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Academic Leadership Perceptions of Online Program Quality and Course Design

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by

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Dedication

This dissertation is dedicated to the people who have supported me through my doctoral program journey. To my mom who instilled the value of education and always encouraged me to pursue my doctorate long before I thought it was possible. To my dad who was always ready to listen to anything I needed to talk through regarding my study or in life. To my brothers, Brandon and David, who always checked in on me, thank you! Most importantly to my husband Luke, without your support I could not have made it to the finish line. Thank you for all the long walks talking through this study and helping me formalize this dissertation into a reality. Your love and encouragement helped me more than I could ever describe. I am so thankful to have you as my partner in life!

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Abstract

The purpose of this study was to examine college and university leaders' background in, perceptions of, and experiences with the administration of high-quality online programs and design of online courses. The population of this study included academic leaders at higher education institutions within the state of Texas from 2 and 4-year undergraduate and graduate, public and private, for-profit and not-for-profit institutions that had at least one 100% online program. A quantitative research design was used through the distribution of a survey that contained two parts: part one asked questions related to the background demographics of the leader and their respective institution while part two was a replication of two sections of the Online Learning Consortium's Scorecard for the Administration of Online Programs. Data were analyzed through multiple methods including descriptive, correlation, and causal comparative statistics. Findings include describing current academic leaders' and institutions' background demographics and the perception of online program quality held by academic leaders. Recommendations are provided to institutions looking to improve online program quality or hire an administrator for online programs. Online program quality may be improved by institutions establishing a process for the development/redesign of online courses, establishing course development standards, and requiring faculty to collaborate with instructional designers.

Keywords: online quality, distance education, course design, academic leaders, instructional design, online programs, Online Learning Consortium Scorecard

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Chapter 1: Introduction

Distance education demand continues to increase across U.S. higher education institutions with 35% of students enrolling in an online course in the fall of 2018 (National Center for Education Statistics, 2021). While overall higher education enrollment has continued to decrease over the past several years, distance education has continued to see growth (Seaman et al., 2018). During the COVID-19 pandemic, online learning was forced rapidly on faculty and students, resulting in emergency remote teaching (Hodges et al., 2020). In response to this continual online growth, higher education institutions and academic leaders must be able to overcome the barriers associated with providing high-quality distance education for students. Transformational leadership theory, the foundation for a common leadership style in higher education, is the theoretical framework that will be used for this study as administrators address the challenges of high-quality online education (Black, 2015). Administrators face challenges in supporting their institutions, including providing adequate instructor support, applying best practices to course design, reducing technology barriers, and maintaining organizational structures that allow faculty members to offer high quality online courses that meet student needs (Nemetz et al., 2017; Sanford, 2017; Scoppio & Luyt, 2017; Tannehill et al., 2018).

Student expectations in their online courses are complex and an important consideration in online course development. The COVID-19 pandemic forced students into courses that used wide variety of teaching methodologies, new technologies, and unfamiliar learning environments as faculty worked to quickly modify instruction (Tang et al., 2021). This dramatic shift caused concern regarding the quality of courses being delivered during the pandemic, including faculty-student interaction and engagement (Garrett, Legon, Fredericksen, & Simunich, 2020). If students believe their expectations are met in the classroom, student retention and satisfaction are

positively impacted (Wu et al., 2006). Understanding student expectations and maintaining course quality through effective online course design is an important consideration for academic leaders as their perceptions have the potential to impact course quality (Tannehill et al., 2018; Ulrich & Karvonen, 2011). Institutions should provide meaningful classroom interaction, challenging curriculum, learner support, and feedback from instructors to achieve a quality online learning environment (Stone & O'Shea, 2019). Administrators must understand student expectations and provide adequate support within their institution for quality online course development. This includes appropriate course design, which has the potential to reduce student frustration and increase retention (Wu et al., 2006).

Purposeful course design is an important factor in high-quality online courses. For example, in an online environment, course design impacts student experience, satisfaction, and academic success more than face-to-face or blended instructional models (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). However, differing perceptions of quality online course design by academic leaders and faculty members has led to inconsistencies in course quality and institutional standards (Bazluki et al., 2018; Bigatel & Edel-Malizia, 2018). When there are a lack of structure and standards provided by academic leaders in course development, the level of quality is inconsistent, negatively impacting both faculty and students (Tannehill et al., 2018). To overcome challenges in developing quality courses and programs, professional organizations, such as Quality Matters, Online Learning Consortium, and International Society for Technology in Education, provide guidelines and standards often evaluated through a scorecard or rubric for course quality and the administration of online programs. After the COVID-19 pandemic, which forced remote instruction, a national survey of Chief online officers conducted by Garrett, Legon, Fredericksen, and Simunich (2020) found that

implementing institution quality standards was a top priority for future online courses. Institutions that implement course design standards are often associated with higher quality courses (Baldwin, Ching, & Friesen, 2018; Chao et al., 2006; Little, 2009; McGahan et al., 2015; Parscale et al., 2015).

Student satisfaction and academic success is directly impacted by course design in online higher education courses, making intentional course design critical for quality (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). Faculty are often tasked with developing online courses, which requires specific knowledge and skills in course design to achieve high quality. However, faculty members frequently experience a knowledge gap in creating high quality online courses (Sanford, 2017). Collaborative partnerships between faculty and instructional designers may alleviate course development and design issues as well as close the knowledge gaps in online course design best practices (Bazluki et al., 2018; Scoppio & Luyt, 2017), but higher education institutions are not providing adequate support to reduce this gap (Sanford, 2017).

Statement of the Problem

In online higher education, course design needs to be considered in the development of high-quality courses due to its impact on student experience and satisfaction (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). Many factors impact course design, including faculty, organizational structure within institutions, and academic policies regarding quality standards (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). Academic administrators must understand how these factors relate to and influence course design to ensure high-quality online programs.

The responsibility of online course design typically falls to faculty members, but a significant number of faculty express concerns about a lack of technical support, training, and resources for online educators (Sanford, 2017; Shreaves et al., 2020). Faculty responsibility of course design was further emphasized during the COVID-19 pandemic where the majority of faculty were responsible for converting their face-to-face courses online (Garrett, Legon, Fredericksen, & Simunich, 2020). Deficient course design skills are associated with low-quality online courses (Sanga, 2018). To overcome faculty members' lack of skills in online course design, instructional designers and faculty should work together to share best practices in course design, helping to reduce this knowledge gap, but institutional support is often inadequate to ensure quality course design (Bazluki et al., 2018; Scoppio & Luyt, 2017).

In addition to faculty skill level in course design, organizational structure also affects the quality of online courses. Institutions with centralized departments for instructional design and faculty development allow for expectations around online course design and teaching standards to be maintained, resulting in a more positive student experience (Tannehill et al., 2018). This best practice is not often implemented across all organizational structures. When there is a lack of quality standards, or course development is dependent on faculty control, course quality cannot be assured (Tannehill et al., 2018).

Course design quality is impacted by many factors, including faculty, organizational structure within institutions, and academic policies regarding quality standards (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). Lack of institutional support, inadequate faculty skill level in online course design, and poor organizational structure may be evidence that academic administrations may struggle to adequately support quality

course development. Administrators of online programs may experience a knowledge gap in how to measure the quality and manage course design in online programs (Shelton, 2010).

Purpose of the Study

The purpose of this quantitative research study was to examine college and university leaders' background in, perceptions of, and experiences with the administration of high-quality online programs and design of online courses. Course design is important to online education and is impacted by faculty, organizational structure, and quality standards; these factors are shaped by perceptions and support of an institution's academic administration. Understanding how academic leadership perceptions influence course design is important due to the direct impact on course quality and, ultimately, student experience (Bigatel & Edel-Malizia, 2018; Scoppio & Luyt, 2017).

Course design is influenced by academic leaders' perceptions and institutional policies (Bigael & Edel-Malizia, 2018; Scoppio & Luyt, 2017; Tannehill et al., 2018). The perceptions of academic leaders about course design and instructional design, as well as their selection of institution initiatives, are important factors for quality course development, potentially influencing student perceptions and experience (Tannehill et al., 2018; Ulrich & Karvonen, 2011). The knowledge gap that exists in how academic leaders perceive and understand quality online programs may lead to negative consequences in course design and quality. The results of this quantitative study are designed to help improve online program quality by understanding how academic leaders perceive quality and what factors may impact their perceptions in the administration of online programs.

Research Questions

RQ1: How do higher education academic leaders perceive the quality of online programs at their institution based on their reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs?

RQ2: What are the background demographics of current higher education academic leaders who administer online programs?

RQ3: What is the correlation between a higher education academic leaders' reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs and demographic variables?

RQ4: Is there a significant difference between an institution's use of course development standards, requirement of instructional designers to collaborate with faculty, and the use of an established process for the development/redesign of new and existing online courses and a higher education academic leaders' reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs?

Definition of Key Terms

Academic administrators. In this study, employees of higher education institutions who serve in high-level academic leadership positions (Thompson, 2017). These individuals have influence over institutional procedures, policies, and initiatives and have decision-making power (Mazer, 2015). Typical job titles include chief academic or online officer, dean, associate dean, provost, and vice provost (Fredericksen, 2017). In this study, the term refers specifically to people whose responsibilities include oversight of online degree programs.

Course design. An intentional approach to developing and designing the learning objectives, learning activities, and curriculum while also integrating course assets into the

creation of the course layout or plan (Baldwin, Ching, & Friesen, 2018). Online course design requires attention to unique characteristics given the environment of instruction such as ease of navigation, accessibility, and integration of technology (Baldwin, Ching, & Hsu, 2018).

Distance education. Instruction that occurs asynchronously or synchronously between students and teachers, where technology is utilized to deliver internet-based education (Seaman et al., 2018).

Instructional design. The systematic process of creating, planning, designing, and developing curriculum, participant interaction, and learning outcomes by implementing various frameworks or models to create modules or courses for educational or training purposes (Seel et al., 2017).

Online degree program. A degree program consisting of courses that are delivered through the internet (Mazer, 2015).

Online learning. Learning and interaction that occurs virtually rather than a physical location between instructor and student (Saba, 2011). Different instructional design principles are applied to online learning environments due to the unique needs and challenges presented in this environment (Drysdale, 2018).

Online Learning Consortium (OLC). A professional organization that provides members quality scorecards for use at higher education institutions (Online Learning Consortium, 2021a). Currently, scorecards are available for evaluating the quality of online program administration, blended learning programs, OSCQR course design review, digital courseware instructional practice, and quality course teaching and instructional practice (Online Learning Consortium, 2021a). This is formally known as the Sloan Consortium.

Quality indicators. Specific criteria within a scorecard or rubric used to measure quality and enhance education identified by accrediting agencies and/or experts in the field (Shelton, 2010; Thompson, 2017).

Quality scorecard/rubric. A tool used to evaluate quality at the program or course level against a consistent set of criteria and characteristics encouraging standardization of practices (Littlefield et al., 2019; Shelton, 2010).

Summary

Distance education is a primary focus in higher education as academic administrators grapple with the challenges presented to them as they support their institutions. One of the main challenges facing online education highlighted in Chapter 1 was the potential knowledge gap that may be present in how academic leaders understand and perceive quality in online programs. This gap may have ramifications in course design and quality, ultimately affecting students. Background information on the problem as well as an overview of the study, including the purpose, research questions, and relevant definitions, is provided in Chapter 1. An examination of online higher education academic leaders' perceptions and experiences, quality online instructional design principles and the relationship among these factors is the goal of this research study so that online program and course quality may continue to be improved. Chapter 2 contains a synthesis of relevant literature related to the problem outlined in Chapter 1 and addresses the conceptual framework for this study.

Chapter 2: Literature Review

As online higher education enrollment within the United States continues to increase, intentional course design is essential to the creation of high-quality online courses as course design impacts student experience and satisfaction (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). There are many factors that influence course design, and academic administrators must be aware of how these factors impact the quality level of online programs. Gathering insight into how academic leadership perceptions are influencing course design is important due to the direct impact on course quality and, ultimately, student experience (Bigael & Edel-Malizia, 2017; Scoppio & Luyt, 2017). Therefore, the purpose of this quantitative research study is to examine college and university leaders' background in, perceptions of, and experiences with administering and high quality online programs and designing online courses.

This literature review was conducted to gain background information and insight into the role of administrative leadership in online course development and, specifically, course design. It explores how online education has continued to evolve, the potential impact COVID-19 has had on online education, and how institutions are defining high quality online education within course design. Transformational leadership is the theoretical framework for this study, and the Online Learning Consortium Quality Scorecard for the Administration of Online Programs provides the benchmark for quality standards used in this study to measure perceptions of Institutional/Administrative Support and Course Development/Instructional Design at the program and course level held by academic administrators.

Literature Search Methods

The literature search used search keyword and phrases, including *online course quality*, *administration of online courses*, *online academic leadership*, *online course design*, and *quality scorecards/rubrics*. Additionally, searches for studies on institutions that used the Online Learning Consortium and Quality Matters scorecards were each independently conducted, and then, each organization was thoroughly reviewed. Peer-reviewed results were synthesized for search keywords and phrases to build this literature review. These searches were then organized by theme in the sections outlined below beginning with an overview of the theoretical framework for this research study.

Theoretical Framework

In this study, transformational leadership is the theoretical framework for examining the way leadership should be approached through a university system. Transformational leadership is defined as leadership that motivates followers based upon a shared organizational mission in which leaders act in a moral and ethical capacity with character traits of integrity, motivation, charisma, intelligence, and compassion towards others (Nworie, 2012). Academic leaders within higher education often oversee various departments, including the management of both online and residential programs within the university (Fredericksen, 2017; Tannehill et al., 2018). Due to the diverse needs of these distinct modalities, a leadership model with a flexible framework inside an organizational structure is necessary as there is a constant need for skill development and knowledge sharing within distance education (Nworie, 2012).

As the university culture shifts due to online education becoming fully integrated into higher education institutions, a leadership model rooted in developing and encouraging others to innovate is necessary as constant change and new challenges occur (Markova, 2014). The model

of transformational leadership is well received by followers and commonly occurs within higher education (Black, 2015). Transformational leadership is an appropriate framework for online higher education leaders as academic leaders should encourage innovation and problem-solving, promote direction through a unified vision, and embrace organizational culture and work to provide value-add to their organization through their programs (Nworie, 2012). Higher education leaders with the ability to be change agents within their organization is of increased importance in a rapidly evolving industry (Black, 2015). In the changing environment of online learning, transformational leadership is an effective approach to leadership due to the characteristics these leaders possess, resulting in this leadership model being an appropriate choice for leaders of online higher education institutions or those managing both traditional and online programs within a complex system (Nworie, 2012).

Distance Education

Distance education courses continue to see an increase in enrollment; prior to mandatory online courses due to the COVID-19 pandemic, more than 25% of U.S. higher education students elected to participate in at least one online course (Allen & Seaman, 2016). There are various definitions to describe distance education, but a common theme is the physical distance between instructor and student where technology assists in the communication and delivery of instructional material (Distance Learning, 2017; Saba, 2011). While distance education programs and courses are now common at many at higher education intuitions, K-12 schools, and corporations, the evolution and legitimacy of distance education was and continues to be an uphill battle (Distance Learning, 2017). As the COVID-19 pandemic forced institutions to quickly convert their face-to-face courses to online courses, attention to distance education and quality online programs is of increased concern for many institutions (Means & Neisler, 2020).

History of Distance Education

Many distance education programs started through mail service where curriculum was mailed to a student and assignments were mailed back to an instructor for grading (Distance Learning, 2017). Technology quickly expanded the means for delivering learning materials with radio, television, CD-ROMs, and even DVDS and then the major change agent for distance education: the internet (Krusen, 2015; Saba, 2011). Distance education has been used as a means to provide learning for individuals in an alternate form across various industries and environments including K-12, higher education, and professional development in corporate settings (Distance Learning, 2017; Saba, 2011). Primarily, distance education had a focus meeting the needs of under served populations (Saba, 2011).

Within the United States, independent learning as a primary root of distance education, can be traced back to Colonial times where individuals participated in self-directed and independent learning such as apprenticeships (Saba, 2011). Saba (2011) proposed that distance education evolved into two separate strains serving higher education and private corporations. Within higher education, Latter Day Saints' University received the first educational radio license in 1921 and Iowa State University in 1945 had the first educational television license (Saba, 2011). *Sesame Street*, one of the first successful examples of distance education, provided educational programming to millions of children through Public Broadcasting Service (PBS) television stations (Saba, 2011). The initial modes of distance education had their own set of challenges such as one-way communication channels and passive listening, which made these forms of education less effective than face-to-face learning (Saba, 2011). Initial research on these types of nontraditional education mediums, however, began to shed light onto the complexity and vast number of factors that impact distance education (Saba, 2011). Snow and Salomon

(1968) conducted research in aptitude-treatment interaction which highlighted that instructional media at the time, delivered through film and television, was being created for the "average student" and not for different individual needs. Research prior to them had focused on which instructional medium was better that the other but these researchers proposed an alternative view of aligning different treatments with different types of students to improve learning (Snow & Salomon, 1968). This type of research, Saba (2011) argued, shows the intricacy of distance education and led the way to contemporary adaptive learning technology that attempts to meet the needs of various students with diverse backgrounds and needs.

Internet-based distance education changed how learning materials could be provided to students in the mid-1900s when the National Science Foundation began providing universities access to the internet (Saba, 2011). The internet served as a major catalyst for distance education; however, concerns regarding quality became a point of concern as many institutions, particularly for-profit institutions, began receiving federal funding for degree programs that had no accreditation oversight and only operated as a virtual campus (Distance Learning, 2017). Scandals in distance damaged the perception of higher education as several institutions, particularly online-only institutions, where able to receive federal funding without accreditation oversight (Distance Learning, 2017). Corinthian Colleges, which had 70,000 online students, is an example of a for-profit higher education organization that closed after declaring bankruptcy due to investigations on changing grades, altered attendance records, and false job placement data records for financial aid eligibility (Distance Learning, 2017). These types of scandals resulted in accrediting agencies providing oversight to U.S. distance education programs in similar ways to brick-and-mortar schools (Distance Learning, 2017).

Distance learning gained significant traction in 2010 as massive open online courses or MOOCs increased in popularity when educational courses (not for credit) were offered for free or at minimal cost to the general public (Distance Learning, 2017). Millions of people around the world participated in various types of MOOCs, changing how distance education was perceived by the public (Distance Learning, 2017). MOOCs often do not have an instructor present, or the instructor has little interaction with students. While the removal of the instructor can be effective in some learning circumstances, research has since indicated the importance of the interaction between students and instructor (Saba, 2011). One of the first attempts to describe this interaction between students and their instructor was Moore's transactional distance theory. This theory describes the separation of student and learner beyond physical space and /or time but presents that in distance education there is also a distance in communication and psychologically between instructor and student resulting in a pedagogical concept requiring consideration (Moore, 1993). The abstract concept of "distance" varies in each instructor to student relationship with different constructs impacting this transactional distance (Moore, 1993). These constructs include student autonomy, dialogue, and course structure with current research emphasizing the importance of dialogue (Forte et al., 2016). Transactional distance theory proposes that the greater the transactional distance, the more ineffective an online system becomes (Forte et al., 2016). As research in distance education progressed, some researchers suggested that Moore's transactional distance theory is not a viable theory; however, this theory is still being used by researchers as a framework for current distance education research focused on student dialogue in online courses (Forte et al., 2016). Future distance education courses may have the potential to reduce the transactional distance experienced by learners by implementing

customized learning students and encourage engagement based on their unique needs (Saba, 2011).

Distance Education: Current and Future

Even though there is continual growth in distance education and evidence-based research indicating that online education has the same effectiveness as face-to-face education, there are continual and persistent quality concerns from faculty (Allen & Seaman, 2016; Forte et al., 2016; Saba, 2011). The Babson Survey Research Group from 2006 to 2014 provided an annual "report card" on distance education (Allen & Seaman, 2016). In their final report card published in 2016 they stated that the number of students taking an online course had tripled since they first began in 2006, with a decrease in students enrolling in for-profit institutions. Even though distance education has continued to grow and evolve, faculty acceptance of online courses has seen little change (Allen & Seaman, 2016). However, less than 30% of academic administrators perceive online as inferior to face to face (Allen & Seaman, 2016). In any event, students continue to seek out online courses for their flexible schedules, reduced cost, or inability to physically access a campus (Larmuseau et al., 2019; Lasley, 2020; Saba, 2011).

The role that distance education programs play on the financial sustainability for institutions has resulted in online degree programs quickly launching (Brown, 2018). As a result, regardless of the perceptions held by faculty and administrators, online education is foundational to current higher education environments (Garrett, Legon, & Fredericksen, 2020). This is important because many higher education institutions have struggled with declining enrollment in recent years, yet distance education does continue to increase (Allen & Seaman, 2016). Institutions that are experiencing growth are seeing this through online enrollments and distance programs have become a means for financial sustainability for many institutions. Around 60% of

chief academic leaders indicated that online learning is part of their institution's long-term strategy (Allen & Seaman, 2016).

This transition was amplified during COVID-19 pandemic as institutions were forced online (Means & Neisler, 2020). Brown (2018) advised that institutions should distinguish themselves in a saturated market where online programs are being developed quickly while still attending to quality. Continual success in distance education will require adapting, reducing the cost of education while at the same time increasing the accessibility, and ensuring best practices are implemented (Saba, 2011).

