2017

EVALUATING THE QUALITY OF ONLINE COURSES WITHIN THE KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM (KCTCS)

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Digital Object Identifier: https://doi.org/10.13023/ETD.2017.077

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EVALUATING THE QUALITY OF ONLINE COURSES WITHIN THE KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM (KCTCS)

DISSERTATION

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

By
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2017
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ABSTRACT OF DISSERTATION

EVALUATING THE QUALITY OF ONLINE COURSES WITHIN THE KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM (KCTCS)

The purpose of this exploratory, multi-phased iterative study was to explore the extent to which Kentucky Community and Technical College (KCTCS) faculty utilize quality standards during the design and continuous improvement of their online courses. The study also explored how leadership supports quality online instruction. More specifically, this study sought (a) to determine to what degree KCTCS quality assurance rubrics aligned with national quality standards, (b) to what degree did faculty use quality standards to design, develop, and improve courses, (c) to what role did KCTCS leadership play in ensuring course quality, (d) to examine the quality of KCTCS online courses, (e) to what degree did courses meet national quality indicators based on faculty self-ratings and researcher ratings, and (g) to examine if quality differed on faculty-self-rated courses based on faculty characteristics?

The results of this study indicated a lack of quality measures available to support faculty in reviewing and improving course quality in many KCTCS sites. Quality ratings indicate KCTCS online courses are high-quality and meet national quality standards. Leadership at the college level should develop and implement a quality review process to ensure courses not only meet current quality standards, but are continuously improving to meet future standards. System leadership should provide support and training to local colleges in the form of a system wide quality rubric and guidelines for a quality assurance program.
EVALUATING THE QUALITY OF ONLINE COURSES WITHIN THE KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM (KCTCS)

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April 11, 2017
This dissertation is dedicated to my wonderful and loving wife Tami.
Acknowledgements

I would like to acknowledge my committee chair Dr. Beth Rous. Without her guidance, encouragement, and overwhelming assistance with editing I could not have completed this dissertation. I cannot begin to express how grateful I am to her for the time she has spent cleaning up my writing and guiding me through this process. She has gone out of her way to help in areas she could easily have dismissed.

My sincerest thanks go to my committee for their guidance and patience with me during this process: Dr. Lars G. Bjork, Dr. Jayson Richardson, Dr. Joan Mazur, and Dr. Willis Jones. I am eternally grateful for their willingness to serve.

Lastly, I would like to thank my wife, Tami, without whom I would not have started or finished this journey. Without her constant support and encouragement, I would have stopped long ago. To my friend and colleague Dr. Bonnie Nicholson, I do not have the words to express how grateful I am for all the times you encouraged and believed in me. You will always have a special place in my heart.
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Chapter One: Introduction

This study examined the extent to which Kentucky Community and Technical College (KCTCS) faculty utilized quality standards during the design and continuous improvement of their online courses. The study was also designed to explore how college and system leadership supported quality online instruction in these institutions. Chapter one includes a synopsis of the general structure of the study. This is followed by information on the background of the study, statement of the problem, purpose of the study, significance of the study to leadership in the Kentucky Community and Technical College System, assumptions and limitations, definition of terms, and the overall organization of the dissertation.

Background of the Study

Online courses have seen considerable growth over the past 12 years. An annual survey by Babson Survey Research Group found during the fall 2014 semester, over 5.8 million students took at least one online class, a 3.9 percent increase over the year before (Allen & Seaman, 2016). This was significantly different from the first survey conducted by Babson Survey Research Group in fall 2002, when enrollment was 1.6 million, indicating an increase in enrollment of over 276 percent. The report also provided evidence of the growth of distance education course enrollments and a decline in on-campus course enrollments.

This growth has resulted in rapid changes not only in how teachers teach, but also in how leaders lead these growing online programs. According to the Babson Survey Research Group (Allen & Seaman, 2016) report, 77 percent of academic leaders believe distance learning is critical for their long-term strategy. The Internet has created the
largest change in education and teaching methods since the arrival of the printed book (Levy, 2003). Despite all the opportunities online learning offers, problems and challenges faced by online program leaders are present and must be addressed. How these problems are addressed will shape the future of online education (McFarlane, 2011).

Researchers of online learning, specifically in community colleges, found students were less likely to complete an online course than students taking the same course face-to-face (Jaggars, Edgecombe, & Stacey, 2013b; Johnson, Mejia, & Cook, 2015). Completion rates were even lower for African American and Hispanic students. There is also a significant difference between developmental course completion and grades with students in online courses withdrawing at a higher rate or earning lower grades. This problem is only compounded by the growth of online enrollments. The ineffectiveness of online courses may be related to faculty members trying to recreate their face-to-face course online (Johnson et al., 2015). This type of course disregards the differences in learning environments.

Johnson (2015) believes the solution to poor online courses is to make the online courses better and more effective through quality review and training. Improving “student preparation and support, course quality and design, and faculty professional development” (Jaggars, Edgecombe, & Stacey, 2013a, p. 20) increases the effectiveness and success of students. Successful online courses need to have a “data-driven, integrated, and systematic approach” (Johnson et al., 2015, p. 18) which supports faculty with course development and delivery.

Current research in the area of distance education and online learning has focused on attitudes, student satisfaction, and final course grades (Walker & Fraser, 2005).
However, there is little research to date on the quality of courses as gauged by national benchmarks. Discussion of course quality often include the areas of “teaching effectiveness, faculty-to-student ratios, attrition rates, and student satisfaction” (Chao, Saj, & Tessier, 2006, p. 32). Given the growth in online course offerings, a consistent quality measure could enable instructors to concentrate on how to engage students in the learning process, and better support students in meeting the outcomes of the course.

Having high-quality online courses allows instructors to avoid common pitfalls of poorly designed materials and design (Hirumi, 2005). For example, poor course quality can require instructors to spend time troubleshooting problems, clarifying materials, and providing supplemental course materials rather than enhancing the course with active learning activities and monitoring the learning activities of students. Having a poor course design can also result in online instructors feeling overwhelmed and frustrated with the online learning process. Having a quality assurance program using research based online course quality indicators throughout the design, delivery, and evaluation stage can increase the overall effectiveness of the instructor, and support the student in navigating the course and completing assignments. Another reason for a quality assurance program is the transfer of courses to a global audience (Parker, 2004). Enabling students to transfer course credits from one country to another has allowed fraudulent operators to generate online courses for credit with no real content. This issue of buying credits for transfer has highlighted the need for a quality rubric to ensure the credits being transferred are of high quality.

Given the paucity of research in quality of courses as gauged by national benchmarks, shifts in how leaders lead online programs, and a need for quality online
courses, a thorough study of current KCTCS online course quality was essential. This study will add to the research on course quality measures and standards for online and distance education within the context of two-year institutes of higher education.

Statement of the Problem

Community college students are less likely to complete online courses than the on-campus equivalent courses (Jaggars et al., 2013b; Johnson et al., 2015). According to Legon (2015), use of a research based quality rubric can help increase student success. Despite the increasing use of online classes over the last several years (Allen & Seaman, 2016) and research supporting the need for high quality courses (Hirumi, 2005; Jaggars et al., 2013b; Johnson et al., 2015), there had not been a systematic evaluation of KCTCS online courses. A quality assurance program, including a nationally recognized quality rubric, would increase course quality and potentially increase student success. In addition, students can take an online course and transfer that credit to any college in the world in a global marketplace. Colleges need a method to ensure courses are equivalent in quality regardless of where the course originated to minimize fake college credit (Quality Matters, 2017).

This study was designed to explore the extent to which Kentucky Community and Technical College System (KCTCS) faculty utilize quality standards during the design and continuous improvement of their online courses. In addition, the study explored how leadership supports quality online instruction. The following questions guided the study.

1. To what degree do KCTCS quality assurance rubrics align with national quality standards (i.e., Quality Matters)?

2. As it relates to online courses offered through KCTCS:
a. How do faculty view the quality of courses?

b. To what degree do faculty use quality standards to design, develop, and improve courses?

c. What role does KCTCS leadership play in ensuring course quality?

3. What is the quality of KCTCS online courses?

a. To what degree do courses meet national quality indicators (i.e., Quality Matters) based on faculty self-ratings and researcher ratings?

b. Does quality differ on faculty-self-rated courses based on faculty characteristics, specifically (a) gender, (b) college district, (c) college location in urban/rural county, (d) use of a formal quality assurance program, (e) full-time or part-time faculty status, (f) number of years teaching online, (g) training received to develop an online course, and (h) program area?

Significance of the Study to Leadership

Because of the rapid growth in online learning, colleges have done little, if any, planning of online programs (Jaggars et al., 2013b). Courses were put online helter-skelter based on demand and faculty member interest rather than program or college based decisions. As a KCTCS faculty member, limited training was available when faculty first began developing online courses. The college offered one hour sessions focused on the learning management system (LMS) but provided little to no training on how to develop a quality course. This has changed in recent years with extensive training offered to faculty members at the college level and college leadership specifically in place to monitor and guide distance education.
When KCTCS began creating the first online courses, formal online course quality standards were not yet available. These quality standards first became available with the publication of the *Quality on the Line* report (Phipps & Merisotis, 2000). Quality Matters started in 2003, after Maryland Online received funding through the U.S. Department of Education’s Fund for the Improvement of Postsecondary Education (FIPSE) program (Quality Matters, 2017).

Online education programs cannot be molded into the image of existing campus-based programs in which administrative and support systems were built for the traditional on campus student (Levy, 2003). Administrative support structures, student services, technology support, and faculty training and support needs are all areas that need to be analyzed and perhaps changed to successfully implement online education. The results of this study could help inform local and system leaders on the current status of course quality throughout KCTCS and direct quality assurance programs. The study could also help administrators and faculty members improve program effectiveness and enable informed decisions about future program expansion.

**Definition of Terms**

This study uses the following definitions. Terms reflect practices to describe the context of the KCTCS higher education system, as well as broad concepts of distance education and online learning.

*Asynchronous:* Instruction and student access takes place at separate times or any time it is convenient (Schlosser, Simonson, & Hudgins, 2009).

*Distance education:* an educational process where students are separated from one another, and the instructor are separated from individual students by distance and time.
Learning materials may be delivered as print, radio/TV, or electronic formats. Face-to-face interactions may occur through some mediated method, but are not required to complete the learning process.

*Hybrid learning:* the blending of face-to-face and online class meetings typically defined as having 30% to 79% of the course content being online (Allen & Seaman, 2011; Rust, 2011).

*Learn by Term (LOT):* courses which are offered online and follow a traditional course schedule (Kentucky Community and Technical College System, n.d.).

*Learn on Demand (LOD):* online and hybrid courses which follow an open entry/set exit course model (Kentucky Community and Technical College System, n.d.).

*Online education/learning:* an educational process where students are separated by distance and time from one another and the instructor (Andrews & Tynan, 2012; Keegan, 1996; Rekkedal et al., 2003). Any interaction between learners and between learners and teachers is mediated by technology.

*Open entry/set exit model:* students may start a course at any time of the year regardless of the local college’s traditional course schedule and completes at the end of the current term (Kentucky Community and Technical College System, n.d.).

*Quality assurance:* a systematic process to achieve standards and stimulate ongoing improvements in distance education (Inglis, 2005).

*Traditional course schedule:* courses are scheduled based on a semester system and follow the start and end dates for other on-campus courses (Kentucky Community and Technical College System, n.d.).

**Disclosure and Potential Limitations**
As the primary researcher for this study, I serve as a full-time faculty member at Bluegrass Community and Technical College which is part of the Kentucky Community and Technical College System, and serve as the Assistant Dean of Distance Learning. I am also an online faculty member with 15 years of experience teaching online. I have a personal interest in the outcomes of this study and how it reflects upon the online course quality within the KCTCS education system. To help mediate any inherent bias in the results, specific steps were taken in the design and analysis phases of the study, as presented in Chapter 3.

**Organization of the Dissertation**

The remainder of this study presents a review of the literature about quality in higher education and online education in Chapter 2. The chapter includes information on current KCTCS quality measures and professional development requirements followed by a description of the research design and methodology for the study in Chapter 3. Chapter 4 includes a report of the data collected through the study including demographic information and survey results. The final chapter includes findings and implications for research and practice.
Chapter Two: Literature Review

This literature review includes an overview of organizational leadership, history of quality measures used in distance learning, and more specifically, online learning throughout the United States. This is followed by a discussion of current quality measures used for online education and the quality measures and professional development used by online college programs within KCTCS. The chapter concludes with a description of the theoretical frameworks upon which the quality measures are based.

Organizational Leadership

Organizations are complex, surprising, deceptive, and ambiguous (Bolman & Deal, 2008). The complexity comes from the organization being filled with people. People as individuals are often unpredictable and when combined in a group the predictability is reduced considerably. Organizational complexity also increases because they are changing regularly to meet the needs of the group. Organizations are surprising in that what is expected often does not occur or changes from idea to action. If an organization does not change, old solutions that may have worked once may have surprising results in the present situation. Large organizations can also be deceptive because they can hide the problems and issues within. Smaller subgroups may know problems and hide them from upper level authorities. Lastly, organizations can be ambiguous because information can be misinterpreted or misguided. Decisions can be based on imprecise data or intentionally wrong information.

Since organizations are complex, surprising, deceptive, and ambiguous it takes more than one view to solve a problem. Solutions cannot be based on a single outlook. An individual’s perception of the problem may predetermine a solution. An exceptional
leader should be able to view the problem from different sides and remove predetermined views. This method is called reframing and involves viewing the problem from four different frames. These frames are structural, human resource, political, and symbolic (Bolman & Deal, 2008). The structural frame is used to view the issue in terms of rules and regulations. Division of labor and communication are also part of the structural frame. The human resource frame is based on the needs of the individuals within the organization. To fully solve a problem within an organization, the people involved must be addressed. The political frame deals with personal power and the distribution of resources. Coalitions form around issues which may dramatically alter the outcome of a problem if not properly viewed. Lastly, the symbolic frame involves rituals, stories, and myths. Signs, posters, group rituals, and historic ceremonies must be examined in solving problems adequately. Focusing a leader’s view through these frames, or lenses, can help solve not only immediate problems but future situations as well.

**Structural frame.** The structural frame focuses entirely on the organization as a whole regardless of the people involved. It is based on the rules, regulations, hierarchy, and bureaucracy of the organization. To be successful, people must be put into the correct roles and relationships within the group. In this frame, people are present to serve the needs of the organization and should focus resources towards that goal (Bolman & Deal, 2008). One of the leading pioneers in the theory of management was Fayol who developed fourteen general principals. Some of the main principals which apply to the structural frame are: division of labor, authority and responsibility, unity of command, scalar chain, and order (Fayol, 1993). Another founding father in the structural frame was Max Weber. Weber (1993) studied bureaucratic organizations and developed the core
characteristics which make up a bureaucracy. The bureaucracy is one of the largest influences upon the modern world in both developed and developing countries (Shafritz, Ott, & Jang, 2005).

**Political frame.** The political frame views organizations as places where interest groups and coalitions compete for power and resources. Organizations are made of micro and macro politics. Micro politics are the upper level groups in the organization such as the federal and state legislature, system office, and the Council on Postsecondary Education. Macro politics are the lower level groups such as the individual colleges, divisions and programs. Unlike the structural and human resources frames, the political frame sees conflict as an ordinary part of the organization because of the various needs, viewpoints, and beliefs of the individuals making up the group. A coalition, or alliance, forms around specific areas of interest to oppose a common adversary or pursue a common goal. Bolman and Deal (2008) give five assumptions which can be made about the political frame. They are: (1) organizations are coalitions, (2) members of a coalition have differences, (3) the allocation of scarce resources decides many important issues, (4) conflict is caused by scarce resources and individual differences, and (5) goals and decisions emerge when competing stakeholders negotiate and bargain for their own interests. With these assumptions in mind, the political frame focuses on the attainment of resources and the assumption that conflict is inevitable and must be dealt with accordingly. To help obtain resources, coalitions are formed because a larger body has more political power than a smaller group.

**Human resource frame.** The human resource frame is based on the idea that the organization contains people who have needs and feelings which must be addressed to be
effective. Bolman and Deal (2008) suggest four assumptions on which the human resource frame is built. They are: (1) organizations exist to serve human needs, (2) organizations and people need each other, (3) a poor fit between the organization and the individual can cause both to suffer, and (4) a good fit benefits both by supplying meaningful and satisfying work to the individual and talent and energy for the organization. With these assumptions in mind, the human resource frame is focused on the happiness, comfort, and security of people within the organization. To improve effectiveness, organizations must meet the needs of individuals while getting the job done. It takes both to make a successful organization.

**Symbolic frame.** The symbolic frame is based on the idea that symbols have both intellectual and emotional power. Symbols speak to both the mind and the heart. Bolman and Deal (2008) suggest five assumptions on which the symbolic frame is built. They are: (1) the real outcome depends upon the meaning not what happens, (2) events have multiple meaning because everyone experiences them differently, (3) symbols lead to meaning when logic and rationality fail, (4) events and processes may be more important for what is expressed than the final outcome, and (5) culture bonds an organization together and unites people around shared values and beliefs. With these assumptions in mind, the symbolic frame is focused on the cultural norms, values and beliefs of the individuals in the organization. It also sees play, rituals, ceremony, and myth as essential to being effective. The symbolic frame views structure and processes as theater where drama expresses joy, fear, and expectations. Structure is a phase design where lighting, costumes, props, and space creates a vivid drama for its audience. To be successful in the
symbolic frame, leaders need to pay attention to the culture and symbolism within the organization.

**Management compared to leadership.** Rost (1991) defines management as “an authority relationship between at least one manager and one subordinate who coordinate their activities to produce and sell particular goods and/or services” (p. 145). Leadership is defined as “an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes” (p. 105). Rost introduced four key differences between leadership and management (a) how the relationship is based, (b) who is in the relationship, (c) outcome focus, and (d) how the outcome occurs. In the first difference (i.e., how the relationship is based) the leadership relationship is based on influence while management’s relationship is based on authority. Second is the difference in who is in the relationship. While leadership involves leaders and followers, management has at least one manager and one subordinate. The third difference is associated with the outcome of the group in that leadership intends real change while management produces a good or service. The fourth difference ties into how the outcome occurs. Leadership develops change which is reflective of a mutual purpose shared among everyone in the group while management produces a product or service through coordination between management and subordinates.

Management hires the faculty, orders the parts, organizes paperwork, disperses information, and other needed tasks to keep the institution running (Rost, 1991). Leadership keeps the institution growing and innovative. Leadership provides the future purpose of the institution while integrating the faculty and staff towards a common purpose. Leaders in the previous industrial paradigm lead in a business-like manner by
giving directives which must be followed. Leadership today must form community concepts including leaders and followers. Mutual purpose should drive the school with leadership not controlling everything, but being open to influence by the followers in the group.

**Organizational change and innovation.** Burke (2008) compares organizational change to an organism with independent parts, but still interacting internally and externally. An organism does not survive on its own, but depends on others. Organizational change can occur in either small steps or large leaps. Revolutionary change occurs when the system is changed radically and quickly. Once the change occurs, it cannot return to the old way. Burke says revolutionary change is drastic such as a merger or a change in mission. Evolutionary change occurs when small incremental changes are made within an organization. These usually affect a small portion of the system instead of the whole as revolutionary change does.

An organization must have leadership or planned change can never occur. Events may drive an organization into a change, but for a planned change to occur, someone must lead (Burke, 2008). Successful change involving a change leader will include people in the process and ultimately lead to a smoother change with more support and less problems. Leadership during change will also be better able to dispel any problems that may arise during the process which would not be available if no leadership existed.

One portion of planning is developing a vision for change. In some cases, developing a vision is in response to an event or problem. In other cases, a vision is created because an opportunity is seen which did not exist before (Puccio, Mance, & Murdock, 2011). Haché (2000) states, when college faculty, staff, and administration
start with a vision, it is necessary for them to understand that this vision will result in a change in the organizational culture.

Burke (2008) defines four primary phases in leading organizational change. Each phase involves specific leadership roles and functions. Phase one is the prelaunch phase which involves self-reflection, data collection, establishing need, and creating a vision and direction. Phase two, the launch phase, has leaders communicating need for change, creating an event to capture attention and focus on the change at hand. Phase three is where a majority of resistance will be seen during the change process. Phase three, post launch, has leaders standing strong in the change decisions and not reverting to the old ways. Leaders during phase three also need to understand that not everyone will be happy with the change, but to stay consistent and persevere and keep repeating the vision and maintain open channels of communication. In phase four, sustaining, leaders must deal with unanticipated consequences of the changes, but also maintain the change momentum. Included in phase four is the idea of choosing successors and looking towards future changes because to become stagnant is to stop existing.

One method of creating change is appreciative inquiry. This method creates change by looking towards the positive aspects instead of the negative. The idea is to look to where you want to go, the positive aspects, and not where to avoid. Serrat (2008) says organizations always move in the direction they look and if individuals are looking towards positive things, they will create positive change. This process ties closely to visionary thinking introduced by Puccio, Mance, & Murdock (2011) and the idea that the creative process “begins with a concept of what you wish to create” (p. 139) which aligns closely with appreciative inquiry.
Historical Overview: Distance Education Quality Measures

Several organizations developed best practices during the early years of computer-based online education. Best practices are a set of guidelines or principles outlining components of high-quality online education (Fish & Wickersham, 2009; Grandzol & Grandzol, 2006; Reif, 2009). Many early studies focusing on quality indicators did not provide a rubric, or measurable scale to evaluate programs, but identified broad requirements to be met by programs (Hirner, 2008; Phipps & Merisotis, 2000; The Sloan Consortium, 2013; Western Cooperative for Educational Telecommunications, 2001). Shelton (2010) found while some early evaluation rubrics did exist to evaluate programs and courses, they did not address online programs from an administrator’s perspective.

In 1995, Western Cooperative for Educational Telecommunications (WCET) developed the *Principles of Good Practice for Electronically Offered Academic Degree and Certificate Programs* which identified three categories of quality online education: (a) curriculum and instruction, (b) institutional context and commitment, and (c) evaluation and assessment (Western Cooperative for Educational Telecommunications, 1997). WCET expanded and updated those categories in 2001, 2008 and 2009. The newest document, *Best Practice Strategies to Promote Academic Integrity in Online Education: Version 2.0*, contains the following five quality indicators: (a) institutional context and commitment, (b) curriculum and instruction, (c) faculty support, (d) student support, and (e) assessment and evaluation (Western Interstate Commission for Higher Education, 2009). Each indicator contains sub-indicators to describe the main category.

In 1999, the Institute for Higher Education Policy (IHEP) was commissioned by the National Educators Association and Blackboard Inc. to identify quality benchmarks
as chosen by various people in online educational leadership. Considered to be foundational to quality online education (Shelton, 2010), the 2000 IHEP report *Quality on the Line: Benchmarks for Success in Internet-Based Distance Education*, organized 24 quality benchmarks into seven categories (Phipps & Merisotis, 2000). The categories are (1) institutional support, (2) course development, (3) teaching and learning, (4) course structure, (5) student support, (6) faculty support, and (7) evaluation and assessment.

Under the category of *institutional support*, one benchmark focuses on the need for a reliable technology delivery system and secure services to ensure quality and integrity (Phipps & Merisotis, 2000). Within the *course development* category, benchmarks address guidelines for the development, design, and delivery of online courses, and the need for an occasional review of instructional materials to ensure they meet program standards. Within the *teaching and learning* category, both how faculty and student interact with one another and how constructive feedback should be given to the student promptly, are addressed.

