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Quality Assurance in Online Graduate Education: Program Review Processes and Assessment Techniques Used in Higher Education

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Quality Assurance in Online Graduate Education:
Program Review Processes and Assessment Techniques
Used in Higher Education

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ABSTRACT

The purpose for conducting the study was to form an understanding of the online program assessment and assessment processes in higher education, and how program review processes were adopted and implemented through institutional policies in regard to industry quality assurance standards. The study looked at institutions classified as very high, high, or research universities by the Carnegie Classifications, and which offered online masters programs focused on preparing students for positions in educational administration or leadership roles. The study used an electronic survey and content analysis through institutional policy and quality assurance documents to develop a recommendation for institutional level quality procedure of online programs to assure reviews are performed. The electronic survey was distributed to 194 institutions and results were analyzed using descriptive statistics, cross-tabulation with chi-squared analysis, and ANOVAs. Research results showed that program reviews were integrated into institutional policy and required for program operation, but the results also showed that institutions and programs needed to review the policies to examine if the reviews truly reflected the needs of the programs and accreditors, or if they needed to be edited for elimination of repetition. The practices and responses illustrated the necessity for institutions and programs to find common ground for gathering the information needed on program performance and student learning outcomes for program reviews and reports.

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CHAPTER I

INTRODUCTION

Context of the Problem

A recent educational study in the United States (US) showed an increased need for an educated workforce and a new focus on student recruitment, retention, and graduation in higher education (NCHEA, 2013). The need for an educated workforce put pressure on the secondary school system and on higher education to produce well-educated individuals who supported the economy and labor market, increased the tax base, and benefited wider society. Public pressure to produce an educated workforce is reflected in higher education's push to increase enrollment, retention, and graduation rates while state financial support for higher education is decreasing, leading to increased tuition costs to students and more reliance on tuition revenue for institutions. (O'Donoghue, 2015; Lederman, 2014; Rivera, 2014). To offset decreased state financial support, higher education diversified revenue streams and increased enrollment for all students, including students who were not able to move to a college campus but who needed further educational opportunities for career shifts and advancement (Jaschik, 2015). Online education provided an opportunity for a large national student demographic that lacked the financial resources or had time for full-time graduate education at a university campus and served as an additional revenue stream for institutions (Straumsheim, 2015).

The question generated from the growth in online education was how a legislature, employer, student, and society determined the quality of education that students received in their online program. Institutions needed quality assurance processes and assessment procedures for online programs so the programs could measure their quality and success and form a plan to increase the quality standards for their program. Hansson, Mihailidis, and Holmberg (2005)

compared distance education regulations between Sweden and the US, and showed that in the US, since educational control rested at the state and local level, institutions self-policed through student assessment and benchmark studies to implement quality assurance models. Multiple non-academic institutions created quality assurance guidelines for distance education including research organizations such as the Online Learning Consortium (OLC), the WICHE Cooperative for Educational Technologies (WCET), and the Quality Matters (QM) program to strengthen the field's self-policing efforts.

Regarding quality in online courses, Swan, Matthews, Bogle, Boles, and Day, (2012) used quality assessment guidelines such as QM and the Community of Inquiry survey to find that a standardized course development guideline improved learning and clarity of the material in a user friendly format. Wu and Lin (2012) also determined course quality assessment based on student satisfaction surveys, and ultimately identified 14 technical requirements that should be assessed to develop a quality online class, the most important of which were curriculum development, evaluation, guidance and tracking, instructional design, and teaching materials. A standard of quality and accountability in online education programs was not established and maintained because of insufficient state funding of higher education and the stakeholder influence of the for-profit education industry which lobbied against educational regulations (Senate HELP Committee, 2012).

Higher education required quality assurance not only for courses and instructors, but for the programs, due to Title IV policy regulations which provided federal financial aid funds for students enrolled at accredited institutions. To gain access to Title IV funds, an institution must be accredited by a regional or national accrediting body recognized by the US Department of Education (US DOEd), and evaluated and approved by their state education regulator. This

partnership of the US DOEd, a recognized accrediting body, and a state regulator was known as the "accountability triad" (NC-SARA, 2015). The evaluation and review process that went into determining if an institution is eligible for accreditation was central to quality assurance.

