

Course Design Home	**Student Assessment**	
Interaction Type	**Explanation or Definition**	**Recommendations for Use**
Testing	A scored group of questions that pertain to the course or course topic.	To ensure stable access to test request students have a wired connection to the Internet, maintain only one LMS login session at a time, and have only one browser window during the test.
		Limit the number of LMS testing options (appear all at once, randomized questions/pools, prohibit backtracking, etc.) to only a few to prevent unexpected disconnections.
		Grade the questions ahead of time including feedback about correct and incorrect answers.
		Incorrect answer feedback should include a brief explanation or hint about where to review the topic of the question.
		Be aware of the multiple attempts feature and use it in accordance with your goals for the course.

Formatted Written Assignments	A written assessment device like a paper using an accepted formatting style (APA, MLA, etc.).	Provide students a rubric that you will use to assess their performance on this assignment.
		Provide students links to departmental policies regarding formatted written assignments
		Provide students with links to industry specific or programmatic accreditation guidelines for formatted written assignments
Unformatted Written Assignments	A written assessment device that does not conform to an accepted formatting style but may be common in the industry (i.e.: memo, executive summary, etc.).	Provide students a rubric that you will use to assess their performance on this assignment.

Presentations	An oral and visually performed demonstration of student knowledge about a topic.	Establish clear parameters about the presentation in terms of time, audience, inclusions, exclusions, and standards of performance.
		Provide students a rubric that you will use to assess their performance on this assignment.
		If recorded, have students record on a camera, upload video to some video storage/streaming location and share the link to the video in the LMS
		If the presentation is live, use web conferencing software to have students join you and present.
		Create a support section in the course that gives students tutorials and guides about how to perform the technical aspects of the assignment.

Course Design Home	**Course Materials**	
Interaction Type	**Explanation or Definition**	**Recommendations for Use**
Textbook	Published reading about the course topic selected by the faculty member or department for the course.	Select a course text that is appropriate for the course based on your experience.
		Confirm with the publisher that the text is available in print and electronically.
		Confirm with the publisher that the text confirms to ADA guidelines.
Electronic Journal Articles	An article that appears in a refereed scholarly journal that exists in the school's library databases.	Each journal article for the class should be linked in the LMS through use of permalink available in common article databases (Bley, personal communication, March 6, 2013).
		For articles without a permalink, PDF copies can be placed on electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007).
		For articles without permalink, PDF copies of the article may be attached to an object within the course site.

Printed Journal Articles	An article that appears in a refereed scholarly journal that exists in the school's library databases.	For print journal subscriptions, articles should be scanned to PDF and placed electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007)
Other Electronic Articles	Electronic articles from magazines, newspapers, journalistic sources, websites, etc. that do not appear in a refereed journal or source.	Each article for the class should be linked in the LMS through use of permalink or URL.
		For articles without a permalink, PDF copies can be placed on electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007)
		For articles without a permalink, PDF copies can be placed on electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007).
Other Printed Articles	Articles from printed magazines, newspapers, journalistic sources, websites, etc. that do not appear in a refereed journal or source and do not have an electronic source.	Printed articles should be scanned to PDF and placed electronic course reserve with the library circulation department (Poe & Barnett-Ellis, 2007).

Video Lecture	A video recorded lecture provided by the instructor of the course. Video lectures	Video lectures can be done in any manner that is comfortable to the instructor (i.e.: sitting in front of a camera, voiced over still or animated images, or green screen with visuals behind).
		Videos should be constructed to be briefer than a full classroom lecture and address key points succinctly. Supplemental content should be added where expansion is needed. (Hughes, 2009).
		Provide supplemental materials in areas of the lecture that are known to be confusing (other videos, audio files, websites, worksheets, etc.). (Hughes, 2009)
		Do not have video of professor inset in another window of video it distracts student attention (Friedland & Rojas, 2008).
		Include personal still images of the lecturer in the video if no video of lecturer is being provided to students. (Hughes, 2009).
		Audio quality should be clear and free of distracting background noise.
		Video should be stored remotely to support easy streaming or downloading for a student (YouTube) and secured in a manner consistent with the faculty member preferences.
		Video should be linked within the LMS through use of a permalink or URL.