Under the *student support* category, benchmarks address the type of information to be provided to the student, how it should be communicated, and the support services students should receive while enrolled in the course. Across *faculty support* categories faculty receive training both before and during the development and delivery of online courses and outlines recommendations for transitioning from on-campus to online teaching as well as continued training in new technologies and how to handle issues related to students in online courses.

Contained in the last category, *evaluation and assessment*, methods of continuous improvement by recommending evaluations in educational effectiveness and the use of
enrollment, cost, and technology data to evaluate program effectiveness are described. How learning outcomes should be regularly reviewed for clarity and appropriateness are also described within this category.

The Sloan Consortium, an organization whose purpose is to “continually improve the quality, scale, and breadth” of online education (Moore, 2005, p. 1), identified the Five Pillars of Quality Online Education in 2001. The pillars Slone-C considered building blocks for quality online learning are learning effectiveness, student satisfaction, faculty satisfaction, scale, and access. In 2005, and later in 2009, Sloan Consortium updated and further defined the five pillars, suggesting metrics that could be used to measure learning, cost, access and faculty and student satisfaction (The Sloan Consortium, 2013).

Other organizations and research groups developed similar documents including: (a) Lockhart and Lacy’s Assessment Model (2002), (b) Council for Higher Education Accreditation (2002), (c) Distance Education Training Council (2014), (d) Khan’s eight dimensions of e-learning framework (Khan, 2005), and (e) Chaney, Eddy, Droman, Glessner, Green and Lara-Alecio’s quality indicators (2009). Each of these documents covers some or all the indicators included in the IHEP report.

Current Quality Measures for Online Education

Quality assurance in the United States has primarily been provided by regional accreditation bodies such as the Southern Association of Colleges and Schools (SACS) or discipline-specific accreditation organizations such as the Accreditation Commission for Education in Nursing (ACEN) (Shelton, 2010). According to a 2011 survey, many accreditation standards “require distance education program be equivalent (or better) to
those courses offered face-to-face” (Instructional Technology Council, 2011, p. 12).

While SACS does not dictate how to measure quality, guidelines are provided. For example, SACS’ Distance and Correspondence Education policy states:

1. At the time of review by the Commission, the institution demonstrates that the student who registers in distance or correspondence education course or program is the same student who participates in and completes the course or program and receives the credit by verifying the identity of a student who participates in class or coursework.

2. At the time of review by the Commission, the institution demonstrates that it has a written procedure for protecting the privacy of students enrolled in distance and correspondence education courses or programs.

3. At the time of review by the Commission, the institution demonstrates that it has a written procedure distributed at the time of registration or enrollment that notifies students of any projected additional student charges associated with verification of student identity.

4. An institution that offers distance or correspondence education must ensure that it reports accurate headcount enrollment on its annual Institutional Profile submitted to the Commission.

5. Institutions must ensure that their distance and correspondence education courses and programs comply with the Principles of Accreditation. This applies to all educational programs and services, wherever located or however delivered. (2014, pp. 1-2)
Because accreditation bodies encourage quality distance education, a method of evaluation is needed to support both reporting and measurement of the quality of the online courses and programs (Barnes, 2009; Council for Higher Education Accreditation, 2002; Gellman-Danley, 1997; Phipps, Wellman, & Meisotis, 1998).

Currently, there are primarily two types of quality measures in use by online education programs (Shelton, 2010). One involves an evaluation of the program as a whole, using the Slone Consortium’s *Quality Scorecard for the Administration of Online Programs* (Adams et al., 2015) and the *Quality Improvement Framework* (Inglis, Joosten, & Ling, 2002). The second is an evaluation of individual courses. Measures used to evaluate courses include *Quality Matters* (Quality Matters, 2015), *California State University, Chico Rubric for Online Instruction* (California State University, 2012a), *Blackboard Exemplary Course Program Rubric* (Blackboard, 2015a), and *Quality Online Course Initiative Rubric* (University of Illinois, 2010).

**Quality scorecard for the administration of online programs.** The Slone Consortium’s *Quality Scorecard for the Administration of Online Programs* originated as part of a dissertation study by Kaye Shelton for the University of Nebraska (Shelton, 2010). In the study, Shelton used the 24 quality indicators outlined by the IHEP study to conduct a Delphi study designed to determine the relevance of the indicators and if other indicators were needed. During Shelton’s (2010) study, numerical values were assigned to each indicator to create a scorecard administrators could use to evaluate and measure the quality of online programs.

Through the study, Shelton (2010) identified nine categories encompassing 70 quality indicators. Each indicator was assigned a point value of 0-3 points for a perfect
total score of 210 points. However, the original study did not define a minimum standard or provide ranking within the total scores for each of the nine categories.

The Slone Consortium adopted Shelton’s original scorecard and updated it to include (a) detailed descriptions of each indicator, (b) recommendations to reach a perfect score for each indicator, and (c) outside resources for each on the nine categories (Adams et al., 2015). The Sloan Consortium version included quality levels for a final total score.

Table 1

<table>
<thead>
<tr>
<th>Rating</th>
<th>Point Range</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100%</td>
<td>202—225</td>
<td>Exemplary</td>
</tr>
<tr>
<td>80-89%</td>
<td>180—201</td>
<td>Acceptable</td>
</tr>
<tr>
<td>70-79%</td>
<td>157—179</td>
<td>Marginal</td>
</tr>
<tr>
<td>60-69%</td>
<td>134—156</td>
<td>Inadequate</td>
</tr>
<tr>
<td>&lt; 59%</td>
<td>&lt; 133</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>

*Note.* (Adams et al., 2015, p. 10)

It is at the discretion of the administrator or application of college policy to determine actions based on the final scores.

The nine quality benchmark categories are (1) institutional support, (2) technology support, (3) course development and instructional design, (4) course structure, (5) teaching and learning, (6) social and student engagement, (7) faculty support, (8) student support, and (9) evaluation and assessment (Adams et al., 2015). Each category includes indicators which provide the measurable criteria used by administrators. For example, institutional support has indicators for leadership structure, policy guidelines for student authenticity, intellectual property policies, and the inclusion of online learning as part of the strategic plan. The technical support category provides indicators for
maintaining student security and privacy, reliable technology, centralized system of the infrastructure, course delivery treated as critical, maintain backup systems, and the support of faculty, students and staff in new technologies.

**Quality improvement framework.** The *Quality Improvement Framework* (Inglis, 2005) provides ten principles to encompass the range and functions needed to support online delivery. These 10 principles are “(1) informed planning and management of resources, (2) sustained committed leadership, (3) improving access for all clients, incorporating equity, and promoting cultural diversity, (4) understanding the requirements of the learner and reflecting stakeholder requirements, (5) design, development, and implementation of programs for effective and active learning, (6) creating confident and committed staff with new competencies, (7) managing and maintaining the technical infrastructure, (8) evaluating for continuous improvement, (9) provision of effective and efficient administrative services, and (10) supporting the needs of learners” (2005, pp. 7-8). Linked with each of the principles is a set of best practice indicators. The indicators provide criteria for establishing whether the principles are being applied.

Quality Matters rubric. The *Quality Matters Rubric* contains eight general standards with 43 specific indicators (Quality Matters, 2015). The eight general standards are “(1) course overview and introduction, (2) learning objectives (competencies), (3) assessment and measurement, (4) instructional materials, (5) course activities and learner interaction, (6) course technology, (7) learner support, and (8) accessibility and usability” (para. 2). The *Quality Matters Rubric* is a widely-accepted quality measure for online course materials and used by many programs in the United States and other countries (King & Griggs,
The rubric is “based on best practices that are well established in online education, advocated by accreditors, distance education associations, and individual instructional designers” (Legon, 2015, p. 166). Quality Matters performs research each year to support and update the rubric as well. What makes the Quality Matters Rubric unique is the combination of best practices and research into “a single document … with detailed annotations providing guidance on how to implement them [best practices] and how to determine whether they [indicators] are appropriately met” (Legon, 2015, p. 166). To use the Quality Matters Rubric and receive training on scoring the rubric, programs or institutions must become paid subscribers.

California State University, Chico rubric for online instruction. The Chico Rubric for Online Instruction (ROI) was created by a consortium of California State University faculty members who wanted to “build and share a tool to assist in the design and evaluation of online or blended courses” (California State University, 2012a, para. 3). ROI contains six main categories divided into 25 indicators. The six main categories are (1) learner support and resources, (2) online organization and design, (3) instructional design and delivery, (4) assessment and evaluation of student learning, (5) innovative teaching with technology, (6) faculty use of student feedback (California State University, 2012b, pp. 2-7). The rubric does not provide recommendations based on how courses are rated on the rubric nor does it provide minimum score standards. The rubric is free to use and licensed under the creative commons. Faculty or institutions can freely adopt or modify the rubric to fit the individual needs of the institution if it meets the terms of the creative commons license.
**Quality online course initiative rubric.** The *Quality Online Course Initiative Rubric*, developed by the Illinois Online Network for the University of Illinois is a course level rubric containing six main categories: (1) instructional design, (2) communication, interaction, & collaboration, (3) student evaluation and assessment, (4) learner support & resources, (5) web design, and (6) course evaluation (University of Illinois, 2010, para. 4-9). The six categories are further separated into 22 specific indicators. The rubric does not provide recommendations based on how courses are rated on the rubric nor does it provide minimum score standards. The *Quality Online Course Initiative Rubric* is available for free under the creative commons license. The rubric was last updated in 2006.

**Blackboard exemplary course program rubric.** The *Blackboard Exemplary Course Program Rubric* was developed as a measure used in selecting a high-quality course for the Blackboard Catalyst Award (Blackboard, 2015a). The program started in 2000 “with the goal of identifying and disseminating best practices for designing engaging online courses” (para. 1). The rubric contains four broad categories: “(1) course design, (2) interaction and collaboration, (3) assessment, and (4) learner support” (Blackboard, 2015b, pp. 3-8). Categories are divided into 17 subcategories. Each subcategory is scored from 1-6 and weighted. This weighting is an indicator of the importance of that subcategory. The *Blackboard Exemplary Course Program Rubric* is available for free under the creative commons license and can be used and modified by faculty or institutions following the terms of the license. The rubric was last updated in 2015. While the rubric is updated regularly and free, there are no references to ranking the final score nor is a minimum acceptable score defined.
Quality Measures Used in KCTCS Online Programs

The *Learn on Demand Quality Assurance Rubric* was developed by the Learn on Demand (LoD) team of KCTCS (E. Dalton, personal communication, February 20, 2014). The team modified the *Blackboard Exemplary Course Program Rubric* (Blackboard, 2015a) to fit the LoD mission in 2011. The LoD rubric contains four main categories (1) course design, (2) communication and interaction, (3) assessment, and (4) learner support and is subdivided into 14 subcategories. Each subcategory is scored from 1-4 with a final scale of quality assurance based on the total score earned.

KCTCS also has a suggested *Online Quality Assurance Rubric* which colleges can use in their local reviews. The rubric's five topics are (1) online course organization and design, (2) instructional design, delivery, and strategies, (3) teaching with technology/technology integration, (4) assessment and evaluation, and (5) feedback and results. There are 12 subcategories each scored from 1-3 (1-developing, 2-proficient, and 3-advanced). Eight subcategories must score a three to pass while the other four require either a 2 or 1 to pass. The rubric does have a quality scale based on total score earned.

**KCTCS Local College Policies and Quality Measures**

**Jefferson Community and Technical College.** Of the 16 colleges under KCTCS, Jefferson Community and Technical College (JCTC) is the only college to have an e-learning policy published on their website (Jefferson Community and Technical College, n.d.). The links are available under the “Faculty & Staff” section of the main website. Included are links for faculty new to e-learning, course review process, training and support, and various documents related to e-learning.
Jefferson Community and Technical College’s (n.d.) course review process is made available to all faculty through the eFaculty webpage. Each new course is required to undergo a course review by the eLearning Council (eLC). The review team consists of two faculty members who are current eLC members. The review team uses the Rubric for Review of Online Courses to rate the various areas as "Needs Work" or "Complete." Once the course is reviewed, the review team provides feedback to the division from which the course originated. This feedback includes the review rubric as well as suggestions for improvement. If improvement is needed, the Office of eLearning will work with the course designer and the division leadership to ensure the changes are made. At that point, the course is available to offer as a complete course by faculty.

As an assurance of continued online course quality, Jefferson has instituted a periodic review of current courses. These courses are selected at the beginning of each semester with priority on high-enrollment general education courses. Courses are scheduled on a rotating basis which covers all courses offered online at some point. The eLC reviews courses in the same manner as new courses, but also ensuring that the current course syllabus template is used as well as providing current faculty contact information.

**Southcentral Kentucky Community & Technical College (SKYCTC).** At SKYCTC, policy information and new online faculty requirements are located in the faculty handbook which is located online (Southcentral Kentucky Community and Technical College, 2014). Blackboard training is required for all new online faculty teaching at SKYCTC. Each unit consists of a learning module which uses text, multimedia, and practice questions for each topic. Units include a quiz which must be passed with a score of 80% before the next unit is made available. Faculty members must
pass each unit to be certified to teach online courses. Some units include activities faculty must complete and submit to the facilitator of the course. For example, the quality assurance unit requires the faculty member to complete a course self-review using the quality assurance checklist.

SKYCTC utilizes a “Quality Assurance Course Review Process” in which all new courses must be approved before they can be offered to students (Southcentral Kentucky Community and Technical College, 2014). Faculty must first complete a self-review using the QA checklist and send the completed self-review to the Distance Learning Coordinator. At that time, a QA reviewer is assigned to the course who completes the QA checklist and provides a score. For courses who score above 70%, they are approved to offer the course to students with areas of improvement discussed with the faculty member. If courses score below 70%, course designers will be required to address the areas in need and resubmit the course for review. Students are not allowed in courses scoring below 70%.

**Owensboro Community and Technical College (OCTC).** Owensboro Community and Technical College has an approval process for online teaching (Owensboro Community and Technical College, n.d.). This process starts with approval by the faculty member’s division to offer the course. The faculty member must then obtain training and show completion of all aspects of the requirements. Once the course is complete, the eLearning Coordinator coordinates a peer review with two trained members of the team. The eLearning coordinator reports the findings to the Academic Affairs office and makes suggestions to the faculty of changes needed or approves the course.
Training requirements include a recommended 12 hours of training in areas relating to Blackboard specific technology as well as other online teaching tools. There are no specific training listed for course design or best practices. However, the faculty member does have access to the quality rubric. OCTC uses a slightly modified version of the KCTCS Online Quality Assurance Rubric.

**Hazard Community and Technical College and Big Sandy Community and Technical College.** Hazard and Big Sandy use the same content for new online faculty training, and both use the same quality assurance checklist as Southcentral Community and Technical College (SKYCTC). Neither have a dedicated area for new online faculty or quality policies on their respective websites. New faculty training courses for both colleges are in a Blackboard eCommunity. The new online faculty training course has nine modules which must be completed. These modules contain videos, text files, and practice questions. The training course also has a 50-question certification exam which must be passed with a 90% or better to earn the certificate. Faculty members have three attempts to pass the exam. If the exam is not passed in three attempts, the faculty member must contact the Distance Learning Director for additional assistance. After remediation, the faculty member will have an additional attempt. This process repeats until the faculty member has scored a 90% or higher. Hazard Community and Technical College and Big Sandy Community and Technical College use the same quality assurance checklist as SKYCTC, and the process for review is also the same.

**Other colleges within KCTCS.** While none of the other colleges have official policies or course certification procedures publicly available, each offers online training and support for faculty members teaching online. West Kentucky has a site in Blackboard
created by the Professional and Organizational Development Committee which includes not only online resources, but also other colleges professional development.

Hopkinsville Community College has a line in the Faculty Handbook which states “we must show that we have assessed the quality of our online courses. KCTCS has an online quality assurance rubric; we will need to begin implementing the rubric in fall 2015” (Hopkinsville Community College, 2015). However, there was no evidence to indicate the rubric had been implemented and the handbook had not been updated at the time of this study.

Bluegrass Community and Technical College has a peer review process developed, but are not actively engaged in the completion of the process. Training is accessible to all faculty members with an eMentor program in place to provide one-on-one training.

Ashland, Maysville, and Elizabethtown Community and Technical Colleges are each offering course certification instruction in their Blackboard eCommunity, but details are not readily available without access to their eCommunity. From the limited view of the course, topics include a full line of Blackboard training as well as best practices in the design of a new course.

Theoretical Frameworks for Quality Measures

A conceptual framework is a “skeletal structure of justification” based on formal logic or experience (Omirin & Falola, 2011). Jabareen (2009) defines it as “a network, or a plane, of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena. The concepts that constitute a conceptual framework support one another, articulate their respective phenomena, and establish a framework-specific
philosophy” (p. 3). Miles and Huberman (1994) “defined a conceptual framework as a visual or written product, one that explains, either graphically or in narrative form, the main things to be studied - the key factors, concepts, or variables - and the presumed relationships among them” (p. 18).

**Seven principles for good practice in undergraduate education.** One of the oldest conceptual frameworks for online education was presented in the 1987 article “Seven Principles for Good Practice in Undergraduate Education” which was updated in 1996 to account for new technologies (Chickering & Ehrmann, 1996). The Seven Principles have been reexamined and updated further to reflect changes in online learning (Bangert, 2004; Puzziferro & Shelton, 2009). The current Seven Principles by Puzziferro and Shelton (2009) include (1) good practice encourages contact, (2) good practice develops reciprocity and cooperation, (3) good practice encourages active learning, (4) good practice gives prompt feedback, (5) good practice emphasizes time on task, (6) good practice communicates high expectations, and (7) good practice respects diverse talents and ways of learning. (Puzziferro & Shelton, 2009, pp. 4-9) These seven principles are a foundation for developing and growing new communication and information technology tools. “If the power of the new technologies is to be fully realized, they should be employed in ways consistent with the Seven Principles” (Chickering & Ehrmann, 1996, p. 1).

**Sloan Consortium quality framework and the five pillars.** The Sloan Consortium *Quality Framework* is a tool used for the continuous improvement of online programs in higher education (Moore, 2005). The framework is supported by five pillars of quality (1) learning effectiveness, (2) scale (cost effectiveness and commitment), (3)
access, (4) faculty satisfaction, and (5) student satisfaction. (Moore, 2005, p. 2) Each pillar supports nine categories and 70 quality indicators included in the quality rubric. The complete framework provides process/practice examples, sample metrics, and progress indicators.

**Chapter Summary**

Quality standards have existed since the early adoption of correspondence courses. Even at the beginning of distance learning, there was a need for quality measures and accountability. Modern quality measures are based on foundational studies conducted by the Sloan Consortium and the Institute for Higher Education Policy. The measures also have a firm theoretical framework developed through the *Seven Principles for Good Practice in Undergraduate Education* and the *Sloan Consortium’s Quality Framework*. A thorough quality review of college course is lacking in the research. No studies could be found which measure and report quality ratings for a community college system or any other colleges.

Chapter 3 includes information on the research approach and design of the study. Also, the research setting and context is described followed by the method used to select the sample population and the informed consent process. Finally, information is provided on the sampling frame, safeguards for maintaining confidentiality, a geographical location description, an explanation of the survey instrument, and methods of data collection, data analysis, and minimizing threats to validity and reliability.
Chapter Three: Research Methods

This study was designed to explore the extent to which Kentucky Community and Technical College (KCTCS) faculty utilize quality standards during the design and continuous improvement of their online courses. The study also explored how leadership supports quality online instruction. The following questions guided the study.

1. To what degree do KCTCS quality assurance rubrics align with national quality standards (i.e., Quality Matters)?

2. As it relates to online courses offered through KCTCS:
   a. How do faculty view the quality of courses?
   b. To what degree do faculty use quality standards to design, develop, and improve courses?
   c. What role does KCTCS leadership play in ensuring course quality?

3. What is the quality of KCTCS online courses?
   a. To what degree do courses meet national quality indicators (i.e., Quality Matters) based on faculty self-ratings and researcher ratings?
   b. Does quality differ on faculty-self-rated courses based on faculty characteristics, specifically (a) gender, (b) college district, (c) college location in urban/rural county, (d) use of a formal quality assurance program, (e) full-time or part-time faculty status, (f) number of years teaching online, (g) training received to develop an online course, and (h) program area?

This chapter includes information on the research approach, design of the study, an research setting and context. This study was conducted in three phases. Each phase is
outlined in this chapter and includes the method used to select the sample, participant selection, instruments and procedures, data collection, and data analysis. The chapter concludes with the role of the researcher and Institutional Review Board details.

**Research Setting/Context**

Like many other colleges and universities, KCTCS began developing online courses quickly with little to no training for faculty in best practice for online teaching (Allen & Seaman, 2011; Davis, 2011; Keeton, 2004; Means, Toyama, Murphy, Bakia, & Jones, 2010; Meyer, 2009; Shea, 2007). New faculty who teach online are currently required to complete training on best practice, course quality, and the KCTCS learning management system (LMS). However, faculty who designed and implemented the earliest online courses may never have received training in best practices to developing those courses. Currently, there are no required system-wide quality measures for KCTCS Learn by Term (LBT) courses. Each college is responsible for setting quality standards and monitoring the quality of LBT courses.

For this study, online learning is defined as an educational process where are separated by distance and time from one another and the instructor (Andrews & Tynan, 2012; Keegan, 1996; Rekkedal et al., 2003). Learning content and instruction are delivered through computers and computer networks. Face-to-face interactions may occur through two-way communication via computer networks but are not required to complete the learning process. All interactions between learners and between learners and teachers are mediated by technology.

KCTCS Learn by Term (LBT) is defined as courses which are offered online and follow the traditional course schedule (Kentucky Community and Technical College
System, n.d.). The traditional schedule is based on a semester system and follows the start and end dates for other on-campus courses. KCTCS Learn on Demand (LOD) is defined as online and hybrid courses which follow an open entry/set exit course model. In the open entry/set exit model, students may start a course at any time during the semester regardless of the local college’s regular course calendar and must complete the course at the end of the current semester. Students can complete the course early, but also have a specific amount of time in which they must finish the course.

**Research Design**

An exploratory, multi-phased iterative design was used to address the research questions posed in this study. Three phases were employed within this design. Phase one involved an exploration of the alignment between the *Quality Matters Rubric* and the rubrics used at KCTCS and the 16 colleges under KCTCS via document analysis. The *Quality Matters Rubric* was selected because it is a widely-accepted quality measure for online course materials and used by many programs in the United States and other countries (King & Griggs, 2006; Quality Matters, 2015; Shelton, 2010). The rubric is “based on best practices that are well established in online education, advocated by accreditors, distance education associations, and individual instructional designers” (Legon, 2015, p. 166). Quality Matters performs research each year to support and update the rubric as well. What makes the *Quality Matters Rubric* unique is the combination of best practices and research into “a single document … with detailed annotations providing guidance on how to implement them [best practices] and how to determine whether they [indicators] are appropriately met” (Legon, 2015, p. 166). In phase two, a survey was used to collect data about online course quality. For phase three, a
correlational design was used to measure the relationship between self-rated and researcher rated course quality. Each phase of the research study is described in detail.

**Phase One: Rubric Alignment**

Phase one was designed to answer research question one (i.e., degree KCTCS quality assurance rubrics aligns with national quality standards). The approach used in phase one included analysis of publicly available documents. Document analysis provides an unobtrusive systematic procedure for reviewing or evaluating both printed and electronic documents to elicit meaning, gain understanding, and develop empirical knowledge (Hatch, 2002).

**Sample and document selection.** The sample for phase one consists of the KCTCS Distance Learning Office and sixteen colleges included within KCTCS (see Figure 1).

*Figure 1: Kentucky Community and Technical Colleges*
To determine quality rubrics in use by colleges, an Internet search was conducted on their respective websites. Keywords used in the search included: faculty manual, quality assurance, policy manual, online policy, and quality rubric. Policies identified through the search were reviewed to determine the quality assurance process in place and what rubric, if any, was used to support on-line course design. From this search process, a total of two community and technical colleges had policies in place with rubrics.