Organizations like the Council of Regional Accrediting Commissions (C-RAC) and the Southern Regional Education Board (SREB), and advisory groups such as the OLC outlined accountability and best practices guidelines have been outlined for online education providers (SREB, 2012; OLC, 2015a; OLC, 2015b, C-RAC, 2011). These educational entities presented their own quality assurance or best practices guidelines focused on helping institutions develop their online programs through program, course, and faculty assessment and institutional accountability (SREB, 2012; OLC, 2015a; OLC, 2015b). For example, Shelton (2010), in conjunction with the OLC, developed her *Quality Scorecard: Criteria for Excellence in the Administration of Online Programs* to aid institutions in program reviews. Shelton later examined 13 of the various quality assessments used nationwide and argued that there was "a strong need for a common method for assessing the quality of online educational programs" that unites the discipline into a common, "consistent approach" (p. 9). So, while several program assessment guidelines were developed, there was no widely accepted or implemented program review framework or process for programs that used the online course delivery method.

Academic departments and fields used assessment to develop their program goals, individual course goals, and their learning outcome expectations for students; including an appreciation of diversity and critical thinking, and requiring student assessment through interactions such as internships (Jamison, 2013). Program goal assessment at both an individual course and student level, and the reporting of results outside of the program itself, ensured that a hidden agenda or curriculum was not implanted into the program's curriculum or culture, but

instead provided a standard, supportive structure for all students (Townsend, 1995). Assessment examples for online programs included a comparison of learning outcomes such as aspects of writing samples, standardized examinations, and self or peer-reviews (Volkwein, 2010b). An assessment of learning outcomes was field specific, so recognizing the common themes in online programs was instrumental in creating comparisons between online programs. Recognizing common online program needs, assessment techniques, and program review processes helped identify how online programs improved their quality, formed attainable goals and learning outcome expectations, and was secure in their federal and state reporting and accreditation needs while their own review process was compared with benchmarked programs.

Statement of Purpose

The purpose for conducting the study was to form an understanding of the online program reviews and assessment processes in higher education, and how program review processes were adopted and implemented through institutional policies. The study looked at institutions classified as very high, high, or research universities by the Carnegie Classifications and which offered online masters programs focused on preparing students for positions in educational leadership or administration. The study used an electronic survey and content analysis through institutional policy and quality assurance documents, to develop a recommendation for institutional level quality procedure of online programs to assure reviews were performed. A single academic degree program, usually awarding a masters of educational leadership or education administration, was chosen to gain a program leader perspective of assessment requirements at the institutions and to determine what institutional level support was given or needed to adopt and implement a program self-study. The content analysis allowed the researcher to examine online graduate program level quality assessment, determine the most

effective policy integration processes, and determine how a policy process could then be integrated into the institution and required of online graduate programs for the quality assurance requirement demanded by accreditors and state level regulators.

Statement of Research Questions

1) How do research oriented universities assess their online masters programs focusing on educational leadership?
    - Who performs program reviews and where are results reported within the institution and to external entities?
    - What assessment techniques do the sample universities use?
2) What assessment techniques do the sample universities perceive as have been most effective for their online educational leadership program reviews?
3) How are the program review results used, how do programs with the online educational leadership programs perceive that program reviews are integrated into institutional policy, and who do programs perceive the reviews benefit?
4) Based on the findings, what quality assurance policies in assessment processes are needed to ensure regular program reviews that can lead to program improvement?

Definitions

For the purposes of this research, the following definitions applied:

Accreditation was an assessment process carried out by a non-governmental association or organization that ensured an institution of higher education met a level of quality assurance outlined by the US Department of Higher Education and the institution's accrediting agency. Accreditation approval enabled the institution's graduates to gain admission to other accredited

higher education institutions and some professional licensure programs, and enabled the institution to qualify for federal financial aid funds under the Title IV Act (USDOEd, 2015).