Guest Lecture Videos	A video recorded lecture provided by a guest or supplemental lecturer in the course.	Video lectures can be done in any manner that is comfortable to the instructor (i.e.: sitting in front of a camera, voiced over still or animated images, or green screen with visuals behind).
		Videos should be constructed to be briefer than a full classroom lecture and address key points succinctly. Supplemental content should be added where expansion is needed. (Hughes, 2009).
		Videos should be broken down into small topic chunks, by key questions, or isolated subtopics. (Hughes, 2009)
		Provide supplemental materials in areas of the lecture that are known to be confusing (other videos, audio files, websites, worksheets, etc.). (Hughes, 2009)
		Do not have video of professor inset in another window of video it distracts student attention (Friedland & Rojas, 2008).
		Include personal still images of the lecturer in the video if no video of lecturer is being provided to students. (Hughes, 2009).
		Audio quality should be clear and free of distracting background noise.
		Video should be stored remotely to support easy streaming or downloading for a student (YouTube) and secured in a manner consistent with the faculty member preferences.
		Video should be linked within the LMS through use of a permalink or URL.

Other Video	Video material that was created by someone other than the course instructor that might serve as supplemental or primary video for a lesson, topic, or issue within the course.	Video should be linked within the LMS through use of a permalink or URL.
		Audio quality should be clear and free of distracting background noise.
Audio-Only Lecture	A lecture recorded using only an audio-format with no visuals or video component.	Audio quality should be clear and free of distracting background noise.
		Audio should be constructed to be briefer than a full classroom lecture and address key points succinctly.
		Video should be stored remotely to support easy streaming or downloading for a student (YouTube) and secured in a manner consistent with the faculty member preferences.
		Audio should be linked within the LMS through use of a permalink or URL.
Other Audio Support	Audio lecture can be used as review materials using common student questions, areas of confusion, and the corresponding answers and clarifications. (Guertin, 2011).	Audio quality should be clear and free of distracting background noise.
		Audio should be constructed to be briefer than a full classroom lecture and address key points succinctly.
		Video should be stored remotely to support easy streaming or downloading for a student (YouTube) and secured in a manner consistent with the faculty member preferences.

		Audio should be linked within the LMS through use of a permalink or URL.
Written Lecture	A fully written lecture covering the course topic.	Begin by informing students of the topic to be covered and provide an overview of the full lecture.
		Break lecture into clear subtopics and label them clearly using different font and bold technique.
		Make the text of the written document black without embellishing with color. Instead use bolding, italics, and underline to provide emphasis.
		Provide synthesis to the course readings and other materials to guide students to important points about the topic.
		Use white space to separate ideas and give the student permission to stop.
		Consider adding stop and think sections that ask students questions they should be able to answer and annotate.
Guided Notes	Guided lecture notes are documents that provide students the key points of the lecture or topic to aid them in writing complete notes. They are not a transcription of the lecture or other materials but rather a guide with placeholders for students to document their understanding and ensure more accurate coverage of the topic. (Williams, Weil, & Porter, 2012)	Use fill-in-the-blanks sentences that correspond to the lecture and course materials where students must write in the key word or phrase (Williams et al., 2012).
		Leave white space between typed sections for students to insert their own thinking and understandings. (Williams et al., 2012)

Other Websites	Internet sites that provide accurate, vetted, and valuable information to students.	Review the website for validity, accuracy, and reliability.
		Post a link and description of the site to the LMS.
		Provide students the main ideas, key areas, and important learnings you wish them to have while using the website.
		If the website requires interaction, provide students instructions on how to accomplish the tasks.