When a quality assurance process was not found on the website, an additional search was conducted on Blackboard, the KCTCS learning management system, to determine if the college had training materials available privately, but not listed publicly on the Internet. From this search, a total of four community and technical colleges had policies in place with rubrics. Overall, five unique quality rubrics representing six sites were identified through these search procedures, downloaded, and saved to a local hard drive: KCTCS, Jefferson, South Central, Hazard-Big Sandy, and Maysville. The college name and date were used as the file name. Hazard and Big Sandy use the same policy and quality rubric so were considered as one. For this study, policy documents were used to find relevant rubrics and were discarded after use.

Data analysis. Typological analysis was used to collect and analyze quality documents identified for phase one. Five steps suggested by Hatch (2002) were used: (a) identify the typologies to be analyzed, (b) read the data and mark entries related to the typologies, (c) read entries and record the main ideas, (d) look for relationships among ideas, and (e) code main ideas into typology areas using a matrix. Pre-determined typologies for this study were based on the eight standards identified in the Quality Matters Rubric (QMR): (a) course overview and introduction, (b) learning objectives
(competencies), (c) assessment and measurement, (d) instructional materials, (e) course activities and learner interaction, (f) course technology, (g) learner support, and (h) accessibility and usability. To complete the analysis a matrix containing the QMR standards on the left side and the five college’s names across the top (See Appendix A) was used. Inter-rater reliability was conducted to ensure the accuracy of the matrix. An experienced online faculty member completed a matrix using the same method as the researcher. The two matrices were compared and reliability calculated using the percent agreement in a two-rater model, where the number of agreements is divides by the total number of possible agreements (Gwet, 2014). This resulted in a percent agreement of 100%.

**Phase Two: Survey and Quality Self-Assessment**

Phase two of the study was designed to answer research questions two and three via survey and a quality review self-assessment (See Appendix B). The research approach for this phase included an exploratory, convergent parallel mixed method design to gather information on the use of quality measures in the design, development, and continuous improvement of online courses within the KCTCS system. This phase was also designed to explore how leadership supports quality on-line instruction and evaluate current course quality through a self-assessment. An exploratory approach was chosen as it sought to gain insights and familiarity about online learning and the current status within the KCTCS system (McMillan & Schumacher, 2009). A convergent parallel mixed method design was used to collect both quantitative (i.e., survey and quality review) and qualitative data (i.e., survey) simultaneously during the same phase of research, then combined for analysis and interpretation (Creswell & Clark, 2011).
Sample and participant selection. The sample included the population of KCTCS faculty teaching at least one online course in the fall of 2015. These faculty members included both full and part-time faculty positions for a total of 1491 KCTCS online faculty. Using PeopleSoft (the KCTCS college management software), a list was generated, by the researcher, of faculty teaching at least one online course. The list included faculty name, college, course taught, and email address and was divided by college, then copied into separate Excel spreadsheets. The appropriate spreadsheet was emailed to the distance learning coordinator at each KCTCS college for verification. All 16 coordinators indicated the lists were accurate.

Using a voluntary non-probability sampling method, an email was sent to each of the 1491 online faculty members identified through the process described above, inviting them to participate in the survey and complete a self-assessment of one of their online courses.

Instrument. A survey was developed, pre-tested, and piloted by experienced faculty in online education. The survey was designed to address the 21 indicators from the Quality Matters Rubric. Leadership and demographic questions were included based on the study research questions. Once the survey was designed, a pre-test was conducted to assess the adequacy of the questionnaire, and suitability of the survey frame. This was followed by a pilot of the survey to test operational procedures (Dillman, 2011; Franklin & Walker, 2003).

The development phase’s initial survey included three components. First, 20 survey questions focused on (a) how faculty designed courses, (b) how faculty used national or KCTCS standards during the design and/or evaluation of courses for
continued improvement, (c) what tools were used for the evaluation, and (d) general demographic information. Participants were asked their perceptions of course quality throughout KCTCS (research questions 2a and 2b). Next, the survey included six open ended questions, in narrative form, asking about various aspects of responsibility and duties related to online learning (research question 2c). Lastly, a quality rubric containing 21 question, adapted using standards from the Quality Matters Higher Education Rubric, 5th Edition (used with permission, See Appendix C) was included to allow faculty the opportunity to self-rate one of their online courses. These components combined were used to describe course quality in general and across programs, courses, and faculty (research questions 3a and 3b).

During the pretest phase, a retrospective interview technique (Dillman, 2011) was used. Five potential survey respondents were given the survey individually and asked to complete the questions as if they had received it at through email and the researcher was not there. While respondents were completing the survey, the interviewer made observations of pauses and potential areas of confusion. When the survey was complete, the interviewer asked questions related to these observations to understand how questions were interpreted and if the intent of each question was realized.

Based on this process, several changes were made to the survey instrument. First, minor revisions were made to the wording of five questions and order in which the questions were presented. Specifically, demographic questions were moved from the beginning of the survey to before the self-reported quality rubric. Additionally, descriptive text with examples was added to each quality review standard for increased
The next version of the survey was created using Qualtrics (2016) and included “skip logic” to present questions to faculty based on previous answers.

The next step in the design process included a pilot of the survey with 25 faculty from the Bluegrass Community and Technical College. Faculty were invited to participate in the pilot if they had experience in teaching online classes, but were not currently teaching online or had moved into administrative positions. Faculty in the pilot were provided a link to the survey and asked to complete it within two weeks. After completing the survey, they received a follow-up email asking for feedback on the survey. Specifically, the email asked them to respond with any technical or content issues with the online survey. No respondents reported issues.

Data from the pilot survey were analyzed for variable distribution and item nonresponse. No issues were found. All responses from the pilot were removed from the Qualtrics system before the final survey was distributed (Baatard, 2012; Daley, McDermott, Brown, & Kittleson, 2003; McPeake, Bateson, & O'Neill, 2014).

**Procedures and design.** For distribution of the final version of the survey, email addresses that had been verified by the 16 Distance Learning Coordinators were combined and imported into Qualtrics. A software-generated survey link was disseminated via email (See Appendix D) on Monday, October 26, 2015, to a total of 1491 faculty with responses monitored through the Qualtrics reporting system. The email provided an introduction to the survey, gave an estimated completion time, and provided an individualized link to the survey (Baatard, 2012). In addition, a quality rubric was included, with directions to print the quality rubric, complete a self-rating of one of their online courses, then enter this information into the survey. This process was designed to
help streamline survey completion by allowing faculty an opportunity to rate a course, enter that information into the survey and use the experience to respond to additional questions included in the survey. A follow-up email (See Appendix E) was sent on Monday, November 9, 2015 to thank faculty who had completed the survey and remind faculty who had not yet completed the survey. A final reminder email was sent on Monday, November 16, 2015, to maximize online survey response rates (Baatard, 2012). The survey was closed in Qualtrics on Monday, November 23, 2015. Representativeness of the data was examined throughout the process to ensure the sample included all KCTCS site (e.g. JCTC, Western Kentucky, and Bluegrass), all academic areas (e.g. written communication, oral communication, and technical), and gender of the faculty members completing the survey.

Survey data were collected through a secure, cloud-based, web server where data were recorded anonymously. Participant email addresses are not connected to survey responses. No personally identifiable information was requested on the survey.

**Data analysis.** Survey data were analyzed using three steps (Franklin & Walker, 2003): (1) data coding, (2) editing, and (3) data analysis. Quantitative data were first coded to assign numerical values to responses which assisted in processing the data. Data were then edited to identify missing, invalid or inconsistent entries. The purpose of editing was to ensure final data were complete, consistent, and valid. Using guidance from Franklin and Walker (2003), sequential hot-deck imputation was used to handle the 12 cases where data were missing. Sequential hot-deck imputation uses data from the previous data record to complete missing data. Missing data in this dataset were not grouped which alleviated a potential disadvantage with this approach.
Narrative data gathered through open-ended questions were coded using inductive analysis. Inductive analysis involves a categorizing strategy used to reduce broad information into patterns and themes (Hatch, 2002). Using this type of analysis, data were read multiple times while identifying frames of analysis. From these frames, domains were created based on relationships within the data. Domains were analyzed to develop themes which ensured the domains accurately captured the data. Data were reread to refine and ensure domains were supported by data. Refined domains were sorted into final categories. To ensure reliability, data excerpts were selected to support the final categories.

Final categories were assigned a number and added to SPSS as a new variable. Using SPSS, new variables were created to group or clarify survey variables. For example, total met ratings per standard and indicator, college district details such as rural or urban, and the use of a quality assurance program.

Descriptive statistics were used to examine demographic data collected through the survey relating to faculty within the KCTCS system. These summaries allowed data to be compared across courses and instructional areas (McMillan & Schumacher, 2009; Schreiber & Asner-Self, 2011). A chi-squared test of independence was used to determine if there were significant relationships between nominal (categorical) variables including quality ratings and faculty characteristics. Characteristics included (a) gender, (b) college district, (c) college location in urban/rural county, (d) use of a formal quality assurance program, (e) full-time or part-time faculty status, (f) number of years teaching online, (g) training received to develop an online course, and (h) program area. For this exploratory study, faculty characteristics were chosen because data were obtainable and
could possibly influence course quality and perceptions of online education leadership at
the college and system levels. When significant, a pairwise comparison of column
proportions was performed to determine the cause of the relationship. To determine the
internal consistency reliability of the survey, Cronbach's alpha coefficient was calculated
using SPSS Statistics version 23. The total scale included 21 items and reliability was
high (α = 0.76).

Phase Three: Quality Review

Phase three was conducted to determine the quality of a randomly selected set of
KCTCS on-line courses using a researcher review (i.e., research question 3a). The
approach included a correlational design to test the null hypothesis that the proportion of
quality ratings of the surveyed group had no statistically significant difference to the
proportion rated by the researcher (McMillan & Schumacher, 2009). A correlational
design was chosen because the null hypotheses are testable, clearly stated, and can
reliably test for validity of data collected in phase two.

As the researcher performing the review, I am qualified to give an unbiased rating
of course quality. I have completed Quality Matters review training and have over 15
years of experience teaching online. My position as Assistant Dean of Distance Learning
at the college gives me access in Blackboard to enroll into courses anonymously as an
instructor.

Sample and participant selection. The sample and participants for phase three
were the same as phase two, all KCTCS faculty members teaching at least one online
course during the fall 2015 semester. Identifiable data were used during the selection and
rating portions of this phase. No identifiable data were used during the analysis or
discussion of phase three, only ratings of courses. The faculty member teaching a class cannot be determined from the information recorded.

From the verified list of 1491 faculty members, collected during phase two, teaching online classes during the fall 2015 semester, 60 courses were selected at random for the researcher review. The selected courses were not matched to self-rated courses completed during the phase two survey process. The number of courses chosen was based on the time commitment involved to review each course. Each review required approximately 30 minutes each to complete which leaded to a total time to review all 60 courses at approximately 30 hours.

Using Excel, courses were divided by college and assigned a random number and sorted from lowest to highest. The four lowest random numbers for the 12 colleges who had the largest number of online courses were selected and the data copied onto a new spreadsheet. The remaining four colleges, which had fewer online courses, had three courses chosen for review. After the chosen courses had been copied into a new spreadsheet, a sampling frame was used to ensure representativeness of data. The frame included KCTCS site (e.g., JCTC, Western Kentucky, and Bluegrass), academic area (e.g., written communication, oral communication, and technical), and faculty gender. Using this process, no adjustments were made to the sample.

**Instruments and procedures.** Using the same quality rubric faculty used for the self-rating, the researcher conducted a quality review of the 60 randomly chosen courses. Paper copies of the quality rubric were printed and used to evaluate the courses. Using the list of courses selected previously, the researcher found the class in Blackboard and
self-enrolled as an instructor of the course. Working through the printed rubric, each course was evaluated and scores recorded by hand on the form.

**Data analysis.** Twenty-one new variables matching the quality rubric indicators were created in SPSS and the data collected during the quality review copied into SPSS for analysis. A null hypothesis guided the statistical assessment during this phase. A difference-in-proportions two-tailed z-test was conducted to test the null hypothesis that the proportion of quality ratings of the surveyed group related to the proportion rated by the researcher. Each of the 8 quality standards, as well as the 21 quality indicators, were compared.

**Role of Researcher**

The researcher was the sole creator, planner, and conductor of this research study. The researcher is a full-time professor at Bluegrass Community and Technical College which is part of KCTCS. The researcher, as well as close acquaintances, have taken online courses throughout KCTCS and has witnessed courses which could be considered low quality by the Quality Matters standards. This could potentially cause bias on the part of the researcher causing a predisposed view of quality in courses.

**Assumptions and Limitations**

Several assumptions undergird this study. First, the *Quality Matters Rubric* used for the study has been thoroughly vetted as a valid and reliable measure of minimal quality standards. Second, quality assurance policies and/or rubrics were published either publicly on the college website or privately in Blackboard. Third, the researcher accurately and truthfully rated the courses to the best of his ability. Fourth, faculty accurately and truthfully self-rated their course to the best of their ability. Fifth, responses
to the survey questions were not influenced by outside parties. Lastly, the use of an Internet-based survey instrument did not affect results.

The limitations of phase two include the following. First, the study included faculty who agreed to participate voluntarily. It is possible only highly motivated, high-quality faculty members replied to the survey. Second, survey research relies on self-reported data, which involves the honesty of the faculty answering survey questions. The perceptions of what faculty think to be true may contain certain limitations such as distorted memories, attitudes, or opinions constructed at the time the faculty completed the survey. Biased recollections based upon recent events or current contexts and a misrepresentation of the facts to please the researcher may have also affected the data collected (Rea & Parker, 2012). Third, faculty members choose the course they evaluated during the self-review. It is possible the course chosen was the best possible course the faculty member taught and lesser quality courses were not evaluated.

The limitation of phase three is in the random selection of courses to be evaluated. While selection was random, it is still possible to have picked courses where ratings were high and missing those with lower ratings. Additionally, the faculty member’s courses were self-selected and not random which could impact the outcome of the comparison. Faculty members may have chosen the best course while the researchers random selection may have included the worse course.

Institutional Review Board

The study was submitted to the KCTCS Office of Research and Policy Analysis for approval by the board. Approval was received on September 18, 2015, for exemption status (See Appendix F). The final version of the application was submitted to the
University of Kentucky Institutional Review Board (IRB) for approval. Approval was
given on September 30, 2015, for exemption status (See Appendix G). Final data
collected through this study will be retained for a minimum of 6 years after the study is
completed.

Chapter Summary

This chapter has outlined the research setting/context and overall research design.
Chapter 3 also describes the three phases conducted during this study including the
sample, participant selection, instruments and procedures, data collection, data analysis,
and role of the researcher for each phase. Chapter 4 will present findings from the study
using the methods reported in this chapter.
Chapter Four: Results

This study was designed to explore the extent to which Kentucky Community and Technical College (KCTCS) faculty utilize quality standards during the design and continuous improvement of their online courses. The study also explored how leadership supports quality online instruction. The following questions guided the study.

1. To what degree do KCTCS quality assurance rubrics align with national quality standards (i.e., Quality Matters)?

2. As it relates to online courses offered through KCTCS:
   a. How do faculty view the quality of courses?
   b. To what degree do faculty use quality standards to design, develop, and improve courses?
   c. What role does KCTCS leadership play in ensuring course quality?

3. What is the quality of KCTCS online courses?
   a. To what degree do courses meet national quality indicators (i.e., Quality Matters) based on faculty self-ratings and researcher ratings?
   b. Does quality differ on faculty-self-rated courses based on faculty characteristics, specifically (a) gender, (b) college district, (c) college location in urban/rural county, (d) use of a formal quality assurance program, (e) full-time or part-time faculty status, (f) number of years teaching online, (g) training received to develop an online course, and (h) program area?
This chapter presents findings from the study. A description of the study participants will be presented, followed by finding by research question.

**Study Participants**

A list was generated, by the researcher, of faculty teaching at least one online course during the fall 2015 semester. These faculty members included both full and part-time faculty positions. Online faculty member’s email addresses were imported into Qualtrics software (Qualtrics, 2016). A software-generated survey link was disseminated via email on Monday, October 26, 2015, to a total of 1491 faculty. A follow-up email was sent Monday, November 9, 2015, to thank faculty who had completed the survey (N = 81) and prompt faculty who had not yet completed the survey. A final email was sent on Monday, November 16, 2015 resulting in an additional 139 surveys. The survey was closed on Monday, November 23, 2015.

**Demographic Profiles of Faculty**

The survey was designed with skip-logic so faculty were presented with different questions based upon responses. Therefore, data presented in this section may not total 100%. Table 2 presents the distribution of invitations sent, response rates within the college based on invitations sent to the college, and the overall response rates based on total invitations sent. Of the total invitations sent (N = 1491) Bluegrass received the highest number of invitations (13.3%), followed by West Kentucky (10.5%), Somerset (9.1%), and Jefferson (8.9%), while Big Sandy (3.8%), Southeast Kentucky (3.8%), and Madisonville (3.4%) received the fewest invitations. Regarding response rates based on total invitations sent, West Kentucky (18.4%) and Bluegrass (15.7%) had the highest overall response rates, while Henderson (2.7%), Madisonville (2.7%), and Big Sandy
(2%) the lowest. For within college response rates based on invitations sent to the college, West Kentucky (34.4%) and Southeast Kentucky (30.4%) had the highest, while Gateway (11.8%) and Big Sandy (10.7%) the lowest. Although Southeast Kentucky received few invitations (3.8%) and the overall response rate was low (5.8%) compared to other KCTCS sites, Southeast Kentucky’s response rate within the college (30.4%) ranked second.

Table 2

Distribution by Home College

<table>
<thead>
<tr>
<th>College</th>
<th>Invited N=1491</th>
<th>Response Rate of Invitations per College</th>
<th>Response Rate of Total Invitations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Bluegrass</td>
<td>199</td>
<td>13.3</td>
<td>44</td>
</tr>
<tr>
<td>West Kentucky</td>
<td>157</td>
<td>10.5</td>
<td>54</td>
</tr>
<tr>
<td>Somerset</td>
<td>135</td>
<td>9.1</td>
<td>25</td>
</tr>
<tr>
<td>Jefferson</td>
<td>132</td>
<td>8.9</td>
<td>27</td>
</tr>
<tr>
<td>Elizabethtown</td>
<td>112</td>
<td>7.5</td>
<td>16</td>
</tr>
<tr>
<td>Maysville</td>
<td>88</td>
<td>5.9</td>
<td>14</td>
</tr>
<tr>
<td>Southcentral Kentucky</td>
<td>84</td>
<td>5.6</td>
<td>15</td>
</tr>
<tr>
<td>Hazard</td>
<td>81</td>
<td>5.4</td>
<td>13</td>
</tr>
<tr>
<td>Gateway</td>
<td>76</td>
<td>5.1</td>
<td>9</td>
</tr>
<tr>
<td>Owensboro</td>
<td>74</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Ashland</td>
<td>72</td>
<td>4.8</td>
<td>15</td>
</tr>
<tr>
<td>Hopkinsville</td>
<td>60</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Henderson</td>
<td>58</td>
<td>3.9</td>
<td>8</td>
</tr>
<tr>
<td>Big Sandy</td>
<td>56</td>
<td>3.8</td>
<td>6</td>
</tr>
<tr>
<td>Southeast Kentucky</td>
<td>56</td>
<td>3.8</td>
<td>17</td>
</tr>
<tr>
<td>Madisonville</td>
<td>51</td>
<td>3.4</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 3 presents information on the teaching experience of faculty, including overall experience and online teaching. The highest percentage of faculty reported 1-5 years of overall teaching experience (38.2%) followed by 15 or more years of overall experience.
teaching (24.9%). For online teaching experience, faculty most commonly reported 1-5 years of experience (46.1%) followed by 6-10 years (33.4%) of online teaching experience. Faculty with greater than 15 years of overall teaching experience (24.9%) were less likely to teach online classes (6.1%) while faculty with 1-5 years of teaching experience (38.2%) were more likely to teach online (46.1%).

Table 3

*Number of Years’ Faculty Members Have Been Teaching (N = 293)*

<table>
<thead>
<tr>
<th>Years</th>
<th>Years teaching overall</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>1-5</td>
<td>112</td>
<td>38.2</td>
<td>135</td>
</tr>
<tr>
<td>6-10</td>
<td>52</td>
<td>17.7</td>
<td>98</td>
</tr>
<tr>
<td>11-15</td>
<td>30</td>
<td>10.2</td>
<td>37</td>
</tr>
<tr>
<td>Greater than 15</td>
<td>73</td>
<td>24.9</td>
<td>18</td>
</tr>
</tbody>
</table>

Additional information about participants is presented in Table 4. Participants were primarily female (53.9%) and equally split between full-time 50.9% and adjunct faculty status 49.1%. The majority of faculty (77.8%) reported teaching 1-5 different online classes (based on either course number or prefix), and reported having developed 1-5 online courses (67.2%).
Table 4
Demographics of Survey Faculty (N = 293)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>158</td>
<td>53.9</td>
</tr>
<tr>
<td>Male</td>
<td>111</td>
<td>37.9</td>
</tr>
<tr>
<td>Faulty status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>149</td>
<td>50.9</td>
</tr>
<tr>
<td>Part-time (adjunct)</td>
<td>144</td>
<td>49.1</td>
</tr>
<tr>
<td>Number of different online courses taught</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>228</td>
<td>77.8</td>
</tr>
<tr>
<td>6-10</td>
<td>40</td>
<td>13.7</td>
</tr>
<tr>
<td>11-15</td>
<td>12</td>
<td>4.1</td>
</tr>
<tr>
<td>Greater than 15</td>
<td>9</td>
<td>3.1</td>
</tr>
<tr>
<td>Number of Courses Developed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>45</td>
<td>15.4</td>
</tr>
<tr>
<td>1-5</td>
<td>197</td>
<td>67.2</td>
</tr>
<tr>
<td>6-10</td>
<td>31</td>
<td>10.6</td>
</tr>
<tr>
<td>11-15</td>
<td>10</td>
<td>3.4</td>
</tr>
<tr>
<td>Greater than 15</td>
<td>5</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Phase One: Rubric Alignment

Phase one was designed to answer research question one (i.e., degree KCTCS quality assurance rubrics aligns with national quality standards) quality measures outlined in the KCTCS rubric, JCTC's Rubric, SKYCTC's Rubric, Hazard/Big Sandy Rubric, and Maysville's Rubric were compared to standards identified through the Quality Matters Rubric. The degree of alignment was calculated and reported across standards using thematic analysis. The organizational categories for this study are taken from the eight
standards outlined by the *Quality Matters Rubric*: (a) course overview and introduction, (b) learning objectives (competencies), (c) assessment and measurement, (d) instructional materials, (e) course activities and learner interaction, (f) course technology, (g) learner support, and (h) accessibility and usability. Each rubric was coded and arranged into organizational categories. These organizational categories were then compared through a matrix to determine areas of alignment and/or missing themes. Table 5 compares main categories of the KCTCS rubric, JCTC's Rubric, SKYCTC's Rubric, Hazard/Big Sandy Rubric, and Maysville's Rubric to the *Quality Matters Rubric*. The rubrics used at Jefferson and Maysville align each of the eight standards included in the *Quality Matters Rubric*. The rubrics used in Southcentral, Hazard, and Big Sandy align in five of the Quality Matters standards but do not contain alignment in the areas of (a) instructional materials, (b) course activities and learner interaction, or (c) course technology. The KCTCS quality assurance rubric aligns with four of the *Quality Matters Rubric* but does not align with (a) course overview and introduction, (b) learning objectives (competencies), (c) instructional materials, or (d) course technology.
### Table 5

**Alignment of KCTCS Rubrics to Quality Matters Standards**

<table>
<thead>
<tr>
<th>Quality Matters Rubric</th>
<th>KCTCS Quality Assurance</th>
<th>Jefferson Community and Technical College</th>
<th>Southcentral Kentucky Community and Technical College</th>
<th>Hazard/Big Sandy Community and Technical College</th>
<th>Maysville Community and Technical College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Objectives</td>
<td>Learning Outcomes</td>
<td>Course and Learning Outcomes</td>
<td>Course and Learning Outcomes</td>
<td>Course and Learning Outcomes</td>
<td></td>
</tr>
<tr>
<td>Instructional Materials</td>
<td>Resources &amp; Content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Activities and Learner Interaction</td>
<td>Communication and Interaction</td>
<td>Learner Engagement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Technology</td>
<td>Course Technology &amp; Learner Support</td>
<td>Tech Support, Resources &amp; Compliance</td>
<td>Tech Support, Resources &amp; Compliance</td>
<td>Tech Support, Resources &amp; Compliance</td>
<td></td>
</tr>
<tr>
<td>Learner Support</td>
<td>Learner Support</td>
<td>Instructional Design &amp; Delivery</td>
<td>Instructional Design &amp; Delivery</td>
<td>Instructional Design &amp; Delivery</td>
<td></td>
</tr>
<tr>
<td>Accessibility and Usability</td>
<td>Course Design</td>
<td>Accessibility</td>
<td>Course Design &amp; Organization</td>
<td>Course Design &amp; Organization</td>
<td>Course Design &amp; Organization</td>
</tr>
</tbody>
</table>
Phase Two: Survey and Quality Self-Assessment

Phase two of the study was designed to answer research questions 2 and 3 via survey and a quality review self-assessment (see Appendix B). The research approach for this phase included an exploratory, convergent parallel mixed method design to gather information on the use of quality measures in the design, development, and continuous improvement of online courses within the KCTCS system. This phase was also designed to explore how leadership supports quality online instruction.