Assessment was the strategic collection, analysis, and reporting of data to a baseline to determine student learning outcomes, the learning process, and how students, faculty, programs and institutions approached learning so the learning and teaching process was improved. Assessment was an anonymous, interactive process to determine student learning outcomes through a comparison of data not based on course grades (Volkwein, 2010a).

Evaluation was a subjective process by which a participant in a course or program was judged an instructor or course by instructional communication or class content, and focused on questions such as course attendance and expected grades (Volkwein, 2010a).

Benchmark was a standard of comparison or assessment between equal institutions, programs, or entities and, for education, reflected a common measure of academic-standards so an institution, program, course, or student could be measured against a peer (Olson, 2005).

Distance Education occurred when educational instruction took place off-campus or there was a physical separation between: 1) the educator and learner, 2) the learners, or 3) the learners and educational resources. Instruction was delivered through internet, television, videos, self-paced correspondence courses, or on satellite campuses (USDOEd, 2015).

Online Education was a sub-category of distance education in which educational instruction was delivered through the internet usually facilitated by a Learning Management System (ADHE, 2015).

Online Program was a degree-granting academic program which offered at least 50% of the curriculum via the internet and was usually offered through a Learning Management System which organized courses and course content into a pedagogical format. Online programs were

offered as 100% online programs in which the entire program can be completed online with no campus visits required or as blended or hybrid programs in which at least 50% of the program was able to be completed online (ADHE, 2015).

Program Review was a systematic process in which an educational entity either at an institutional, state, or federal level evaluated the success of an academic program, department, or school through institutional records and data analysis with the purpose of promoting program improvement through administrative recommendations (USDOEd, 2009).

Public Institution of Higher Education was a publically operated or funded entity which provided postsecondary instruction to students and whose officials or administrators were appointed employees of the state (USDOEd, 2015).

Quality Assurance was the systematic, regular review of educational standards that ensured a certain program, course, or instructor delivered an acceptable level of educational quality to students. The quality assurance review process took into consideration collected assessment, evaluation, and student learning outcome data (NCAHLC, 2015).

State Regulation was an individual state's right to monitor, through authorization and quality assurance review, which institutions operate within its borders and which programs those institutions offered to its citizens. Since the US Constitution gives educational authority to states and local educational entities, state regulations varied widely depending on whether an out-of-state institution requested to open a physical location in the state or submitted a list of online programs the institution wanted to offer within the state (WCET, 2013a).

Student Learning Outcome was a predetermined level of knowledge, skill, and ability that a student should possess after completing an educational course or program. For online program assessment, the student learning outcome was identified before the online course was designed

so that an assessment was developed to determine the success of the student in the course (ADHE, 2015).

Title IV was a federal agreement with the Secretary of Education under the Higher Education Act that allowed the institution to participate in any of the federal student financial assistance programs (other than the State Student Incentive Grant (SSIG) and the National Early Intervention Scholarship and Partnership (NEISP) programs) (USDOEd, 2015).

Assumptions

The study accepted the assumptions that:

1) The online programs surveyed performed a program assessment process required by their own institution or an accreditor and the review was based on previously identified program goals;
2) That the surveyed institutions developed and implemented a program assessment requirement through institutional policy;
3) That the selected masters in educational leadership programs had similar program goals, curricula, and review processes that then were compared;
4) That data was collected from a specific program field to form program comparisons and review institutional policies and processes to show how quality assurance was determined in individual academic fields at four-year, research oriented institutions; and
5) That assessment processes examined content and survey analysis and the results were broadly applied to online graduate programs in benchmarked institutions requiring program reviews.

Delimitations and Limitations

The study had limitations and consequences, including:

1) The restriction of institutions to those meeting the criteria of being classified as very high, high, or research universities by the Carnegie Classifications and which offered online masters programs focused on preparing students for positions in educational leadership meant that only four-year, research oriented institutions were examined;
2) No data was collected from for-profit institutions offering online programs, so while the assessment processes identified through the research could be adapted for other institutions, these institutions were not considered in the framework design;
3) The restriction of the study to graduate masters programs offering educational leadership meant that while the research was able to identify assessment aspects of the online programs, other academic fields were not considered during analysis to better form a specific field review; and
4) The limiting of the sample to educational leadership programs provided another point of interest for policymakers and educational stakeholders as graduates of the programs primarily wanted to become educational administrators in a K-12 or post-secondary school environment and, as such, were responsible for implementing some type of program assessment.