Course Design Home	**Faculty-Student Interactions**	
Interaction Type	**Explanation or Definition**	**Recommendations for Use**
Course Announcements	An informative and brief written notice about course events.	Set announcements to expire after the time of the course event.
		Link announcement directly to student communication preferences (email, etc.).
		Use announcements to advertise or remind about important course events, changes in the course, or happenings at the institution.
Synchronous Electronic Communication	Any form of live interaction between faculty members and students via audio, video, or text (chat).	Synchronous communication via text of chat function either within the LMS or other systems aids students in mutually constructing knowledge, negotiation, support, group facilitation, and group processing of common course tasks (Maushak & Ou, 2007)
		Live video or audio communication via any usable system can result in improved faculty-student connections, reduced communication barriers possible in asynchronous discussion, and faster corrections of student work (Huang & Hsiao, 2012).

		Establish guidelines and expectations about what form of synchronous communication will be used in the course, provide communication and behavior expectations, create a schedule that is convenient for the class or targeted learning group, and schedule low-stakes introductions to the technology being used (Huang & Hsiao, 2012)
Student eMails	Direct electronic communication to individual or groups of students	The email students function from within the LMS provides a record of the email directly to the faculty mailbox. This includes emails to individuals, groups, or all users.
Assessment Feedback	Instructor comment about student performance and work on assessment devices. This might include assignments, tests, quizzes, projects, or other graded activities in the course.	Establish time frames that inform students about when to expect feedback on assessment activities in the course.
Discussion Board – Faculty Involved	Asynchronous discussion forums that engage student dialogue around a course topic.	Begin course discussions with low stakes introductory or icebreaking questions to promote familiarity amongst students that will support more robust and active discussions (Cheung, Hew, & Ling Ng, 2008).
		Ask or assign topics that challenge students to think and respond thoughtfully. Topics should not provide a clear either or response unless appropriate to the course topic.

		Provide students directions and expectations about how to answer and participate in discussions. This might include instruction about asking questions for clarity and understanding (Cheung et al., 2008)
		Establish deadlines and expectations about participation to foster responsible and ongoing discussions (Cheung et al., 2008)
Summary Activity	A synopsis of student learning provided back to the instructor or class as a record of what learning took place during the week.	Include a summary activity in the discussion forum or elsewhere for students to summarize the discussions had during the week. (Cheung et al., 2008)

Course Design Home	**Student-Student Interactions**	
Interaction Type	**Explanation or Definition**	**Recommendations for Use**
Discussion Groups	Asynchronous, student-student, discussion forums for specific sets of students usually assigned by the faculty member of the course	Begin course discussions with low stakes introductory or icebreaking questions to promote familiarity amongst students which will support more robust and active discussions (Cheung et al., 2008)
		Ask or assign topics that challenge students to think and respond thoughtfully. Topics should not provide a clear either or response unless appropriate to the course topic.
		Provide students directions and expectations about how to answer and participate in discussions. This might include instruction about asking questions for clarity and understanding (Cheung et al., 2008)
		Establish deadlines and expectations about participation to foster responsible and ongoing discussions (Cheung et al., 2008)
Learning Groups or Communities	A subset of the full class organized around topics, assignments, and coursework.	Have the team create a team charter and assignment plan to clarify their roles, strengths, weaknesses, and communication preferences. (Hunsaker, Pavett, & Hunsaker, 2011).