Faculty view of online course quality. To answer research question 2a, (i.e., how do faculty view the quality of online courses) faculty were asked questions designed to understand how they view online course quality. While less than 25% of faculty reported having taken an online course offered through KCTCS (23.5%), overall faculty rated the online courses as good ($M = 3.93; SD = .78$) when using a 5 point Likert scale (with 5 being “Very Good” and 1 being “Very Poor”; see Table 6).

Table 6

<table>
<thead>
<tr>
<th>Rating</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Poor</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Poor</td>
<td>6</td>
<td>2.1</td>
</tr>
<tr>
<td>Fair</td>
<td>68</td>
<td>23.4</td>
</tr>
<tr>
<td>Good</td>
<td>147</td>
<td>50.7</td>
</tr>
<tr>
<td>Very Good</td>
<td>67</td>
<td>23.1</td>
</tr>
</tbody>
</table>

Note. Scale: 5-Very Good, 4-Good, 3-Fair, 2-Poor, and 1-Very Poor.
Faculty use of quality standards in the design, development, and continuous improvement of online courses. To answer research question 2b, (i.e., degree to which faculty use quality standards to design, development, and improve courses) faculty were asked how they designed courses, if they used national or KCTCS standards during the design, if they re-evaluated courses for continued improvement, and the tools used for the evaluation. Skip-logic was used during the survey to guide questions. Figure 2 provides a flowchart of the skip-logic used during the survey.

Overall, 68.7% of faculty responding to the survey indicated they had received training on how to design an online course. Of those who received training, 72.6% indicated the training was based on college, KCTCS, or national standards. For those faculty who had not received training, 70% said they would like to receive training on national standards.
Figure 2. Survey skip-logic flowchart.
Faculty were asked if they had developed the course themselves, 94.1% answered yes. Of these faculty, a majority (79.1%) indicated they used quality standards to support the course development, specifically college (42.7%), or KCTCS standards (40.3%) standards. Of faculty members whose courses were not based on a quality standard, 63.6% would like to receive training in quality standards.

Faculty who indicated they did not use standards in the development of their course were asked why via an open-ended question. These responses were categorized into three responses: (a) did not know standards existed (48.5%), (b) personal standards were used (42.4%), and (c) no time to use standards (9.1%). Figure 3 provides examples from each category.
<table>
<thead>
<tr>
<th>Did Not Know Standards Existed (48.5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• I didn't realize there were standards. I set up the course to deliver the same material that I do in my on-ground course in an online format</td>
</tr>
<tr>
<td>• Honestly, I wasn't aware they existed--this was a basic port of an offline course I'd developed previously</td>
</tr>
<tr>
<td>• I was not aware that there was a standard. No one offered assistance at the time, several years ago</td>
</tr>
<tr>
<td>• I don't know of any standards. I've been teaching online for 10 years... I've never heard of a specific standard before</td>
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</table>

<table>
<thead>
<tr>
<th>Personal Standards Were Used (42.4%)</th>
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<tbody>
<tr>
<td>• Because I have my own standards and know what I am doing</td>
</tr>
<tr>
<td>• My department offers academic freedom to its faculty</td>
</tr>
<tr>
<td>• I have over 10 years of teaching experience. I don't need textbook publishers or national standards to tell me how to structure a class</td>
</tr>
<tr>
<td>• I wanted to give the students something different. I wanted to make the class as close to face-to-face as possible. Many standards give students busy work, but not productive work geared toward their majors</td>
</tr>
<tr>
<td>• I have a great deal of suspicion and skepticism of standards imposed by people who have never set foot in a classroom</td>
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</table>

<table>
<thead>
<tr>
<th>No Time to Use Standards (9.1%)</th>
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</thead>
<tbody>
<tr>
<td>• When I first developed the course, I had to do so in a hurry. There simply wasn't time for me to worry about quality as sad as that is. I had to put the course online because indicate physically could not be in more places on ground</td>
</tr>
<tr>
<td>• I was not given enough time</td>
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</table>

*Figure 3. Example comments from "why were national standards not used when designing the course."*
Faculty who indicated they used a re-evaluation process to ensure the continued improvement of their course (74.8%) were asked what encourages you to review and improve your courses. These open-ended responses were categorized into five responses: (a) student success, (b) professional/personal integrity, (c) correct errors/update content, (d) quality review process, and (e) money. The most common response was student success (48.5%) followed by professional and personal integrity (35.2%). A small portion of faculty responded money (2%) would be a driving influence. There were an additional 14 (4.8%) comments that were either blank or neutral in nature and did not fit any category. For example, “sort of.” Table 7 summarizes the data and Figure 4 includes example comments from each category.

Table 7

<table>
<thead>
<tr>
<th>Reason</th>
<th>$n$</th>
<th>%</th>
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<tbody>
<tr>
<td>Student Success</td>
<td>142</td>
<td>48.5</td>
</tr>
<tr>
<td>Professional/Personal Integrity</td>
<td>103</td>
<td>35.2</td>
</tr>
<tr>
<td>Correct Errors/Update Content</td>
<td>15</td>
<td>5.1</td>
</tr>
<tr>
<td>Quality Review Process</td>
<td>13</td>
<td>4.4</td>
</tr>
<tr>
<td>Money</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>
Student Success (48.5%)
- I want online students to be as successful as my face to face students
- My students encourage me to review and update my course
- Wanting the students to learn in the best way possible
- My students, making this smoother, easier, more appealing, to my students

Professional/Personal Integrity (35.2%)
- My own personal integrity as a professional
- My personal drive for excellence
- I really don't need any encouragement. Continuous improvement is a part of being a professional
- I am motivated entirely by intrinsic rewards

Correct Errors/Update Content (5.1%)
- Staying up to date on technology & current articles in the course
- Technology and the medical field are constantly changing. I must change to keep up with industry trends
- Changes in the text used, or technology that is available

Quality Review Process (4.4%)
- An audit by the Distance Learning Director helped focus me to see what improvements needed to be made in my classes
- Dean of distance learning
- We have a committee that takes every online course (or almost every online course) offered by the college each semester, and divides them amongst its members and they review the online courses and provide recommendations

Money (2%)
- More money
- Provide funding for the time invested in developing the course
- Getting compensated for doing so

Figure 4. Example comments from "what would encourage you to review and improve your courses."

61
Role of KCTCS leadership in ensuring course quality. To answer research question 2c, (i.e., role KCTCS leadership plays in ensuring online course quality) faculty were asked to answer open-ended questions, in narrative form, on various aspects of responsibility and duties related to online learning. Comments were analyzed and coded into categories. To help eliminate researcher bias, inter-rater reliability was conducted. Specifically, comments were coded into the identified categories by the researcher and an experienced online faculty member and reliability calculated using the percent agreement in a two-rater model (Gwet, 2014): number of agreements/total number of possible agreements. This resulted in a percent agreement of 100%.

When faculty were asked, who should be responsible for reviewing the quality of online courses, four categories were identified: (a) division leadership, (b) college leadership, (c) instructor of the course, and (d) system leadership. Division leadership was the largest category (40.3%) followed by college leadership at 31.7%. An additional 28 (9.6%) comments were either blank or neutral and did not fit in a category. For example, “don’t know” and “very good”. Table 8 summarizes the data and Figure 5 includes example comments from each category.

Table 8

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<tr>
<th>Rating</th>
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<th>%</th>
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<tr>
<td>Division Leadership</td>
<td>118</td>
<td>40.3</td>
</tr>
<tr>
<td>College Leadership</td>
<td>93</td>
<td>31.7</td>
</tr>
<tr>
<td>Instructor of the Course</td>
<td>46</td>
<td>15.7</td>
</tr>
<tr>
<td>System Leadership</td>
<td>8</td>
<td>2.7</td>
</tr>
<tr>
<td>Division Leadership (40.3%)</td>
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<td></td>
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<td>---------------------------</td>
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<tr>
<td>• The division chair and academic dean at the individual colleges</td>
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<tr>
<td>• The department for whom the course is taught</td>
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<tr>
<td>• Division chair, or program coordinator</td>
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<td></td>
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<tr>
<td>• I think the collective department faculty should be responsible for reviewing the quality of online courses in their respective departments.</td>
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<tr>
<td>• Department Chair’s, they have the accessibility to quickly emplacement changes that increase productivity and enhance the students experience</td>
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<td></td>
</tr>
<tr>
<td>• Academic content should be evaluated by division, department, or program chairs and faculty</td>
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<td></td>
</tr>
<tr>
<td>• I think it should be controlled by each department, i.e. math department should review math classes</td>
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<td></td>
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</table>

| College Leadership (31.7%) |  |
|---------------------------|--|---|
| • The Distance Learning teams at each college |  |
| • Academic Deans and the Dean of Institutional Effectiveness |  |
| • Create a department that assesses and assists in the creation of online training courses |  |
| • The Director of Online Technology systems |  |
| • Distance Learning Coordinator on each campus |  |
| • Designated reviewers who are trained to review online courses. |  |

| Instructor of the Course (15.7%) |  |
|-----------------|--|---|
| • Instructors, students |  |
| • The instructor. In-person classes are not reviewed for quality, so why are online courses? Colleges need to be able to trust the faculty that they hire to do a good job |  |
| • The faculty at the college offering the courses |  |

| System Leadership (2.7%) |  |
|---------------------|--|---|
| • If KCTCS is going to offer online courses, they need an online department. Yes, a whole department...not just one person |  |
| • Courses should be evaluated as a whole by KCTCS |  |
| • KCTCS should ultimately be responsible due to each college being part of the KCTCS umbrella |  |
| • KCTCS system, not the individual campuses |  |
| • System Office |  |

*Figure 5. Example comments from "who should be responsible for reviewing the quality of online courses."*
When faculty members were asked, who should be responsible for ensuring the continual improvement of online courses, four categories were identified: (a) division leadership, (b) college leadership, (c) instructor of the course, and (d) system leadership. College leadership was most common (40.3%) followed by division leadership (27.3%). An additional 31 (10.6%) comments were either blank or neutral and did not fit in a category. For example, “I don’t know” and “not sure”. Table 9 summarizes the data and Figure 6 includes example comments from each category.

Table 9

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<tr>
<th>Rating</th>
<th>n</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>College Leadership</td>
<td>118</td>
<td>40.3</td>
</tr>
<tr>
<td>Division Leadership</td>
<td>80</td>
<td>27.3</td>
</tr>
<tr>
<td>Instructor of the Course</td>
<td>50</td>
<td>17.1</td>
</tr>
<tr>
<td>System Leadership</td>
<td>14</td>
<td>4.8</td>
</tr>
</tbody>
</table>
College Leadership (40.3%)
- Director of eLearning
- Academic Deans with Division Chairs and Program Chairs
- Distance Learning Staff, Faculty, and Instructional Designers
- The Online Learning department
- The committee on online auditing at each college

Division Leadership (27.3%)
- Program coordinator and faculty
- The instructor should be the first line to improve the quality of the courses that they teach, regardless of face to face or on line. The division chair or an appointed administrator should review to make sure improvements are made
- Division Chairs/Deans of the department the faculty member teaches in

Instructor of the Course (17.1%)
- The instructor with help and support through professional development activities
- The online instructor should work to improve course content, delivery, student interactions with peers, and provide appropriate opportunities for student independent growth
- The professors doing the teaching
- Faculty with more professional development; administrative commitment to high quality; system commitment to high quality

System Leadership (4.8%)
- KCTCS needs to have a team or require the colleges to have a team dedicated to online learning. This team needs to have the authority to remove online instructors from their classes when they are not responding to students in a timely manner
- Online Coordinator at KCTCS
- The KCTCS should oversee and have some degree of coordination between the colleges to ensure the quality of online teaching

*Figure 6.* Example comments from "who should be responsible for ensuring the continual improvement of KCTCS online courses."
When faculty were asked what administrative leadership at the college can do to ensure courses are of high quality, four categories were identified: (a) training and support, (b) quality review, (c) provide rubric and/or template, and (d) use student evaluations. Training and support was the most common category (34.8%) followed by quality review (33.4%). An additional 42 (14.3%) comments that were either blank or neutral and did not fit in a category. For example, “I believe West Kentucky is doing a very good job” and “nothing constructive”. Table 10 summarizes the data and Figure 7 includes example comments from each category.

Table 10

What Can the Administrative Leadership Within Your College Do to Ensure Courses at Your College Are of High Quality

<table>
<thead>
<tr>
<th>Rating</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and Support</td>
<td>102</td>
<td>34.8</td>
</tr>
<tr>
<td>Quality Review</td>
<td>98</td>
<td>33.4</td>
</tr>
<tr>
<td>Provide Rubric and/or Template</td>
<td>31</td>
<td>10.6</td>
</tr>
<tr>
<td>Use Student Evaluations</td>
<td>20</td>
<td>6.8</td>
</tr>
</tbody>
</table>
Training and Support (34.8%)

- Support the faculty and pay for more full-time faculty
- Ensure the availability of training for teaching online as well as training for reviewers
- Provide support and professional development
- Provide training to the online instructors before online classes are taught and make training available often
- Offer required online training for all online instructors

Quality Review (33.4%)

- Implement a process to review and occasionally check course quality
- Have a Distance learning department/committee to continually monitor, train and improve courses
- Periodically review the online courses to make sure they are at a high level of quality
- Review the courses, and provide guidance to instructors on improvement

Provide Rubric and/or Course Template (10.6%)

- Create a rubric for course design and insure everyone incorporates key aspects of the rubric
- Provide course templates or shells for newly hired instructors
- Prepare minimum standards for teaching, design, and implementation
- Ensure the interfaces the students see are the same. Students need to learn online interfaces and those interfaces should be standardized for all online courses for the most part

Use Student Evaluations (6.8%)

- Students surveys and suggestions
- Continue course surveys of students taking online courses, provide feedback to instructors in timely manner
- Talk to students about how they are doing, what is keeping them engaged

Figure 7. Example comments from "what can the administrative leadership within your college do to ensure courses at your college are of high quality."
When faculty were asked what administrative leadership at the KCTCS system office can do to ensure courses are of high quality, five categories emerged: (a) training and support, (b) provide rubric and/or template, (c) quality review, (d) use faculty and student feedback, and (e) no involvement. Training and support was the most common category (42.3%) followed by providing a rubric and/or template at 14%. There were an additional 55 (18.8%) comments that were either blank or neutral and did not fit in a category. For example, “some classes are not meant to be taught [sic] via online” and “no comment”. Table 11 summarizes the data and Figure 8 includes example comments from each category.

Table 11

<table>
<thead>
<tr>
<th>Rating</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and Support</td>
<td>124</td>
<td>42.3</td>
</tr>
<tr>
<td>Provide Rubric and/or Template</td>
<td>41</td>
<td>14</td>
</tr>
<tr>
<td>Quality Review</td>
<td>34</td>
<td>11.6</td>
</tr>
<tr>
<td>Use Faculty and Student Feedback</td>
<td>21</td>
<td>7.2</td>
</tr>
<tr>
<td>No Involvement</td>
<td>18</td>
<td>6.1</td>
</tr>
</tbody>
</table>
Training and Support (42.3%)
- Ensure the availability of training for teaching online as well as training for reviewers
- Offer a full staff to provide professional development and course design expertise to professors teaching online
- Provide resources to the local college to assist in providing the training. Train local college leadership on online instruction
- Provide training in assessment and improvement for KCTCS institutions

Provide Rubric and/or Template (14%)
- Institute some system-wide standards
- By having standards set that ensure classes all have required elements that mean the course learning objectives
- Set appropriate high-quality standards, set reasonable and clear guidelines, and provide assistance as needed
- Course shells should be standardized and consistent for all courses

Quality Review (11.6%)
- Maintain quality control
- Use Quality Matters
- Review courses and give feedback if improvements are needed

Use Faculty and Student Feedback (7.2%)
- Listen to what the online instructors' suggestions because they are in the thick of things
- Students need to participate in evaluations of courses and admin needs to work at increasing student evaluations
- Constantly monitor the student evaluations to look for trends in each instructor's class
- Listen to the students and have conversations among teachers to talk about what works and what doesn't work.

No Involvement (6.1%)
- Leave faculty alone
- Nothing.....it is our courses, not theirs
- NOTHING- System office has no business tinkering with courses, or for that matter, offering them
- Leave the academics to the individual college

*Figure 8.* Example comments from "what can the administrative leadership at the KCTCS system office do to ensure courses throughout KCTCS are of high quality."
Responses were further explored to determine the degree to which these responses differed based on faculty characteristics through a chi-squared test of independence (see Table 12). Characteristics included (a) gender, (b) college district, (c) college location in urban/rural county, (d) use of a formal quality assurance program, (e) full-time or part-time faculty status, (f) number of years teaching online, (g) training received to develop an online course, and (h) program area (Figure 9). When significant, a pairwise comparison of column proportions was performed to determine the cause of the relationship.

<table>
<thead>
<tr>
<th>Faculty participation in an online KCTCS course</th>
<th>Yes or no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female or male</td>
</tr>
<tr>
<td>College district</td>
<td>Ashland, Big Sandy, Bluegrass, Elizabethtown, Gateway, Hazard, Henderson, Hopkinsville, Jefferson, Madisonville, Maysville, Owensboro, Somerset, Southcentral Kentucky, Southeast Kentucky, or West Kentucky</td>
</tr>
<tr>
<td>College location in urban/rural county</td>
<td>Urban or rural</td>
</tr>
<tr>
<td>Use of a formal quality assurance program</td>
<td>Yes or no</td>
</tr>
<tr>
<td>Faculty status</td>
<td>Full-time or part-time</td>
</tr>
<tr>
<td>Number of years teaching online</td>
<td>1-5, 6-10, 11-15, or greater than 15</td>
</tr>
<tr>
<td>Training received to develop an online course</td>
<td>Yes or no</td>
</tr>
<tr>
<td>Program area</td>
<td>Written and oral communication, quantitative reasoning, natural sciences, social and behavioral sciences, heritage/humanities/foreign languages, digital literacy, or technical/trades</td>
</tr>
</tbody>
</table>

*Figure 9. Faculty characteristics.*
### Table 12

Chi Square Test of Independence: Relationship of Qualitative data to Faculty Characteristics

<table>
<thead>
<tr>
<th>Faculty Participation in Online KCTCS Course</th>
<th>Faculty Participation in Online KCTCS Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Gender</td>
<td>College</td>
<td>College</td>
</tr>
<tr>
<td>Females</td>
<td>Male</td>
<td>Divison</td>
<td>Divison</td>
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<tr>
<td>Use Faculty and Student Feedback</td>
<td>Training and Support</td>
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<td>Who should be responsible for ensuring the quality of online courses?</td>
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</table>

Note: Percentages are proportions of row totals. * Fisher's Exact test was used because expected responses were < 5. Significant at the p < .05 level.
Table 12 Continued

<table>
<thead>
<tr>
<th>Training and Support</th>
<th>Use of a Formal Quality Assurance Program</th>
<th>No Enrolment</th>
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<tbody>
<tr>
<td>Quality Review</td>
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</tr>
<tr>
<td>Yes</td>
<td>11.8 56.7 23 16.5 6 4.7 13 10.2</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3.3 19.3 14 12.5 7 6.7 5 4.2</td>
<td></td>
</tr>
<tr>
<td>Percentage of row totals</td>
<td>16.67 9.695</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use of a Formal Quality Assurance Program</th>
<th>Fisher's Exact test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>11.9 3.086</td>
</tr>
<tr>
<td>No</td>
<td>18.9 0.394</td>
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<tr>
<td>Percentages are proportions of row totals. * Fisher's Exact test was used because expected response was &lt; 5. Significant at the p &lt; .05 level.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Training Received to Develop an Online Course</th>
<th>Made</th>
<th>Provided</th>
<th>No Response</th>
</tr>
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<tr>
<td>Yes</td>
<td>17.4 50.9 20 18.3 5 4.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3.5 19.3 12 12.5 8 6.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of row totals</td>
<td>16.67 9.695</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Areas</th>
<th>Written and Oral Communications</th>
<th>Quantitative Reasoning</th>
<th>Natural Sciences</th>
<th>Social and Behavioral Sciences</th>
<th>Heritage Humanities-Foriegn Languages</th>
<th>Digital Literacy</th>
<th>Technical Trades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2.3 16.7 6 4.5 1 1.5</td>
<td>1.4 9.7 5 3.8 1 1.5</td>
<td>1.0 5.1 1 0.5 0 0.0</td>
<td>0.8 5.1 1 0.5 0 0.0</td>
<td>0.3 2.1 1 0.5 0 0.0</td>
<td>0.3 2.1 1 0.5 0 0.0</td>
<td>0.3 2.1 1 0.5 0 0.0</td>
</tr>
<tr>
<td>No</td>
<td>1.4 9.7 5 3.8 1 1.5</td>
<td>1.0 5.1 1 0.5 0 0.0</td>
<td>0.8 5.1 1 0.5 0 0.0</td>
<td>0.3 2.1 1 0.5 0 0.0</td>
<td>0.3 2.1 1 0.5 0 0.0</td>
<td>0.3 2.1 1 0.5 0 0.0</td>
<td>0.3 2.1 1 0.5 0 0.0</td>
</tr>
<tr>
<td>Percentage of row totals</td>
<td>16.67 9.695</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Percentages are proportions of row totals. * Fisher's Exact test was used because expected response was < 5. Significant at the p < .05 level.
Chi-square results show no statistically significant association when comparing who should be responsible for reviewing the quality of online courses to faculty characteristics, at the $p < .05$ level.