Quality Online Courses

To create quality online programs, administrators need knowledge on planning and continual improvement strategies in addition to the knowledge faculty must have on best practices in online teaching (Littlefield et al., 2019). Academic leaders, faculty members, and instructional designers are all experiencing challenges within their role of course design (Tannehill et al., 2018). Not only is there a lack of agreement among institutions as to what defines "quality," but within an institution, faculty and academic leaders may have different views on course quality (Allen & Seaman, 2016; Inside Higher Ed, 2019). The COVID-19 pandemic further highlighted the need for providing high quality online courses (Means & Neisler, 2020). Challenges with agreement on quality, lack of role clarity, and administrations operating with limited knowledge of best practices impact the quality of online courses.

Within higher education, a persistent negative perception about online course quality being inferior to face-to-face instruction has been maintained, especially by faculty (Allen & Seaman, 2013; Picciano et al., 2010;), even though numerous researchers, including Nguyen (2015), have concluded that online learning is equally effective as face-to-face courses.

However, this negative perception has shifted as more faculty have experience with online courses. For instance, Allen and Seaman (2013) found that 77% of faculty members perceive online delivery of learning objectives as comparable to or better than face-to-face instruction. As a result, even though the perception of online education has shifted positively, it is critical that academic leaders understand what factors influence quality online courses so that the acceptance of quality online education persists.

Determining the quality indicators and best practices for online courses can be challenging when there is no agreed upon definition for "quality online courses" (Allen & Seaman, 2016; Inside Higher Ed, 2019). Regardless of the differences of opinion in what constitutes as a quality online course, research has shown that a lack of any quality standards at an institution negatively impacts an institution's online program success (Baldwin, Ching, & Hsu, 2018). The necessity of an institution having quality standards for online courses was highlighted by the COVID-19 pandemic (Zimmerman et al., 2020). There is alignment as well as disagreement in literature on the best practices and factors that contribute to the quality of online course. For example, Baldwin, Ching, and Hsu (2018) performed a review of six evaluation instruments as the state-wide or notational level to provide administrators, instructional designers, and course designers with essential standards for quality online courses. Their review provided these best practices:

- learning objectives provided to students
- course has intuitive navigation
- technology is used intentionally (promote learning and engagement)
- encourage student to student engagement with a focus on community building
- instructor contact details are provided

- expectations regarding quality and frequency of communication (e.g., class discussions)
- course policies are stated (e.g., behavior expectations)
- course assessments align with the stated objective
- links to institutional services and resources are provided
- course design accommodates learners with disabilities. (Baldwin, Ching, & Hsu, 2018, p. 56)

Similar guidelines were echoed in Lewis's (2021) list of best practices for online course content; however, more detailed guidelines were given around the course content including providing a syllabus and a course overview for students. Unique to Lewis's (2021) recommendation for quality online courses was the importance of culturally inclusive online courses. Lewis proposed that because the student demographics of online learners tends to be more diverse than a traditional face-to-face classroom, that content needs to be more inclusive of the diverse student learners present. Baldwin, Chin, and Hsu (2018) and Lewis (2021) emphasized the importance of designing a course with clearly stated and appropriate learning objectives that are measurable and align to course assessments. Best practices outlined by the researchers can provide faculty, instructional designers, and administrators with guidelines for ensuring quality in online courses.

At the administration level, additional factors must be considered to ensure the quality of the program, including support for technology, faculty, students, course development/ instructional design, evaluation/assessment, teaching and learning, and finally institutional support (OLC Scorecard, 2018). For example, institutions should implement a course review process, typically performed by a peer, and use an evaluation tool, such as a rubric to ensure course quality (Baldwin, Ching, & Hsu, 2018). These practices can promote continuous

improvement, encourage best practices, and boost conversations regarding "quality" for the institution (Baldwin, Ching, & Hsu, 2018). Of all the contributing factors to quality online programs, institutional use of standards to guide online development has been linked to higher course quality by multiple researchers (Baldwin, Ching, & Friesen, 2018; Chao et al., 2006; Little, 2009; McGahan et al., 2015; Parscale et al., 2015).

Online Student Success

With the increase in student participating in online courses, academic leaders need to consider the success of students participating in online programs. This is important because student satisfaction in online programs dropped dramatically during the COVID-19 pandemic as institutions were forced online rapidly (Means & Neisler, 2020). Eliminating the special circumstances that COVID presented to education, online programs still tend to have lower graduation and retention rates compared to face-to-face courses (Lewis, 2021). This issue may be resolved by improving the quality of online courses because high quality courses have increased student satisfaction (Baldwin, Ching, & Hsu, 2018; Lewis, 2021).

To ensure online student success requires engaged teaching, application of appropriate pedagogy, and effective use of technology (Garrett, Legon, & Fredericksen, 2020). Of the many factors that contribute to student satisfaction and student success in online courses, improved course design is linked with improved student learning, increased engagement with content, and higher satisfaction (Sadaf et al., 2019; Zimmerman et al., 2020). Students perceive the following characteristics as most important for quality online course design: intuitive navigation of course content, clear instructions for activities, and appropriate workload of learning materials (Secret et al., 2016). How students perceive course quality and their perception of satisfaction is critical as this impacts their learning and motivation in the course (Sadaf et al., 2019).

Online Course Design

Attention to course design is an essential element of high-quality online higher education course as course design impacts both student performance and engagement (Bolliger & Martin, 2021; OLC, 2018; Sadaf et al., 2019; Zimmerman et al., 2020). Zimmerman et al. (2020) described course design as the "blueprint" of the content before there are active learners engaging with the course materials. In online courses specifically, course design is a focal point in online courses because of the difference in skills needed to develop and deliver an online course versus a traditional course (Baldwin, Ching, & Friesen, 2018; Bolliger & Martin, 2021). For example, the differences in course design between these two modalities can result in faculty who are not equipped to effectively design online courses so institutions must be prepared to provide support and resources to ensure successful online courses (Gregory et al., 2020).

There is a relationship in literature between course design and perceived learning by students, student performance/grades, satisfaction, and engagement (Martin et al., 2021). Martin et al. (2021) subdivided course design into five areas, "overview, content presentation, interaction and communication, assessment and evaluation, and learner support" (p. 354). Providing a course overview informs the student how to begin in their online course (Martin et al., 2021). Content presentation, consists of the "design" of the course or how materials are chunked, organized, clarity of instructions, alignment of content, consideration for students with disabilities, diverse instructional materials, and engaging use of technology (Martin et al., 2021). Interaction and communication should focus on peer-to-peer collaboration, interaction between students, building of communities, and effective use of technology to promote engagement (Martin et al., 2021). Assessment and evaluation should focus on determining if students were able to achieve the desired learning outcomes and the effectiveness of the course (Martin et al.,

2021). The theme of ensuring that learning objectives are aligned to the course assessments was present in both the category of content presentation and assessment/evaluation. The last category, learner support, is the practice of having intuitive navigation, support services and resources for the institution accessible, and technology support in course design (Martin et al., 2021).

Jaggars and Xu (2016) also examined literature pertaining to online course design and found that these areas were agreed upon as factors that impact course quality: course organization/ navigation, alignment of learning objectives with assessments, engagement with students and instructor, and effective use of technology. While the naming conventions slightly differ between Martin et al. (2021) and Jaggars and Xu (2016) as they categorized their findings, the main difference between the two reviews was that Jaggars and Xu (2016) failed to propose learner support as a distinctive category for online course design. Regardless of how an institution chooses to organize the elements of online course design proposed by the researchers, the execution of course design remains critical to quality online courses as it impacts students and faculty (Garrett, Legon, & Fredericksen, 2020; Gregory et al., 2020).

Process of Course Design. There are various instructional design models that can be applied to how a course is designed and ultimately fully developed. One of the most common course design models is a process known as ADDIE which stands for analysis, design, development, implementation, and evaluation (Baldwin, Ching, & Friesen, 2018). The phase of design and development includes creation of learning objectives, creation of content, development of assessments, and selection of learning materials (Baldwin, Ching, & Friesen, 2018). Faculty responsibilities have expanded to include course design, which is potentially problematic, as faculty may lack critical course design skills, resulting in lower quality online courses (Baldwin, Ching, & Friesen, 2018; Lasley, 2020; Sanga, 2018). Baldwin, Ching, and

Friesen (2018) found that faculty rarely use formal instructional design models such as ADDIE in their creation of online courses; however, their process often closely aligns with the principles of ADDIE even if they are not aware of the model.

A lack of time and an increase in workload required to teach online courses are documented within literature as challenges for online faculty (Bolliger & Wasilik, 2009). Institutions also do not allocate enough support resources to faculty to assist in the development of online courses (Sanford, 2017). To ensure high quality courses and to accommodate the increase in online education, support structure changes will be required in areas such as course development for faculty and student success (Pedro & Kumar, 2020). The instructional and technical support currently provided by institutions is insufficient in reducing the current knowledge gap in course design that would allow for faculty to create quality online courses (Sanford, 2017). Closing this knowledge gap is critical as courses with intentional course design positivity impact students learning in their course (Sadaf et al., 2019).

Effects of Poor Course Design. Poor course design can lead to negative perceptions of online courses and dissatisfaction in student evaluations (Nemetz et al., 2017). For example, negative perceptions of online learning increased as courses were forced online during the COVID pandemic (Means & Neisler, 2020). Students indicated they were less engaged with their online courses, felt disconnected, and struggled to collaborate with their peers during their online experience through the COVID-19 pandemic (Means & Neisler, 2020). “Emergency remote teaching” is distinctly different from intentional online course design as emphasized by Hodges et al. (2020). Hodges et al. (2020) reiterated that high quality, effective online courses require thoughtful design and development with attention to best practices in research. The “emergency remote teaching” courses are not reflective of online learning nor should this

emergency model be considered for sustainable future online course development (Hodges et al., 2020).

To ensure student satisfaction in an online course, there are several course design considerations. Students want their learning environments to have materials available electronically and activities completed remotely from a learner-centered approach (Henry, 2020). On course evaluations, student responses highlight the importance of course design and its significance in learning (Ng & Baharom, 2018). Some faculty view the development of instructional design guidelines or rubrics as an infringement on their academic freedom (McGahan et al., 2015), but implementing course design standards may help to improve the quality of online courses (Bazluki et al., 2018).

Administrators need to be aware of the concerns and challenges of course design and how their perceptions may influence the course development process and impacting course quality (Tannehill et al., 2018; Ulrich & Karvonen, 2011). Administrators can influence course design standards and the reporting structure within an institution which may have a greater impact on course design than the collaborative course design work done by an instructional designer and faculty member; thus, how academic leaders perceive and understand quality online course design principles may have an impact on course quality (Tannehill et al., 2018). How academic leaders perceive and understand quality online course design principles may have an impact on course quality. By improving the understanding of what quality means to an institution’s academic leaders, appropriate course design likely can be assured, which may positively impact online course quality.

Online Quality Standards

The conceptual framework for this study is the Online Learning Consortium (OLC) Administration of Online Programs Scorecard (OLC, 2018). This framework was chosen to explore the potential knowledge gap that exists in how academic leaders perceive and understand quality online course design and instructional design principles. In a survey of academic leaders by Fredericksen (2017), the OLC was the most common institutional membership (77% of institutions surveyed) and the OLC provides a valid standard to use in assessing online program quality as institutions are already electing to participate in OLC quality standards. The creation of internal rubrics or guidelines to promote high quality course design is common within higher education. However, the application and interpretation of these standards to course design result in a misunderstanding of the meaning of quality online programming (Bazluki et al., 2018; Bigatel & Edel-Malizia, 2018). Ensuring that institutions and academic leaders possess a similar understanding of course quality has the potential to positively impact online programs within higher education. In this study, the scorecard will specifically be used as the framework for assessing how administrators benchmark course development and instructional design quality to determine standards for what is considered quality in online administration and course development.

Implementation of Quality Benchmarking

A critical challenge facing online higher education is the quality of online programs, including concerns on how to measure quality programs which is held by administrators and faculty (Shelton, 2010). Academic leaders overwhelmingly credit online learning as a change agent for their institution with top priorities for their institutions including faculty development, strategic planning for online education, and instructional design support (Fredericksen, 2017).

Despite the recent growth in online education, resistance to online education persists with Shreaves et al. (2020) citied concerns around the regulation of online learning as well as a lack of technical support, training, and resources for online educators.

Before quality benchmarking groups such as the OLC or QM were established, several universities worked to internally create quality benchmarks particularly around faculty development. University of Central Florida (UCF) earned the 2003 Sloan-C Excellence in Online Teaching and Learning Award for Faculty Development for their work in creating what UCF calls an "ecosystem" for faculty support (Truman, 2004). The institution decided to intentionally create a system to support faculty who teach online courses and investments were made in areas such as instructional design and course development (Truman, 2004). This model of support was rolled out to the various colleges and departments within the institution to support the 44% of students at UCF who participate in at least one online course, a significant portion of their student population (Truman, 2004).

Another example of an institution creating internal quality benchmarking standards includes the Illinois Online Network which created a faculty development program specifically for their online programs between the University of Illinois and all 48 community colleges in the state (Varvel et al., 2003). The goal of this network is to help faculty create and teach online courses (Varvel et al., 2003). Best practices for student engagement and critical thinking are a focus of the curriculum taught in online faculty development courses (Varvel et al., 2003). Varvel et al. (2003) found that participants of the faculty development program had improved confidence and satisfaction in teaching online.

Institutions continued to develop in-house solutions for quality online courses with an emphasis around faculty development. Eventually, professional organizations were established to

help guide institutions in the creation of quality online courses and now online quality rubrics are now being used at all instructional levels from K-12 to high education (Littlefield et al., 2019).

History of Rubrics

Administrators as well as faculty raised concern for evaluating and maintaining quality in online programs, which has led to the creation of organizations such as the OLC, QM, and Blackboard, to research and develop best practices for online education resulting in the development of "rubrics/ scorecards" to measure quality (Littlefield et al., 2019). In 2000, the Institute for Higher Education Policy (IHEP) published "Quality on the Line: Benchmarks for Success in Internet Based Distance Education," which established 24 standards for quality online education. This study provided the framework for scorecard development and assessing quality in online programs (Littlefield et al., 2019).

In 2010, the U.S. Department of Education began requiring that distance education programs be evaluated by institutional accrediting agencies, increasing the need for the development of quality assessment tools (Keil & Brown, 2014). Keil and Brown (2014), in their review of various agency accreditation guidelines, found that distance education institutions must address policies and standards around student identity, evaluation and assessment, student support, faculty and faculty support, curriculum and instruction, and finally institutional context and commitment. The researchers highlighted the future challenge of higher education institutions struggling to implement the policies and guidelines provided by accrediting organizations to their distance education programs. As institutions worked to meet the standards of accrediting bodies for their institutions, further research into best practices for online learning continued and quality benchmarking organizations such as Quality Matters were created.

With the announcement of accrediting agencies reviewing online courses, ensuring course quality in online programs became a primary concern for academic leaders. At this point in time, there was no tool for administrators to measure the quality of online programs including strategic planning and continuous improvement (Shelton, 2010). The lack of such tool demonstrated the need for further research as the development of a tool would benefit online administrators in helping to ensure quality online programs and retain students (Shelton, 2010).

Using the original Institute for Higher Education Policy standards, Shelton's (2010) Delphi study sought to determine the relevance of the IHEP standards resulting in the creation of 70 quality indicators and a scoring system known now as the Online Learning Consortium Quality Scorecard for the Administration of Online Programs (Littlefield et al., 2019). In addition to the creation of the OLC, the Quality Matters Rubric was also established as a result from a study with funding from the U.S. Department of Education as researchers desired scalable quality online programs that was informed by research (Littlefield et al., 2019).

As research into online best practices progressed from the various quality organizations, it became clear that traditional quality indicators can't be used to evaluate quality in online instruction as they may be irrelevant and thus online programs need standards relevant to their content (Shelton, 2010). Online education has different requirements of participants to meet the learning outcomes as compared to face-to-face courses (Littlefield et al., 2019). Some rubrics focus on overall program administration and others on individual course design, using rubrics designed for online quality helps to ensure continuous improvement (Littlefield et al., 2019). However, the framework best suited for online programs should be one that is comprehensive in standards, including concerns of instructional design, support structures for students and faculty, and resources, which also has buy-in from participants (Littlefield et al., 2019). These scorecards

provide a framework for administrators to follow which assists in budget concerns, process alignment and identification of needs at both the program and institutional level for distance education (Littlefield et al., 2019).

Reasons for Institutional Certification

Institutions may seek endorsement or apply for certifications from quality benchmarking organizations for a variety of reasons including community perception of institutional quality, evidence for institution accreditation agencies, benchmarking the current level of quality, or to determine a strategic plan for continuous improvement (Adams & Brinthaupt, 2019). The use of a quality rubric identifies criteria within an online program for evaluation, improvement, and standards (Littlefield et al., 2019). While some universities may choose to develop their own institutional standards and best practices for online learning, many institutions use standards created by external organizations and even use multiple rubrics depending on an institution's specific needs (Littlefield et al., 2019; Zimmerman et al., 2020). I will focus on three quality organizations, Online Learning Consortium, Quality Matters, and International Society for Technology in Education, with an emphasis on how institutions have used the scorecards/rubrics developed by these organizations.

Online Learning Consortium. The Online Learning Consortium (OLC), formerly the Sloan Consortium, provides quality scorecard metrics for higher education institutions that are grounded in research (Online Learning Consortium, 2021a). Starting in 2010, OLC released its first scorecard to provide administrators for a mechanism to evaluate the quality of online program administration (Online Learning Consortium, 2021a). The consortium expanded their quality scorecards in 2016 to be comprehensive of the entire institution which included adding criteria in areas such as blended learning programs, digital courseware, and course design

(Online Learning Consortium, 2021a). This scorecard is primarily used in higher education institutions in the United States, but other institutional members from Africa and Latin America are also participants (Online Learning Consortium, 2021b). According to the OLC (2021b), the scorecard is beneficial in strategic planning for program improvement, benchmarking, developing high quality online courses, and evaluation and demonstration of quality administration.

The OLC scorecard can be used internally within an institution as a self-scoring tool to identify areas for improvement as well as institutions can submit artifacts and evidence to the OLC for an official review of their program to earn an Online Learning Consortium Exemplary Program logo if their scorecard earns 189 points or more (Online Learning Consortium, 2021b).The quality scorecard contains a total of 70 quality indicators with each indicator being scored on a scale from 0-3 points (Online Learning Consortium, 2021b).

These 70 quality indicators were agreed upon and determined through a six-round Delphi study, initially designed from quality indicators from the Institute for Higher Education Policy (Shelton, 2010). The purpose of the study was to create a scorecard that could quantifiably measure the quality of higher education online programs for use by higher education administrators (Shelton, 2010). The population sample included 43 education administrators in higher education selected by the Sloan Consortium consisting of standardized criteria such as five years or more experience as an administrator in online higher education and considered an expert in the field of online education (Shelton, 2010). The 70 quality indicators are organized into nine categories including, “Institutional Support, Technology Support, Faculty Support, Course Structure, Course Development and Instructional Design, Teaching and Learning, Student Support, Social and Student Engagement, and Evaluation and Assessment” (Shelton,

2010, p. 58). Consensus among participants for a scoring mechanism was also determined with each indicator (70 total) worth up to three points for a perfect score of 210 (Shelton, 2010).

The current OLC quality scorecard for the administration of online programs is on its third version with the latest update made in 2018 (Online Learning Consortium, 2018). While there are still 70 quality indicators scored on a three point scale, 0- deficient, 1- developing, 2- accomplished, and 3- exemplarily, the categories have been modified to now include seven categories: Institutional/Administration Support (24 total points), Technology Support (21 total points), Course Development/Instructional Design (54 total points), Teaching and Learning (12 total points), Faculty Support (27 total points), Student Support (45 total points) and Evaluation and Assessment (27 total points; Online Learning Consortium, 2018). The OLC scorecard is available for free however institutional members may select an interactive rubric for use and purchase supplemental resources to gain knowledge in how to effectively measure and score their institution on the quality indicators (Online Learning Consortium, 2018).

Institutional Use of OLC Scorecards. The OLC Quality Scorecard for the Administration of Online Programs has been used at various institutions to assess quality and generate a plan for improvement from an administrative perspective (Online Learning Consortium, 2017). Dallas County Community College District (DCCCD) implemented the OLC Quality Scorecard for the Administration of Online Programs across its various campuses that serves approximately 75,000 students (Online Learning Consortium, 2017). The district experienced positive results from the implementation of this scorecard citing the ability to holistically view the large community college district and make improvements to their distance education policies required by their accrediting body (Online Learning Consortium, 2017). Establishing a benchmark for quality in online programs at DCCCD provided a guide for

continuous improvement across all seven scorecard categories (Online Learning Consortium, 2017).

The OLC Quality Scorecard for the Administration of Online Programs was also executed at Middle Tennessee State University (MTSU). MTSU selected the OLC to benchmark the quality of their online programs as it was perceived by this institution to be the best developed and document (Adams & Brinthaupt, 2019). MTSU established committees and met continually for over a year gathering artifacts and evidence for the OLC scorecard quality indicators to submit for a formal review by OLC on the quality of their online programs (Adams & Brinthaupt, 2019). MTSU originally scored in the *marginal* category (70-79%) however they were able to achieve *exemplary* status from the OLC after an additional eight weeks by cohesively providing online resources to students, addressing gaps in online faculty training, and revising policies and practices regarding faculty and students (Adams & Brinthaupt, 2019). In their 2019 report, Adams and Brinthaupt noted some key initiatives that resulted from the institution's participation in the OLC review including the creation of a new MTSU Online website and creating on faculty training workshops in emerging technology for faculty. Overall MTSU felt they benefited greatly from the implementation of the OLC Quality Scorecard for the Administration of Online Programs identifying key areas for improvement in their online programs, insight into how their online programs were organized and promoted, a new holistic "big picture" view for strategic planning of their online programs, and finally better able to address the gaps in quality (Adams & Brinthaupt, 2019).