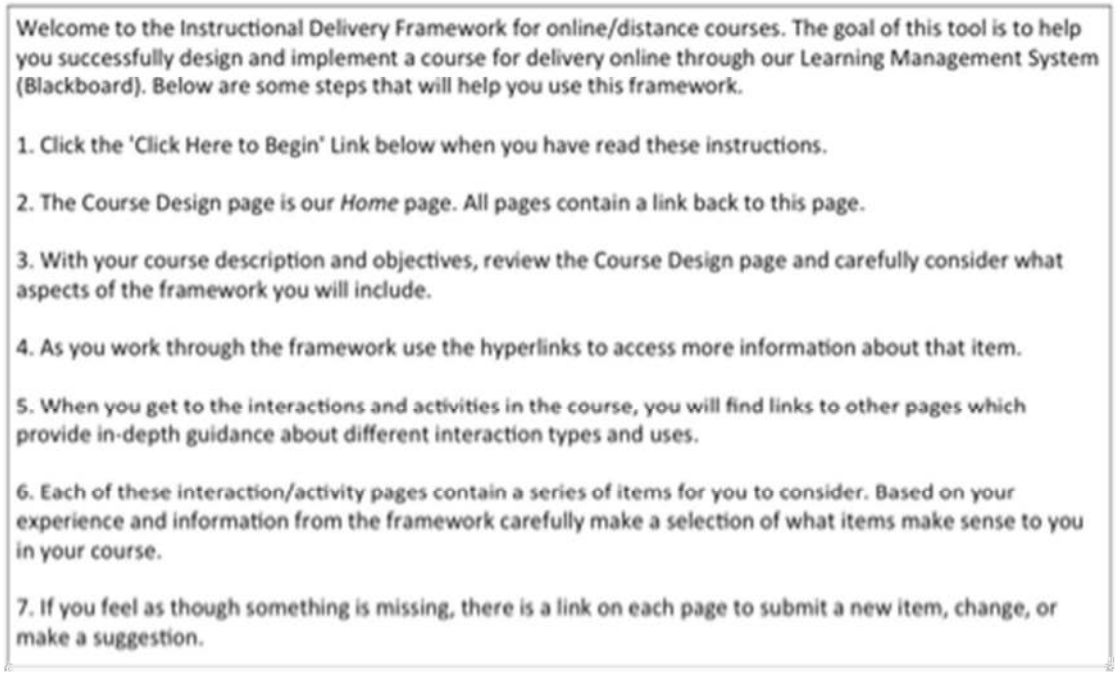
		Provide students support for planning assignments including feedback on the charter, assignment planning, and readiness feedback for executing the assignment (Gomez, Dezhi Wu, & Passerini, 2009)
		Have students summarize communication amongst the team to aid both in understanding and accountability (Gomez et al., 2009)
		Include a peer evaluation (Gomez et al., 2009)
Course Blogs	Blogs, Weblogs, or Journals are short-form writing areas used to capture student thoughts, ideas, and reflections about course topics.	Create a blog for the class either as a general blog or blog around a particular topic or activity.
		Consider using a class blog where individuals can submit postings to a single blog. This promotes peer-review, commentary, and dialogue amongst students (Smith, 2008)
		Provide students instructions and expectations about contribution including word count, format, and style.
		Encourage student commenting on individual posts by using the comment feature and posing questions, additional thoughts, or additional resources.

Course Design Home	**Learning Activities**	
Interaction Type	**Explanation or Definition**	**Recommendations for Use**
Learning Check Quizzes	Quiz assessments that are scheduled at the end of sets of content or course materials that provide students an opportunity to test their understanding and knowledge of the topic (Johnson & Kiviniemi, 2009; Roediger III, Agarwal, McDaniel, & McDermott, 2011)	Include a low-stakes or low point value quiz for each topic module of the course (Roediger III et al., 2011).
		Use a small number of questions (10) to ensure student completion of the assessment (Johnson & Kiviniemi, 2009)
		Consider placing the quizzes in the module after the reading and ahead of any lecture materials to ensure students have the baseline of knowledge needed for the lecture (Tao, Fore, & Forbes, 2011)
		In constructing the quiz include feedback for students; congratulations for correct answers and additional guidance for incorrect answers that send students back to the test (Johnson & Kiviniemi, 2009).
		Use multiple choice or multiple answer questions along with repeated attempts to help student achieve mastery of the materials (Roediger III et al., 2011)

Course Blogs	Blogs, Weblogs, or Journals are short-form writing areas used to capture student thoughts, ideas, and reflections about course topics.	Create a blog for the class either as a general blog or blog around a particular topic or activity.
		Consider using a class blog where individuals can submit postings to a single blog. This promotes peer-review, commentary, and dialogue amongst students (Smith, 2008)
		Provide students instructions and expectations about contribution including word count, format, and style.
		Encourage student commenting on individual posts by using the comment feature and posing questions, additional thoughts, or additional resources.

Version 3

The following are screenshots of the web-interface for Version 3. Some of the screen is not shown in these images.