The relationship between who should be responsible for ensuring the continual improvement of online courses and faculty participation in an online KCTCS course was significant, $\chi^2 (3, 256) = 13.42, p < .05$. The proportion of faculty who have participated in an online KCTCS course and believe the system office should be responsible for ensuring the improvement of KCTCS online courses is higher than the proportion of faculty who have not participated in an online KCTCS course. In all other characteristics, chi-square results show no statistically significant association between who should be responsible for reviewing the quality of online courses among faculty characteristics at the $p < .05$ level.

The relationship between what administrative leadership at the college can do to ensure courses are of high quality and full-time or part-time faculty status was significant, $\chi^2 (3, 248) = 11.98, p < .05$. The proportion of faculty who have full-time status and believe the administrative leadership at the college should perform quality reviews to ensure quality courses was higher than the proportion of faculty who have part-time status. Moreover, the proportion of faculty with part-time status was greater than the proportion of full-time status faculty who believe student evaluations should be used to ensure high-quality online courses. In all other areas, chi-square results show no statistically significant difference in what administrative leadership at the college can do to ensure courses are of high quality among the nine characteristics at the $p < .05$ level.
The association between what administrative leadership at the KCTCS system office can do to ensure quality courses and full-time or part-time faculty status was significant, $\chi^2 (4, 236) = 10.56, p < .05$ as was program area $\chi^2 (24, 236) = 39.1, p < .05$.

The proportion of faculty who have part-time status was more likely to recommend the use of faculty and student feedback to ensure quality courses than the proportion of faculty who have full-time status. When comparing program areas, none of the proportions were statistically higher than any others. In all other areas, chi-square results show no statistically significant difference in what administrative leadership at the KCTCS system office can do to ensure courses are of high quality among those nine characteristics at the $p < .05$ level.
KCTCS online course quality based on national quality standards. To answer research question 3a, (i.e., degree KCTCS courses meet national quality standards) faculty were asked to self-rate one course they had taught within the past year via a quality rubric adapted from standards from the Quality Matters Higher Education Rubric, 5th Edition. Indicators were evaluated as either Met or Not Met by the faculty. Of the faculty who had taught at least one online course in the past year, 98.6% completed the quality rubric.

The Quality Matters Rubric covers eight standards with twenty-one indicators (Figure 10). Faculty reported meeting an average of 19.87 of the 21 indicators (SD = 2.014). Standard 1 was met most often (98.43%, $M = 1.97$, $SD = .194$) (see Table 13). Standard means were near the upper range with the majority of indicators met.

- Standard 1: Course Overview and Introduction (2 indicators)
- Standard 2: Learning Objectives/Competencies (5 indicators)
- Standard 3: Assessment and Measurement (3 indicators)
- Standard 4: Instructional Materials (2 indicators)
- Standard 5: Course Activities and Learning Interaction (3 indicators)
- Standard 6: Course Technology (2 indicators)
- Standard 7: Learner Support (2 indicators)
- Standard 8: Accessibility and Usability (2 indicators)

Figure 10. Quality Matters Rubric standards.
### Table 13

**Self-Rated Quality Ratings**

<table>
<thead>
<tr>
<th>Standard and Indicator</th>
<th>%</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 1: Course Overview and Introduction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Instructions make clear how to get started and where to find various course components.</td>
<td>98.43</td>
<td>1.97</td>
<td>0.194</td>
</tr>
<tr>
<td>1.2 Learners are introduced to the purpose and structure of the course.</td>
<td>98.25</td>
<td>0.98</td>
<td>0.131</td>
</tr>
<tr>
<td><strong>Standard 2: Learning Objectives (Competencies)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.</td>
<td>98.95</td>
<td>0.99</td>
<td>0.102</td>
</tr>
<tr>
<td>2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.</td>
<td>90.91</td>
<td>0.91</td>
<td>0.288</td>
</tr>
<tr>
<td>2.3 All learning objectives or competencies are stated clearly and written from the learner’s perspective.</td>
<td>94.76</td>
<td>0.95</td>
<td>0.223</td>
</tr>
<tr>
<td>2.4 The relationship between learning objectives or competencies and course activities is clearly stated.</td>
<td>81.12</td>
<td>0.81</td>
<td>0.392</td>
</tr>
<tr>
<td>2.5 The learning objectives or competencies are suited to the level of the course.</td>
<td>98.60</td>
<td>0.99</td>
<td>0.118</td>
</tr>
<tr>
<td><strong>Standard 3: Assessment and Measurement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 The assessments measure the stated learning objectives or competencies.</td>
<td>96.97</td>
<td>2.91</td>
<td>0.333</td>
</tr>
<tr>
<td>3.2 The course grading policy is stated clearly.</td>
<td>97.90</td>
<td>0.98</td>
<td>0.144</td>
</tr>
<tr>
<td>3.3 Specific and descriptive criteria are provided for the evaluation of learners’ work and are tied to the course grading policy.</td>
<td>100.00 **</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td><strong>Standard 4: Instructional Materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies.</td>
<td>95.10</td>
<td>1.90</td>
<td>0.331</td>
</tr>
<tr>
<td>4.2 Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.</td>
<td>91.26</td>
<td>0.91</td>
<td>0.283</td>
</tr>
<tr>
<td><strong>Standard 5: Course Activities and Learning Interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1 The learning activities promote the achievement of the stated learning objectives or competencies.</td>
<td>94.17</td>
<td>2.83</td>
<td>0.440</td>
</tr>
<tr>
<td>5.2 Learning activities provide opportunities for interaction that support active learning.</td>
<td>98.95</td>
<td>0.99</td>
<td>0.102</td>
</tr>
<tr>
<td>5.3 The instructor’s plan for classroom response time and feedback on assignments is clearly stated.</td>
<td>91.61</td>
<td>0.92</td>
<td>0.278</td>
</tr>
<tr>
<td><strong>Standard 6: Course Technology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.1 The tools used in the course support the learning objectives and competencies.</td>
<td>95.63</td>
<td>1.91</td>
<td>0.329</td>
</tr>
<tr>
<td>6.2 Course tools promote learner engagement and active learning.</td>
<td>97.90</td>
<td>0.98</td>
<td>0.144</td>
</tr>
<tr>
<td><strong>Standard 7: Learner Support</strong></td>
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</tr>
<tr>
<td>7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.</td>
<td>91.96</td>
<td>0.92</td>
<td>0.272</td>
</tr>
<tr>
<td>7.2 Course instructions articulate or link to the institution’s accessibility policies and services.</td>
<td>93.36</td>
<td>0.93</td>
<td>0.249</td>
</tr>
<tr>
<td><strong>Standard 8: Accessibility and Usability</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>8.1 Course navigation facilitates ease of use.</td>
<td>91.96</td>
<td>1.84</td>
<td>0.438</td>
</tr>
<tr>
<td>8.2 Information is provided about the accessibility of all technologies required in the course.</td>
<td>93.36</td>
<td>0.93</td>
<td>0.249</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>94.62</td>
<td>19.87</td>
<td>2.01</td>
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</table>
**Course quality ratings across faculty characteristics.** To answer research question 3b, (i.e., does quality differ based on faculty characteristics) a chi-squared test of independence was used to compare the eight standards and twenty-one indicators to various demographic groupings including (a) gender, (b) full-time or part-time faculty status, (c) number of years taught online, and (d) has he/she received training to develop a course (Table 14). Where significant, a comparison of column proportions was performed to determine the cause of the relationship.

When compared to gender, one standard and two indicators showed a statistical relationship at the $p < .05$ level. The relationship between gender to standard 6 (course technology) is significant, $\chi^2 (2, 524) = 8.0, p < .05$ as was indicator 7.1 (course instructions articulate or link to a clear description of the technical support offered and how to obtain it) $\chi^2 (1, 262) = 5.33, p < .05$ and indicator 8.1 (course navigation facilitates ease of use) $\chi^2 (1, 262) = 7.5, p < .05$. Male faculty are more likely to use course technology than female faculty while female faculty are more likely to (a) provide course instructions to articulate or link to a clear description of the technical support offered and how to obtain it and (b) provide course navigation to facilitate ease of use than male faculty members.

When compared to faculty status (full-time or part-time), one standard and one indicator showed a statistical relationship at the $p < .05$ level. The relationship between faculty status to standard 5 (course activities and learning interaction) is significant, $\chi^2 (3, 858) = 7.48, p < .05$ as was indicator 5.3 (instructor’s plan for classroom response time and feedback on assignments is clearly stated) $\chi^2 (1, 286) = 5.23, p < .05$. Part-time faculty are more likely to (a) meet course activities and learning interaction standards and
(b) clearly state a plan for classroom response time and feedback on assignments than full-time faculty.

When comparing the number of years teaching online to the eight standards and twenty-one indicators, no statistically significant relationship was found. One level of teaching experience is as likely to meet the standards and indicators as any other level of teaching experience.

When compared to course design training (received or not), one indicator showed a statistical relationship at the $p < .05$ level. The relationship between course design training to indicator 2.5 (learning objectives or competencies are suited to the level of the course) is significant, $\chi^2 (1, 284) = 8.84, p < .05$. Faculty trained in course development are more likely to provide learning objectives or competencies suited to the level of the course than faculty who were not trained.
### Instructions

1. **Instructions** make clear how to get started and where to find various course components.

2. **Learners** are introduced to the purpose and structure of the course.

3. **The course learning objectives, or course/program competencies, describe outcomes that are measurable.**

4. The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.

5. All learning objectives or competencies are stated clearly and written from the learner's perspective.

6. The relationship between learning objectives or competencies and course activities is clearly stated.

7. The learning objectives or competencies are suited to the level of the course.

### Assessments

8. The assessments measure the stated learning objectives or competencies.

9. **The course grading policy is stated clearly.**

10. Specific and descriptive criteria are provided for the evaluation of learners' work and are tied to the course grading policy.

### Table 14

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>Gender</strong></td>
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<td>Female (N = 156)</td>
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<tr>
<td></td>
<td>Full-time (N = 146)</td>
<td>Part-time (N = 140)</td>
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<td></td>
<td>Received training</td>
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<tr>
<td></td>
<td>1-5 years teaching online courses (N = 131)</td>
<td>11-15 years teaching online courses (N = 37)</td>
<td>16+ years teaching online courses (N = 18)</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>No</td>
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</table>

**Note.** Numbers in parenthesis are the total N value for that standard. **No statistics calculated since proportions are constant. † Fisher's Exact test was used because expected responses were < 5. Significant at the p < .05 level.
<table>
<thead>
<tr>
<th>Standard</th>
<th>Code</th>
<th>n</th>
<th>%</th>
<th>N</th>
<th>p</th>
<th>df</th>
<th>p</th>
<th>n</th>
<th>%</th>
<th>N</th>
<th>p</th>
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<th>p</th>
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<tr>
<td>4. Instructional Materials</td>
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</tr>
<tr>
<td>1. The instructional materials contribute to the achievement of the stated course and module learning objectives or competencies.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
<td>98</td>
<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
</tr>
<tr>
<td>2. The purpose of instructional materials and how they are to be used for learning activities are clearly explained.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
<td>98</td>
<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
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<tr>
<td>5. Course Activities and Learning Interaction</td>
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</tr>
<tr>
<td>1. The learning activities promote the achievement of the stated course learning objectives or competencies.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
<td>98</td>
<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
</tr>
<tr>
<td>2. Learning activities provide opportunities for interaction that support active learning.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
<td>98</td>
<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
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<tr>
<td>5.3. The instructor's plan for classroom response time and feedback on assignments is clearly stated.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
<td>98</td>
<td>100.00</td>
<td>37</td>
<td>1.000</td>
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<td>0.944</td>
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<td>6. Course Technology</td>
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<tr>
<td>1. The course technology supports the learning objectives and competencies.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
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<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
</tr>
<tr>
<td>2. Course technology provides learning opportunities and active learning.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
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<td>0.944</td>
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<td>7. Learner Support</td>
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<tr>
<td>1. The course instructions include a clear description of the instructor's support offer and how to obtain it.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
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<td>96.07</td>
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<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
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<tr>
<td>2. Course instructions include links to the instructor's accessibility policies and services.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
<td>98</td>
<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
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<tr>
<td>8. Accessibility and Usability</td>
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<tr>
<td>1. Course navigation facilities are user-friendly.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
<td>98</td>
<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
</tr>
<tr>
<td>2. Information is provided about the accessibility of all technologies required in the course.</td>
<td>208</td>
<td>196</td>
<td>94.67</td>
<td>3</td>
<td>0.084</td>
<td>108</td>
<td>97.17</td>
<td>156</td>
<td>100.00</td>
<td>44</td>
<td>1.000</td>
<td>120</td>
<td>96.07</td>
<td>98</td>
<td>100.00</td>
<td>37</td>
<td>1.000</td>
<td>17</td>
<td>0.944</td>
</tr>
</tbody>
</table>

Note: * Numbers in parentheses are the total N. ** No statistics calculated since proportions are constant. † Fisher’s exact test was used because expected responses were < 5. Significant at the p < .05 level.
Using a chi-squared test of independence to compare the relationship between the eight standards and twenty-one indicators to the sixteen KCTCS colleges, one standard and 5 indicators showed a statistical relationship at the $p < .05$ level (Table 15). A comparison of column proportions was performed to determine the cause of the relationship.

The relationship between college to standard 8 (accessibility and usability) was significant, $\chi^2 (30, 572) = 44.19, p < .05$ as was indicator 2.4 (relationship between learning objectives or competencies and course activities is clearly stated) $\chi^2 (15, 286) = 31.13, p < .05$, indicator 4.2 (purpose of instructional materials and how the materials are to be used for learning activities are clearly explained) $\chi^2 (15, 286) = 29.27, p < .05$, indicator 5.2 (learning activities provide opportunities for interaction that support active learning) $\chi^2 (15, 286) = 29.23, p < .05$, indicator 5.3 (plan for classroom response time and feedback on assignments is clearly stated) $\chi^2 (15, 286) = 28.12, p < .05$, and indicator 8.2 (information is provided about the accessibility of all technologies required in the course) $\chi^2 (15, 286) = 27.49, p < .05$.

Faculty from Owensboro are less likely to meet standard 8 (accessibility and usability) than other colleges while Henderson faculty are less likely to provide information about the accessibility of technologies required in the course (indicator 8.2). Faculty at Bluegrass are less likely to clearly state the relationship between learning objectives or competencies and course activities (indicator 2.4) compared to other colleges, while Big Sandy, Elizabethtown, Gateway, Madisonville, and Southeast are more likely to clearly state the relationship between learning objectives or competencies and course activities compared to other colleges. When looking at indicator 4.2, the
purpose of instructional materials and how the materials are to be used for learning activities are clearly explained, Henderson (62.5%) is less likely to meet this indicator followed by Bluegrass at 76.74%. Southcentral (73.33%) and Bluegrass (76.74%) are less likely to have learning activities which provide opportunities for interaction that support active learning (indicator 5.2) than the other 14 colleges while Henderson (62.5%) is less likely to clearly state a plan for classroom response time and feedback on assignments (indicator 5.3) than the next closest college which is Southeast (81.25%).

Standards and indicators were further divided into (a) colleges based in rural and urban counties and (b) if the college has a formal quality assurance program (Table 16). There were one standard and five indicators which show a significant association between rural or urban location to standard 4, indicators 4.2, 6.2, 7.2, and 8.2. Also significant are standard 8 and indicators 5.3 and 8.2 related to colleges having a formal quality assurance program.

A pairwise comparison of column proportions was performed to determine the cause of the relationship between colleges based in rural or urban counties and standard 4, indicator 4.2, 6.2, 7.2, and 8.2. In each case, urban college campuses had a higher percentage than the rural colleges. Urban colleges are more likely to meet instructional materials standard 4 (97% compared to 86.2%), as well as clearly explain the purpose of instructional materials and how they are used for learning activities (indicator 4.2; 97% compared to 86.2%). Urban colleges are also more likely to use course tools to promote learning engagement (indicator 6.2; 97% compared to 90.1%), articulate or link to the institution’s accessibility policies and services (indicator 7.2; 97% compared to 90.8%),
and provided information about the accessibility of all technologies required in the course (indicator 8.2; 94.8% compared to 86.2%).

Colleges which have a formal quality assurance program were more likely (96.4%) to clearly state a plan for classroom response time and feedback on assignments (indicator 5.3) than colleges without a formal quality assurance program (89.1%). However, colleges with no formal quality assurance program are more likely to meet standard 8, accessibility and usage (91.4%), and provided information about the accessibility of all technologies required in the course (indicator 8.2; 93.1%), than those colleges with a formal quality assurance program (83.9% and 85.7% respectively).
### Table 15

**Chi Square Test of Independence: Relationship of Standards and Indicators to KCTCS Colleges**

<table>
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<tbody>
<tr>
<td>Standard 1: Course Overview and Introduction</td>
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</tr>
<tr>
<td>1.1 Instructions make clear how to get started and where to find various course components.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>83.33%</td>
<td>90.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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</tr>
<tr>
<td>1.2 Learners are introduced to the purpose and structure of the course.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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</tr>
<tr>
<td>Standard 2: Learning Objectives or Competencies</td>
<td>68 (57.0%)</td>
<td>20 (40.0%)</td>
<td>96.67%</td>
<td>112 (0.12%)</td>
<td>84 (65.0%)</td>
<td>70 (50.0%)</td>
<td>35 (100.0%)</td>
<td>35 (100.0%)</td>
<td>113 (73.73%)</td>
<td>141 (45.0%)</td>
<td>67 (100.0%)</td>
<td>95.71%</td>
<td>41 (13.00%)</td>
<td>116 (75.0%)</td>
<td>70 (45.0%)</td>
<td>93.33%</td>
<td>79 (49.0%)</td>
</tr>
<tr>
<td>2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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</tr>
<tr>
<td>2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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</tr>
<tr>
<td>2.3 All learning objectives or competencies are stated clearly and written from the learner’s perspective.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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<tr>
<td>2.4 The relationship between learning objectives or competencies and course activities is clearly stated.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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<tr>
<td>2.5 The learning objectives or competencies are suited to the level of the course.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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</tr>
<tr>
<td>Standard 3: Assessment and Measurement</td>
<td>43 (45.0%)</td>
<td>8 (0.00%)</td>
<td>100.00%</td>
<td>112 (100.0%)</td>
<td>94.57%</td>
<td>47 (40.0%)</td>
<td>97.92</td>
<td>27 (0.00%)</td>
<td>100.00%</td>
<td>30 (0.00%)</td>
<td>20 (40.0%)</td>
<td>83.33%</td>
<td>39 (0.00%)</td>
<td>100.00%</td>
<td>71 (100.0%)</td>
<td>94.64</td>
<td>24 (40.0%)</td>
</tr>
<tr>
<td>3.1 The assessments measure the total learning objectives or competencies.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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<tr>
<td>3.2 The course grading policy is stated clearly.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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<td>100.00%</td>
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<tr>
<td>3.3 Specific and descriptive criteria are provided for the evaluation of learners’ work and are tied to the course grading policy.</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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</table>

Note. * Numbers in parentheses are the total N value for that standard. ** No statistics calculated since proportions are constant. † Fisher’s Exact test was used because expected responses were < 5. Significant at the p < .05 level.
### Table 1 (Continued)

| Standards and Indicators | Ashland Community & Technical College | Big Sandy Community and Technical College | Bluestone Community & Technical College | Gateway Community & Technical College | Hazard Community & Technical College | Henderson Community & Technical College | Hopkinsville Community College | Jefferson Community & Technical College | Magoffin County Community College | Middlesboro Community College | Morehead Community & Technical College | Owensboro Community & Technical College | Somerset Community College | Southcentral Kentucky Community and Technical College | West Kentucky Community & Technical College |
|--------------------------|--------------------------------------|------------------------------------------|-----------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|----------------------------------|-----------------------------------------|----------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------|------------------------------------------|
| 4.1 The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 4.2 Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 5.1 The learning activities promote the achievement of the stated learning objectives or competencies. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 5.2 Learning activities provide opportunities for interaction that support active learning. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 5.3 The instructor's plan for classroom response time and feedback on assignments is clearly stated. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 6.1 The tools used to assess supportive learning objectives and competencies. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 6.2 Courses provide periodic learner engagement and active learning. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 7.1 The course instructions articulate clear learning objectives and how to obtain them. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 7.2 Course instructions articulate clear learning objectives and how to obtain them. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 8.1 Course navigation facilitates most of use. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 8.2 Information is provided about the accessibility tools required to use the course. | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

Note. * Numbers in parenthesis are the total N value for that standard. ** No statistics calculated due to proportions are constant. † Fisher's Exact test was used because expected responses were < 5. Significant at the p < .05 level.
Table 16

Chi Square Test of Independence: Relationship of Standards and Indicators to College location (Urban/Rural) and Presence of a Quality Assurance Program

<table>
<thead>
<tr>
<th>Standards and Indicators</th>
<th>Rural (N = 152)</th>
<th>Urban (N = 134)</th>
<th>Rural-Urban</th>
<th>Formal quality assurance process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
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<tr>
<td><strong>Standard 1: Course Overview and Introduction</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1.1 Instructions make clear how to get started and where to find various course components.</td>
<td>298 (304)*</td>
<td>98.03</td>
<td>265 (268)*</td>
<td>98.88</td>
</tr>
<tr>
<td>1.2 Learners are introduced to the purpose and structure of the course.</td>
<td>149</td>
<td>98.03</td>
<td>132</td>
<td>98.51</td>
</tr>
<tr>
<td><strong>Standard 2: Learning Objectives (Competencies)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.</td>
<td>691 (760)*</td>
<td>90.92</td>
<td>637 (670)*</td>
<td>95.07</td>
</tr>
<tr>
<td>2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.</td>
<td>134</td>
<td>88.16</td>
<td>126</td>
<td>94.03</td>
</tr>
<tr>
<td>2.3 All learning objectives or competencies are stated clearly and written from the learner’s perspective.</td>
<td>141</td>
<td>92.76</td>
<td>130</td>
<td>97.01</td>
</tr>
<tr>
<td>2.4 The relationship between learning objectives or competencies and course activities is clearly stated.</td>
<td>118</td>
<td>77.63</td>
<td>114</td>
<td>85.07</td>
</tr>
<tr>
<td>2.5 The learning objectives or competencies are suited to the level of the course.</td>
<td>149</td>
<td>98.03</td>
<td>133</td>
<td>99.25</td>
</tr>
<tr>
<td><strong>Standard 3: Assessment and Measurement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 The assessments measure the stated learning objectives or competencies.</td>
<td>440 (459)*</td>
<td>95.86</td>
<td>392 (402)*</td>
<td>97.51</td>
</tr>
<tr>
<td>3.2 The course grading policy is stated clearly.</td>
<td>148</td>
<td>97.37</td>
<td>132</td>
<td>98.51</td>
</tr>
<tr>
<td>3.3 Specific and descriptive criteria are provided for the evaluation of learners’ work and are tied to the course grading policy.</td>
<td>152</td>
<td>100.00</td>
<td>134</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note. * Numbers in parenthesis are the total N value for that standard. ** No statistics calculated since proportions are constant. † Fisher’s Exact test was used because expected responses were < 5. Significant at the p < .05 level.
Table 16 Continued

<table>
<thead>
<tr>
<th>Standards and Indicators</th>
<th>Rural (N = 152)</th>
<th>Rural - Urban</th>
<th>Urban (N = 134)</th>
<th>Formal quality assurance process</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Standard 4: Instructional Materials</td>
<td>281 (304)*</td>
<td>92.43</td>
<td>263 (268)*</td>
<td>98.13</td>
</tr>
<tr>
<td>4.1 The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies</td>
<td>150</td>
<td>98.68</td>
<td>133</td>
<td>99.25</td>
</tr>
<tr>
<td>4.2 Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.</td>
<td>131</td>
<td>86.18</td>
<td>130</td>
<td>97.01</td>
</tr>
<tr>
<td>Standard 5: Course Activities and Learning Interaction</td>
<td>422 (459)*</td>
<td>91.94</td>
<td>386 (402)*</td>
<td>96.02</td>
</tr>
<tr>
<td>5.1 The learning activities promote the achievement of the stated learning objectives or competencies.</td>
<td>150</td>
<td>98.68</td>
<td>133</td>
<td>99.25</td>
</tr>
<tr>
<td>5.2 Learning activities provide opportunities for interaction that support active learning.</td>
<td>134</td>
<td>88.16</td>
<td>128</td>
<td>95.52</td>
</tr>
<tr>
<td>5.3 The instructor’s plan for classroom response time and feedback on assignments is clearly stated.</td>
<td>138</td>
<td>90.79</td>
<td>125</td>
<td>93.28</td>
</tr>
<tr>
<td>Standard 6: Course Technology</td>
<td>286 (304)*</td>
<td>94.08</td>
<td>261 (268)*</td>
<td>97.39</td>
</tr>
<tr>
<td>6.1 The tools used in the course support the learning objectives and competencies.</td>
<td>140</td>
<td>98.03</td>
<td>131</td>
<td>97.76</td>
</tr>
<tr>
<td>6.2 Course tools promote learner engagement and active learning.</td>
<td>137</td>
<td>90.13</td>
<td>130</td>
<td>97.01</td>
</tr>
<tr>
<td>Standard 7: Learner Support</td>
<td>239 (304)*</td>
<td>90.79</td>
<td>250 (268)*</td>
<td>93.28</td>
</tr>
<tr>
<td>7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.</td>
<td>138</td>
<td>90.79</td>
<td>120</td>
<td>89.55</td>
</tr>
<tr>
<td>7.2 Course instructions articulate or link to the institution’s accessibility policies and services.</td>
<td>138</td>
<td>90.79</td>
<td>130</td>
<td>97.01</td>
</tr>
<tr>
<td>Standard 8: Accessibility and Usability</td>
<td>280 (304)*</td>
<td>92.11</td>
<td>257 (268)*</td>
<td>95.90</td>
</tr>
<tr>
<td>8.1 Course navigation facilitates ease of use.</td>
<td>140</td>
<td>98.03</td>
<td>130</td>
<td>97.01</td>
</tr>
<tr>
<td>8.2 Information is provided about the accessibility of all technologies required in the course.</td>
<td>131</td>
<td>86.18</td>
<td>127</td>
<td>94.78</td>
</tr>
<tr>
<td>Total</td>
<td>286 (304)*</td>
<td>93.14</td>
<td>257 (268)*</td>
<td>95.90</td>
</tr>
</tbody>
</table>

Note: * Numbers in parentheses are the total N value for that standard. ** No statistics calculated since proportions are constant. † Fisher’s Exact test was used because expected responses were < 5. Significant at the p < .05 level.
Using a chi-squared test of independence to compare the relationship between the eight standards and twenty-one indicators to the seven KCTCS program areas and use a comparison of column proportions to determine the cause of the relationship, two indicators showed a statistical relationship at the $p < .05$ level (Table 17). The relationship between programs to indicator 3.1 (assessments measure the stated learning objectives or competencies) is significant, $\chi^2 (6, 286) = 9.51, p < .05$ as was indicator 7.1 (course instructions articulate or link to a clear description of the technical support offered and how to obtain it) $\chi^2 (6, 286) = 12.6, p < .05$.