Finally, an online radiology technology program to improve quality in their online learning utilized the Open State University of New York Course Quality Review (OSCQR) program which the OLC has adopted (Lasley, 2020). The OLC provided online course

development resources as instructors worked to bridge the gap from face to face to online course development (Lasley, 2020). The radiology technology program found the OLC scorecard beneficial as it met accreditation standards for the administration of online programs and guided university stakeholders in quality online development (Lasley, 2020). By utilizing the scorecard at their institution, Lasley (2020) shared that the implementation of the scorecard allowed for administrators to gauge the level of quality of their programs and provide guidelines for quality resulting in an improved program.

Quality Matters. In addition to the OLC Scorecard, there are several other professional organizations that serve as standard makers. Quality Matters began out of the desire to assess the quality of a course (Quality Matters, 2020b). In 2003 from a U.S. Department of Education grant, Maryland Online Consortium created the first QM Rubric, a course review process, and instructor guide as accrediting agencies needed a method to assure quality (Krusen, 2015). QM now functions as a self-sustaining organization where institutions and individuals can join as members through a subscription model, pay for professional development, and fee-for-service products (Krusen, 2015). QM offers professional development to faculty as well as instructional designers and academic administrators and strives to increase student engagement, learning and satisfaction through their continuous improvement process (Krusen, 2015).

With a focus on quality assurance, QM strives to provide quality education through their course and program certification through standardized rubrics backed by research (Quality Matters, 2020a). Currently on the sixth edition, QM provides a course design rubric for higher education institutions for use in online courses focusing on eight standards- “1) course overview and introduction, 2) learning objectives, 3) assessment and measurement, 4) instructional materials, 5) learning activities and learner interaction, 6) course technology, 7) learner support,

and 8) accessibility and usability" (Quality Matters, 2021, Key Features section). Within these eight standards are then 42 focused standards on the rubric used to assess and evaluate course design (Quality Matters, 2021). Through the course review process, courses can receive a quality seal for public display as a sign of quality by earning a score of 85% (Littlefield et al., 2019). In addition to scoring individual courses, universities can also seek program certification by achieving separate certifications in the following four categories: "online program design, online teaching support, online learner support, and online learner success" (Quality Matters, 2020a, para. 2). Institutions can move through a five-stage review process in conjunction with applying the rubric as they continue to improve their course quality, ideally implemented at the beginning of online program development but can be applied to existing curriculum (Littlefield et al., 2019). While QM has expanded their original focus on individual course design to include program certifications, the quality matter course design rubric it is not an ideal rubric for administration of programs because it does not focus holistically on the institution and is not intended to substitute accreditation or specialized standards (Krusen, 2015; Littlefield et al., 2019).

Institutional Use of QM Scorecards. While Quality Matters Rubrics may not meet the needs of institutions at a programmatic level, many institutions have used the QM rubric to provide faculty development and improve course design (Brown, 2018; Gregory et al., 2020). In one study, researchers analyzed the perceptions of faculty as they participated in the Applying the Quality Matters Rubric workshop and then used the QM rubric as their framework for course design (Gregory et al., 2020). While the researchers found no statistical difference in the perception of the QM rubric between faculty who participated in the training workshop versus those who did not, interview data indicated that the workshop did help to change perceptions and

behavior of faculty. Of those that participated in the workshop, the majority found the rubric to be a helpful and useable tool but a rigorous process. Researchers concluded that the workshop is one of many faculty development tools that could be used to improve course design skills and knowledge in faculty. It is noted that institutions should provide online course support for faculty in a variety of forms which positivity impacts teaching quality and ultimately student success (Gregory et al., 2020).

The QM rubric was also used as a comparison tool in measuring student perspectives in online courses during a 4-year institutional study to identify any commonality in best practices in online pedagogy (Secret et al., 2016). In this study, students indicated that they did not perceive clear alignment of the learning objectives in their course which is required in Standard 2 of the QM rubric. This was of particular concern as the program had secondary accreditation that requires alignment of academic outcomes to professional competencies. Additionally, researchers found that QM standard seven, ensuring student access to institutional services, was not clearly addressed in online course design. As a result of this study, the researchers were able to affirm that the feedback from students did align with the quality standards outlined by the QM rubric with one exception that students reported a desire for engagement and perspectives that are diverse and authentic which is not currently addressed in the QM rubric. This institution was also able to identify areas of improvement for their online courses and better address how they apply the QM rubric standards to online course design.

Often institutions use multiple standards or a combination of internal and external standards to assure quality in their programs. One institution used the OLC Administration of Online Programs scorecard for evaluating quality at the programmatic level in addition to using the QM rubric for the development of quality individual online courses as the institution scaled

their online degree program offerings- from 6 to 40 online degrees (Brown, 2018). As this institution worked to provide high-quality degree programs for their students, they implemented a 3-phase development plan that included quality measures around course development, structure, best practices, evaluation and assessment, institutional support, and student services support, referencing the appropriate rubric or both OLC and QM rubrics if applicable. The QM rubric was specifically used in the course design process by faculty and final courses were submitted for internal review against the rubric. This institution felt that by applying both QM and OLC rubrics they were able to provide a higher level of quality online courses to their students. Key areas that were addressed included curriculum mapping plans for departments which improved evaluation and assessment needs for accrediting agencies, enhanced collaboration, improved assessment tools, and faculty development.

International Society for Technology in Education. International Society for Technology in Education (ISTE) is a nonprofit organization that is "home to a passionate community of global educates who believe in the power of technology to transform teaching and learning, accelerate innovation and solve tough problems in education" (About ISTE, 2022, para. 1). Focusing on technology in education, ISTE developed standards for administrators to guide them as they work toward systemic organization improvement (ISTE Standards Administrators, 2009). The ISTE Standards for Administrators (2009) includes criteria in "visionary leadership, digital age learning culture, excellence in professional practice, systemic improvement, and digital citizenship" (pp. 1-2). These pillars for educators provide a resource for continual improvement of educational technology implementation to benefit students (Vucaj, 2020). As education continues to transform through the digital age of learning, these standards seek to improve student learning through the empowerment of teachers through the utilization of

technology (Vucaj, 2020).

Institutional Use of ISTE Scorecards. Primarily the use of ISTE standards has been within the K-12 context as principals and other administrators support the implementation of technology into districts and encourage student learning utilizing technology tools (Shemshack, 2021). In a review of literature, Shemshack (2021) found that while schools have access to information- communication technology (ICT) tools, there was little implementation in the classroom. Seeking an understanding of what support teachers need to increase the addition of ICT tools to their classroom, Shemshack (2021) interviewed teachers about their perceptions of the technological roles and responsibilities of their leaders. Insufficient training was a common complaint among teachers which decreased motivation and use of new tools in the classroom (Shemshack, 2021). The three main themes concluded from this study was that implementation of ICT tools was influenced by the availability of technology resources, administrator support, and effective planning for technology integration which all related back to the ISTE standards administrators should use for implementing technology. The COVID-19 pandemic resulted in unplanned and rapid technology integration into the classroom as coursework was required to be virtual for students. All participants in this study indicated that strategic planning is critical for technology adoption and integration (Shemshack, 2021). This researcher highlighted the importance of administrator support in technology transitions especially as classroom technology continues to change postpandemic.

Themes Across Standards

An objective comparison of the OLC and QM standards across one another, each organization had different criteria focal points. The QM rubric focused specifically on course design, but the rubric did not have criteria on administrative support or technology support.

These standards were found in the ISTE guidelines; however, technology was the primary focus on most categories within the standards. Unique to the ISTE standards was a focus on culture and citizenship within the context of technology and a digital environment. ISTE did lack an emphasis on student support and course development guidelines around curriculum.

The OLC scorecard for administration of online programs did contain the most comprehensive rubric for administration duties resulting in this scorecard being selected for the framework of this study. Littlefield et al. (2019) also conducted a scorecard review and similarly found that the OLC scorecard provides a holistic approach to online program quality including a wide scope of standards, academic and nonacademic, that are essential for quality.

The OLC's mission is focused specifically on quality online learning from a collaborative approach based in research (OLC, 2020). Additionally, the OLC scorecard for the administration of online programs was selected due to the scorecard's focus on how to administer online programs from several broad categories such as technology support, student support, and evaluation in addition to course development and instructional design providing a more holistic review of the administration of online program management (OLC Scorecard, 2018). The scorecard provides both specific as well as broad standards for effective administration of new program planning as well as maintaining existing programs (Littlefield et al., 2019). There are many departments and factors, both internal and external, that play a role in course development within a university and using standards that accounts for an organizational system best represents the population of administrative leaders.

Administrative Structures Within Higher Education

The large increase in online programs due to student demand caused a fundamental shift in academic structures and the administration of programs supporting these courses, resulting in

online courses becoming a significant part of university culture and a change agent for how institutions are handling policies and responsibilities (Garrett, Legon, Fredericksen, & Simunich, 2020; Nworie, 2012). Institutions are still determining the best way to handle the changes from the integration of online courses into mainstream academics (Garrett, Legon, Fredericksen, & Simunich, 2020). As a result, new leadership positions continue to be established within institutions to provide supervision and direction in online programming (Fredericksen, 2017). As distance learning has become a key initiative in strategic planning for academic leaders (Fredericksen, 2017; Garrett, Legon, Fredericksen, & Simunich, 2020), it is important to reflect on the academic structures of institutions, specifically at how distance learning programs are being supported (Paolucci & Gambescia, 2007).

How an institution chooses to structure online programs within their institution impacts other departments throughout the organization including academics, enrollment, student services, and information technology (Paolucci & Gambescia, 2007). Furthermore, institutions need to ensure that the structure of their online programs aligns to their organization culture (Paolucci & Gambescia, 2007). Considering the topics of enrollment goals, infrastructure resources within technology and programming planning, to name a few, Paolucci and Gambescia (2007) advised that these topics should "fit" with the culture and structure chosen by the institution. There are six types of institutional structures that are organized by either internal or external structures for distance education proposed by Paolucci and Gambescia (2007).

Internal

- Academic Department: The academic department granting the degree has the lead in most, if not all, of the curriculum and key administrative duties in offering the online degree.

- Continuing Education: A previously existing continuing education/professional studies unit within the university has the lead in many, if not all, of the curriculum and key administrative duties in offering the online degree.
- Distance Education Unit: The university has set up a "separate" or adjunct distance education unit to take the lead in many, if not all, of the curriculum and key administrative duties in offering the online degree.

External

- Consortium: The university has joined other similar universities to cooperate in the offering of online degrees. The nature of cooperation for the administration and operations of the degree offerings may vary, but there exists a strong, formal relationship among the members.
- Alliance: The university has joined other universities that may or may not be similar to gain some type and level of administrative or operational service through an entity that is the focal point for the alliance of schools
- Outsource: The university has turned over much of the administrative and operational duties to an outside entity that is really managing the offering of the online degree program. (Paolucci & Gambescia, 2007, pp. 6-7)

Paolucci and Gambescia (2007) found that 90% of institutions use an internal structure with the primary structure type in that group being *academic department* for the management of their distance education programs. The Changing Landscape of Online Education (CHLOE) project sponsored by Eduventrues Research and Quality Matters began in 2016 to better understand online education at postsecondary institutions in the United States by surveying Chief Online Officers issuing annual reports on their findings (QM, n.d.). In the CHLOE 4 report, Garrett,

Legon, and Fredericksen (2020) found similar results to Paolucci and Gambescia (2007) about the use of online program management "companies, typically for-profit, that provide academic institutions with a wide range of services to facilitate the development and delivery of online programs" (p. 20). Garrett, Legon, and Fredericksen (2020) noted that there has been an increase in the number of institutions using these services from the previous CHLOE 3 report. Of the institutions that do choose to utilize these services, the primary function has been for marketing and recruitment of students (Garrett, Legon, & Fredericksen, 2020). Institutions cited lack of expertise and rapid development/scaling as the most common reason for contracting outside help with distance education program management (Garrett, Legon, & Fredericksen, 2020).

Institutional Support Structures

Since institutions are choosing to develop and maintain their online programs internally with minimal areas being outsourced, how the support structures for faculty and students were being maintained within an institution warranted further investigation. Pedro and Kumar (2020) conducted a review of literature of 13 online quality frameworks, including the OLC, to determine the necessary institutional services that support quality online teaching. They found that institutions need to provide support in technical skills, course design standards, professional development, instructional design, program/ course effectiveness, academic and administrative support for students, including accessibility (Pedro & Kumar, 2020).

Gregory et al. (2020) also affirmed the need for institutions to provide a culture of support with regards to online courses. Specifically supporting faculty developing online courses can lead to positive faculty perceptions which in turn improve teaching quality and ultimately student success in online courses (Gregory et al., 2020). Furthermore, it is of benefit for institutions to provide ample support services within their institutions, especially to students.

When institutions provide sufficient support services to students, the demands on faculty to be knowledgeable about services is reduced (Pedro & Kumar, 2020). Additionally, faculty may be the only institutional point of contact for online students which may overwhelm the faculty member especially since they may not be aware of all the institutional resources or policies (Pedro & Kumar, 2020).

The CHLOE 4 report allows for insight into how current higher education institutions are managing these support services for students at their institutions; currently support services tend to be handled centrally at most institutions, meaning support for online and ground students are housed within the same group (Garrett, Legon, & Fredericksen, 2020). Library and financial aid services were the most centralized (91% of institutions are centralized in these areas) with instructional design and faculty training/development typically being managed centrally as well at 68% (Garrett, Legon, & Fredericksen, 2020). The support services that were most likely to be decentralized included advising, recruitment and orientation services (Garrett, Legon, & Fredericksen, 2020).

At most institutions, even though the instructional design and faculty training/ development tended to be managed centrally within an institution, lack of recourse and support for faculty in the development of online courses was cited as an issue in the CHOLE 4 report by Garrett, Legon, and Fredericksen (2020). Typically, an institution has only one support center for teaching and learning resulting in faculty often being solely responsible for the design of their online courses (Baldwin, Ching, & Friesen, 2018; Garrett, Legon, & Fredericksen, 2020). Collaborative approaches to course design are not typical at most institutions; however, some institutions are implementing quality standards and review process for the development of online

courses which has been shown to positively impact online course quality (Baldwin, Ching, & Friesen, 2018; Zimmerman et al., 2020).

Faculty Governance

Faculty governance also actively influences distance education program implementation and the design of online courses (Ciabocchi et al., 2016). Faculty governance systems include established entities such as senates and councils within higher education institutions affiliated with American Association of University Professors (Ciabocchi et al., 2016). While shared governance structures tend to vary across higher education institutions, in general these groups influence curriculum and academic programs (Ciabocchi et al., 2016). Most higher education institutions have at least one council dedicated to distance education with faculty members representing the majority (90%) of the group according to the CHLOE 4 report resulting in this group having high influence in online learning within higher education (Ciabocchi et al., 2016; Garrett, Legon, & Fredericksen, 2020).

Despite a strong faculty presence on these committees, many institutions now employ part-time or adjunct instructors who have limited input on institutional decisions (Ciabocchi et al., 2016). These committees are often advisory and are not the ultimate decision makers but still have notable influence in quality online development, online policies for students, and faculty training (Garrett, Legon, & Fredericksen, 2020). Faculty and administrators disagree on issues related to intellectual property, curriculum control and workload/compensation (Ciabocchi et al., 2016). Faculty also tend to perceive online courses as inferior to traditional courses, especially if they have not had previous experience with an online course (Ciabocchi et al., 2016). Academic leaders must collaborate with faculty governances to promote research regarding online learning to improve perceptions of online learning (Ciabocchi et al., 2016).

Academic Leadership

The role of administrators within higher education is to focus on high level issues and initiatives affecting the entire institution (Del Favero & Bray, 2005). In a national survey of leaders in online higher education, most participants were in positions newly created in the past 5-6 years with 60% of administrators overseeing all types of courses at their institution (Fredericksen, 2017). Sayler et al. (2019) found comparable results in their national study of Associate Deans finding that these leaders served in their role 5 years or less. In Fredericksen's (2017) study of online higher education leaders, the top goal required of academic leaders was to increase institutional enrollment. Focusing on budgetary responsibilities was also identified as the primary concern in research conducted by Sayler et al. (2019). Other key responsibilities that these leaders experience include "faculty development and training, strategic planning for online learning, and staffing for instructional design and faculty support" (Fredericksen, 2017, p. 12). Thirty-seven percent of these leaders indicated they had 5 years or less experience in curriculum development or instructional design and currently half of the positions do not hold a faculty appointment in their institution (Fredericksen, 2017).

Given that leadership positions over online higher education is relatively new for most universities, there continues to be conflict and confusion in the role of administrators and academic units (Drysdale, 2018). Based on the current population of academic leaders within online higher education, further research is warranted to understand how these academic leaders understand their role within course design. Understanding current academic leaders' perceptions of the instructional design role and their academic goals may provide insight into the perceived knowledge gap in quality course development.

Chief Online Officers. Chief Online Officer (COO), a title used to describe the most

senior leader responsible for online education, is a position within higher education that has recently experienced an increase in responsibilities (Garrett, Legon, & Fredericksen, 2020). According to the CHOLE 4: Navigating the Mainstream report conducted by Quality Matters, of the chief online officers surveyed about 62% of positions were recently created within the past 10 years with expected continual growth for the future (Garrett, Legon, & Fredericksen, 2020). Chief Online Officers identified major responsibilities including "faculty training, instructional design, quality assurance, online policies, and course development" (Garrett, Legon, & Fredericksen, 2020, p. 14). Those surveyed stated that their top three goals for their position for the next five years were to improve or maintain online learning quality, online teaching support for faculty including professional development, and increase student engagement and success (Garrett, Legon, & Fredericksen, 2020). Institution goals for the next five years also had the top goal of increasing quality, but the other two highest goals were increasing online course offerings and online enrollment (Garrett, Legon, & Fredericksen, 2020).

Summary

Online courses and degree programs are an essential component of higher education as enrollment in these areas continues to increase. Academic leaders need to be aware of the factors that impact the quality of their online courses as this course environment has different needs than traditional face-to-face courses. One element that is critical to the quality of online courses is course design because of its direct impact on student experience and satisfaction (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). This literature review contained background information on the current state of higher education and the role administrative leadership has in online programs through the framework of transformational leadership. Insight into the importance of understanding how academic leadership perceptions

are influencing course quality was discussed as well as the relevance of course quality to student success was explored (Bigael & Edel-Malizia, 2017; Scoppio & Luyt, 2017).

In Chapter 3, the quantitative research design used to understand the relationship between academic leaders' perceptions in online course quality within the higher education context is presented. The Online Learning Consortium Scorecard is the tool used to provide the benchmarking for quality standards and measure perceptions of online program quality held by academic administrators.

Chapter 3: Research Method

Online programs are an essential part of higher education as enrollment in this modality continues to increase. Academic leaders who are managing these online programs need to be aware of the factors that impact the quality of online courses. College and university leaders' background in, perceptions of, and experiences with the administration of high-quality online programs and design of online courses were examined in this quantitative research study. Gaining insight into how these perceptions by academic leaders are influencing course design is necessary because of the impact on course quality (Bigael & Edel-Malizia, 2017; Scoppio & Luyt, 2017).

Within Chapter 3, an outline of the quantitative research methodology used to answer the research questions is presented. Multiple quantitative research designs, including descriptive, correlational, and causal comparative designs are utilized in this study to investigate academic leaders' background in, perceptions of, and experiences with the administration of high-quality online programs and design of online courses. Participants' background information and their perceptions of online program quality were captured through a survey administered to the sample population. Various statistical tests were conducted, including descriptive and inferential statistics to analyze the data. Finally, ethical considerations for the study were outlined.

Research Design and Method

In this study, the research questions informed the methodology and survey instrument selected. Quantitative research design consisted of measuring the relationships between variables and using statistical analysis to produce numerical data for interpretation (Bloomfield & Fisher, 2019; Creswell & Creswell, 2018). Within this systematic process, a sample of participants was selected from the desired population (Bloomfield & Fisher, 2019). Independent and dependent

variables were compared using statistical analysis to determine if there were relationships between variables (Bloomfield & Fisher, 2019; Creswell & Creswell, 2018).

Specifically, descriptive, correlational, and causal comparative research designs were used to answer the proposed research questions. Answering Research Question 1 (RQ1) required descriptive research on how academic leaders perceive the quality of their online programs by reviewing the scores on the Online Learning Consortium Scorecard for the Administration of Online Programs. Background demographics of the higher education academic leaders who are responsible for administering online programs was answered utilizing descriptive research as well for RQ2. Descriptive research uses statistical analysis to describe a group where a variable is not manipulated in real-life contexts (Bloomfield & Fisher, 2019). Answering RQ3 required correlational research design to investigate the relationship between academic leaders' reported scores on the OLC Scorecard for the Administration of Online Programs and demographic variables. Correlational research design was used to determine the degree of relationship between two variables (Bloomfield & Fisher, 2019). Comparative research design was used for RQ4 to determine if there is a significant difference between groups and the dependent variable (Laerd Dissertation, 2012). In this study, the independent variables will be the respondent's answers to the institution's use of course development standards, requirement of instructional designers to collaborate with faculty, and the use of an established process for the development/redesign of new and existing online courses and the dependent variable will be the academic leaders' reported scores on the Online Learning Consortium Scorecard for the Administration of Online Programs. The scorecard scores were compared multiple times with three different variables resulting in a Bonferroni correction being necessary to correct for a possible type 1 error (Sauder & DeMars, 2020). To compute the alpha level appropriate to

determine significance of the results, the standards alpha level is divided by the number of tests conducted (Sauder & DeMars, 2020). In this study, there were three tests conducted requiring a *p*-value of .017 (.05/3 = .017) instead of .05 for determining statistical significance.