Course Design

Design Element	Definition	Recommendations for Use	College Specific Requirement	Department Requirements
Course Description	An institutionally accepted description of the class' topics, outcomes, and expectations for students	The course description should be written into a spearate item within the course as well as appearing in the syllabus. This should be taken directly from the institutional and/or department website.	Institutional List of Course Descriptions	Place Holder for Department Drop Down with Links
Course Welcome	Welcome statement that provides general information about the course, the instructor, and the policies of the course. It builds a social or community aspect of the course which is important to student learning, outcomes and student satisfaction with the course (Cherng-Jyh & Chih-Hsiung, 2008; Lear, Isernhagen, LaCost, & King, 2009).	The introduction should include a brief biography of the instructor, goals/objectives of the course, and important course policies.		
Mission and Purpose	A statement regarding the mission and/or purpose of both the institution and department	The mission and purpose should be written into a spearate item within the course as well as appearing in the syllabus. This should be taken directly from the institutional and/or department website.	Institutional Mission	Place Holder for Department Drop Down with Links
Core Curriculum Statement	An institutional program whereby students must develop skills in key areas according to the academic policy of the institution	The Core Curriculum Statement should be written into a spearate item within the course as well as appearing in the syllabus. This should be taken directly from the institutional and/or department website.	Institutional Core Curriculum	
		Details about which aspects of the course meet what core curriculum components should be made clear		
Course Instructions	Instructions for students on where, how, and when students should access materials, technology, services, and support for the course	To reduce student anxiety, build familiarity with the course environment, and support student learning an course instructions should include: technology requirements, navigation, access of course materials, course interactivity overviews, and review of student expectations (Carruth, Broussard, Waldmeier, Gauthier, & Mixon, 2010).		
		A statement about the computing hardware, software,		

Course Design Home

Faculty-Student Interactions

Interaction Type	Explanation or Definition	Recommendations for Use	Faculty Use Examples	Setup Instructions
Course Announcements	An informative and brief written notice about course events.	Set announcements to expire after the time of the course event. Link announcement directly to student communication preferences (email, etc). Use announcements to advertise or remind about important course events, changes in the course, or happenings at the institution.	Placeholder for Faculty Use Examples	Creating Announcments
Synchronous Electronic Communication	Any form of live interaction between faculty members and students via audio, video, or text (chat).	Synchronous communication via text of chat function either within the LMS or other systems aids students in mutually constructing knowledge, negotiation, support, group facilitation, and group processing of common course tasks (Maushak & Ou, 2007) Live video or audio communication via any usable system can result in improved faculty-student connections, reduced communication barriers possible in asynchronous disucssion, and faster corrections of student work (Huang & Hsiao, 2012). Establish guidelines and expecations about what form of synchronous communication will be used in the course, provide communication and behavior expectations, create a schedule that is convienent for the class or targeted learning group, and schedule low-stakes introductions to the technology being used (Huang & Hsiao, 2012)	Placeholder for Faculty Use Examples	Using Google Hangouts for Presentations Using Skype
Student eMails	Direct electronic communication to individual or groups of students	The email students function from within the LMS provides a record of the email directly to the faculty mailbox. This includes emails to individuals, groups, or all users.	Placeholder for Faculty Use Examples	Sending Student eMail
Assessment Feedback	Instructor comment about student performance and work on assessment devices. This might include assignments, tests, quizzes, projects, or other graded activities in the course.	Establish a time frame that inform students about when to expect feedback on assessment activities in the course.	Placeholder for Faculty Use Examples	Providing Assignment Feedback Feedback on Other Tools in course Automatic Test Feedback
		Begin course discussions with low stakes introductory or		