Quantitative reasoning (100%), heritage, humanities, and foreign languages (100%), and technical/trades (100%) were more likely than other programs to use assessments to measure the stated learning objectives or competencies (indicator 3.1). Least likely to use assessments to measure the stated learning objectives or competencies were digital literacy (93.33%) and social and behavioral science (94%). When comparing program areas to indicator 7.1, heritage, humanities, and foreign languages (98.08%) and quantitative reasoning (96.3%) are more likely to use course instructions to articulate or link to a clear description of the technical support offered and how to obtain it (indicator 7.1) while social and behavioral science (82%) and natural sciences (82.76%) were least likely to use course instructions to articulate or link to a clear description of the technical support offered and how to obtain it.
Table 17

Chi Square Test of Independence: Relationship of Standards and Indicators to Program Areas

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard 1: Course Overview and Introduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Instructions make clear how to get started and where to find various course components.</td>
<td>25</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>29</td>
</tr>
<tr>
<td>1.2 Learners are introduced to the purpose and structure of the course.</td>
<td>25</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>29</td>
<td>100.00</td>
<td>49</td>
</tr>
<tr>
<td>Standard 2: Learning Objectives (Competencies)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.</td>
<td>25</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>49</td>
</tr>
<tr>
<td>2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.</td>
<td>19</td>
<td>76.00</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
</tr>
<tr>
<td>2.3 Learning objectives or competencies are stated clearly and written from the learner's perspective.</td>
<td>23</td>
<td>92.00</td>
<td>26</td>
<td>96.30</td>
<td>29</td>
<td>100.00</td>
<td>44</td>
</tr>
<tr>
<td>2.4 The relationship between learning objectives or competencies and course activities is clearly stated.</td>
<td>21</td>
<td>84.00</td>
<td>23</td>
<td>85.19</td>
<td>24</td>
<td>82.76</td>
<td>38</td>
</tr>
<tr>
<td>2.5 The learning objectives or competencies are suited to the level of the course.</td>
<td>25</td>
<td>100.00</td>
<td>26</td>
<td>96.30</td>
<td>27</td>
<td>93.10</td>
<td>49</td>
</tr>
<tr>
<td>Standard 3: Assessment and Measurement</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3.1 The assessments measure the stated learning objectives or competencies.</td>
<td>24</td>
<td>96.00</td>
<td>27</td>
<td>100.00</td>
<td>28</td>
<td>96.55</td>
<td>47</td>
</tr>
<tr>
<td>3.2 The course grading policy is stated clearly.</td>
<td>25</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>29</td>
<td>100.00</td>
<td>50</td>
</tr>
<tr>
<td>3.3 Specific and descriptive criteria are provided for the evaluation of learners' work and are tied to the course grading policy.</td>
<td>25</td>
<td>100.00</td>
<td>26</td>
<td>96.30</td>
<td>25</td>
<td>86.21</td>
<td>46</td>
</tr>
</tbody>
</table>

Note. * Numbers in parentheses are the total N value for that standard. ** No statistics calculated since proportions are constant. † Fisher's Exact test was used because expected responses were < 5. Significant at the p < .05 level.
### Table 17: Continued

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 4: Instructional Materials</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies.</td>
<td>25</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>29</td>
<td>100.00</td>
<td>48</td>
</tr>
<tr>
<td>4.2 Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.</td>
<td>25</td>
<td>100.00</td>
<td>24</td>
<td>88.89</td>
<td>27</td>
<td>93.10</td>
<td>50</td>
</tr>
<tr>
<td><strong>Standard 5: Course Activities and Learning Interaction</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1 The learning activities promote the achievement of the stated learning objectives or competencies.</td>
<td>25</td>
<td>100.00</td>
<td>24</td>
<td>88.89</td>
<td>27</td>
<td>93.10</td>
<td>47</td>
</tr>
<tr>
<td>5.2 Learning activities provide opportunities for interaction that support active learning.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3 The instructor’s plan for classroom response time and feedback on assignments is clearly stated.</td>
<td>22</td>
<td>88.00</td>
<td>25</td>
<td>92.59</td>
<td>25</td>
<td>86.21</td>
<td>47</td>
</tr>
<tr>
<td><strong>Standard 6: Course Technology</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.1 The tools used in the course support the learning objectives and competencies.</td>
<td>25</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>27</td>
<td>93.10</td>
<td>49</td>
</tr>
<tr>
<td>6.2 Course tools promote learner engagement and active learning.</td>
<td>24</td>
<td>96.00</td>
<td>24</td>
<td>88.89</td>
<td>28</td>
<td>96.55</td>
<td>47</td>
</tr>
<tr>
<td><strong>Standard 7: Learner Support</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.</td>
<td>21</td>
<td>84.00</td>
<td>26</td>
<td>96.30</td>
<td>24</td>
<td>82.76</td>
<td>41</td>
</tr>
<tr>
<td>7.2 Course instructions articulate or link to the institution’s accessibility policies and services.</td>
<td>23</td>
<td>92.00</td>
<td>26</td>
<td>96.30</td>
<td>29</td>
<td>100.00</td>
<td>44</td>
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<td><strong>Standard 8: Accessibility and Usability</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8.1 Course navigation facilitates ease of use.</td>
<td>25</td>
<td>100.00</td>
<td>27</td>
<td>100.00</td>
<td>29</td>
<td>100.00</td>
<td>46</td>
</tr>
<tr>
<td>8.2 Information is provided about the accessibility of all technologies required in the course.</td>
<td>25</td>
<td>100.00</td>
<td>23</td>
<td>88.89</td>
<td>27</td>
<td>93.10</td>
<td>43</td>
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<td><strong>Note.</strong></td>
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</tr>
<tr>
<td>* Numbers in parenthesis are the total N value for that standard. ** No statistics calculated since proportions are constant. † Fisher’s Exact test was used because expected responses were &lt; 5. Significant at the p &lt; .05 level.</td>
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</tbody>
</table>
Phase Three: Quality Review

Phase three was conducted to measure the quality of the online courses via a research review and compare those ratings to the faculty self-review ratings. Courses were chosen at random (N=60) from each college, rated by the researcher, and compared to faculty self-ratings. Researcher rated courses resulted in an average of 19.97 of the 21 indicators ($SD = 1.377$). A difference-in-proportions z-test was conducted to test the null hypothesis that the proportion of quality ratings of the surveyed group related to the proportion rated by the researcher (see Table 18). Using the $p < .05$ level, no statistical evidence was found which the faculty who completed the survey (0.946) had different quality scores than the researcher rated group (0.942) ($p = 0.51$).

One potential limitation of phase three was that the researcher chose a random course to review. However, faculty members who completed the review were allowed to choose the course they reviewed. It is possible that all courses the faculty member teachers are not of equal quality and only the highest quality course was chosen and reviewed.
### Table 18

**Comparison of Self-Rated Quality Ratings Compared to Researcher Rated**

<table>
<thead>
<tr>
<th>Standards and Indicators</th>
<th>Self-rated</th>
<th></th>
<th></th>
<th>Researcher rated</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>M</td>
<td>SD</td>
<td>%</td>
<td>M</td>
<td>SD</td>
<td>p</td>
</tr>
<tr>
<td><strong>Standard 1: Course Overview and Introduction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Instructions make clear how to get started and where to find various course components.</td>
<td>98.43</td>
<td>1.97</td>
<td>0.194</td>
<td>99.17</td>
<td>1.98</td>
<td>0.129</td>
<td>0.537</td>
</tr>
<tr>
<td>1.2 Learners are introduced to the purpose and structure of the course.</td>
<td>98.60</td>
<td>0.99</td>
<td>0.118</td>
<td>100.00</td>
<td>1.00</td>
<td>0.000</td>
<td>0.358</td>
</tr>
<tr>
<td><strong>Standard 2: Learning Objectives</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.</td>
<td>92.87</td>
<td>4.64</td>
<td>0.739</td>
<td>92.67</td>
<td>4.63</td>
<td>0.736</td>
<td>0.903</td>
</tr>
<tr>
<td>2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.</td>
<td>98.95</td>
<td>0.99</td>
<td>0.102</td>
<td>100.00</td>
<td>1.00</td>
<td>0.000</td>
<td>0.426</td>
</tr>
<tr>
<td>2.3 All learning objectives or competencies are stated clearly and written from the learner's perspective.</td>
<td>90.91</td>
<td>0.91</td>
<td>0.288</td>
<td>91.67</td>
<td>0.92</td>
<td>0.279</td>
<td>0.852</td>
</tr>
<tr>
<td>2.4 The relationship between learning objectives or competencies and course activities is clearly stated.</td>
<td>94.76</td>
<td>0.95</td>
<td>0.223</td>
<td>90.00</td>
<td>0.90</td>
<td>0.303</td>
<td>0.162</td>
</tr>
<tr>
<td>2.5 The learning objectives or competencies are suited to the level of the course.</td>
<td>81.12</td>
<td>0.81</td>
<td>0.392</td>
<td>81.67</td>
<td>0.82</td>
<td>0.390</td>
<td>0.921</td>
</tr>
<tr>
<td><strong>Standard 3: Assessment and Measurement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 The assessments measure the stated learning objectives or competencies.</td>
<td>96.97</td>
<td>2.91</td>
<td>0.333</td>
<td>97.78</td>
<td>2.93</td>
<td>0.312</td>
<td>0.556</td>
</tr>
<tr>
<td>3.2 The course grading policy is stated clearly.</td>
<td>97.90</td>
<td>0.98</td>
<td>0.144</td>
<td>98.33</td>
<td>0.98</td>
<td>0.129</td>
<td>0.829</td>
</tr>
<tr>
<td>3.3 Specific and descriptive criteria are provided for the evaluation of learners’ work and are tied to the course grading policy.</td>
<td>100.00</td>
<td>**</td>
<td>**</td>
<td>100.00</td>
<td>**</td>
<td>**</td>
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</tr>
<tr>
<td>3.4 The self-ratings and researcher rated are not significantly different.</td>
<td>93.01</td>
<td>0.93</td>
<td>0.255</td>
<td>95.00</td>
<td>0.95</td>
<td>0.220</td>
<td>0.574</td>
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</tbody>
</table>

**Note:** ** No statistics calculated since proportions are constant. Significant at the p < .05
Table 18 Continued

<table>
<thead>
<tr>
<th>Standards and Indicators</th>
<th>Self-rated</th>
<th>Researcher rated</th>
<th></th>
<th></th>
<th></th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 4: Instructional Materials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 The instructional materials contribute to the achievement of the stated course and</td>
<td>95.10  1.90</td>
<td>0.331</td>
<td>95.00  1.90</td>
<td>0.303</td>
<td>0.961</td>
<td></td>
</tr>
<tr>
<td>module/unit learning objectives or competencies.</td>
<td>98.95  0.99</td>
<td>0.102</td>
<td>100.00  1.00</td>
<td>0.000</td>
<td>0.426</td>
<td></td>
</tr>
<tr>
<td>4.2 Both the purpose of instructional materials and how the materials are to be used for</td>
<td>91.26  0.91</td>
<td>0.283</td>
<td>90.00  0.90</td>
<td>0.303</td>
<td>0.756</td>
<td></td>
</tr>
<tr>
<td>learning activities are clearly explained.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard 5: Course Activities and Learning Interaction</strong></td>
<td>94.17  2.83</td>
<td>0.440</td>
<td>95.00  2.85</td>
<td>0.360</td>
<td>0.663</td>
<td></td>
</tr>
<tr>
<td>5.1 The learning activities promote the achievement of the stated learning objectives or</td>
<td>98.95  0.99</td>
<td>0.102</td>
<td>100.00  1.00</td>
<td>0.000</td>
<td>0.426</td>
<td></td>
</tr>
<tr>
<td>competencies.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>5.2 Learning activities provide opportunities for interaction that support active learning.</td>
<td>91.61  0.92</td>
<td>0.278</td>
<td>90.00  0.90</td>
<td>0.303</td>
<td>0.688</td>
<td></td>
</tr>
<tr>
<td>5.3 The instructor’s plan for classroom response time and feedback on assignments is</td>
<td>91.96  0.92</td>
<td>0.272</td>
<td>95.00  0.95</td>
<td>0.220</td>
<td>0.417</td>
<td></td>
</tr>
<tr>
<td>clearly stated.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard 6: Course Technology</strong></td>
<td>95.63  1.91</td>
<td>0.329</td>
<td>95.83  1.92</td>
<td>0.279</td>
<td>0.921</td>
<td></td>
</tr>
<tr>
<td>6.1 The tools used in the course support the learning objectives and competencies.</td>
<td>97.90  0.98</td>
<td>0.144</td>
<td>100.00  1.00</td>
<td>0.000</td>
<td>0.259</td>
<td></td>
</tr>
<tr>
<td>6.2 Course tools promote learner engagement and active learning.</td>
<td>93.36  0.93</td>
<td>0.249</td>
<td>91.67  0.93</td>
<td>0.223</td>
<td>0.640</td>
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</tr>
<tr>
<td><strong>Standard 7: Learner Support</strong></td>
<td>91.96  1.84</td>
<td>0.438</td>
<td>93.33  1.87</td>
<td>0.343</td>
<td>0.610</td>
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</tr>
<tr>
<td>7.1 The course instructions articulate or link to a clear description of the technical</td>
<td>90.21  0.90</td>
<td>0.298</td>
<td>91.67  0.92</td>
<td>0.279</td>
<td>0.727</td>
<td></td>
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<tr>
<td>support offered and how to obtain it.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7.2 Course instructions articulate or link to the institution’s accessibility policies and</td>
<td>93.71  0.94</td>
<td>0.243</td>
<td>95.00  0.95</td>
<td>0.220</td>
<td>0.703</td>
<td></td>
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<td>services.</td>
<td></td>
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<tr>
<td><strong>Standard 8: Accessibility and Usability</strong></td>
<td>93.88  1.88</td>
<td>0.349</td>
<td>94.17  1.88</td>
<td>0.324</td>
<td>0.905</td>
<td></td>
</tr>
<tr>
<td>8.1 Course navigation facilitates ease of use.</td>
<td>97.55  0.98</td>
<td>0.155</td>
<td>100.00  1.00</td>
<td>0.000</td>
<td>0.222</td>
<td></td>
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<tr>
<td>8.2 Information is provided about the accessibility of all technologies required in the</td>
<td>90.21  0.90</td>
<td>0.298</td>
<td>88.33  0.88</td>
<td>0.324</td>
<td>0.662</td>
<td></td>
</tr>
<tr>
<td>course.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>94.62  19.87</td>
<td>2.01</td>
<td>94.17  19.97</td>
<td>1.38</td>
<td>0.51</td>
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*Note: ** No statistics calculated since proportions are constant. Significant at the p < .05*
Chapter Summary

This chapter presented the findings of the KCTCS online course quality survey. The general intent of this study was to explore the extent to which Kentucky Community and Technical College (KCTCS) faculty utilize quality standards during the design and continuous improvement of their online courses. The study also explored how leadership supports quality online instruction. More specifically, this study sought to determine to what degree do various KCTCS quality assurance rubrics align with the *Quality Matters Rubric* and to what degree do KCTCS online courses meet quality standards.

Chapter five provides a summary of the study, discussion of the results, implications, the significance of the results for leaders, and recommendations for further research which may be used to direct improvements for all of those involved with distance learning at KCTCS.
Chapter Five: Discussion and Conclusions

This chapter provides a brief review of the study design, the problem statement, methodology, and a discussion of the results. Implications and the significance of the results for leaders and organizations are provided, along with recommendations for further research.

Statement of the Problem

Community college students are less likely to complete online courses than on-campus courses (Jaggars et al., 2013b; Johnson et al., 2015). According to Legon (2015), use of a research based quality rubric can help increase student success. Despite the increasing use of online classes over the last several years (Allen & Seaman, 2016) and research supporting the need for high quality courses (Hirumi, 2005; Jaggars et al., 2013b; Johnson et al., 2015), there had not been a systematic evaluation of KCTCS online courses. A quality assurance program, including a nationally recognized quality rubric, would increase course quality and potentially increase student success. In addition, colleges across the world are sharing online course credits in a global market. Colleges need a method to ensure courses are equivalent in quality regardless of where the course originated (Quality Matters, 2017).

This study was designed to explore the extent to which Kentucky Community and Technical College (KCTCS) faculty utilize quality standards during the design and continuous improvement of their online courses. The study also explored how leadership supports quality online instruction. Data were collected through a survey emailed to current KCTCS online faculty during the Fall 2015 semester. Using twenty-one indicators via an adapted Quality Matters Higher Education Rubric, 5th Edition, faculty
were asked to rate a course they had taught. Ratings were evaluated as either met or not met by faculty.

The following questions guided the study.

1. To what degree do KCTCS quality assurance rubrics align with national quality standards (i.e., Quality Matters)?

2. As it relates to online courses offered through KCTCS:
   a. How do faculty view the quality of courses?
   b. To what degree do faculty use quality standards to design, develop, and improve courses?
   c. What role does KCTCS leadership play in ensuring course quality?

3. What is the quality of KCTCS online courses?
   a. To what degree do courses meet national quality indicators (i.e., Quality Matters) based on faculty self-ratings and researcher ratings?
   b. Does quality differ on faculty-self-rated courses based on faculty characteristics, specifically (a) gender, (b) college district, (c) college location in urban/rural county, (d) use of a formal quality assurance program, (e) full-time or part-time faculty status, (f) number of years teaching online, (g) training received to develop an online course, and (h) program area?

**Review of the Methodology**

This exploratory, multi-phased iterative design study was conducted in three phases. Phase one was designed to answer research question one (i.e., degree KCTCS quality assurance rubrics aligns with national quality standards). The approach used in...
phase one included analysis of publicly available documents to determine the existence of quality rubrics and degree of alignment between the *Quality Matters Rubric* and rubrics used at KCTCS sites.

Phase two of the study was designed to answer research questions 2 and 3 via survey and a quality review self-assessment (See Appendix B). The research approach for this phase included an exploratory, convergent parallel mixed method design (Creswell & Clark, 2011) to gather information on the use of quality measures in the design, development, and continuous improvement of online courses within the KCTCS system. This phase was also designed to explore how leadership supports quality online instruction. This design supported the collection of both quantitative (i.e., survey and quality review) and qualitative data (i.e., document analysis and survey) simultaneously during the same phase of research, then allowed data to be combined for analysis and interpretation.

Phase three was conducted to determine the quality of a randomly selected set of KCTCS online courses using a researcher review (i.e., research question 3a). The approach used in phase three included a correlational design to test the null hypothesis that the proportion of quality ratings of the surveyed group had no statistically significant difference to the proportion rated by the researcher (McMillan & Schumacher, 2009).

**Discussion of the Results**

There has been an increased use of online classes in KCTCS programs over the last several years. According to data retrieved from Peoplesoft (personal communication, April 16, 2017), KCTCS’ data system, online course offerings throughout KCTCS has increased 205% from the fall 2010 semester (1901 courses) to the fall 2016 semester
(3893 courses). However, at the time of this study, there had been no systematic evaluation of these online courses or the alignment of the quality standards used with nationally recognized standards.

From this study, five major findings emerged. First, data indicate online course quality was the same for colleges who used a formal quality review rubric and those who did not. Second, overall course quality throughout KCTCS is rated highly according to both self-rated and researcher reviews. Third, course quality ratings were high across all faculty groups including college, program area, employment status, and location. Fourth, just over a third of KCTCS colleges have a quality review rubric in place for faculty to use in the design, implementation, and continued improvement of online courses. Of those colleges who do have rubrics in place, they align with the Quality Matters Rubric. Lastly, faculty indicate leadership at the college level should be responsible for developing and implementing a quality review process while system leadership should provide support and training. The following is a discussion of the results based on findings in the study arranged by research question.

**Demographic results.** Demographic results from the study show new faculty were more likely to teach online than faculty with 15 or more years of teaching experience. One potential reason is that new faculty are more comfortable with the technology and are willing to invest the time and effort involved in creating online courses while experienced faculty may be more likely to reject the paradigm shift of teaching online. Also found was online faculty were equally female and male and full-time and part-time. It is not surprising for half the online faculty in the study to consist of part-time faculty members. With the economic situation of community colleges
throughout the nation leading to hiring more part-time faculty (Leslie, 1998; Phelan, 2014; The Editorial Board, 2014) the number of part-time faculty are likely to increase. Also contributing is the ease with which administrators can hire part-time faculty to teach large sections of online courses removing the need for offices and other college resources.