The goal of this study is to understand the relationship between academic leaders' perceptions in online course quality within higher education institutions across the United States. The research questions presented in this study may have been addressed through other research methodologies such as qualitative interviews; however, a survey design was selected to increase the sample size to better generalize results of the study to a larger population. Quantitative data collected from an appropriate sample can be generalized to the larger population when the research design is rigorous consisting of both validity and reliability (Bloomfield & Fisher, 2019). A qualitative methodology was not appropriate for answering the research questions because it does not statistically measure the significance of relationships between variables and is thus used for analyzing nonnumerical data (Killian, 2020). Qualitative methodology was not appropriate for this study as administrator perceptions and beliefs were captured numerically and variables were statistically compared for possible relationships.

Population

The study population consisted of academic leaders of online programs serving at 2 and 4-year undergraduate and graduate level public and private, for-profit and not-for-profit higher education institutions within the state of Texas that have at least one 100% online degree program. This delimitation was intentionally included as I am specifically looking for quality perceptions in online programs and thus institutions that do not have an online program were eliminated. Furthermore, trade schools such as culinary programs were eliminated from the population. Before delimitations were considered, in the fall of 2021 there were a total of 234

institutions in the state of Texas (National Center for Education Statistics, n.d.). After removing duplicate institutions and institutions that did not have at least one 100% online degree program, as well as removing Abilene Christian University, 150 eligible institutions remained.

Minimum Sample Sizes and Participant Recruitment

A G-power analysis was conducted to determine the minimum sample size required, which was necessary since part of the research design is assessing the significance of the relationship between variables (Creswell & Creswell, 2018; Faul et al., 2009). For RQ3, where a correlation statistical analysis was conducted, a minimum sample size of 42 participants was required. Research question 4 requires a minimum of 78 participants to determine if there is a significant difference between variables in this comparative research design. Based on the minimum sample sizes required through conducting a G-power analysis, the population size, including the delimitations will be sufficient to conduct this research study. However, low participation in online surveys can be problematic as the results then fail to represent the population, which decreases the ability to generalize results or even lead to inaccuracy in findings (Brosnan et al., 2021).

Given that online survey rate responses tend to be low and there is contradicting best practices in methodology, I implemented several strategies to ensure a response rate large enough to meet my minimum sample size. At each institution one academic leader was identified that I perceived to be responsible for the administration of online programs. If the wrong participant was identified, then the prequalification question on the survey prevented ineligible academic leaders from participating and asked the ineligible participant to provide the more appropriate academic leader. If the first identified academic leader did not participate in the survey, then a second academic leader that I identified from the institution was asked to

participate in the survey. This process helped ensure that the appropriate person at each institution was identified and increased the likelihood of a response from that institution. Second, participants received multiple reminders via email about participating in the survey with a note stating the benefits of participation. Third, the survey included the length of time to complete as less than 15 minutes to encourage participation. Finally, an incentive was provided for those who completed the survey. Researchers Brosnan et al. (2021) identified factors such as survey length, topic interest, reminders, and survey design as ways to increase participations. However, they did note that studies show conflicting results when implementing these techniques. The use of incentives, for example, were found to have a positive effect while other studies found there was no effect on participation rate (Brosnan et al., 2021). Nevertheless, for every survey successfully completed, I donated $1.00 to Educate Texas at Communities Foundation of Texas. This not-for-profit organization seeks to be a change agent so that all Texas students can earn a college degree, especially students who are economically disadvantaged (Educate Texas, 2021). I believed this not-for-profit organization appealed to academic leaders of higher education institutions serving as an incentive to participate.

Surveys were distributed to the identified academic leaders at that institution perceived to be responsible for the administration of online programs. This was determined through institution websites, organization charts, web searchers, and direct inquiry with institutions. Job titles of survey participants included variants of online learning, education technology, learning and teaching centers, deans, vice presidents, and directors.

Materials and Instruments

A quantitative survey was deemed as an appropriate instrument for answering the research questions. Understanding background information about current academic leaders

including their demographics, education, and leadership experience within online higher education is essential information for understanding their leadership structure and influence in online education. Gathering background information on the institution in which they serve is also necessary to explore how online education leaders may have different perceptions and policies dependent on the institution at which they serve.

Qualtrics, a web-based survey tool, was used to administer the survey. Within this tool, the survey was generated, administered to participants, and reminder notifications were distributed. SPSS was used to perform the data analysis. The survey consisted of two main sections; the first collected background information from the academic leader and the institution at which they serve, and the second section of the survey collected the academic leaders' perceptions of online program quality at their institution. Fredericksen (2017) surveyed United States higher education leaders in online learning with a 30 multiple-choice question survey. Questions from his original survey were duplicated with permission and used to design section one of the survey. I also added some additional questions to supplement Fredericksen's original survey to learn more about current academic leaders and the institution at which they serve. These additional questions included capturing professional certifications/trainings held by participants in online learning, current job title, amount of time dedicated to the administration of online programs, classification of institution as for-profit or not-for-profit, and specific enrollment questions related to the number of students participating in online courses and degree programs. As the study focused on perceptions of quality online program administration, I also wanted to understand what the current policies and practices were at the institution participating in the survey. Supplemental questions regarding the design process for online courses was included in the survey (see Appendix B).

Beyond understanding the backgrounds of both the academic leaders and the institution which they serve, it is foundationally important to understand how these leaders are perceiving quality in the administration of online programs in order to determine if there is a knowledge gap in online learning leadership. The second section of the survey utilized the Online Learning Consortium Scorecard for the Administration of Online programs (Online Learning Consortium, 2018). This scorecard consists of seven sections, Institutional/Administration Support, Technology Support, Course Development/Instructional Design, Teaching and Learning, Faculty Support, Student Support, and Evaluation and Assessment. The goal of this study was to examine the relationships between online higher education academic leaders' background in, perceptions of, and experiences with the administration of high-quality online programs and design of online courses. Therefore, only two sections of the scorecard, Institutional/Administrative Support and Course Development/Instructional Design, were included out of the seven potential categories in the survey to academic leaders. These two sections focus on how administrative leaders perceive the quality of their online programs. These sections from the OLC Quality Scorecard Suite for the Administration of Online Programs were replicated exactly with permission from the OLC and utilized the same scoring method as prescribed by the OLC (see Appendix B).

It is important to note that within the design of the survey, a screening question was added to ensure the appropriate academic leader was surveyed, increasing the validity of the results collected. The screening question "for your position are you responsible for overseeing the administration of online programs?" was asked of every participant. If the respondent answered "yes," they were able to access the remaining survey questions. If they answered "no," they were then asked to identify the more appropriate individual at their institution to participate

in the survey and sent directly to the end of the survey. This helped to ensure that I captured the background and perceptions of the desired population.

Reliability and Validity

To generalize data collected from qualitative research with confidence, it is important that the research design should be both valid and reliable (Bloomfield & Fisher, 2019). Validity refers to the instrument measuring the item that it intended to measure (Setia, 2017). There are several types of validity including face validity which is the type of validity used for section one of the survey that includes the demographical question asked of academic leaders. Face validity is a subjective assessment evaluating if the instrument appears too relevant and appropriate to what is intended (Setia, 2017). The second section of the survey consists of two sub-sections from the OLC quality scorecard for the administration of online programs. In 2000, the Institute for Higher Education Policy was commissioned by National Education Association and Blackboard, Inc. to identify quality indicators in online higher education (Shelton, 2010). The report *Quality on the Line: Benchmarks for Success in Intent-Based Distance Education* found 24 quality indicators to be used by online education leaders in higher education (Shelton, 2010). These 24 quality indicators served as the framework for the Delphi study conducted by Shelton (2010), determining if these quality indicators were still relevant and if additional indicators were required for quality online programs. The results of Shelton's research provides a scorecard with 70 quality indicators that was adopted by the OLC becoming the quality scorecard for the administration of online programs (Shelton, 2010).

Validity of the quality indicators that make up the scorecard was achieved through Delphi methodology. Within this research technique, an expert panel is used to gain consensus on a topic by which panelists provide their opinions and reflect on a topic while listening to other

members' opinions, eventually forming consensus through multiple survey rounds (Fischer, 1978). The Delphi method is considered to be a valid methodology in research design because of the consensus gained by experts (Baker et al., 2006). Shelton's (2010) Delphi study consists of panel experts in the administration of online education and have interest in the study being successful because they could benefit from the knowledge gained resulting in content validity. Within the study, the researcher also gains face validity by having the survey instrument undergo a pilot test by online education administrators (Shelton, 2010).

Reliability in addition to validity is an important consideration when selecting an instrument for research. Reliability refers to the ability for a tool to be consistent over time, measuring the same outcome when duplicating the instrument even when used by a different researcher (Setia, 2017). The first section of the survey consists of demographic information to be collected from academic leaders in online education duplicated from Fredericksen's (2017) survey on U.S. higher education leaders in online learning. The results of this survey collected from the sample closely aligned with the identified population increasing reliability (Fredericksen, 2017).

Reliability for the OLC scorecard can be ensured one of two ways, through intra-rater reliability and inter-rater reliability. The OLC provides a handbook to guide individuals completing the scorecard further explanations about the quality indicators and recommendations for implementation (OLC, 2018). This handbook was written by the original participants of the Delphi study that Shelton (2010) conducted that generated the scorecard. This handbook ensures intra-rater reliability by training an individual reviewer on how to correctly use the OLC scorecard and assess on online program for quality. Inter-rater reliability is obtained when multiple reviewers assess the items and there is agreement among the scores (Setia, 2017). The

OLC scorecard again uses training through the handbook to ensure multiple reviewers are assessing an online program for quality accurately. Moreover, institutions can submit their scorecard for an official review by the OLC who will review the grading of the scorecard to ensure consistency across the evaluations (OLC, 2021). While the OLC uses training, handbooks, and official reviewers to ensure inter-rater reliability, the method for scoring the rubric in this study was self-reporting by academic leaders. Since inter-rater reliability is not feasible for this study, internal consistency analysis was used to ensure reliability in the survey results in section two. Described using Cronbach's coefficient alpha, internal consistency determines to what degree items of the survey are correlated among each other (Teo, 2013).

The survey instrument designed for this study combines Fredericksen's (2017) survey (section one) and the OLC's quality scorecard for the administration of online programs (section two) which both are valid and reliable instruments ensuring rigor in this research instrument.

Data Collection and Analysis Procedures

Survey results collected were anonymous and securely captured through Qualtrics, a survey and data analysis tool. SPSS was used to conduct the statistical analyses of the data. The research questions demanded various types of quantitative research design techniques and statistical analysis including descriptive, correlational, and comparative statistical analysis. Using the survey data collected, I analyzed the variables to describe and determine if relationships exist between the academic leaders' background, the institution demographics, and the OLC Quality Scorecard. Research Questions 1 and 2 were analyzed using descriptive statistics, specifically mean, mode, frequency counts, and checking the data for normality were the various types of statistical tests used to describe the data. Descriptive research design is used to describe quantifiable characteristics of a group, looking at one variable, and uses a large number of

samples (Bloomfield & Fisher, 2019). Correlation research design was utilized for question 3 to determine if the two variables were related. Correlations can be expressed as a positive, negative, or no correlation between the variables with a statistical value known as the Pearson coefficient (Bloomfield & Fisher, 2019; Creswell & Creswell, 2018). Research Question 4 is a comparative research design where statistical analysis was used to determine if there was a significant difference between an institution's use of course development standards, requirement of instructional designers to collaborate with faculty, and the use of an established process for the development/redesign of new and existing online courses and the reported score on the OLC Scorecard for the Administration of Online Programs. After the data were collected, the mean, standard deviation, and a normality check on the data was conducted before an analysis of variance (ANOVA) and an independent t-test was used to describe the relationship between the variables. To answer RQ4, ANOVA was the appropriate test to analyze two of the independent variables, institution's use of course development standards and the use of an established process for the development/redesign of new and existing online courses, as there were three groups within each of these variables that required comparison (Prabhaker et al., 2019). An independent t-test was used for the independent variable, requirement of instructional designers to collaborate with faculty in answering this research question because comparison among only two groups was necessary thus not requiring an ANOVA test (Prabhaker et al., 2019). The ANOVA tests provided insight into a significant difference between the groups. Then, because a significant difference was present, a Tukey post hoc test was conducted to indicate where the differences occurred among the groups (Laerd Statistics, 2018).

Ethical Considerations

This study was submitted to the Institutional Review Board (IRB) through Abilene Christian University (ACU) before any study participants were recruited or data collected (see Appendix A). IRB ethical guidelines were followed during this research study including the anonymous collection of data and secure storage of de-identified data on a password protected secure hard drive. Participants were not coerced into participating in the study and those that voluntarily chose to participate were provided with the purpose and process of data collection from the survey results. Participants were assured confidentiality by participating in the study as I did not collect any identifying information such as the participant's name, email address, or the institution that they are from in the survey.

Limitations and Delimitations

The process of identifying the correct academic leader at each institution required the review of various websites, organizational charts, and institutional directories. While this study was aimed at collecting the perspectives of the highest-level decision maker over online education at each institution, the most appropriate person may not have been the participant of the survey. Additionally, online program administration duties may be housed with more than one individual and this survey is designed to only capture one individual's perspectives per institution. Another limitation that should be noted is the recent COVID-19 pandemic that forced many institutions to rapidly shift to online education which may have influenced how academic leaders and their respective institutions perceive online course quality as a result.

The study population consisted of academic leaders of online programs serving at 2 and 4-year undergraduate and graduate level public and private, for-profit and not-for-profit higher education institutions within the state of Texas that have at least one 100% online degree

program. This delimitation was intentionally included as I am specifically looking for quality perception in online programs and thus institutions that do not have an online program were eliminated. Trade schools such as culinary programs were also eliminated from population. While a national study of academic leaders would be ideal for generalization of results, this was not feasible given the time frame and resources available. Abilene Christian University was also removed as a participant from the study even though the institution was eligible to participate due to a conflict of interest as I serve as both an employee and student at this institution.

The research questions presented in this study may have been addressed through other research methodologies such as qualitative interviews; however, a survey design was selected to increase the sample size to better generalize results of the study to a larger population. This delimitation was made due to convenience, allotted time frame for the study, and financial resources.

Summary

Chapter 3 provides an overview of the quantitative research design selected for this study including a review of the survey instrument, the population, data collection and analysis procedure, and ethical considerations. A survey capturing quantitative data was distributed to academic leaders at 2 and 4-year undergraduate and graduate level institutions within the state of Texas who have at least one 100% online program. This survey contained questions collecting demographic information on the academic leaders, background information on their institution, and the leaders' perceptions of online course quality. The data were collected anonymously and securely stored for analysis. The data were analyzed using both descriptive and inferential statistics to determine if any relationships exist between the variables. Ethical guidelines and IRB approval were followed during the data collection process and no data collection occurred before

IRB approval. Analysis of the data collected including the results and relationships between variables will be discussed in Chapter 4.

Chapter 4: Results

The purpose of this study was to examine college and university leaders' background in, perceptions of, and experiences with the administration of high-quality online programs and design of online courses. In this chapter, through various statistical tests, including descriptive and inferential statistics, the findings are presented. Findings include describing the perception of online program quality assessed by academic leaders, the background demographics of current academic leaders and their institutions, the perceived relationship between the Online Learning Scorecard for the Administration of Online Programs and demographic variables, and finally the perceived significant difference between an institution's policies/process in the administration of online programs and the quality score on the Online Learning Consortium Scorecard for the Administration of Online Programs.

This study population consists of academic leaders of online programs serving at 2 and 4-year undergraduate and graduate level public and private, for-profit and not-for-profit higher education institutions within the state of Texas that have at least one 100% online degree program. Forty-one academic leaders completed the survey, which was used for most of the statistical calculations presented in this chapter. Surveys considered incomplete were disregarding and not used in the statistical calculations. The survey response rate was 27.3%. This quantitative study was designed to help improve online program quality by understanding how academic leaders perceive quality and what factors may impact their perceptions in the administration of online programs. I have included the findings for each research question proposed in this study which includes the use of descriptive, correlational, and comparative analysis.

Research Question 1

RQ1: How do higher education academic leaders perceive the quality of online programs at their institution based on their reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs?

This first research question focused on academic leaders' perceptions about the quality of online programs at their respective institution. Survey respondents completed two sections from the Online Learning Consortium Scorecard for the Administration of Online Programs. Section one investigated Institutional/Administration Support scored on a scale of 0–3 in which 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary. The total number of points for this section was 24 points. Section two consisted of two different subsections related to course development, the first being Course Development: Institution or Program Level (33 points) and the second being Course Development: Course Level (21 points). The same 0-3 scale was used for scoring each of these subsections.

The descriptive statistics of each scorecard subsection are displayed in Table 1. Among the three scorecard subsections, Course Development: Course Level has the highest mean score (2.39 ± .47) followed by Course Development: Institution or Program Level mean score (2.08 ± .57), with Institutional/Administration Support having the lowest mean score (1.92 ± .60) as shown in Table 1.

Table 1

Administration of Online Programs Scorecard Subsection Average Scores

Variable	Institutional/ Administration Support	Course Development: Institution or Program Level	Course Development: Course Level
M	1.924	2.078	2.387
SD	.603	.568	.471
Skewness	-.015	.100	-.160
Kurtosis	-.731	-.775	-1.157
Minimum	.625	1.0	1.429
Maximum	3.0	3.0	3.0

Institutional/Administrative Support

Within the scorecard Institutional/Administrative Support from the Online Learning Consortium Quality Scorecard for the Administration of Online Programs, the quality indicators listed below were scored by participants on a scale of 0–3 in which 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary (24 points). For each quality indicator, the average score and standard deviation was calculated. As shown in Table 2, quality indicator seven received the highest score (2.317) with a fair standard deviation (0.756) and quality indicator six received the lowest score (1.732) with a high standard deviation (0.923) out of the eight quality indicators. Quality indicators three, four, five, and eight also comparably low scores. Quality indicator six also received the lowest score and highest standard deviation of all the quality indicators in the three scorecard subsections assessed by the academic leaders.

Table 2

Institutional/Administrative Support Quality Indicator Average Scores

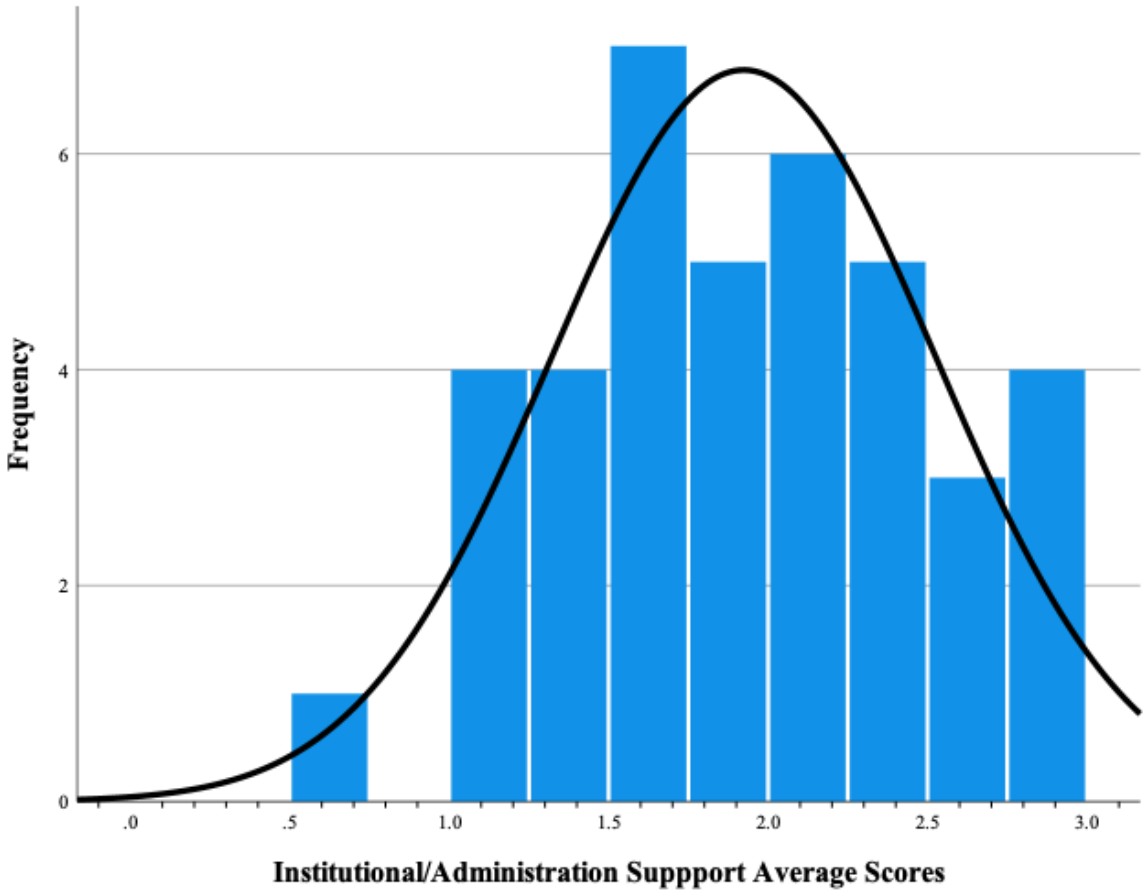
M	*SD*	Quality Indicator
2.244	0.767	1. The institution's mission, value and strategic plan are inclusive of online learning and the structure for delivering online education supports the institution's mission, values, and strategic plan. +
1.927	0.818	2. The institution has clearly defined and communicated the strategic value of online learning to all stakeholders (students, faculty, staff, community, etc.). +
1.780	0.822	3. The institution has a governance structure to enable clear, effective and comprehensive decision making related to online education.
1.805	0.782	4. The institution has a process to enable systematic and continuous improvement related to the administration of online education. +
1.780	0.852	5. The institution has a process for strategic planning and resource allocation for the online program, including human and financial resources. +
1.732	0.923	6. The institution demonstrates sufficient resource allocation, including human and financial resources, in order to effectively support the mission of online education. +
2.317	0.756	7. The institution has policy and guidelines (including regional accrediting requirements) that confirm a student who registers in an online course or program is the same student who participates in and completes the course or program and receives academic credit. This is done by verifying the identity of a student by using methods such as (a) a secure login and pass code, (b) proctored examinations, or (c) other technologies and practices that are effective in verifying student identification. +
1.805	0.679	8. The online program's strategic plan is reviewed for its continuing relevance, and periodically improved and updated.