Course Design Home

Student-Student Interactions

Interaction Type	Explanation or Definition	Recommendations for Use	Faculty Use Examples	Setup Instructions
Discussion Groups	Asynchronous, student-student, discussion forums for specific sets of students usually assigned by the faculty member of the course	Begin course discussions with low stakes introductory or icebreaking questions to promote familiarity amongst students which will support more robust and active discussions (Cheung et al., 2008)	Placeholder for Faculty Use Examples	Creating a Discussion Forum
		Ask or assign topics that challenge students to think and respond thoughtfully. Topics should not provide a clear either or response unless appropriate to the course topic.		Creating a Discussion Thread
		Provide students directions and expectations about how to answer and participate in discussions. This might include instruction about asking questions for clarity and understanding (Cheung et al., 2008)		Replying to a Discussion
		Establish deadlines and expectations about participation to foster responsible and ongoing discussions (Cheung et al., 2008)		Grading a Discussion
Learning Groups or Communities	A subset of the full class organized around topics, assignments, and coursework.	Have the team create a team charter and assignment plan to clarify their roles, strengths, weaknesses, and communication preferences. (Hunsaker, Pavett, & Hunsaker, 2011).	Placeholder for Faculty Use Examples	Creating Learning Groups
		Provide students support for planning assignments including feedback on the charter, assignment planning, and readiness feedback for executing the assignment (Gomez, Dezhi Wu, & Passerini, 2009)		
		Have students summarize communication amongst the team to aid both in understanding and accountability (Gomez et al., 2009)		Creating Sets of Learning Groups
		Include a peer evaluation (Gomez et al., 2009)		
Course Blogs	Blogs, Weblogs, or Journals are short-form writing areas used to capture student thoughts, ideas, and reflections about course topics.	Create a blog for the class either as a general blog or blog around a particular topic or activity.	Placeholder for Faculty Use Examples	Creating a Blog
		Consider using a class blog where individuals can submit postings to a single blog. This promotes peer-review, commentary, and dialogue amongst students (Smith, 2008)		Creating and Editing Blog Entries
		Provide students instructions and expectations about contribution including word count, format, and style.		Commenting on Blogs

Course Design Home

Learning Activities

Interaction Type	Explanation or Definition	Recommendations for Use	Faculty Use Examples	Setup Instructions
Learning Check Quizzes	Quiz assessments that are scheduled at the end of sets of content or course materials that provide students an opportunity to test their understanding and knowledge of the topic (Johnson & Kiviniemi, 2009; Roediger III, Agarwal, McDaniel, & McDermott, 2011)	Include a low-stakes or low point value quiz for each topic module of the course (Roediger III et al., 2011).	Placeholder for Faculty Use Examples	Creating a Test
		Use a small number of questions (10) to ensure student completion of the assessment (Johnson & Kiviniemi, 2009).		
		Consider placing the quizzes in the module after the reading and ahead of any lecture materials to ensure students have the baseline of knowledge needed for the lecture (Tao, Fore, & Forbes, 2011)		
		In constructing the quiz include feedback for students: congratulations for correct answers and additional guidance for incorrect answers that send students back to the test (Johnson & Kiviniemi, 2009).		
		Use multiple choice or multiple answer questions along with repeated attempts to help student achieve mastery of the materials (Roediger III et al., 2011)		
Course Blogs	Blogs, Weblogs, or Journals are short-form writing areas used to capture student thoughts, ideas, and reflections about course topics.	Create a blog for the class either as a general blog or blog around a particular topic or activity.	Placeholder for Faculty Use Examples	Creating a Blog
		Consider using a class blog where individuals can submit postings to a single blog. This promotes peer-review, commentary, and dialogue amongst students (Smith, 2008)		Creating and Editing Blog Entries
		Provide students instructions and expectations about contribution including word count, format, and style.		Commenting on Blogs
		Encourage student commenting on individual posts by using the comment feature and posing questions, additional thoughts, or additional resources.		Feedback on Other Tools in course