Additionally, most faculty (68.7%) say they have received training to design an online course with many of those trainings based on some form of standard. With the extensive number of training sessions offered throughout the 16 colleges, this number would seem lower than expected. However, when considering half the online faculty are part-time, and part-time faculty do not generally receive the same amount of training opportunities as full-time faculty, this number is expected. Of the 32.2% who did not receive training, 70% indicate they would like training.

Of the faculty members who designed their own courses, 79% used standards to design their course. These standards included college and national standards. Of the remaining faculty who did not use standards, almost half said they did not know standards existed with the other half using their own personal standards. This finding is an indication that more training needs to be conducted on quality standards and their use including how students benefit and how standards can increase student success.

Alignment of KCTCS and national quality standards. While quality rubrics were not used by all 16 colleges, 38% of KCTCS colleges did have some form of quality rubric. Of those rubrics 33% matched all eight of the Quality Matters Rubric standards. The other 67% contained six of the eight standards. While 62% of colleges did not use a quality rubric, data show it did not impact overall online course quality. In practice,
faculty created high quality courses with or without the use of a quality rubric. One likely reason KCTCS online course quality was high across all colleges, even those without a quality rubric, was the presence of system and college level training. The KCTCS system office provides web-based training while local colleges provide extensive training opportunities throughout the year. Studies have found faculty training to be a key component in high quality online courses (Akdemir, 2008; Albright & Nworie, 2007; Benson et al., 2008; Haber & Mills, 2008; Marek, 2009; Phipps et al., 1998; Stella & Gnanam, 2004).

**Quality of KCTCS online courses.** Course quality was rated high overall during the self and researcher review regardless if they had taken an online course or not. No statistical evidence was found which the faculty who completed the survey (0.946) had different quality scores than the researcher rated group (0.942) \( p = 0.51 \). One potential limitation could be that the researcher chose a random course to review, however, faculty members who completed the review could choose the course they reviewed. It is possible that all courses the faculty member teachers are not of equal quality and only the highest quality course was chosen and reviewed.

**Quality by faculty group.** While overall quality was rated highly, there were some differences by faculty group including (a) gender, (b) full-time or part-time faculty status, and (c) if he/she received training to develop a course. Male faculty are more likely to use course technology than female faculty. This finding agrees with other research which found male teachers are more likely to use technology than their female counterparts (Spotts, Bowman, & Mertz, 1997). Male faculty members may feel more comfortable with the technology involved with online classes. However, other studies have found
female teachers using technology more often than males (Smith, 2014; Thomas, 2011). This discrepancy could be occurring based on the year the studies were conducted. The newer studies may include female teachers who have been encouraged to use technology and have been provided more training in instructional technology.

In addition, the current study found female faculty are more likely to (a) provide course instructions to articulate or link to a clear description of the technical support offered and how to obtain it and (b) provide course navigation to facilitate ease of use than male faculty members. This relates to findings by Solomon (2011) who found female teachers are more likely to engage students in the online courses and provide methods of interactions including easier to use courses. Additional research would need to be conducted to find if there is a gender gap.

Part-time faculty are more likely to (a) meet course activities and learning interaction standards and (b) clearly state a plan for classroom response time and feedback on assignments than full-time faculty. One likely reason part-time faculty met these more often is they are not as integrated into the college as closely as full-time faculty. The need for part-time faculty to clearly outline course activities and response criteria is more important because they lack the in-person interactions a full-time faculty member has access to, for example office hours or a campus phone number.

Faculty trained in course development are more likely to provide learning objectives or competencies suited to the level of the course than faculty who were not trained. This is not surprising since the course development training would have likely concentrated heavily on developing relationships between course competencies and
course activities. What is surprising is that faculty trained in course design did not rate indicators as met more often than those who were not trained.

**Quality by college.** When comparing course quality rating across the 16 KCTCS colleges, a few relationships were found. These relationships between standards and indicators across the various colleges could potentially be reduced or eliminated with a system wide quality assurance program. A system level quality assurance program, with expectations that each college would follow the same quality standard rubric, would ensure each online course would met the appropriate quality indicator. Many of the indicators are met by including information that is standard across either the college or the entire system. Adding this information to each course will make great inroads to ensuring quality indicators are met.

**Quality by urban/rural setting.** When comparing course quality ratings across rural or urban college locations, Urban colleges were more likely to meet instructional materials standard 4, as well as clearly explain the purpose of instructional materials and how they are used for learning activities. Urban colleges were also more likely to use course tools to promote learning engagement, articulate or link to the institution’s accessibility policies and services, and provided information about the accessibility of all technologies required in the course. In all other standards and indicators, there was not statistical difference. One possible reason urban colleges scored higher in those areas could be related to funding and enrollment. Urban college tend to have higher enrollment rates and higher available funds than rural colleges. Another consideration is the amount of training events made available to faculty members. Rural colleges may not have the budget to offer as many specific training events for faculty.
**Quality by program area.** When comparing course quality ratings across program areas, (a) quantitative reasoning, (b) heritage, humanities, and foreign languages, and (c) technical/trades were more likely than other programs to use assessments to measure the stated learning objectives or competencies (indicator 3.1). A possible reason for this finding is those three program areas are technical in nature with outcomes a direct measure of student success, especially in math and technical programs.

**Quality by rubric use.** The central finding of this study was that online course quality was equally high among all KCTCS colleges regardless if a quality rubric was used or not with a few exceptions. Colleges which use a quality rubric were more likely to clearly state a plan for classroom response time and feedback on assignments (indicator 5.3) than colleges who do not use a rubric. This may be due to having a standard college wide statement or expectation that is mandatory to include in the course. However, colleges who do not use a rubric are more likely to meet standard 8, accessibility and usage, and provided information about the accessibility of all technologies required in the course (indicator 8.2), than those colleges with a quality rubric.

This finding was consistent with other studies showing no statistical difference between courses for which a formal quality review was completed and those for which a review was not conducted (Parscal, Frey, & Lucas, 2011; Ruhe & Zumbo, 2008; Rutland & Diomede, 2011). This data might suggest no need for a quality assurance program to create high quality courses. However, other studies have found courses which completed a formal quality review did have higher student satisfaction (a) less confusion in the navigation of the course, (b) increased ability to locate course requirements and materials,
and (c) students asked fewer procedural questions (Aman, 2009; Finley, 2005; Runyon, 2006).

There are several likely reasons quality was high across all courses. First, it is possible that faculty training and an increased awareness of the need for a quality course may have had an impact on course quality (Shattuck, 2015). Second, course designers may have already been influenced by some form of standard (Legon, 2015). Legon (2015) goes on to say that “69% of courses submitted [to Quality Matters] met standards without revision” (p. 167). Third, the survey sample size may not have been large enough to accurately represent online courses throughout the system. Fourth, indicators may have been incorrectly rated as met because surveyed faculty were not trained on the Quality Matters Rubric. Lastly, KCTCS faculty volunteer to teach online, which may result in a higher motivation to learn what makes a high quality online course independent of college wide quality processes and measures.

**Leadership support.** Online faculty believed local college leadership should be responsible for (a) ensuring course quality, (b) conducting quality reviews for courses, and (c) ensuring online courses are improved and reviewed. Over 70% indicated division and college level leadership should be conducting quality reviews and should be responsible for ensure improvement of online courses. The absence of system leadership is not surprising because when asked what administrative leadership at the KCTCS system office can do to ensure courses are of high quality, many faculty believe the KCTCS system office should only provide training and support. Many faculty members mistrust the actions of the system office based on previous actions taken by the system office to enact change without consulting faculty in the process. Mistrust in an
organization can be caused by many factors including smaller sub-group making
decisions and not communicating these changes to the organization at large (Bolman &
Deal, 2008).

An additional 14% of faculty believe the system office should provide a rubric to
be used by all the colleges and 12% would support a formal system level quality review
process. When asked what administrative leadership at the college can do to ensure
courses are of high quality, 35% of faculty said training and support with an equal
number of faculty saying a formal quality review should be done. While faculty did not
want system leadership to be involved in the quality review process, faculty did want
system leadership to provide training and support to ensure quality online courses. Using
a researched based quality rubric as a training guide would ensure faculty are competent
in each recommended quality area (Aman, 2009; Finley, 2005; Runyon, 2006).

Responses to the open-ended leadership questions were compared across various
faculty groups. The response to who should be responsible for ensuring quality online
courses was equally divided among faculty characteristics. The proportion of faculty who
have participated in an online KCTCS course and believe the system office should be
responsible for ensuring the improvement of KCTCS online courses is higher than the
proportion of faculty who have not participated in an online KCTCS course. This result
could be influenced by faculty who have taken a KCTCS online course being
discouraged by local college leadership and the ability to ensure quality who believe the
system office could better maintain consistency and quality.

The proportion of faculty who have full-time status and believe the administrative
leadership at the college should perform quality reviews to ensure quality courses was
higher than the proportion of faculty who have part-time status. One possible reason for this result is full-time have a mistrust of system leadership as evident by data collected through this study. Moreover, part-time faculty believe student evaluations should be used to ensure high-quality online courses. Part-time faculty who believe student evaluations can help ensure quality course have not been involved in college level discussions that current student evaluations are not accurately measuring course quality, on campus or online (Boud & Falchikov, 1989; Frick, Chadha, Watson, & Zlatkovska, 2010; Shevlin, Banyard, Davies, & Griffiths, 2000).

Implications

This study was designed to examine the course quality of online courses throughout KCTCS. From the data collected and outcomes analyzed, KCTCS online courses met the quality measures outlines by the Quality Matters Rubric. Faculty are applying appropriate best practices in all areas of the rubric including course accessibility, course tools, objectives and learning outcomes, and assessments.

This study has also shown that having a quality assurance program in place with courses being evaluated on a regular basis were not rated higher than those courses which did not have regular review. Faculty are also receptive to having a quality assurance program in place with training (43%) and quality review (33%) being the highest rated method to ensure quality at the college level. However, faculty were clear they want division and programs or the college leadership to perform the review, not the KCTCS system office. When asked who should provide quality review leadership, faculty comments such as “the distance learning teams at each college” and “system office has no business tinkering with courses” were made.
Training and support are also needed for all faculty who want to teach online courses. Data from this study have shown faculty members see training as very important to the growth and quality standards of online courses. Part-time faculty also need to be included in these training sessions. Based on the idea that part-time faculty may not be receiving appropriate training, steps need to be in place to either arrange more training for part-time faculty or require part-time faculty to use a course template created by full-time faculty who have already been trained.

**Significance of the Results for Leaders**

College and division-level leadership are able to greatly impact the quality of online courses. Faculty in the study were receptive to the college implementing a quality review process second only to more training. These two areas are closely related in that faculty need to be trained in the indicators which make a high-quality course. Additionally, students can also benefit from someone evaluating courses and providing feedback and guidance in what indicators are not present. For many KCTCS colleges, this will be a drastic change from current policies. Leadership at the college needs to implement a quality assurance program not as a punitive program used to make faculty feel inadequate, but in a positive way through discussion to build a better course for students. This method of encouragement comes directly from appreciative inquiry leadership methods where change is made by looking towards positive aspects of an issue (Serrat, 2008).

As it relates to leadership at the systems level, faculty do not want the KCTCS system office involved in the development and/or quality review of online courses. When asked what the system office involvement should be, faculty members said training and
support should be the main concern followed, in a distant second, by providing a rubric or template. However, one study recommends a centralized system of quality control to have greater oversight for online courses (Jaggars et al., 2013a). Jaggars (2013a) also recommends faculty complete training in the areas of course design and instructional technologies before being able to teach online courses. These trainings would increase instructor presence and student engagement; two areas key to student success in online courses. Leadership at the system level could institute a quality assurance policy from the top down and force faculty to follow it, but as Burke (2008) states, leaders need to involve the people in the process. This leads to a smoother change with more support and fewer problems. Leadership during change will also help to dispel problems that may arise during the process better than if no leadership existed. Without the involvement of faculty in the process, resistance and opposition from faculty may be increased. By including faculty, they own a piece of the process and may feel more inclined to support the change.

The four frames outlined by Bolman and Deal (2008) provide a method to solve problems by viewing them from different sides. KCTCS College and system leadership could benefit from viewing the task of changing distance education through the four frames. The structural frame would be the policies and rules put into place to regulate the new policy, but also include communication and job duties.

The human resource frame can be met by leadership by including people in the process and meeting the needs of those involved. In the case of education, students should be the first concern, but faculty member’s feelings are also an issue. If faculty are not happy with the new policies, the work will not be as meaningful or satisfying. The
political frame must be addressed by gathering as much support for the change as possible. Building coalitions, or gathering support, is key to directing change because a larger group has more influence than a smaller group. Lastly, the symbolic frame can be addressed by leadership through events and culture. Creating an event around the change helps shift away from the old system to the new system through symbolism. Culture change is often a slow process, but must also be addressed. Faculty have worked and “lived” in their current culture and generally do not want to shift away from it. Leadership needs to communicate the needs for change and create meaning behind the change (Bolman & Deal, 2008).

KCTCS online education is currently divided among sixteen colleges offering online courses throughout the state. The system office staff are proposing a new business model and organization for distance learning. The new model is in the early phases with discussion currently at the Senate Council level with faculty meetings to take place in 2018. System leadership has been seen by faculty as making decisions and “forcing” colleges to follow. The leadership at the system level needs to include as many faculty members as possible to avoid resentment and encourage positive conversations. Viewing the new model through Bolman and Deal’s (2008) four frames may help to smooth the transition to the new model.

If system leadership were to follow the recommendations found in this study, they would develop training and provide support for local colleges. This may include instructional designers hired to work with faculty to develop new courses or update old ones. A research based quality rubric should be developed, or chosen from existing rubrics, at the system level to provide an example for local colleges and to train faculty.
At the local college level, formal quality assurance policies need to be implemented with regular and systematic quality checks of online courses. This process would ensure faculty who use high quality courses or need to update their courses based on the review, will continue to teach while removing faculty who do not provide high quality courses for their students. Data could also be gathered and reported to the system office for overall performance reviews ensuring colleges are following some form of evaluation.

**Recommendations for Further Research**

Data from this study found no statistical relationship between colleges having a quality assurance program to those which did not. However, since this study involved a small voluntary sample, further research needs to be conducted specifically comparing a larger sample of courses using a quality assurance program to those which did not. In addition, research needs to be conducted to measure student satisfaction, completion rates, and final grades in courses which completed a quality review and those who did not.

The system office staff are proposing a new business model and organization for distance learning. The new model is in the early phases with discussion moving to a faculty-led group in 2018. Future research will need to revolve around the changes being made and how those changes best support our students. How does the new model incorporate quality standards in the design of courses? Who will design the courses? How will competency based education play a role in online courses? These questions are still in flux as of this study, but will need to be examined to ensure students are at the forefront of every decision being made.
Conclusion

Quality in online courses is critical in the ever-changing landscape of distance education. Having a quality online course not only increases student success, but also marks the course as reliable in the global marketplace where course credit is becoming easier to transfer between states and countries. This study examined the quality of KCTCS online courses using the *Quality Matters Rubric* (QMR). Quality ratings indicate KCTCS online courses are high-quality and meet national quality standards. Leadership at the college level should develop and implement a quality review process to ensure courses not only meet current quality standards, but are continuously improving to meet future standards. System leadership should provide support and training to local colleges in the form of a system wide quality rubric and guidelines for a quality assurance program. KCTCS online courses meet standards today, but must be ready for change to meet future demands.
<table>
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<th>Southcentral Kentucky Community and Technical College</th>
<th>Hazard/Big Sandy Community and Technical College</th>
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Appendix B

Survey Instrument

Introduction

Evaluating the quality of online courses within the Kentucky Community and Technical College (KCTCS) system
Thank you for taking the time to participate in this survey and to give your feedback on the quality of online courses
within KCTCS. You were selected as a participant because you have taught at least one online course within the last
academic school year. My goal is to receive feedback, from faculty who have taught online, about how they designed
their course and if they used any form of quality standard for the design. I am also seeking out a broad look at current
quality of online classes currently offered throughout KCTCS.

Although you will not get personal benefit from taking part in this research study, your responses may help us
understand more about the quality of online course throughout the Kentucky Community and Technical College
System.

I hope to receive completed questionnaires from about 500 people, so your answers are important. Of course, you
have a choice about whether or not to complete the survey, but if you do participate, you are free to skip any questions
or discontinue at any time.

The survey/questionnaire will take about 30 minutes to complete. There are no known risks to participating in this study.

Your response to the survey is anonymous which means no names will appear or be used on research documents, or
be used in presentations or publications. The researcher will not know that any information you provided came from
you. The only personal used is to determine if you have completed the survey or not. This is to ensure you have
completed the survey only once. That data is not linked to the survey responses in any way.

If you have questions about the study, please feel free to ask; my contact information is given below. If you have
complaints, suggestions, or questions about your rights as a research volunteer, contact the staff in the University of
Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428.

Thank you for your assistance with this important project. Sincerely,

Kevin Dunn
Department of Education; Educational Leadership, University of Kentucky PHONE: 850-***.****
E-MAIL: *****@***.***

Click the Next button to start the survey. The Next button will always take you to the next page.
General Information

Have you ever taken an online course through any KCTCS college?

☐ Yes  
☐ No

In your opinion, how would you rate the quality of online courses throughout KCTCS? (Quality is determined by the ability to achieve course standards and stimulate ongoing improvements)

Very Poor  ☐  Poor  ☐  Fair  ☐  Good  ☐  Very Good  ☐

In your opinion, who should be responsible for reviewing the quality of online courses?


In your opinion, who should be responsible for ensuring the continual improvement of KCTCS online courses?


What can the administrative leadership within your college do to ensure courses at your college are of high quality?


What can the administrative leadership at the KCTCS system office do to ensure courses throughout KCTCS are of high quality?

Have you taught at least one 100% online course? (An online course is having 100% of any interaction between learners and between learners and teachers mediated by technology.)

- Yes
- No

What would/do you encourage you to review and continuously improve your own course?

Demographics
What is your gender?

- Male
- Female

What KCTCS college would you consider your primary college?

- Ashland Community & Technical College
- Big Sandy Community and Technical College
- Bluegrass Community & Technical College
- Elizabethtown Community & Technical College
- Gateway Community & Technical College
- Hazard Community & Technical College
- Henderson Community College
- Hopkinsville Community College
- Jefferson Community & Technical College
- Madisonville Community College
- Maysville Community & Technical College
- Owensboro Community & Technical College
- Somerset Community College
- Southcentral Kentucky Community and Technical College
- Southeast Kentucky Community & Technical College
- West Kentucky Community & Technical College
What is your main position within the college?

- Full-time Faculty
- Adjunct Faculty
- Administrator directly related to online education
- Administrator NOT directly related to online education
- Support Staff
- Other (Please Specify)

How many years have you taught online courses?

- 1-5
- 6-10
- 11-15
- Greater than 15

How many different online courses have you taught? Only include different course numbers (e.g., ABC 123 and ABC 255).

- 0-5
- 6-10
- 11-15
- Greater than 15

How many, if any, online courses have you developed? Develop for this question means to create a complete course, not just upload materials such as PowerPoint slides and lecture notes. Also includes creating the organization of and activities used in the course.

- None
- 1-5
- 6-10
- 11-15
- Greater than 15
Have you received training in how to design a course?

- Yes
- No

Who provided the training?

What topics has your training covered? Please list all that you can remember.

Were any of the trainings centered on a college, KCTCS, or national online course quality standard?

- Yes
- No

Which standard was the training centered around?

Would you be interested in training to learn about designing your course around national standards?

- Yes
- No

Do you teach on-campus, in person courses?

- Yes
- No
How long have you been a faculty teaching for a KCTCS college? (Include time teaching online and on campus)

- 1-5 Years
- 6-10 Years
- 11-15 Years
- Greater than 15 years

**Course Information**

For the following questions, please think of a course you are currently teaching or have recently taught.

Is this course a publisher course such as My Math Lab or My IT Lab or does it use 100% of the publisher's material without being modified?

- Yes
- No

Was the course created by someone else and you added/subtracted materials from it? For example a publisher's shell or a college created template.

- Yes
- No

Did you develop this course yourself? Develop for this question means to create a complete course, not just upload materials such as PowerPoint slides and lecture notes. Also includes creating the organization of and activities used in the course.

- Yes
- No (Who did design the course)

Were college, KCTCS, or national standards used to guide the development of this course?

- Yes
- No

What standard was used in the development of the course? (Please list the college/KCTCS/National standard used)

- College
- KCTCS
- National Standard
Why did you not to use a standard when designing this course?

---

Do you use any re-evaluation process to ensure the continued improvement of the course?

- Yes
- No

Please list all the tools used for continuous evaluation

---

**Quality Rubric Information**

Please apply the quality rubric to one course you have taught at least once in the past academic year.

In what program area was this course taught? (Choose one)

- Written Communication
- Oral Communications
- Quantitative Reasoning
- Natural Sciences
- Social and Behavioral Sciences
- Heritage
- Humanities
- Foreign Languages
- Digital Literacy
- Technical/Trades (Please Specify Program)

- Other (Please Specify)
What semester was this course taught?

- Fall
- Spring
- Summer

What year was this course taught? (e.g. 2015)

What course are you evaluating? Please give course prefix and number (e.g. ABC 123)

How many times have you taught this course online?

- First Time
- 2-5
- 6-10
- 11-15
- Greater than 15
Quality Rubric

Instructions: Read the specific standard. The standard will be either MET or NOT MET. The standard is MET if the course reaches 85% of the standard. Use your best judgment in determining if your course meets the standard at an 85% or better level. Please be as honest as possible. Blue text is to provide additional information on the standard with examples when possible.

Please note: This is only a subset of the complete Quality Matters Rubric. Annotations have been edited slightly to clarify the standard. They are not duplicated in their entirety.

Standards:

1. Instructions make clear how to get started and where to find various course components.

Instructions provide a general course overview, present the schedule of activities, guide the learner to explore the course site, and indicate what to do first, in addition to listing detailed navigational instructions for the whole course.

Instructors may choose to incorporate some of this information in the course syllabus. In this case, learners should be directed to the syllabus at the beginning of the course. A useful feature is a ‘Read Me First’ or ‘Start Here’ button or icon on the course home page, linking learners to start-up information.

Examples:
1. A course ‘tour’
2. Clear statements about how to get started in the course
3. A ‘scavenger hunt’ or ‘syllabus quiz’ assignment that leads learners through an exploration of the different parts of the course
4. A table or diagram that depicts the relationship between the online and face-to-face portions of a blended course

2. Learners are introduced to the purpose and structure of the course.

Information is provided to help learners understand the purpose of the course and how the learning process is structured and carried out, including course schedule, delivery modalities (online or blended), modes of communication, types of learning activities, and how learning will be assessed.

Such information may be provided or reinforced in the course syllabus or other course documents, or in areas with titles such as ‘Course Introduction,’ ‘Welcome from the Instructor,’ ‘Start Here,’ ‘Course Schedule,’ ‘Course Outline,’ ‘Course Map,’ ‘Course Calendar,’ etc.

3. The course learning objectives, or course/program competencies, describe outcomes that are measurable.

Measurable course learning objectives or competencies precisely and clearly describe what learners will learn and be able to do if they successfully complete the course. Course objectives or competencies describe desired learner mastery using terms that are specific and observable enough to be measured by the instructor. At some institutions, learning objectives or competencies may be called “learning outcomes.”