Note. + Modified quality indicator in 2018. Quality Scorecard for the Administration of Online Programs Ver. 3- Copyright 2018 Online Learning Consortium. Adapted with permission.

Figure 1 shows the distribution of the perceived quality scores for the Institutional/ Administrative Support Scorecard subsection evaluated by academic leaders on the Online Learning Consortium Scorecard for the Administration of Online Programs scale of 0–3 in which 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary. When evaluating skewness and kurtosis, both should have a value that is greater than +1 or less than -1 (Hair et al., 2021). The Institutional/Administration Support Scorecard had the most Gaussian distribution with the lowest skewness (-.015) and kurtosis level (-.731), which is shown in Table 1 and Figure 1.

Figure 1

Institutional/Administration Support Subsection Average Scores



Note. M = 1.92; SD = .60; N = 41

Course Development: Institution or Program Level

Within the subsection Course Development: Institution or Program Level from the Online Learning Consortium Quality Scorecard for the Administration of Online Programs, the quality indicators listed below were scored by participants scored on a scale of 0–3 in which 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary (33 points). For each quality indicator, the average score and standard deviation was calculated. As shown in Table 3, quality indicator 11 received the highest score (2.366) with a low standard deviation (0.662) and quality indicator nine received the lowest score (1.780) with a fair standard deviation (0.791) out of 11 quality indicators. Quality indicator five had a midrange score (2.0) with the highest standard deviation (0.922) among the quality indicators of this scorecard.

Table 3

Course Development: Institution or Program Level Quality Indicator Average Scores

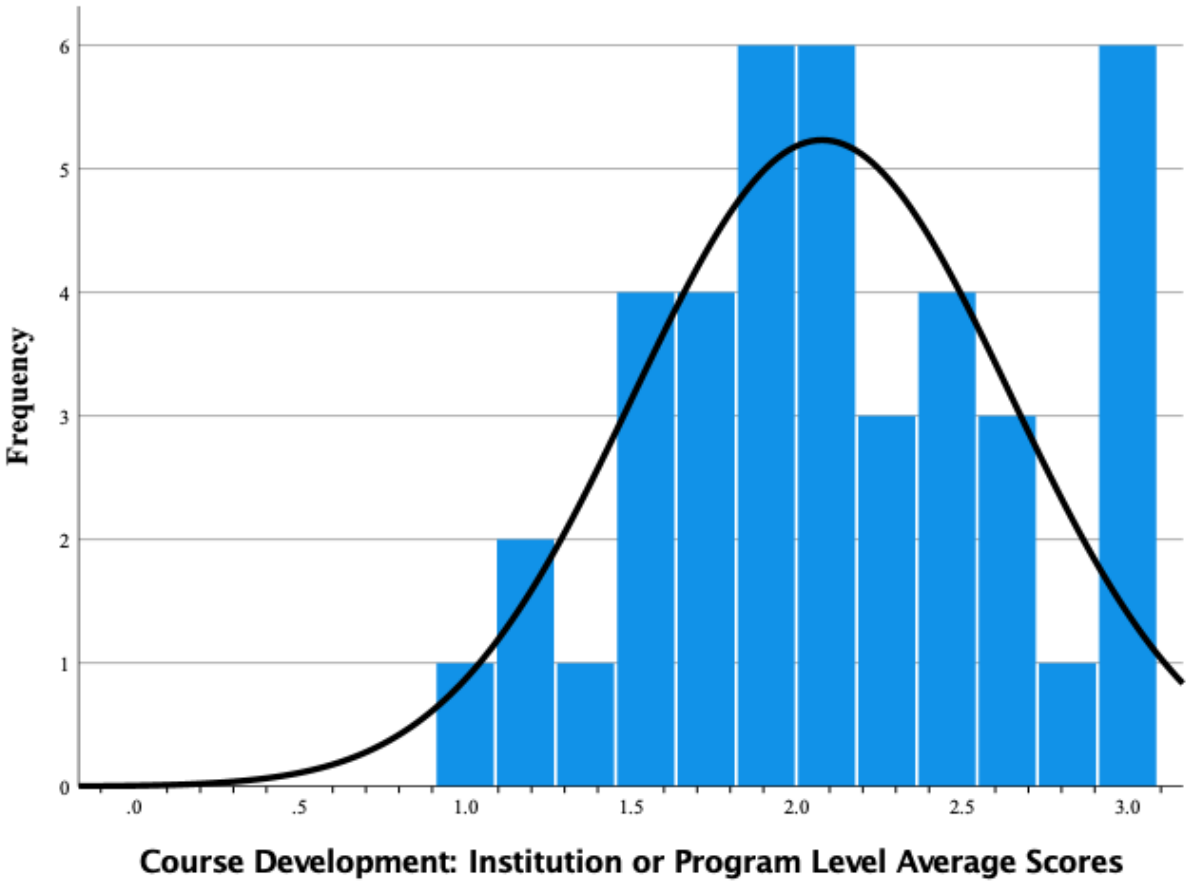
M	*SD*	Quality Indicator
2.171	0.704	1. Guidelines regarding minimum requirements for course development, design, and delivery of online instruction (such as course syllabus elements, course materials, assessment strategies, faculty feedback) are in place, periodically reviewed and followed. *+
2.049	0.705	2. Course development guidelines are in place and followed to ensure courses are designed so that students develop necessary knowledge and skills to meet measurable course and program learning outcomes. *+
2.146	0.654	3. Instructional materials and course syllabi are reviewed periodically to ensure they meet online course and program learning outcomes. *
2.171	0.803	4. Student-centered instruction is considered during the course development process.
2.000	0.922	5. There is consistency in the design of course navigation and utilization of course components to support student retention and quality. +
2.049	0.773	6. Course design promotes both faculty and student engagement.
2.098	0.831	7. A process is followed that ensures that permissions (Creative Commons, Copyright, Fair Use, Public Domain, etc.) are in place for appropriate use of online course materials.
2.024	0.821	8. Policies are in place to ensure instructional materials are easily accessible to the student and easy to use, with the ability to be accessed by multiple operating systems and applications. +
1.780	0.791	9. Usability tests are conducted and applied, and recommendations based upon Web Content Accessibility Guidelines (WCAGs) are incorporated.
2.000	0.806	10. Instructional materials are easily accessed by students with disabilities via alternative instructional strategies and/or referral to special institutional resources.
2.366	0.662	11. Curriculum development is a core responsibility for faculty (i.e., faculty should be involved in either the development or the decision making for the online curriculum choices). *+

Note. *Adapted from Institute for Higher Education Policy's Quality on the Line: Benchmarks for Success in Internet-based Distance Education (2000). + Modified quality indicator in 2018. Quality Scorecard for the Administration of Online Programs Ver. 3- Copyright 2018 Online Learning Consortium. Adapted with permission.

Figure 2 shows the distribution of the perceived quality scores for the Course Development: Institution or Program Level Scorecard subsection evaluated by academic leaders on the Online Learning Consortium Scorecard for the Administration of Online Programs scale of 0–3 in which 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary. The Course Development: Institution or Program Level Scorecard subsection falls within an acceptable range for normally distributed data for both skewness (.100) and kurtosis (-.775) shown in Table 1 and Figure 2.

Figure 2

Course Development: Institution or Program Level Average Scores



Note. M = 2.08; SD = .57; N = 41

Course Development: Course Level Scorecard

Within the subsection Course Development: Course Level from the Online Learning Consortium Quality Scorecard for the Administration of Online Programs, the quality indicators below were scored by participants on a scale of 0–3 in which 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary (21 points). For each quality indicator, the average score and standard deviation was calculated. As shown in Table 4, quality indicator two received the highest score (2.634) with a low standard deviation (0.488) and quality indicator five received the lowest score (2.146) with a fair standard deviation (0.691) out of seven quality indicators. Within this scorecard, all the quality indicators had consistently high scores and low to fair standard deviations. Quality indicator two also received the highest score and lowest standard deviation of all the quality indicators in the three scorecard subsections assessed by the academic leaders.

Table 4

Course Development: Course Level Quality Indicator Average Scores

M	*SD*	Quality Indicator
2.610	0.494	1. The online course includes a syllabus outlining course objectives, learning outcomes, evaluation methods, books and supplies, technical and proctoring requirements, and other related course information, making course requirements transparent. *
2.634	0.488	2. The course structure ensures that all online students, regardless of location, have access to library/learning resources that adequately support online courses. *
2.488	0.506	3. Links or explanations of technical support are available in the course (i.e., each course provides suggested solutions to potential technical issues and/or links for technical assistance).
2.195	0.679	4. Course embedded technology is actively used to support the achievement of learning outcomes. *+
2.146	0.691	5. Opportunities/tools are provided to encourage student-student collaboration (i.e., web conferencing, instant messaging, etc.) if appropriate. +
2.390	0.628	6. Expectations for assignment completion, grade policy and faculty response are clearly provided in the course syllabus. *+
2.244	0.663	7. Rules or standards for appropriate online student behavior are provided within the course.

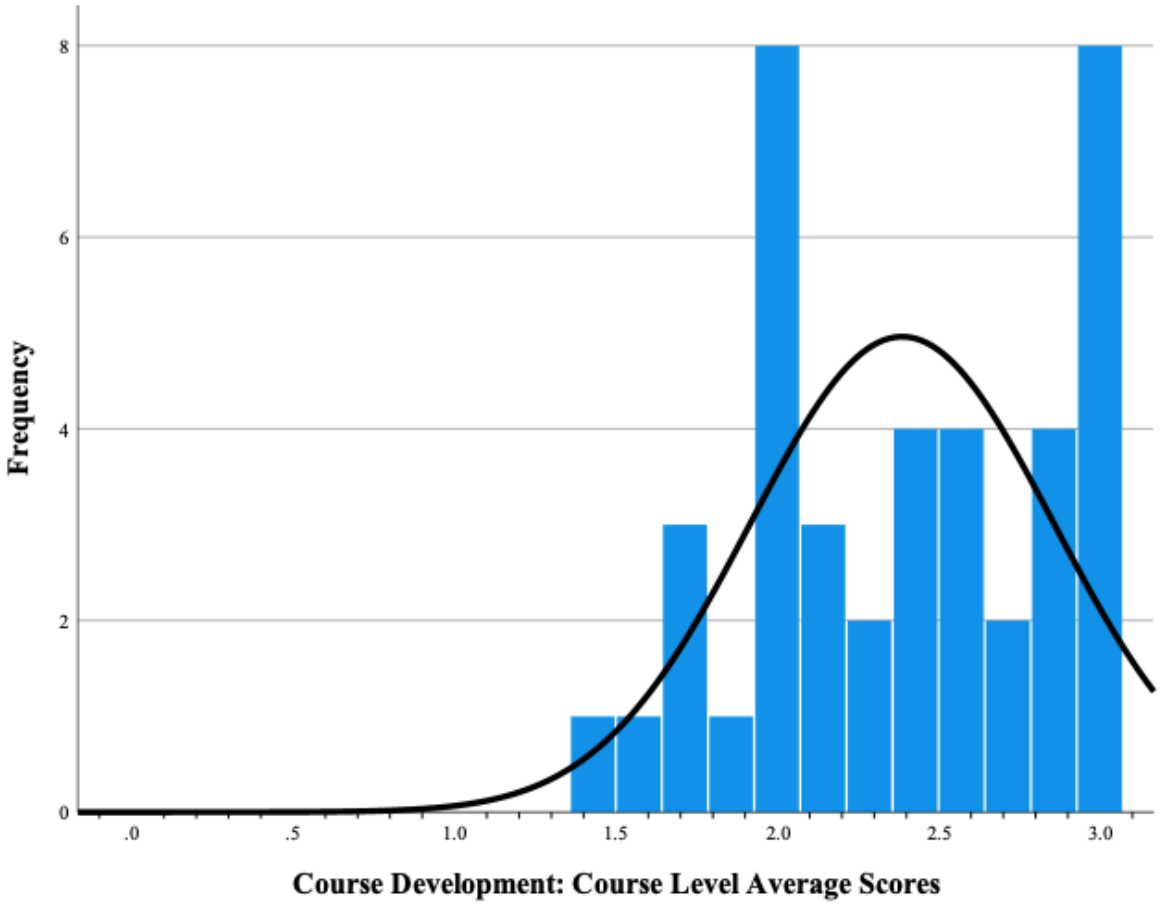
Note. *Adapted from Institute for Higher Education Policy's Quality on the Line: Benchmarks for Success in Internet-based Distance Education (2000). + Modified quality indicator in 2018. Quality Scorecard for the Administration of Online Programs Ver. 3- Copyright 2018 Online Learning Consortium. Adapted with permission.

Figure 3 shows the distribution of the perceived quality scores for the Course Development: Course Level Scorecard subsection evaluated by academic leaders on the Online Learning Consortium Scorecard for the Administration of Online Programs scale of 0–3 in which 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary. The Course Development:

Course Level Scorecard subsection has an acceptable skewness value (-.160), but the kurtosis level (-1.157) is slightly flat compared to normally distributed data. However, it comes very close to the acceptable level of less than -1, as shown in Table 1 and Figure 3.

Figure 3

Course Development: Course Level Subsection Average Scores



Note. *M* = 2.39; *SD* = .47; *N* = 41

OLC Total Quality Score

In addition to looking at each scorecard subsection average score, all three scorecards were combined referred to in this study as the Online Learning Consortium (OLC) scorecard total quality score which is the average of all three subsection scorecards. Table 5 provides the

descriptive statistics of the OLC total quality score. The perceived OLC total quality score evaluated by academic leaders is a mean score of 2.11 ± .51.

Table 5

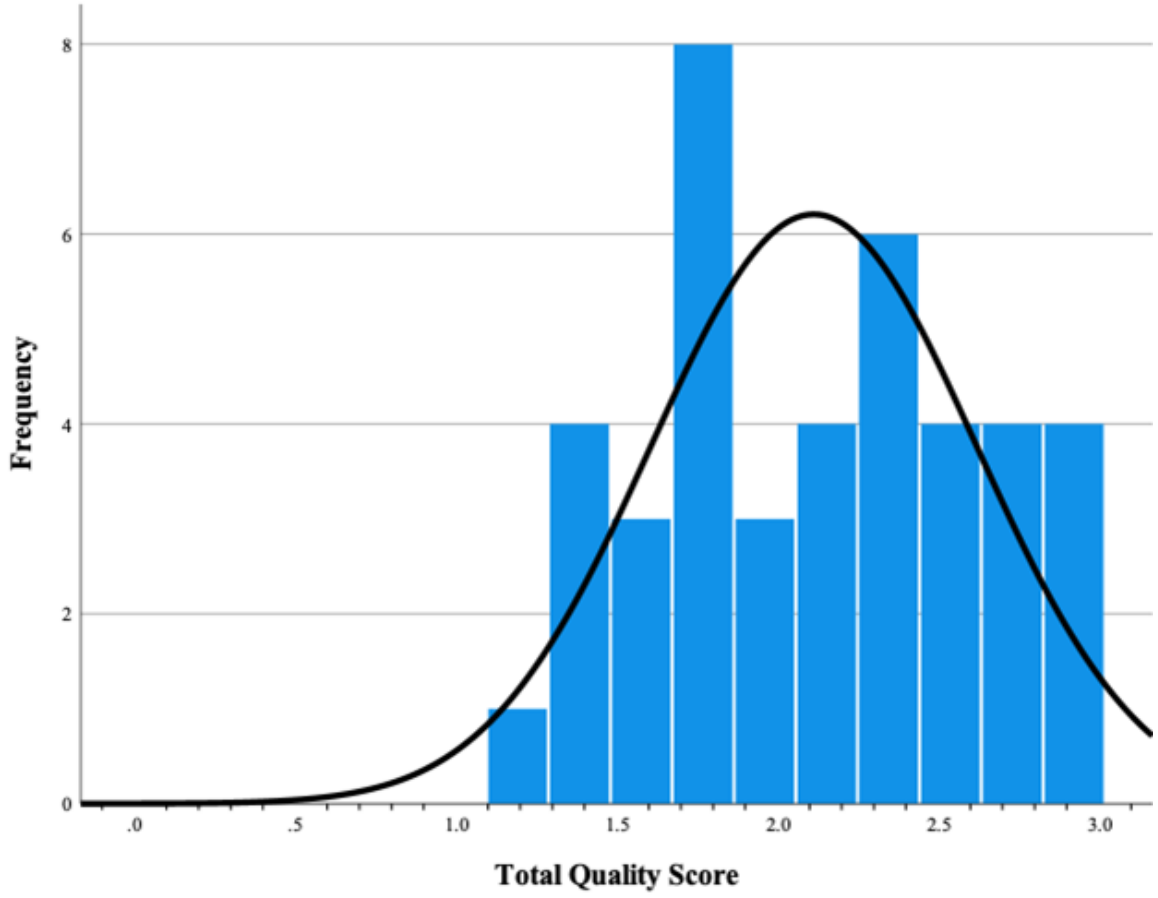
OLC Total Quality Score Average

Variable	Total Quality Score
M	2.114
SD	.507
Skewness	.062
Kurtosis	-1.015
Minimum	1.19
Maximum	3.0

Figure 4 displays the distribution of perceived total quality score evaluated by academic leaders on the Online Learning Consortium Scorecard for the Administration of Online Programs scale of 0–3 in which 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary. While the OLC total quality scores are slightly right skewed (0.62), the value is acceptable. The kurtosis value is slightly greater than -1 (-1.015), indicating a flatter than a normal distribution; however, it is very close to the acceptable guidelines as shown in Table 5 and Figure 4.

Figure 4

OLC Total Quality Score Average Distribution



Note. M = 2.11; SD = .51; N = 41

Research Question 2

RQ2: What are the background demographics of current higher education academic leaders who administer online programs?

In this research question, information is provided on who the current academic leaders are that administer online programs; including background information about the institution at which they serve. Results of the survey questions asked of participants are described in the following sections: academic leader demographics and backgrounds are displayed in Tables 6–9

and Figures 5–8, institution demographics are displayed in Tables 10–14, roles and responsibilities of academic leaders are displayed in Figure 9 and Tables 15–16, and administration policies and procedures are displayed in Tables 17–19.

Academic Leader Demographics and Backgrounds

As shown in Table 6, the survey participants had similar representation from female and male subjects with the majority of respondents being female, 58.5%.

Table 6

What Is Your Gender?

Categories	*f*	%
Female	24	58.5
Male	17	41.5
Prefer not to answer	0	0
Total	41	100.0

In Table 7, there was a range of ages who participated in the survey. The oldest participant being 78 and the youngest being 35 years old. The average age was 55 years old.

Table 7

What Is Your Age?

Variable	Age
M	54.56
SD	9.922
Minimum	35
Maximum	78

In Table 8, most of the participants had completed a Doctorate degree, 80.5%, with 19.5% completing up to a Master's degree. No participants had less than a Master's degree.