Suggest a Change

Appendix G: Change Matrix for Instructional Delivery Framework Revisions

Framework Item	Original	Changed	Rationale	Research Question
Version 1 to Version 2				
Course Design		Add Departmental and Institutional specifics to Course Design page. This includes both instructions and links to college web documents.	Improved pedagogical quality by linking discipline specific and institutional policies about course instruction and student outcomes. Quality in pedagogy needs to account for institutional differences	Appeal
Faculty-Student Interactions		Added Synchronous Electronic Communication element	Suggestion from faculty that was vetted by research from Graham and Jones (2011) and Singleton and Session (2011) that faculty and students desire live or synchronous communication in an online course.	Appeal
Course Technology item	Course Technology was a separate item on the Course Design page	Included course technology instructions into the Course Instructions section	Streamline document for easier use. Students require clear and concise instructions in order to meet the learning demands of online courses (S. A. Lei & Gupta, 2010)	Efficiency
Course Materials	Multiple similar forms of materials detailed out	Consolidated items that had similar items with the same recommendations into one item with a	Reduce the complexity of the instrument while maintaining the comprehensives.	Efficiency

		broadened description	Improve faculty ease of use. Quality systems should be easy and not onerous to use to encourage faculty adoption (Jordens & Zepke, 2009; Shulman, 2007).	
Section Headers	No color coding	Color coding	Enhance ease of use and organization of the instrument to assist faculty with use. Quality systems should be easy and not onerous to use to encourage faculty adoption (Jordens & Zepke, 2009; Shulman, 2007).	Efficiency
Format	Paper-based only	Added Web-based format as an option	Enhance the flexibility and use of the format. Quality systems should be easy and not onerous to use to encourage faculty adoption (Jordens & Zepke, 2009; Shulman, 2007).	Efficiency
Version 2 to Version 3				
Format	Paper and Web Formats	Web Only	Allows for Faculty Use and Setup Instructions to be included, easier linking between top page and different course components. Web-based tools and processes will better equip institutions to	Appeal

			monitor and deliver quality online instruction (Postek et al., 2010; P. S. Smith, 2011).	
General Framework		Framework Instructions	Provides faculty with expectations and instructions for using the framework. A lack of familiarity amongst faculty with the necessary computing technology, poor past experiences with teaching in the modality, and anxiety about using computers can serve as barriers to quality distance education (Singleton & Session, 2011; Tabata & Johnsrud, 2008)	Appeal
Interaction Sections		Faculty Use Examples	Provide users of the framework examples from their peers about how interactions items are used in their courses. Quality online teaching is more likely to occur when faculty members are supported with the proper instruction and support processes (Al-Salman, 2011; Lee et al., 2010).	Effectiveness

Interaction Sections		Setup Instructions	Provided links to existing tutorials, instructions, and procedures for how to implement the item in the course. Quality online teaching is more likely to occur when faculty members are supported with the proper instruction and support processes (Al-Salman, 2011; Lee et al., 2010).	Effectiveness
General Framework		Added Submit Changes protocol	Enabled the framework to grow with faculty input and expertise. Faculty are best equipped to determine how and what should be used to meet quality objectives in distance education (Mancuso, 2009; Kirkwood & Price, 2008)	Effectiveness

Appendix H: Sample Case for Research

-- Sample Case --

Critical Thinking
THNK 101
Fall/Spring/Summer I/Summer II 20xx
Course Perquisites: None

Class Location	Online
Course Instructor	
Instructor's Phone	
Instructor's eMail	
Instructor's Availability	

Course Description

This course provides a foundational background in critical thinking demanded by other college courses, post-graduation employers, and society in general. In this course you will build your ability to observe, classify, analyze, and synthesize information and situations in order to make meaningful decisions. Students should expect to employ reasoning skills, find alternatives to presented issues, consider the consequences of choices, and make decisions with a fully developed awareness of the issues presented in class.

Learning Objectives

Given the materials presented in class and through the course textbook, students will be able to:

- Define the skills necessary to perform critical thinking in everyday situations
- Provide examples from contemporary sources of critical and non-critical thinking
- Respond to presented situations in a manner consistent with critical thinking
- Explain the reasoning process used in presented situations
- Form well-reasoned decisions and arguments based on presented situations
- Appraise the decisions presented in class using their knowledge of critical thinking
- Defend decisions using their knowledge of critical thinking
- Summarize their personal knowledge and application of critical thinking for subsequent studies, post-graduation employment, and personal life.

Week	Topic	Course Materials	Faculty-Student Interactions	Student-Student Interactions	Learning Activities	Student Assessment
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						