Standard is MET under the following circumstances:
1. The course objectives or competencies are measurable, whether set by the institution or by the instructor.
2. The institutionally mandated course objectives or competencies are not measurable, but the faculty-written module/unit objectives or competencies are measurable and aligned with the course objectives or competencies.

Standard is NOT MET under the following circumstances:
1. There are no stated course objectives or competencies.
2. The course objectives or competencies set by the instructor are not measurable.
3. The institutionally mandated course objectives or competencies are not measurable, and the faculty-written module/unit objectives or competencies are either not measurable or not present.
4. The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.

Learning objectives or competencies at the module/unit level align with and are more specific than course objectives or competencies. The module/unit learning objectives or competencies describe learner mastery in specific, observable terms and in smaller, discrete pieces. The objectives or competencies precisely describe the specific competencies, skills, and knowledge learners are able to master and demonstrate at regular intervals throughout the course. The module/unit objectives or competencies may either implicitly or explicitly be aligned with the course-level objectives or competencies.

5. All learning objectives or competencies are stated clearly and written from the learner’s perspective.

The course and module/unit learning objectives or competencies are stated clearly and prominently in the online classroom for all course delivery formats. For example, the course-level objectives or competencies are articulated in the course introduction or syllabus, and the module/unit-level objectives or competencies appear in each module/unit.

The learning objectives or competencies are written in a way that allows learners, including non-native speakers, to easily grasp their meaning and the learning outcomes expected. The use of educational or discipline jargon, unexplained terminology, and unnecessarily complex language is avoided.

6. The relationship between learning objectives or competencies and course activities is clearly stated.

Learning objectives or competencies are integrated throughout the course and are not just listed in the syllabus. Confirm a relationship exists between the stated learning objectives or competencies and the activities learners are asked to complete.

Examples of course components that clarify the relationship:

1. Links from assignments to the relevant course objectives or competencies
2. A numbering system that shows how course activities correspond to learning objectives or competencies
3. A narrative explaining how the course activities enable learners to meet the objectives or competencies

7. The learning objectives or competencies are suited to the level of the course.

Expected content mastery is appropriate to the type and level of the course. Taxonomies that describe levels of learning can be helpful in categorizing learning objectives or competencies by level and in enabling reviewers to determine whether the objectives or competencies correspond to the course.

For example, a first-year course is likely to include objectives or competencies that are lower in the cognitive realm than those in an upper-level course. Objectives or competencies in a lower-level course may use verbs such as ‘identify,’ ‘describe,’ or ‘apply,’ which align with assessments such as multiple-choice quizzes, essay questions in exams, or solving problems.
8. The assessments measure the stated learning objectives or competencies.

Course assessments (ways of confirming learner mastery) are consistent with the course and module learning objectives or competencies by measuring the accomplishment of those objectives or competencies. Instructional materials, activities, and course technologies support the learning objectives or competencies and enable learners to meet them.

From the types of assessments chosen, it is clear that learners can successfully complete the assessments if they have met the objectives or competencies stated in the course materials and learning activities.

Examples of learning objective or competency-assessment alignment:

1. A problem analysis demonstrates critical thinking skills.
2. A multiple-choice quiz verifies vocabulary knowledge.
3. A composition shows writing skills.
4. A video of a learner presentation in a foreign language shows mastery of the language.
5. Participation in a game reveals learner skill levels in critical thinking, analytical thinking, or decision-making.

Examples of lack of alignment between learning objectives or competencies and assessments:

1. The objective or competency is to be able to ‘write a persuasive essay,’ but the assessment is a multiple-choice test.
2. The objective or competency is to ‘create a body of work that illustrates your photographic vision,’ but the assessment is a 25-page thesis about contemporary photographers.

9. The course grading policy is stated clearly.

A clear, written statement fully explains how the course grades are calculated. The points, percentages, and weights for each component of the course grade are clearly stated. The relationship(s) between points, percentages, weights, and letter grades are explained. The instructor’s policy on late submissions is clearly stated.

Review the clarity of the explanation and presentation to the learner, not the simplicity or complexity of a given grading system itself. Even a relatively complex grading system can be made easy to understand.

Look for some or all of the following:

1. A list of all activities, tests, etc., that will determine the final grade
2. An explanation of the relationship between the final course letter grade and the learner’s accumulated points and/or percentages
3. An explanation of the relationship between points and percentages, if both are used
4. A clearly stated policy on point deductions for assignments submitted late

Competency-Based Courses: The grading pattern may be different from that used in traditionally graded courses, and grading policy is equally essential to describe in competency-based courses. Competency-based grades may rely exclusively on demonstration of mastery of the stated competencies, which may occur within the course or in a separate process external to the course. Grades may be in the form of a transcript listing competencies attained.
10. Specific and descriptive criteria are provided for the evaluation of learners' work and are tied to the course grading policy.

Learners are provided with a clear and complete description of the criteria that will be used to evaluate their work and participation in the course.

These criteria are stated upfront at the beginning of the course. The description or statement of criteria provides learners with clear guidance on the instructor's expectations and on the required components of coursework and participation. The criteria give learners the information they need to understand how a grade on an assignment or activity will be calculated.

Examples of what to look for:

1. Evidence that the instructor has stated the criteria for evaluation of all graded work. Criteria may be in the form of a detailed checklist, rubric, or other instrument for identifying the various levels of learner mastery.

2. A description of how learners' participation in discussions will be graded, including the number of required postings per week, the criteria for evaluating the originality and quality of learners' comments and their responsiveness to classmates' comments; and the grade or credit learners can expect for varying levels of performance.

Competency-Based Courses: A description makes clear in specific terms the levels of mastery required to demonstrate the defined competencies.

11. The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies.

Instructional materials may include but are not limited to textbooks, publisher- or instructor-created resources, multimedia, and websites. The materials align with the learning objectives or competencies in a clear and direct way and provide the information and resources learners need to achieve the stated learning objectives or competencies. As a reviewer, consider both the course and module/unit learning objectives or competencies in your assessment of the course's adherence to this standard.

12. Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.

Learners are provided with an explanation of how the instructional materials, resources, technologies, and learning activities are used in the course, and how each will help them achieve the stated learning objectives or help them prepare to demonstrate course competencies.

Examples:

1. Links to external websites indicate the purpose of the links or are completely self-evident.

2. The function of interactive games or exercises is clearly explained or is completely self-evident.

The purpose of all instructional materials (books and other publications, videos, multimedia, software or interactive elements, etc.) used in the course is clearly explained to learners. Reviewers confirm that instructional materials such as simulations or interactive media are integrated well enough to be useful to the learner.

An example would be a course that requires learners to use the following materials: a textbook divided into chapters, video segments ordered by topics, a website or simulation activities organized around specific skills, and an internal or external website that has an opening menu consisting of 'practice quizzes, 'images,' and 'audio examples.' In such a course, consider whether the order in which learners should use these varied materials is clearly indicated, as well as how each is related to the learning objectives or competencies and activities, and how the materials are related to one another.
13. The learning activities promote the achievement of the stated learning objectives or competencies.

The purpose of learning activities is to facilitate the learner's achievement of the stated objectives or competencies. Learning activities align with the course and module objectives or competencies, as well as with assessments, instructional materials, and course technologies, by engaging learners in activities that promote mastery of the stated learning objectives or competencies.

Examples of alignment between activities and objectives or competencies:

1. The objective or competency requires that learners deliver a persuasive speech. Activities include choosing an appropriate topic for the speech, creating an outline, and taping a practice of the speech delivery.

2. The objective or competency is 'Prepare each budget within a master budget and explain the importance of each in the overall budgeting process.' The learners review information about this objective or competency in their texts, watch videos of case studies where the different budgets are used, review informational websites about creating the different budgets, create the different budgets as practice activities, and develop a case study for a fictitious company explaining what would happen if each budget is not included in the master budget.

Examples of a mismatch between activities and objectives or competencies:

1. The objective or competency requires learners to deliver a persuasive speech, but the activities in the course do not include practice of that skill.

2. The objective or competency is 'Prepare each budget within a master budget and explain the importance of each in the overall budgeting process.' The learners review information about this objective or competency in their texts and observe budgets worked out by the instructor, but they themselves produce only one of the several budgets.

14. Learning activities provide opportunities for interaction that support active learning.

Activities encourage learners' engagement through different types of interaction as appropriate to the course. Interactions are designed as activities to support the course objectives or competencies and may vary with the discipline, purpose, and level of the course. Look for the purpose of the interactions and not just the number of opportunities for interaction.

Types of interaction include learner-instructor, learner-content, and learner-learner. Active learning involves learners engaging by 'doing' something, such as discovering, processing, or applying concepts and information. Active learning entails guiding learners to increasing levels of responsibility for their own learning.

Activities for learner-instructor interaction might include an assignment or project submitted for instructor feedback; learner-instructor discussion in a synchronous session or an asynchronous discussion board exchange; or a frequently-asked-questions (FAQ) discussion forum moderated by the instructor.

Activities for learner-content interaction might include assigned reading from a textbook, article, or online resource; assigned completion of a workbook or online exercise; or a learning-how-to-learn activity.

Activities for learner-learner interaction might include assigned collaborative activities such as group discussions; small-group projects; group problem-solving assignments; or peer critiques.

15. The instructor's plan for classroom response time and feedback on assignments is clearly stated.

Frequent feedback from the instructor increases learners' sense of engagement in a course. Learners are better able to manage their course activities when they know upfront when to expect feedback from the instructor. The course provides clear information about when learners will receive instructor responses to emails and discussion postings, feedback on assignments, and grades. This information typically appears in the course syllabus.

If it is necessary to alter the response-time standards during the course, the adjustment is clearly communicated to learners.

You are not evaluating the instructor’s plan; you are primarily ensuring the instructor has provided a plan.
16. The tools used in the course support the learning objectives and competencies.

The tools selected for the course align with the course and module objectives or competencies by effectively supporting the course's assessment instruments, instructional materials, and learning activities.

Tools are functional software that provide areas for interaction in the course; they may be included in the learning management system (LMS) or external to the LMS.

Examples of tools are discussion boards, chat rooms, grade book, social media, games, whiteboard, wikis, blogs, virtual classrooms, web conferencing, etc.

Specific tools are not required for this Standard to be met. Tools that are used support the learning objectives or competencies and fit the learning activities.

Clear information and instructions are provided regarding how the tools support the learning objectives or competencies. Technology is not used simply for its own sake. For example, a course might require posting to a discussion forum, but it may not be clear how the discussions support a learning objective or competency.

17. Course tools promote learner engagement and active learning.

Tools used in the course help learners actively engage in the learning process rather than passively absorb information. Selected tools help the learner actively engage in the course by facilitating interactions with the instructor, course materials, and other learners.

Examples of tools that support engagement and active learning:
1. Interactive, real-time software, such as real-time collaborative tools, webinars, and virtual worlds
2. Software that facilitates interactions and collaborations, such as shared documents or wikis
3. Animations, simulations, and games that require learner input
4. Discussion tools with automatic notification or a 'read/unread' tracking feature
5. Automated self-check exercises requiring learner responses

18. The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.

Technical support for learners differs from institution to institution and includes such information as how to log in; how to use the tools and features of the learning management system; and how to get help desk support. Technical support does not include help with course content or assignments or academic or support services.

Look for evidence that learners have access to technical support services from within the course or the learning management system. The purpose is not to review the adequacy of those services at an institutional level but rather to determine if technical support services are provided for learners and that the course contains information about the services and how to access them.

Examples of information about technical support:
1. A clear description of the technical support services provided by the institution, including a link to a technical support website
2. An email link to the institution's technical support center or help desk
3. A phone number for the institution's technical support center or help desk
4. Clearly worded directions for obtaining support for externally provided resources (e.g., publisher-supplied online materials and activities and third-party, vendor-provided software, materials, and activities)
5. Links to tutorials or other resources providing instructions on how to use the tools and features of the learning management system and other course technologies
6. A link to 'frequently asked questions'
19. Course instructions articulate or link to the institution’s accessibility policies and services.

Accessibility policies or accommodation statements state that services and accommodations are available for learners with disabilities and inform the learner how such services may be obtained.

To meet this Standard, the course may include

1. A link to the institution’s accessibility policy, if a policy exists.
2. A statement that informs the learner how to obtain an institution’s disability support services, if such services exist; for example, a telephone number or link for the disability services office.

If the institution does not have an applicable disability policy or disability services, the instructor may provide a policy that will be adhered to in the course to assure that learners with disabilities will be accommodated.

20. Course navigation facilitates ease of use.

Navigation refers to the process of planning, controlling, and recording the movement of a learner from one place to another in the online course. Navigation throughout the course is consistent, logical, and efficient.

Confirm that the course’s navigation strategies facilitate ease of movement through the course and course activities.

Examples of strategies that facilitate ease of use:

1. Consistent layout and design are employed throughout, making content, instructional materials, tools, and media easy to locate from anywhere in the course. Design elements are used repetitively, increasing predictability and intuitiveness.
2. Course pages have links, files, and icons that are labeled with easy-to-understand, self-describing, and meaningful names. Icons used as links also have HTML tags or an accompanying text link.
3. The course design enables learners to easily locate where they are within the course and to easily return to the home page from any location.
4. Tables are used to organize data and have appropriate table headers. Data cells are associated with their appropriate headers, making it easy for learners to navigate and understand the data.
5. The hierarchy of material in a page or document is clearly indicated through heading styles (Heading 1, Heading 2, etc.). A table of contents can be included that allows learners to move easily throughout documents.

21. Information is provided about the accessibility of all technologies required in the course.

Learners with disabilities have access to information on the accessibility of the learning management system and all additional required technologies.

For this Standard to be met, the course includes links to the accessibility statements for all required technologies. If an accessibility statement does not exist for a particular technology, a statement is included that explains that the accessibility statement does not exist.

Examples of technologies that might be required in an online course:

1. A learning management system, including integrated third-party software
2. Presentation software
3. A web-conferencing tool
4. A polling tool
5. A lecture-capture system
6. One or more media players
7. A document-sharing system
8. Social media tools

Examples of where the accessibility statements may be located within the course:

1. Course syllabus
2. Page on required technology software
3. Page on resources
Appendix C

Quality Matters Use of Rubric Approval

use of the Rubric

Barbra Burch <bburch@qualitymatters.org>

Wed 7/8/2015 7:49 PM

To: Dunn, Kevin R (Bluegrass) <kevin.dunn@hctcs.edu>

Cc: Kay Shattuck <kayshattuck@qualitymatters.org>; Grace Hall <ghall@qualitymatters.org>

Hi Kevin!

Thank you for notifying us of your wish to use the essential Standards from the QM Rubric in your survey. You may use these Standards in question form, as well as abbreviated annotations for a few of them, as long as you make clear in your survey that these are some of the Standards and abbreviated annotations for a smaller number of them excerpted from the Rubric. Please see the Use of QM Materials document from QM's Communications Toolkit: https://www.qualitymatters.org/node/2740/download/6e%20QM%20Materials.pdf for information on how to reference your use of the Rubric.

Best of luck with your project:

Barbra Burch

Barbra Burch, MPA

Research and Development Coordinator, Quality Matters
Ph: 1.410.667.8570
Fax: 1.301.576.5091
Skype: bburch.qm

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Appendix D

First Email Cover Letter

Thank you for taking the time to read this email and learn more about the purpose of this survey. The title of my research is: *Evaluating the quality of online courses within the Kentucky Community and Technical College (KCTCS) system*. You were selected as a participant because you have taught at least one online course within the last academic school year. My goal is to receive feedback, from faculty who have taught online, about how they designed their course and if they used any form of quality standard for the design. I am also seeking out a broad look at current quality of online classes currently offered throughout KCTCS.

Although you will not get personal benefit from taking part in this research study, your responses may help us understand more about the quality of online course throughout the Kentucky Community and Technical College System.

We hope to receive completed questionnaires from about 500 people, so your answers are important to us. Of course, you have a choice about whether or not to complete the survey/questionnaire, but if you do participate, you are free to skip any questions or discontinue at any time.

The survey/questionnaire will take about 30 minutes to complete.

There are no known risks to participating in this study.

Your response to the survey is anonymous which means no names will appear or be used on research documents, or be used in presentations or publications. The researcher will not know that any information you provided came from you, nor even whether you participated in the study.

Please be aware, while we make every effort to safeguard your data once received from the online survey/data gathering company, given the nature of online surveys, as with anything involving the Internet, we can never guarantee the confidentiality of the data while still on the survey/data gathering company’s servers, or while en route to either them or us. It is also possible the raw data collected for research purposes may be used for marketing or reporting purposes by the survey/data gathering company after the research is concluded, depending on the company’s Terms of Service and Privacy policies.

If you have questions about the study, please feel free to ask; my contact information is given below. If you have complaints, suggestions, or questions about your rights as a research volunteer, contact the staff in the University of Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428.
Thank you in advance for your assistance with this important project. To ensure your responses/opinions will be included, please complete the online survey by November 23, 2015.

By clicking this link you will find a printable copy of the Course Quality portion of the survey. It is highly recommended that you print this portion of the survey and complete it off-line using one of your current online courses. Once you have completed the document, click the link below to start the survey. This link is specific to you and cannot be used by another person. This information is not tied to the survey answers in any way and cannot be linked to your responses.

Follow this link to the Survey:
[link inserted by Qualtrics]

Or copy and paste the URL below into your internet browser:
[link inserted by Qualtrics]

Follow the link to opt out of future emails:
[link inserted by Qualtrics]

Sincerely,

Kevin Dunn
Department of Education; Educational Leadership, University of Kentucky
PHONE: 859-771-9624
E-MAIL: krdu224@uky.edu OR kevin.dunn@kctcs.edu

Follow the link to opt out of future emails:
[link inserted by Qualtrics]
Appendix E

Follow-up Email Cover Letter

One week ago, you received a reminder e-mail message asking you to assist in evaluating the quality of online courses within the Kentucky Community and Technical College System by filling out a web-based survey.

This will be the last reminder with only one week remaining. The survey ends Monday November 23. If you have not had a chance to take the survey yet, I would appreciate your reading the message below and completing the survey. This survey should take no more than 30 minutes to complete.

This is the last push. I need just 100 more completed surveys to truly have enough for the data to be sufficient. It is very important that I have more data collected in order to complete my dissertation.

Follow this link to the Survey:
[link inserted by Qualtrics]

Or copy and paste the URL below into your internet browser:
[link inserted by Qualtrics]

Follow the link to opt out of future emails:
[link inserted by Qualtrics]

Thank you for your time!
Best,
Kevin Dunn

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Thank you for taking the time to read this email and learn more about the purpose of this survey. The title of my research is: Evaluating the quality of online courses within the Kentucky Community and Technical College (KCTCS) system. You were selected as a participant because you have taught at least one online course within the last academic school year. My goal is to receive feedback, from faculty who have taught online, about how they designed their course and if they used any form of quality standard for the design. I am also seeking out a broad look at current quality of online classes currently offered throughout KCTCS.

Although you will not get personal benefit from taking part in this research study, your responses may help us understand more about the quality of online course throughout the Kentucky Community and Technical College System.

We hope to receive completed questionnaires from about 500 people, so your answers are important to us. Of course, you have a choice about whether or not to complete the survey/questionnaire, but if you do participate, you are free to skip any questions or discontinue at any time.

The survey/questionnaire will take about 30 minutes to complete.
There are no known risks to participating in this study.

Your response to the survey is anonymous which means no names will appear or be used on research documents, or be used in presentations or publications. The researcher will not know that any information you provided came from you, nor even whether you participated in the study.

Please be aware, while we make every effort to safeguard your data once received from the online survey/data gathering company, given the nature of online surveys, as with anything involving the Internet, we can never guarantee the confidentiality of the data while still on the survey/data gathering company’s servers, or while en route to either them or us. It is also possible the raw data collected for research purposes may be used for marketing or reporting purposes by the survey/data gathering company after the research is concluded, depending on the company’s Terms of Service and Privacy policies.

If you have questions about the study, please feel free to ask; my contact information is given below. If you have complaints, suggestions, or questions about your rights as a research volunteer, contact the staff in the University of Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428.

Thank you in advance for your assistance with this important project. To ensure your responses/opinions will be included, please complete the online survey by November 23, 2015.

By clicking this link you will find a printable copy of the Course Quality portion of the survey. It is highly recommended that you print this portion of the survey and complete it off-line using one of your current online courses. Once you have completed the document, click the link below to start the survey. This link is specific to you and cannot be used by another person. This information is not tied to the survey answers in any way and cannot be linked to your responses.

Sincerely,

Kevin Dunn
Department of Education; Educational Leadership, University of Kentucky
PHONE: 859-771-9624
E-MAIL: krdu224@uky.edu OR kevin.dunn@kctcs.edu

Follow the link to opt out of future emails:
[link inserted by Qualtrics]
Appendix F

Letter of Approval from KCTCS Office of Research and Policy Analysis

300 North Main Street
Versailles, KY 40383
(859) 236-3100
Website: ktcs.edu

9/18/2015

Kevin Dunn
Bluegrass Community & Technical College
164 Opportunity Way
Lexington, KY 40511

RE: Evaluating the Quality of Online Courses within the Kentucky Community & Technical College System

Dear Kevin:

After careful consideration of your application to the KCTCS Human Subjects Review Board, I have determined that you are eligible for exemption from federal regulations regarding the protection of human subjects based on your research using a procedure that meets the exempt review criteria section 7 (2).

Thank you for your cooperation in meeting the federal requirements for conducting research that utilizes human subjects. We appreciate your notification to this board and we will keep your information on file.

Sincerely,

[Signature]

Rhonda R. Tracy, Ph.D.
Chancellor
Chair, KCTCS Human Subjects Review Board

cc: Alicia Crouch
Interim System Director of Research and Policy Analysis
Appendix G

University of Kentucky Institutional Review Board Exemption Certificate

EXEMPTION CERTIFICATION

MEMO: Kevin Dunn, EdD
Educational Leadership Studies (EDL)
205 Boone Ave
Winchester, KY 40391
Phone: (859) 771-9924

FROM: Institutional Review Board
C/O Office of Research Integrity

SUBJECT: Exemption Certification for Protocol No. 15-0587-X4B

DATE: September 30, 2015

On September 30, 2015, it was determined that your project entitled, Evaluating the quality of online courses within the Kentucky Community and Technical College (KCTCS) system, meets federal criteria to qualify as an exempt study.

Because the study has been certified as exempt, you will not be required to complete continuation or final review reports. However, it is your responsibility to notify the IRB prior to making any changes to the study. Please note that changes made to an exempt protocol may disqualify it from exempt status and may require an expedited or full review.

The Office of Research Integrity will hold your exemption application for six years. Before the end of the sixth year, you will be notified that your file will be closed and the application destroyed. If your project is still ongoing, you will need to contact the Office of Research Integrity upon receipt of that letter and follow the instructions for completing a new exemption application. It is, therefore, important that you keep your address current with the Office of Research Integrity.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's IRB Survival Handbook web page [http://www.research.uky.edu/ori/IRB-Survival-Handbook.html#PIResponsibilities]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [http://www.research.uky.edu/ori]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.
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Vita

KEVIN DUNN

EDUCATION

Eastern Kentucky University, Richmond, KY
M.S. Career and Technical Education  2009
Major: Technical Education Administration

Eastern Kentucky University, Richmond, KY
B.S. in Career and Technical Education  2007
Area of Concentration: Occupational Training and Development

PROFESSIONAL EXPERIENCE

2016 to Present  Assistant Dean of Learning Technologies and Distance Education
Bluegrass Community and Technical College, Lexington, KY

2014 – 2016  Assistant Dean Advanced Manufacturing and Trades Division
Bluegrass Community and Technical College, Lexington, KY

1997 – Present  Faculty - Engineering and Electronics Technology
Bluegrass Community and Technical College, Lexington, KY