Table 8

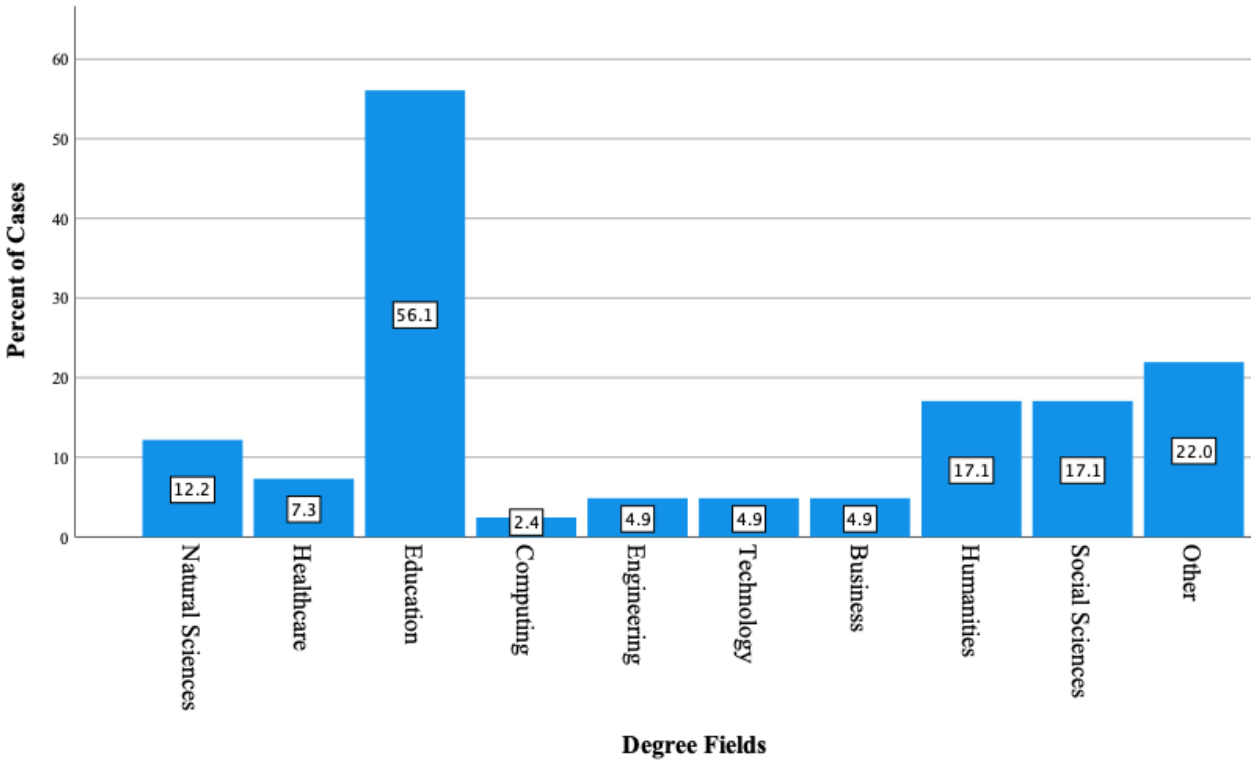
What Is the Highest Degree Level You Have Earned?

Categories	*f*	%
Bachelors	0	0.0
Masters	8	19.5
Doctoral	33	80.5
Total	41	100.0

Participants were asked to indicate in which degree fields they had completed a degree, checking all fields that applied. Displayed in Figure 5, most participants (56.1%) had earned at least one degree in education. Participants who selected "other" (22% of participants) included written responses of leadership, library science, educational technology, industrial technology, nursing, religion, and instructional design.

Figure 5

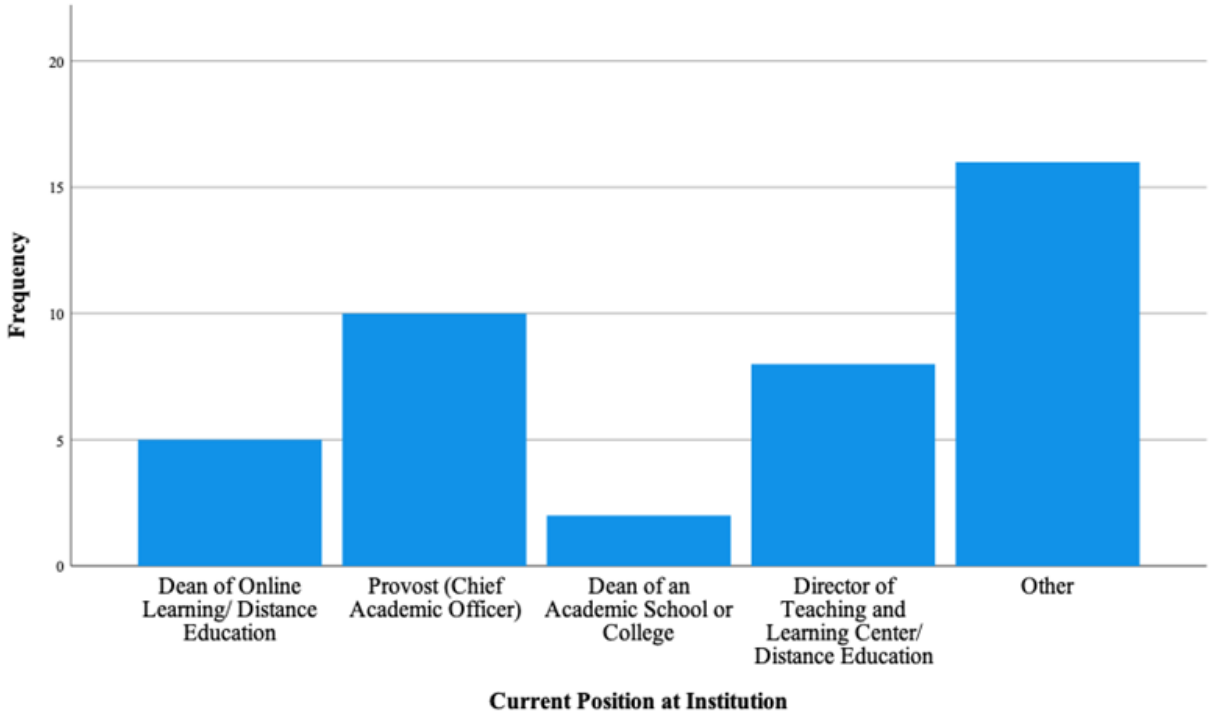
Degree Fields Earned by Participant



Participants were asked to indicate their current position at their institution, which is included in Figure 6. The largest category, which selected by 16 participants, was “other.” Within the other category, 50% of the participants wrote in their role as Vice Provost/President or Associate/Assistant Provost/President. The next largest group in the other category was various types of Deans, including executive and associate level deans at 37.5%.

Figure 6

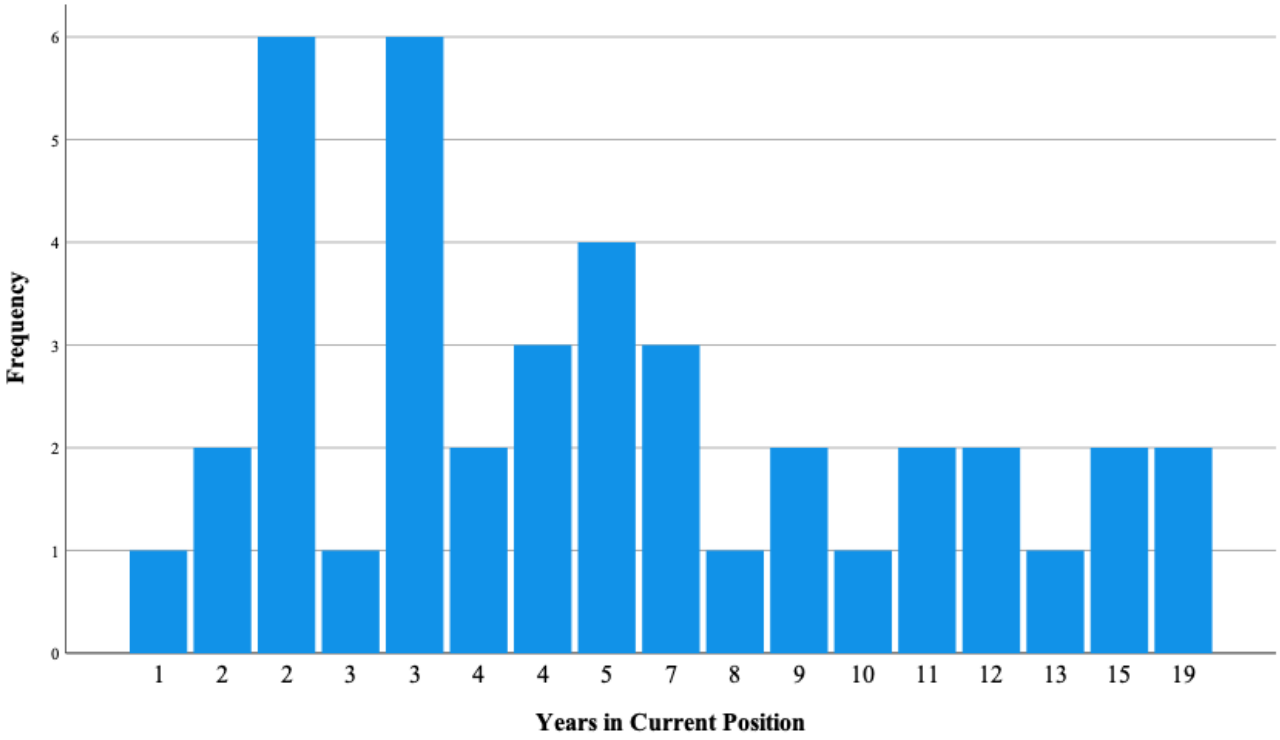
What Is Your Current Position at Your Institution?



Participants were asked to list the number of years they had held their current position. Figure 7 displays the results of this data, showing that 61% of participants have been in their role 5 years or less.

Figure 7

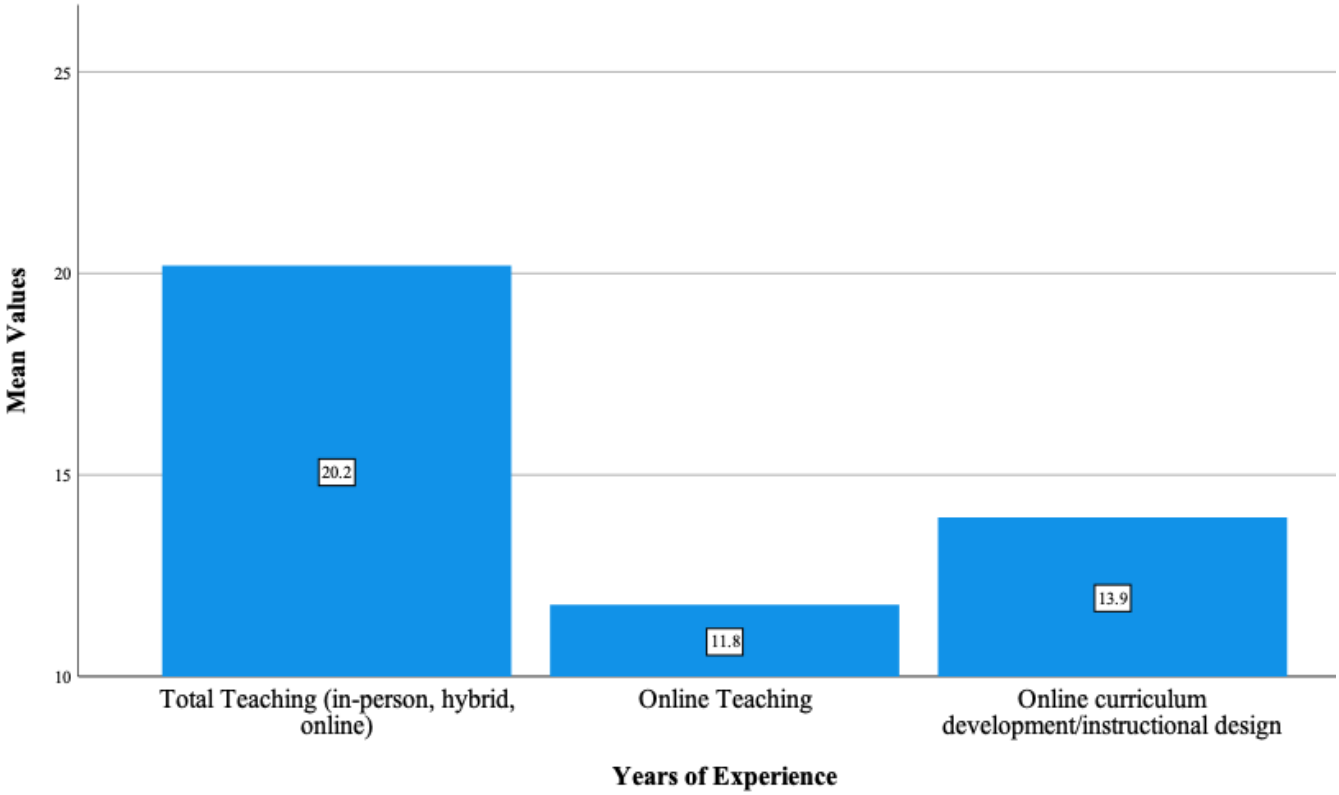
How Many Years Have You Held Your Current Position?



Participants were asked to list how many years of experience they had in the following areas: total teaching (including in-person, hybrid, and online), online teaching, and online curriculum development/instructional design. Participants had an average of 20 years of total teaching experience, 12 years teaching online, and 14 years of online curriculum development/instructional design.

Figure 8

How Many Years of Experience Do You Have?



Participants were asked to indicate which of the professional certifications/trainings related to online learning they had received and to check all that applied. Most of the participants (51.2%) did not have any of the certifications or trainings listed below in Table 9. The next largest group, which included 22% of the participants, had earned a Quality Matters (QM) Peer Reviewer certification. The "other" category included a wide variety of responses written in by participants including institution specific training, University Professional and Continuing Education Association (UPCEA), library training, coursework related to adult learning, self-taught, workshops, Texas Digital Learning Association (TxDLA) accessibility certification, and applying the Quality Matters (QM) rubric.

Table 9

Professional Certifications/Trainings Related to Online Learning

Professional certification/training	Percent of cases
I do not have any of these certifications and/or trainings	51.2
Quality Matters (QM) Peer Reviewer	22.0
Other	19.5
Blackboard Academy	14.6
Online Learning Consortium (OLC) Online Teaching Certificate Program	12.2
OLC Institute for Emerging Leadership in Online Learning	12.2
Moodle Educator Certification Program	9.8
QM Review Course for Program Reviews	9.8
Association of College and University Educators (ACUE) Certification Program for Effective Teaching Practices	7.3
OLC Advanced Online Teaching Certificate Program	7.3
QM Online Facilitator Certification	7.3
EDUCAUSE Institute	4.9
Canvas Certified Educator	2.4
D2L Brightspace Teaching and Learning Certificate Program	2.4
OLC Master Series	2.4
QM Higher Ed QM Coordinator Training	2.4
QM Master Reviewer Certification	2.4
QM Course Review Manager Certification	2.4
Society for Information Technology and Teacher Education TETC PD Courses	2.4
Canvas masteryConnect Leadership Series	0.0
EDUCAUSE LX (Learning Experience Pathways)	0.0
International Society for Technology in Education (ISTE) Certification for Educators	0.0
Society for Information Technology and Teacher Education TETCs 1-3: Planning to Teach with Technology	0.0
Society for Information Technology and Teacher Education TETCs 4-7: Applying Knowledge for Technology to Teacher Education 01	0.0
Society for Information Technology and Teacher Education TETCs 8-11: Foundations of Technology in Teacher Education 01	0.0
Society for Information Technology and Teacher Education TETCs 12: Resolving Technology Issues 01	0.0

Institution Demographics

This next section focuses on the demographics of the institution at which the academic leaders serve. For this question, I grouped together R1-R3, M1-M3, and Baccalaureate Colleges together giving participants one of three options to choose from. As shown in Table 10, most of the institutions surveyed belong to the Doctoral University (R1, R2, or R3) Carnegie classification system, 53.7%.

Table 10

What Is the Carnegie Classification of Your Institution?

Categories	*f*	%
Doctoral Universities (R1, R2, or R3)	22	53.7
Master's Colleges and Universities (M1, M2, or M3)	5	12.2
Baccalaureate Colleges	13	31.7
Total	41	100.0

Participants selected whether their institution was public or private, resulting in 68.3% of participants surveyed worked at public institutions as shown in Table 11.

Table 11

Is Your Institution Public or Private?

Categories	*f*	%
Public	28	68.3
Private	13	31.7
Total	41	100.0

Participants selected whether their institution was nonprofit or for-profit, resulting in the majority, 68.3% of institutions surveyed being public as shown in Table 12.

Table 12

Is Your Institution Nonprofit or Forprofit?

Categories	*f*	%
Nonprofit	37	90.2
For-profit	4	9.8
Total	41	100.0

Each survey participant was asked three enrollment questions about their institution including the number of students currently enrolled this academic year, the number of students registered in at least one online course, and the number of students who are participating in an online degree program shown in Table 13. The average institution size surveyed was 15,804 students. The smallest institution has 135 students while the largest has 110,000 students. The number of online students averaged 9,367 students with 17 students being the lowest online population and 60,000 students being the largest. Finally, the average number of students participating in an online degree program, 3,761 students, was less than the number of students in an online course. Some institutions reported having online students, but no students enrolled in an online degree program.

Table 13

Institution Enrollment Data

Variable	Number of Students Enrolled at the Institution	Number of Students Enrolled in at Least One Online Course	Number of Students Participating in an Online Degree Program
M	15803.78	9367.35	3761.35
SD	21423.197	13403.909	8383.173
Range	109865	59983	45000
Minimum	135	17	0
Maximum	110000	60000	45000

Academic leaders were asked to identify which of the organizations/associations listed in Table 14 did they or their institution belong to, checking all that applied. The organization that highest membership rate was the Online Learning Consortium (OLC) at 61.1% followed closely by Quality Matters (QM) at 55.6%, and Educause (ELI) at 38.9%.

Table 14

Membership of Organizations/Associations

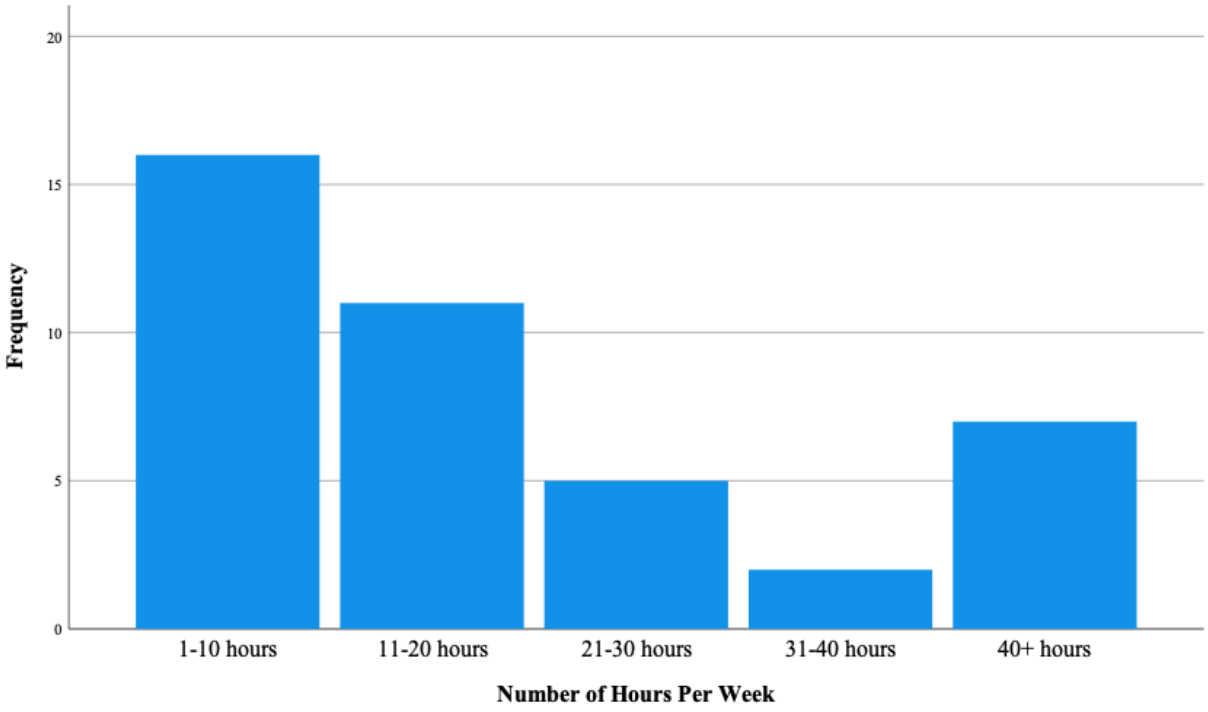
Organization/association	Percent of cases
Online Learning Consortium (OLC)	61.1
Quality Matters	55.6
Educause (ELI)	38.9
United States Distance Learning Association (USDLA)	36.1
Other	36.1
Association for the Advancement of Computing in Education	8.3
International Society for Technology in Education (ISTE)	5.6
Society for Information Technology and Teacher Education	2.8

Academic Leaders Roles and Responsibilities

In this section, survey questions specifically related to the roles and responsibilities of academic leaders surveyed are discussed. Figure 9 displays the number of hours per week academic leaders are dedicating to the administration of online programs given their current roles and responsibilities. Most of the participants indicated that they spend 1-10 hours/week dedicated to online program administration.

Figure 9

Amount of Time Dedicated to the Administration of Online Programs



Participants were asked to identify from the provided list below in Table 15 which groups/departments are under their direct responsibility related to online education, checking all that apply. The three groups most commonly under the direct responsibility of online program administrators include faculty development and training (85%), online learning policy development (77.5%), and course design (70%).

Table 15

Groups/Departments Under Direct Responsibility in Relation to Online Education

Groups/departments	Percent of cases
Faculty Development and Training	85.0
Online Learning Policy Development	77.5
Course Design and/or Multimedia Development	70.0
Instructional Design	65.0
Learning Management Systems (LMS)	60.0
Academic/Educational Technology	52.5
Center for Teaching and Learning	40.0
Library Support for Faculty	37.5
Faculty IT Support	32.5
Other Department	20.0

Participants were provided with a list of priorities and asked to rank them with 1 being the highest priority related to online learning and 7 being the lowest priority. Table 16 displays the ranking results indicating that teaching and learning was deemed at the highest priority by academic leaders.

Table 16

Ranking of Priorities Related to Online Learning

Priorities	Rank (1 being highest and 7 being lowest)
Teaching and Learning	1
Faculty Support	2
Institutional/Administration Support of Online Programs	3
Course Development/Instructional Design	4
Student Support	5
Technology Support	6
Evaluation/Assessment	7

Administration Policies and Procedures

This section displays the results of the survey questions related to the policies and procedures for online program administration. Participants were asked if their institution has a clearly defined process for the development/redesign of new and existing online courses. As shown in Table 17, 61% of academic leaders indicated that their institution does have a process while an additional 31.7% are working towards establishing a process. The minority was institutions that do not have a process at 7.3%.

Table 17

Institution Process for the Development/Redesign of New and Existing Online Courses

Categories	%
Yes	61.0
No	7.3
We are working towards establishing a process	31.7

Academic leaders were also asked if their institution has established course development standards for the development/redesign of online courses. Table 18 shows that the majority, 73.2%, of institutions do have standards and 22% are currently working towards establishing a process. Only 4.9% of institutions do not have course development standards.

Table 18

Course Development Standards for Online Courses

Categories	%
Yes	73.2
No	4.9
We are working towards establishing a process	22.0

Participants were asked if their institution requires faculty to collaborate with instructional designers in the development/redesign of online courses. The results shown in Table 19 indicate an almost evenly split with 56.1% of institutions requiring collaboration with instructional designers and 43.9% not requiring it.

Table 19

Requirement of Faculty to Collaborate With Instructional Designers

Categories	%
Yes	56.1
No	43.9

Research Question 3

RQ3: What is the correlation between a higher education academic leaders' reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs and demographic variables?

This research question attempts to address if there is a relationship between any of the demographic variables collected from the academic leaders or their institution and the reported scores on the Online Learning Scorecard for the Administration of Online programs. To determine the degree of relationship between two variables, correlational research design is used (Bloomfield & Fisher, 2019). This relationship is expressed with a statistical value known as Pearson's coefficient which can be expressed as a positive, negative or no correlation (Bloomfield & Fisher, 2019; Creswell & Creswell, 2018).

Listed below in Table 20, each subsection scorecard was compared against academic leader and institution demographic variables. The Institutional/Administration Support Scorecard is positively correlated with the academic leaders' age (0.01), number of years of online teaching experience held by the academic leaders (0.05), and the numbers of professional

organizations/associations that the academic leaders or institutions belong to (0.05). The Course Development: Institution or Program Level Scorecard subsection is positively correlated the academic leaders' age (0.05), number of years of online teaching experience held by the academic leaders (0.05), and the number of years of online curriculum development/instructional design experience held by the academic leaders (0.05). Finally, the Course Development: Course Level Scorecard subsection is positively associated with academic leaders' age (0.05), number of years of total teaching experience held by the academic leaders (0.05), number of years of online teaching experience held by the academic leaders (0.01), and the number of years of curriculum development/instructional experience held by the academic leaders (0.01). Additionally, each OLC scorecard subsection was positively correlated with each other at the 0.01 significance level.

Table 20

Correlation Between Scorecard and Demographic Variables

Description	Institutional/ Administration Support Scorecard	Course Development: Institution or Program Level	Course Development: Course Level
Age	.597**	.377*	.345*
Years in Current Position	.239	.190	.211
Total Teaching Experience	.268	.247	.323*
Online Teaching	.346*	.393*	.501**
Online Curriculum Development	.292	.332*	.481**
Carnegie Classification	-.217	-.307	-.212
Total Student Enrollment	.225	.233	.055
Online Course Enrollment	.156	.149	.010
Online Degree Enrollment	.088	.137	.008
Number of Certifications by participant	-.051	.181	.244
Number of Organizations by part. and/or inst.	.368*	.320	.262
Institutional/Administration Support Scorecard	-	.737**	.691**
Course Development: Institution or Program Level		-	.821**
Course Development: Course Level			-

Note. *correlation is significant at the 0.05 level (2-tailed). **correlation is significant at the 0.01 level (2-tailed).

Research Question 4

RQ4: Is there a significant difference between an institution's use of course development standards, requirement of instructional designers to collaborate with faculty, and the use of an established process for the development/redesign of new and existing online courses and a higher

education academic leaders' reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs?

This research question sought to address if there was a difference in the OLC scorecard total quality score (average of all three subsection scorecards) evaluated by academic leaders, and an institution's use of course development standards, requirement of instructional designers to collaborate with faculty, and the use of an established process for the development/redesign of new and existing online courses. The data were checked for normality and the statistical tests being used are robust, so ANOVA tests and an independent t-test were conducted to answer this research question (Laerd Statistics, 2018). Additionally, a Bonferroni correction was applied to the statistical analysis because three multiple comparisons were conducted using the same subjects and dependent variable. The correction resulted in a *p*-value of 0.17 (.05/3=.017) being used instead of 0.05 to determine statistical significance and to avoid a type I error (Sauder & DeMars, 2020). An ANOVA test was used for two of the variables, institution's use of course development standards and use of an established process for the development/redesign of new and existing online courses that required comparison (Prabhaker et al., 2019). An independent t-test was used for requirement of instructional designers to collaborate with faculty because comparison occurred among only two groups (Prabhaker et al., 2019).

The first survey question related to policies and processes of online program administration asked survey participants if their institution has a clearly defined process for the development/redesign of new and existing online courses. Participants could choose one of three options: yes, no, and we are working towards establishing a process. To compare the OLC scorecard total quality score against the use of institutional process for online course development an ANOVA test was conducted.

Table 21 show the descriptive statistics of the sample indicating that institutions that do have a defined process for the development/redesign of online courses have the highest OLC scorecard total quality score mean (n = 25, 2.37 ± .41) followed by institutions that do not have a process (n = 3, 1.96 ± .48), with institutions working towards establishing a process having the lowest average OLC scorecard total quality score mean (n = 13, 1.65 ± .34).

Table 21

Institution Process for Course Development Descriptive Statistics

Categories	*n*	*M*	*SD*
Yes	25	2.370	.406
No	3	1.961	.480
We are working towards establishing a process	13	1.653	.337

After conducting an ANOVA test, a significant mean difference in institutional process for course development and OLC scorecard total quality score, $F(2, 38) = 14.657$, $p = <.001$. shown in Table 22

Table 22

ANOVA Between Process for Course Development and OLC Scorecard Total Quality Score

Group	*Sum of Squares*	*df*	*M Square*	*F*	*Sig.*
Between Groups	4.471	2	2.24	14.657	<.001
Within Groups	5.796	38	.15		
Total	10.266	40			

After determining from the ANOVA test that there is a significant mean difference in institutional process for course development and OLC scorecard total quality score, a Tukey post hoc test was conducted to determine how the institutional process for course development compared to one another. Table 23 shows that there is a significant difference in the mean OLC

scorecard total quality score of the institutions who are working on a process for development and the mean OLC scorecard total quality score at institutions that do have an established process for development (p = <.001). There was no significant mean difference between institutions that that do have a process and do not have a process (p = .213 and the schools that do not have a process and those that are working towards one (p = .443).

Table 23

Tukey Post Hoc Test for Institutional Process for Development

(I) Process Development	(J) Process Development	*M* Difference	*SE*	Sig.
Yes	No	.409	.239	.213
No	Working towards a process	.308	.250	.443
Working towards a process	Yes	-.717*	.134	<.001

The second survey question related to policies and processes of online program administration asked survey participants if their institution has established course development standards for the development/redesign of online courses. Participants could choose one of three options: yes, no, and we are working towards establishing standards. To compare the OLC scorecard total quality score against the use of course development standards an ANOVA test was conducted. Table 24 show the descriptive statistics of the sample indicating that institutions that do have course development standards have the highest OLC scorecard total quality mean score (n = 30, 2.27 ± .48) followed by institutions that do not have standards (n = 2, 1.96 ± .22), with institutions working towards establishing standards having the lowest average OLC scorecard total quality mean score (n = 9, 1.64 ± .29).

Table 24

Institution Course Development Standards Descriptive Statistics

Categories	*n*	*M*	*SD*
Yes	30	2.267	.483
No	2	1.962	.218
We are working towards establishing a process	9	1.637	.288

After conducting an ANOVA test, a significant mean difference course development standards at an institution and OLC scorecard total quality score, $F(2, 38) = 7.110$, $p = .002$, shown in Table 25.

Table 25

ANOVA Between Course Development Standards and OLC Scorecard Total Quality Score

Group	*Sum of Squares*	*df*	*M Square*	*F*	*Sig.*
Between Groups	2.796	2	1.398	7.110	.002
Within Groups	7.471	38	.197		
Total	10.266	40			

After determining from the ANOVA test that there is a significant mean difference in institutional use of course development standards and OLC scorecard total quality score, a Tukey post hoc test was conducted to determine how the use of course development standards compared to one another. Table 26 shows there is a significant difference in the mean OLC scorecard total quality score of the institutions who are working towards establishing course development standards than the mean OLC scorecard total quality score at institutions that do have an established course development standards ($p = .002$), however, there is no significant mean difference between institutions that that do have course development standards and those that do not ($p = .617$) and the institutions that do not course development standards and those that are working towards establishing standards ($p = .621$).

Table 26

Tukey Post Hoc Test for Course Development Standards

(I) Development Standards	(J) Development Standards	*M* Difference	*SE*	Sig.
Yes	No	.305	.324	.617
No	Working towards establishing	.325	.347	.621
Working towards establishing	Yes	-.630*	.169	.002

The final process and policy survey question related to online program administration asked academic leaders if their institution requires faculty to collaborate with instructional designers in the development and redesign of online courses. To determine if a relationship between collaboration with instructional design and the OLC scorecard total quality score exists, an independent t-test was conducted.

After conducting the t-test, the following results were found when looking at the variables, OLC scorecard total quality score (dependent) and instructional design collaboration requirement (independent). In Table 27, the average total quality score for institutions that require instructional design collaboration is $M = 2.28$, while for the average total quality score for intuitions that do not require instructional design collaboration is $M = 1.90$.

Table 27

Instructional Design Requirement Descriptive Statistics

Categories	*n*	*M*	*SD*
Yes	23	2.282	.521
No	18	1.897	.406

Normally a t-test for independent samples would be conducted using a significance value of $p < .05$ but since a Bonferroni correction was necessary due to three survey questions being compared again the reported score, the *p*-value of .017 was used instead of .05. Table 28 shows a

significant difference in the means for requiring an instructional designer to collaborate with faculty in the development/redesign of online courses with the OLC total quality score (2.28 ± .52) and not requiring an instructional designer (1.90± .41), t(39) = 2.581, p = .014.

Table 28

Independent Samples Test for Instructional Design and OLC Scorecard Total Quality Score

	Levene's Test for Equality of Variances		*t* test for Equality of Means		
Category	*F*	*Sig.*	*t*	*df*	*Sig. (2 tailed)*
Total Quality Score	2.152	.150	2.581	39	.014

Chapter Summary

Within Chapter 4, the data collected from 41 academic leaders in the state of Texas, responsible for the administration of online programs at their institutions are shown addressing all four research questions of my study. I began with addressing how academic leaders are perceiving the quality of their online programs using the Online Learning Consortium Scorecard for the Administration of Online Programs as the assessment tool. I also describe who the current higher education academic leaders are including data on their demographics, their institution demographics, the roles and responsibilities of the academic leaders, and the policies and procedures of online program administration. Data were also presented on the relationship between the demographic variables gathered in this survey and each of the three subsections scorecards used from the Online Learning Consortium Scorecard for the Administration of Online Programs. Each of the three OLC scorecard subsections positively correlated with each other in addition to correlating with demographic variables. Finally, the data also indicated that there was a significant difference between the between an institution's use of course

development standards, requirement of instructional designers to collaborate with faculty, and the use of an established process for the development/redesign of new and existing online courses and the academic leaders' reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative research study was to examine college and university leaders' background in, perceptions of, and experiences with the administration of high-quality online programs and design of online courses. This chapter includes a discussion of the importance of this topic, the findings for each of the four research questions, the limitations of my study, and recommendations for future studies.

Discussion

The demand for distance education continues to increase in U.S. higher education with 35% of students enrolling in an online course in the fall of 2018 (National Center for Education Statistics, 2021). With overall higher education enrollment decreasing over the past several years, institutions must turn their attention to their online programs and courses (Seaman et al., 2018). Providing high-quality distance education for students requires that higher education institutions and academic leaders be able to overcome the barriers they are experiencing such as providing adequate instructor support, applying best practices in course design, reducing technology barriers, and maintaining organizational structures that allow faculty members to offer high quality online courses that meet student need (Nemetz et al., 2017; Sanford, 2017; Scoppio & Luyt, 2017; Tannehill et al., 2018).

Academic leaders must understand the factors that relate to and influence online course development to ensure high-quality online programs. While there are many factors that influence quality course development, course design is essential because of its direct impact on student experience and satisfaction (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). Courses that are designed poorly can lead to negative perceptions of online courses and dissatisfaction in student evaluations (Nemetz et al., 2017). On the other hand,

appropriate course design has the potential to reduce student frustration and increase retention (Wu et al., 2006). Understanding student expectations and having academic leaders provide adequate support within their institution is critical for quality online course design.

Course design has many factors that influence its quality including the faculty, organizational structure within the institutions, and academic policies regarding quality standards (Nemetz et al., 2017; Ng & Baharom, 2018; Sanford, 2017; Scoppio & Luyt, 2017). A relationship between course design and perceived learning by students, student performance/grades, satisfaction, and engagement are established in literature (Martin et al., 2021). Course design is a focal point in online courses specifically because of the difference in skills needed to develop and deliver an online course versus a traditional course (Baldwin, Ching, & Friesen, 2018; Bolliger & Martin, 2021). Evidence that academic administrators may struggle to adequately support quality course development includes a lack of institutional support, inadequate faculty skill level in online course design, and poor organizational structure (Sanford, 2017; Tannehill et al., 2018).

Perceptions held by academic leaders about course design, as well as their selection of institution initiatives, are important factors for quality course development (Tannehill et al., 2018; Ulrich & Karvonen, 2011). There may be a direct impact on course quality and, ultimately, student experience by understanding how academic leadership perceptions influence course design (Bigatel & Edel-Malizia, 2018; Scoppio & Luyt, 2017). The knowledge gap that exists in how academic leaders perceive and understand quality online programs may lead to negative consequences in course design and quality.

In this study, I sought to examine college and university leaders' backgrounds in, perceptions of, and experiences with the administration of high-quality online programs and

design of online courses. The study was designed to understand how academic leaders perceive quality and what factors may impact their perceptions in the administration of online programs. The quantitative survey consisted of two main sections; the first collected background information from the academic leader and their institution, and the second section of the survey collected the academic leaders' perceptions of online program quality at their institutions.

For the first section, to understand the leadership structure and how academic leaders influence online education, required gathering academic leaders' demographics, education, and leadership experience within online higher education. The demographic questions from Fredericksen's (2017) survey of United States higher education leaders in online learning were duplicated with permission and used to design section one of the survey. Supplemental questions were added to the survey to learn more about current academic leaders, their institutions, and the institutions' policies/procedures for online course development (see Appendix B).

The second section of the survey utilized the Online Learning Consortium Scorecard for the Administration of Online Programs (Online Learning Consortium, 2018). This scorecard consists of seven sections. Since the goal of this study focused specifically on the academic leaders' perceptions of online course design, only two sections of the scorecard were used: Institutional/Administrative Support and Course Development/ Instructional Design. The section Course Development/Instructional Design contains two subsections resulting in a total of three scorecard subsections being assessed by academic leaders. These sections from the OLC Quality Scorecard Suite for the Administration of Online Programs were replicated exactly with permission from the OLC and utilized the same scoring method as prescribed by the OLC (see Appendix B).

The survey was sent to academic leaders of online programs within the state of Texas serving at 2 and 4-year undergraduate and graduate level, public and private, for-profit and not-for-profit higher education institutions with at least one 100% online degree program. This delimitation was intentionally included as I was specifically looking for quality perceptions in online programs, and institutions that did not have an online program were eliminated. Surveys were distributed to the identified academic leaders at that institution perceived to be responsible for the administration of online programs. Out of 150 institutions eligible to participate, 41 academic leaders, each from different institutions, participated in the survey after an initial survey invitation and follow-up reminder emails were sent. The findings include results from descriptive, correlational, and causal comparative research designs to answer the proposed research questions.

Summary of the Findings

Research Question 1

RQ1. How do higher education academic leaders perceive the quality of online programs at their institution based on their reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs?

Research Question 1 sought to garner academic leaders' perceptions about the quality of online programs at their institution to gain an understanding of how online programs are being perceived by those administering them. Academic leaders assessed the quality of their institution's online program(s) using two sections from the Online Learning Consortium Scorecard for the Administration of Online Programs, Institutional/Administration Support and Course Development/Instructional Design. The Course Development/Instructional Design section of the scorecard contains two subsections, a) Course Development: Institution or

Program Level and b) Course Development: Course Level. This resulted in three scorecard subsections being evaluated by academic leaders. Survey respondents completed their assessment using the prescribed OLC scorecard grading scale in which 0= deficient, 1 = developing, 2= accomplished, and 3= exemplary.

In comparing the three scorecard subsections that were assessed by academic leaders, the Course Development: Course Level scorecard had the highest mean score followed by Course Development: Institution or Program Level, and finally Institutional/Administration Support. When placing the mean scores on the OLC scorecard grading scale, the Course Development: Course Level quality was scored accomplished approaching exemplary, the Course Development: Institution or Program Level quality score was accomplished, and the Institutional/Administration Support quality score was developing, almost accomplished. The Course Development: Course Level scorecard also had the lowest standard deviation among the subsections, indicating that institutions seem to be providing a similar level of quality in this area. The Institutional/Administration Support scorecard, on the other hand, had the highest standard deviation, indicating a greater difference across institutions in how the institution/administration is supporting online programs.

Institutional/Administrative Support. This scorecard subsection had eight quality indicators assessed by academic leaders. Quality indicator seven received the highest score, which was not surprising as this quality indicator denotes that an institution has guidelines to ensure that the student enrolled in the online course is the one taking the online course through means such as a secure login. Quality indicators three, four, five, six, and eight all received low mean scores. These quality indicators address governance related to online learning, process for online education continuous improvement, strategic planning for resource allocation, sufficient

resource allocation, and continuous improvement to the strategic plan for online programs. Quality indicator six received the lowest mean score and had the highest standard deviation of all the quality indicators assessed by academic leaders across all three scorecard subsections. Quality indicator six addresses that the institution has sufficient resources allocated to support online education. To improve their online programs, institutions may benefit from addressing how resources are currently being allocated to online programs; however, some institutions may be already executing this efficiently as indicated by the high standard deviation.

Course Development: Institution or Program Level. This scorecard subsection had 11 quality indicators for academic leaders to assess. Quality indicator 11, which addresses that curriculum development is a primary responsibility of faculty, received the highest score. Curriculum development has traditionally been housed with faculty, so a high score on this quality indicator is expected. Quality indicator nine received the lowest score in this scorecard subsection, indicating that incorporating Web Content Accessibility Guidelines (WCAGs) being incorporated into online courses may be an area of improvement for institutions. Quality indicator five, addressing consistency of course design including navigation and student support components, had a high standard deviation, indicating that some institutions are providing this and others are not which may be an area of improvement for some institutions.

Course Development: Course Level Scorecard. This scorecard subsection had seven quality indicators that were evaluated by academic leaders. Within this scorecard, all the quality indicators had consistently high scores and low to fair standard deviations, indicating that institutions are executing these quality indicators at a higher quality level consistently across institutions. Quality indicator five received the lowest score within this scorecard subsection. This quality indicator encourages that courses should provide student to student collaboration

opportunities and tools such as instant messaging. Quality indicator two received the highest score and lowest standard deviation in this subsection and across all three scorecards. This indicates that academic leaders perceive students having access to library/learning resources to adequately support their online courses regardless of physical location at a high level of quality across all institutions.

OLC Scorecard Total Quality Score. In addition to looking at each scorecard subsection average score, all three scorecards were combined to create what this study refers to as the Online Learning Consortium (OLC) scorecard total quality score. The mean total quality score of institutions surveyed would place the quality score for the administration of online programs at accomplished indicating that this is how current academic leaders in the state of Texas perceive the quality of their institutions' online programs.

Research Question 2

RQ2. What are the background demographics of current higher education academic leaders who administer online programs?

For Research Question 2, I collected background demographics of academic leaders' administering online programs to provide context into who is leading online programs and to describe their institutional makeup. A synthesis of the participants and their institutions is described below:

Academic Leader:

- Leaders were 35 to 78 years old with the average age being 55;
- 81% of leaders held a doctoral degree;
- 56% of leaders held a degree in education;

- Leaders administering online programs had a variety of job titles, including Provost, Vice Provost/President, Dean (at various levels), and Director of Teaching and Learning Centers/ Distance Education;
- 61% of participants have been in their role 5 years or less;
- Participants had an average of 20 years of total teaching experience, 12 years online teaching, and 14 years of online curriculum development/instructional design;
- 51% of academic leaders did not have any professional certifications/trainings related to online learning;
- 50% of leaders are spending only one-10 hours/week dedicated to online program administration;
- When ranked, teaching/learning was the highest priority of academic leaders related to online learning.

Institution:

- 54% of the institutions surveyed fell into the Doctoral Carnegie classification;
- 68% of institutions were public with 90% being nonprofit;
- Of institutions surveyed, the average number of students participating in one online course was 9,367 students with a range of 17 to 60,000 students;
- Organizations that most institutions and/or academic leaders belong to include the Online Learning Consortium, 61%, and Quality Matters (QM), 56%;
- 61% of institutions have a clearly defined process for the development/redesign of new and existing online courses;

- 73% of institutions have established course development standards for the development/redesign of online courses;
- 56% of institutions require faculty to collaborate with instructional designers in the development/redesign of online courses.

The academic leaders administering online programs displayed a wide variety in experiences and backgrounds. With most academic leaders being new in their positions and only spending one-10 hour/week dedicated to online program administration, may suggest a need for a dedicated online learning leader at institutions. While leaders had an average of 20 years of teaching experience, only 12 years were focused on online teaching. Increasing online teaching experience may be an area of development for current academic leaders. Higher education institutions should be encouraged as most institutions are utilizing best practices in online course development, including the use of course development standards, creating processes for the development of online courses, and partnering faculty with instructional designers.

Research Question 3

RQ3. What is the correlation between a higher education academic leaders' reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs and demographic variables?

Research Question 3 sought to understand if there was a relationship between an institution's quality score on the three scorecard subsections from the OLC Scorecard for the Administration of Online Program and any demographic variables. A positive correlation between academic leaders' age and years of online teaching experience with each of the three scorecard subsections was found. Having a seasoned professional with an increased number of years in *online* teaching experience may improve an institution's online program quality. Total

teaching experience was only positively correlated to the Course Development: Course Level scorecard subsection. Online curriculum development experience was positively correlated with both Course Development scorecard subsections and was significant for the Course Level scorecard subsection. These results highlight that quality at the course level is significantly related with experience in teaching, online teaching, and online curriculum development experience. Age was significantly correlated with the Institutional/Administration Scorecard further emphasizing the need for seasoned professionals in high level leadership roles dedicated to online programs. The number of organizations that an institution and/or academic leader belonged to positively correlated with the Institutional/Administration Support scorecard. Finally, all three of the OLC scorecard subsections positively correlated with each other indicating a relationship between improving the quality score of one scorecard with improving the quality scores of the other scorecards.

Research Question 4

RQ4. Is there a significant difference between an institution's use of course development standards, requirement of instructional designers to collaborate with faculty, and the use of an established process for the development/redesign of new and existing online courses and a higher education academic leaders' reported score on the Online Learning Consortium Scorecard for the Administration of Online Programs?

Research Question 4 aimed at understanding if an institution's OLC total quality score from the OLC Scorecard for the Administration of Online Program would be impacted based on if the institution had established standards for course development, required instructional designers to collaborate with faculty, and included a process for the development/redesign of new and existing online courses. When reviewing all three variables, there was a significant

difference in the OLC total quality score. A significant difference in the OLC total quality score occurred between institutions who had course development standards and institutions who were working on establishing course development standards. A significant difference in the OLC total quality score also occurred between institutions who had a course development process and institutions who were working on establishing a course development process. Finally, a significant difference in the OLC total quality score occurred between institutions who require faculty to collaborate with instructional designers and institutions who do not require instructional designer and faculty collaboration.

Leaders should be encouraged that implementing these best practices in online course development directly impacts online program quality. Institutions working towards establishing course development standards and processes for course development should see improvement in their online program quality once these are established. Institutions wanting to improve their online program quality could require faculty to collaborate with instructional designers for improved online program quality.

Limitations

There are several limitations of this study that should be addressed. The most impactful limitation was the sample size. While I reached out to every eligible institution within the state of Texas to participate, my survey had a 27.3% response rate, indicating that my sample may not be representative of all academic leaders' perceptions. Furthermore, in my study only the state of Texas was sampled, thus my findings cannot be generalized to all academic leaders within online higher education. A greater impact of results may be seen if a national survey was conducted.

Of those who participated in the survey, all data collected was completely anonymous, no names, institutions, or email addresses were collected. However, respondents may have been

skewed towards scoring the quality of their online programs higher than the actual quality level. The ongoing COVID-19 pandemic, which forced many institutions to rapidly shift to online education, may have influenced how academic leaders and their respective institutions perceive online course quality. It is also important to note that only perceptions of quality were gathered. No official quality score or review was conducted of an institution's online programs or courses.

While this study was aimed at collecting the perspectives of the highest-level decision makers over online education at each institution, the most appropriate person may not have been the participant of the survey. Additionally, online program administration duties may be housed with more than one individual, and this survey was designed to only capture one individual's perspectives per institution.

Implications for Practice

There are several implications for online program quality within higher education based on the results of this study. Online education is critical to current higher education institutions because of the financial sustainability it provides as traditional enrollment decreases while distance education increases (Allen & Seaman, 2016; Brown, 2018; Garrett, Legon, & Fredericksen, 2020). Academic leaders should distinguish themselves in this saturated market (Brown, 2018). One way in which institutions can distinguish themselves is through high quality online programs.

In this study, academic leaders assessed the total quality score of online programs to be "accomplished" when following the OLC scorecard scoring scale. Across institutions, the scorecard Course Development: Course Level received the highest scores with low standard deviation, indicating that academic leaders perceive that their institutions are consistently achieving the quality indicators in this scorecard subsection at a high level of quality. Across all

of the institutions, leaders indicated that students have access to library/learning resources to adequately support their online courses regardless of physical location at a high level of quality. One area for institutional improvement would be to focus on the quality indicators in the Institutional/Administration Support scorecard subsection. Specifically, leaders should focus on quality indicators that address governance related to online learning, process for online education continuous improvement, strategic planning for resource allocation, sufficient resource allocation, and continuous improvement to the strategic plan for online programs. Leaders should reflect on how distance learning is being supported because the structure of online programs within an institution impacts other departments throughout the organization (Paolucci & Gambescia, 2007).

Transformational leadership was the theoretical framework used in this study for examining academic leadership within higher education. This leadership model provides flexibility within an organizational structure when there are diverse needs which may occur when overseeing multiple departments or differing learning modalities (Nworie, 2012). In this study, current academic leaders are overseeing multiple departments including both residential and online programs thus transformational leadership is an appropriate framework for academic leaders within high education institutions (Fredericksen, 2017; Tannehill et al., 2018). Quality indicators in the Institutional/Administration Support Scorecard subsection encourages establishing a strategic plan, mission, and values that include online learning. Transformational leadership theory seeks to motivate followers based upon a shared organizational mission with the leader acting in a moral and ethical capacity (Nworie, 2012). Higher education leaders should be encouraged to apply a transformational leadership model as they administer online programs

as this theory aligns with the quality indicators in the Institutional/Administration Support Scorecard subsection.

In this study, it was shown that academic leaders administering online programs at institutions have a wide variety of experiences and backgrounds. In a national survey of leaders in online higher education conducted by Fredericksen (2017), most participants were in new positions created within the past 5-6 years. The leaders in my study also confirmed that most were in their role 5 years or less; however, it is unclear if the positions were newly created.

Academic leaders can compare themselves to the demographic information synthesized from this study to identify areas for professional development and continual growth. For example, many academic leaders did not have professional certifications or trainings related to online learning which may be an area of improvement for academic leader. Results of this study indicated a positive correlation in academic leaders' age and years of online teaching experience with each of the three scorecards. A recommendation based on the results of this study would be for higher education institutions that are looking to improve their online program quality may benefit from hiring a seasoned professional with an increased number of years of online teaching experience with additional experience in online curriculum development/instructional design. These leaders should be actively involved with professional organizations or associations such as the OLC to oversee online program administration at their institution. Institutions looking to improve their online program quality or fill vacant positions can use these demographic variables to inform their decision making related to academic leaders of online programs.

Implementing best practices in course design can directly impact online program quality. Researchers demonstrated that a lack of any quality standards at an institution negatively impacts an institution's online program success (Baldwin, Ching, & Hsu, 2018). As shown in this study,

there was a significant difference in online program quality between institutions who had established course development standards and a defined process for course development versus institutions who were working towards it. Institutions working towards establishing processes and course development standards should see an improvement in their online program quality once course development standards and processes are established, specifically on their quality score within the Course Development: Institution or Program Level scorecard subsection. The quality indicators in this scorecard subsection directly relate to course development standards as processes. For example, quality indicator one asks if the institution or program has minimum guidelines required for the development, design, and delivery of an online course that are periodically reviewed, thus by establishing these requirements an institution may increase their score on this quality indicator resulting in an increased quality score.

Collaborative partnerships between faculty and instructional designers may alleviate course development and design issues as well as close the knowledge gaps in online course design best practices (Bazluki et al., 2018; Scoppio & Luyt, 2017). But higher education institutions are not providing adequate support to reduce this gap (Sanford, 2017). This lack of support was confirmed in this study through a significant difference in OLC total quality scores between institutions requiring faculty to collaborate with instructional designers and those that did not. Resource allocation for online programs was a concerned identified by quality indicator six, the institution has sufficient resources allocated to support online education, in the Institutional/Administration Support scorecard as this quality indicator received the lowest score of all the quality indicators assessed by academic leaders across all three scorecard subsections. To improve online programs, institutions may benefit from concentrating how resources are currently being allocated to online programs, addressed by quality indicator six. By creating a

strategic plan for resource allocation to online programs and having sufficient funding to effectively carry out the strategic plan, institutions would be able to improve their quality score in the Institutional/Administration Support scorecard subsection. Furthermore, institutions or academic leaders may consider joining the Online Learning Consortium or Quality Matters as the number of organizational an institution/academic leader belonged to did positively correlate with the quality score for Institutional/Administration Support Scorecard.

Recommendations

Future recommendations for research include replicating this study on a national scale rather than just within the state of Texas. Expanding this study to include all of the sections from the OLC Quality Scorecard for the Administration of Online Programs rather than the two focused on in this study, would provide a more comprehensive total quality score for online programs. Future studies could also compare different degree programs within or across institutions to see if there is variation in quality.

This study could also be modified to collect quality perceptions from multiple individuals rather than one academic leader per institution. It may also be insightful to see how online program quality perceptions vary between academic leaders within the same institutions. This could be done through conducting a qualitative study, allowing the researcher to gain additional insight from multiple perspectives and details regarding specific quality indicators. Beyond the use of instructional designers, course development standards, and establishing a process for course development, further research could look at additional practices and policies in place at institutions that may significantly impact online program quality. This could be done both through additional quantitative as well as qualitative research design studies.

Conclusions

In this study, I sought to examine college and university leaders' backgrounds in, perceptions of, and experiences with the administration of high-quality online programs and design of online courses. Current academic leaders in the state of Texas perceived the quality of their institution's online program(s) at the "accomplished" quality level. In the three scorecard subsections from the Online Learning Consortium Quality Scorecard for the Administration of Online Programs assessed by academic leaders, the scorecard subsection Course Development: Course Level had the highest mean quality score. Analysis of the quality indicators within the scorecards revealed that institutions may benefit from addressing how resources are currently being allocated to online programs to improve quality. Institutions are ensuring that students have access to library/learning resources to adequately support their online courses regardless of physical location at a high level of quality.

Demographic information was provided on current academic leaders and their respective institutions within the state of Texas. It was found that a seasoned professional with an increased number of years in online teaching experience might improve an institution's online program quality. Improving the quality score of one scorecard subsection may also improve the quality score of other scorecard subsections in the administration of online programs as these scores are positively correlated. Institutions should be encouraged that implementing course design standards, establishing a process for course development, and having faculty collaborate with instructional designers in online course development does directly impact online program quality.

Online program quality will continue to be a concern of higher education leaders across institutions. The results of this study may be used to help improve online program quality by

understanding how academic leaders perceive quality and what factors may impact their perceptions in the administration of online programs. As online education continues to evolve, future research should continue to focus on understanding the factors that directly impact online program quality as distance education will remain critical to higher education institutions and its leaders.

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Appendix A: IRB Approval

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

December 8, 2021

Amanda Korkow
Department of Graduate and Professional Studies
Abilene Christian University

Dear Amanda,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Academic Leadership Perceptions of Online Program Quality and Course Design",

(IRB# 21-186)is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Appendix B: Survey Questions

Qualifier Question:
For your position are you responsible for overseeing the administration of online programs?

- Yes
- No

Survey Branch Question (if respondent answers no to previous question):
If you are not responsible for the administration of online programs, please provide the contact information for the most appropriate individual at your institution.

- Name:
- Email:
-

Section 1

Demographics/Background of Academic Leader

- What is your gender?
  - Female
  - Male
  - Prefer not to answer

What is your age?

- [open response]

What is the highest degree level you have earned?

- Bachelors
- Masters
- Doctoral

Which of the following are field(s) in which you earned a degree? (check all that apply)

- Natural Sciences
- Healthcare
- Education
- Computing
- Engineering
- Technology
- Business
- Humanities
- Social Sciences
- Other (please specify)

- What is your current position at your institution?
  - Dean of Online Learning/Distance Education
  - Provost (Chief Academic Officer)
  - Dean of an Academic School or College

- Director of Teaching and Learning Center/ Distance Education
- Other (please specify)

How many years have you held your current position?

- [open response]

How many years of total **teaching (in-person, hybrid, online)** experience do you have?

- [open response]

How many years of **online teaching** experience do you have?

- [open response]

How many years of **online curriculum development/instructional design** experience do you have?

- [open response]

- Which of the following professional certification(s) and/or training(s) have you completed related to **online learning**? (check all that apply)
  - Association of College and University Educators (ACUE) Certification Program for Effective Teaching Practices
  - Blackboard Academy
  - Canvas Certified Educator
  - Canvas MasteryConnect Leadership Series
  - D2L Brightspace Teaching and Learning Certificte Program
  - EDUCAUSE LX (Learning Experience Pathways)
  - EDUCAUSE Managers Institute
  - EDUCAUSE Learning Technology Leaders Institute
  - EDUCAUSE Senior Directors Institute
  - EDUCAUSE Leadership Institute
  - EDUCAUSE Leading Change Institute
  - EDUCAUSE Institute for Higher Education Institutions
  - International Society for Technology in Education (ISTE) Certification for Educators
  - Moodle Educator Certification Program
  - Online Learning Consortium (OLC) Online Teaching Certificate Program
  - Online Learning Consortium (OLC) Advanced Online Teaching Certificate Program
  - Online Learning Consortium (OLC) Institute for Emerging Leadership in Online Learning
  - Online Learning Consortium (OLC) Master Series
  - Quality Matters (QM) Peer Reviewer
  - Quality Matters (QM) Higher Ed QM Coordinator Training
  - Quality Matters (QM) Master Reviewer Certification
  - Quality Matters (QM) Course Review Manager Certification
  - Quality Matters (QM) Review Course for Program Reviews
  - Quality Matters (QM) Online Facilitator Certification

- Society for Information Technology and Teacher Education TETC PD Courses
- Society for Information Technology and Teacher Education TETCs 1-3: Planning to Teach with Technology
- Society for Information Technology and Teacher Education TETCs 4-7: Applying Knowledge of Technology to Teacher Education 01
- Society for Information Technology and Teacher Education TETCs 8-11: Foundations of Technology in Teacher Education 01
- Society for Information Technology and Teacher Education TETC 12: Resolving Technology Issues 01
- Other (please specify)
- I do not have any of these certifications and/or trainings

Institution Demographics

- What is the Carnegie Classification of your institution?
  - Doctoral Universities: Highest Research Activity (R1), Higher Research Activity (R2), or Moderate Research Activity (R3)
  - Master's Colleges and Universities: Larger Programs (M1), Medium Programs (M2), or Smaller Programs (M3)
  - Baccalaureate Colleges: Arts & Sciences, Diverse Fields, Associates Dominant, or Mixed Baccalaureate/ Associate's

Is your institution public or private?
- Public
- Private

Is your institution non-profit or for-profit?
- Non-profit
- For-profit

- List the **total number** of students enrolled in your institution this academic year.
  - [open answer]

List the number of students registered in **at least one online course** this academic year.
- [open answer]

List the number of students participating in an **online degree program** this academic year.
- [open answer]

Which of the following organizations/ associations do you or your institution belong to? (check all that apply)
- Association for the Advancement of Computing in Education
- Educause (ELI)
- International Society for Technology in Education (ISTE)

- Online Learning Consortium (OLC)
- Quality Matters (QM)
- Society for Information Technology and Teacher Education
- United States Distance Learning Association (USDLA)
- Other (please specify)

Roles and Responsibilities of Academic Leaders

- Of your current roles and responsibilities, what amount of time is dedicated to the administration of online programs?
  - 1- 10 hours/ week
  - 11-20 hours/ week
  - 21-30 hours/ week
  - 31- 40 hours/ week
  - 40+ hours/ week

- Which of the following groups/ departments at your institution are under your direct responsibility in relation to **online education**? (check all that apply)
  - Academic/ Educational Technology
  - Instructional Design
  - Faculty IT Support
  - Library support for faculty
  - Learning Management Systems
  - Online Learning Policy Development
  - Faculty Development and Training
  - Center for Teaching and Learning
  - Course design and/or multimedia development
  - Other (please specify)

- Rank the priorities for you in your role related to online learning? *1 being the highest priority and 7 being the lowest priority.*
  - Institutional/ Administration Support of Online Program
  - Technology Support
  - Course Development/ Instructional Design
  - Teaching and Learning
  - Faculty Support
  - Student Support
  - Evaluation/ Assessment

Administration/Processes/ Policies of Course Development

- Does your institution have a clearly defined **process** for the development/redesign of new and existing online courses?
  - Yes

  - No
  - We are working towards establishing a process

- Does your institution have established **course development standards** for the development/ redesign of online courses?
  - Yes
  - No
  - We are working towards establishing standards

- Does your institution **require** faculty to collaborate with instructional designers in the development/redesign of online courses?
  - Yes
  - No

Part 1 survey questions were adapted with permission from:

Fredericksen, E. E. (2017). A national study of online learning leaders in U.S. higher education. *Online Learning, 21*(2). https://doi.org/10.24059/olj.v21i2.1164

Section 2

Complete the following section Institutional/Administration Support (24 points) from the Online Learning Consortium (OLC) Quality Scorecard for the Administration of Online Programs. Rank each quality indicator on a scale of 0-3. With 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary.

Institutional/Administration Support (24 points)

1. The institution's mission, value and strategic plan are inclusive of online learning and the structure for delivering online education supports the institution's mission, values, and strategic plan. +
2. The institution has clearly defined and communicated the strategic value of online learning to all stakeholders (students, faculty, staff, community, etc.). +
3. The institution has a governance structure to enable clear, effective and comprehensive decision making related to online education.
4. The institution has a process to enable systematic and continuous improvement related to the administration of online education. +
5. The institution has a process for strategic planning and resource allocation for the online program, including human and financial resources. +
6. The institution demonstrates sufficient resource allocation, including human and financial resources, in order to effectively support the mission of online education. +

7. The institution has policy and guidelines (including regional accrediting requirements) that confirm a student who registers in an online course or program is the same student who participates in and completes the course or program and receives academic credit. This is done by verifying the identity of a student by using methods such as (a) a secure login and pass code, (b) proctored examinations, or (c) other technologies and practices that are effective in verifying student identification. +
8. The online program's strategic plan is reviewed for its continuing relevance, and periodically improved and updated.

Complete the following section Course Development/Instructional Design (54 points) from the Online Learning Consortium (OLC) Quality Scorecard for the Administration of Online Programs. Rank each quality indicator on a scale of 0-3. With 0 = deficient, 1 = developing, 2 = accomplished, and 3 = exemplary.

Course Development (Institution or Program/Level, 33 points)

1. Guidelines regarding minimum requirements for course development, design, and delivery of online instruction (such as course syllabus elements, course materials, assessment strategies, faculty feedback) are in place, periodically reviewed and followed. *+
2. Course development guidelines are in place and followed to ensure courses are designed so that students develop necessary knowledge and skills to meet measurable course and program learning outcomes. *+
3. Instructional materials and course syllabi are reviewed periodically to ensure they meet online course and program learning outcomes. *
4. Student-centered instruction is considered during the course development process.
5. There is consistency in the design of course navigation and utilization of course components to support student retention and quality. +
6. Course design promotes both faculty and student engagement.
7. A process is followed that ensures that permissions (Creative Commons, Copyright, Fair Use, Public Domain, etc.) are in place for appropriate use of online course materials.
8. Policies are in place to ensure instructional materials are easily accessible to the student and easy to use, with the ability to be accessed by multiple operating systems and applications. +
9. Usability tests are conducted and applied, and recommendations based upon Web Content Accessibility Guidelines (WCAGs) are incorporated.
10. Instructional materials are easily accessed by students with disabilities via alternative instructional strategies and/or referral to special institutional resources.
11. Curriculum development is a core responsibility for faculty (i.e., faculty should be involved in either the development or the decision making for the online curriculum choices). *+

Course Development (Course Level, 21 points)

1. The online course includes a syllabus outlining course objectives, learning outcomes, evaluation methods, books and supplies, technical and proctoring requirements, and other related course information, making course requirements transparent. *
2. The course structure ensures that all online students, regardless of location, have access to library/learning resources that adequately support online courses. *
3. Links or explanations of technical support are available in the course (i.e., each course provides suggested solutions to potential technical issues and/or links for technical assistance).
4. Course embedded technology is actively used to support the achievement of learning outcomes. *+
5. Opportunities/tools are provided to encourage student-student collaboration (i.e., web conferencing, instant messaging, etc.) if appropriate. +
6. Expectations for assignment completion, grade policy and faculty response are clearly provided in the course syllabus. *+
7. Rules or standards for appropriate online student behavior are provided within the course.

*Adapted from Institute for Higher Education Policy's Quality on the Line: Benchmarks for Success in Internet-based Distance Education (2000).
+ Modified quality indicator in 2018