Conceptual Framework of the Study

In the last four years, since the US DOEd presented its State Authorization policy, federal and state governments turned their attention to distance education and policy issues such as quality assurance and accountability to protect both taxpayers and students as the funders and the

borrowers of student loans. Hansson, et.al (2005) argued that since US educational control rested at a state and local level, "universities are left to their own devices and capabilities for implementation" (p. 285) of program quality assurance. The US needed to establish some level of federal funding regulation and governmental oversight while allowing universities their own course development and quality implementation models, otherwise "the possibilities of fraud, cheating, abuse, and phoney degrees exist with certain regularity" (Hansson, et.al. 2005, p. 296).

Saltmarsh, Sutherland-Smith, and Kitto (2008) called for further research into the political-cultural-technological nexus that gave emerging technologies a place in policy and social contexts, especially as concerned consumer culture and online education. This study did not focus on a specific policy, but on how policy was already applied through quality assurance measures in program assessments that were required for online program regulatory approval and accreditation at the state level. The study used an electronic survey and content analysis through benchmarking to support best practices recommendations that institutions and policymakers applied to online education programs. Research addressed the problem of how to assess online programs for the quality assurance required by accrediting and state education regulators. Data collected through the benchmarked institutions focused on a single type of graduate program and showed how knowledge of online programs and assessment techniques could be shared between institutions. Determining the assessment processes in online education programs allows programs to present a more complete picture of their processes and functions within higher education, show how the field measures against best practices guidelines, and increases understanding and buy-in for assessment from institutional administrators, stakeholders, and policymakers.

Significance of the Study

The research and conclusions contributes to the academic fields of online education, quality assurance, and public policy by determining common review processes for graduate-level online programs. The study could influence: 1) the ability of policy makers to support online education with confidence in the quality of online programs, 2) how online administrators ensure regular review of their programs, and 3) accreditation and state regulation of online education since a program will be able to show its quality assurance process and outcomes.

The educational reputation of online education was improved as 70.8% of university leaders indicated in a 2014 study that online education was "critical to their long-term strategy" (Pedersen, 2015, paragraph 4). A study sponsored by the OLC, Tyton Partners, and Pearson but conducted by the Babson Survey Research Group reported that "the percent of academic leaders rating the learning outcomes in online education as the same or superior to those in face-to-face instruction grew from 57.2% in 2003 to 77.0% in 2012," but decreased to 74.1% in 2014 (Allen & Seaman, 2015). However, the same study found that only 28% of "faculty accept the 'value and legitimacy of online education'" (Allen & Seaman, 2015). Higher education was also becoming more adaptive as studies of the enrolled university students today show that "35% switch institutions, 24% attend[ed] three of more institutions, 42% [were] be 25 or older, and only 14% attend[ed] full-time and live on campus" (Pedersen, 2015, paragraph 5).

With regular review processes for learning outcomes in place, stakeholders in public policy and higher education can argue that students receive the same level of education through either an online or an on-campus course delivery method and students can feel confident in the education they received. From an administrative perspective, either as an institutional administrator, state education regulator, or state policymaker, a more identifiable assessment

process for online programs assists the institution in meeting program reporting and accreditation standards and in determining student satisfaction with the program. Quality assurance reviews also encourage society to continue to support financial investment in higher education, and employers have more confidence in hiring new graduates of online programs. Identifying the strengths and weaknesses in an online program through learning outcome assessment, and adjusting the program accordingly, should lead to higher student enrollment, retention, and graduation rates and lead to increased employment rates for new graduate as the reputation of the program grows.

The future direction of higher education and online education is to grow enrollments and graduations so society sees the service benefits that the university continues to provide, and to fund the university through state and federal funds for higher education. The emergence of online learning made higher education more aware of demographic data related to students both on-campus and off-campus so that institutions knew who their students were and were able to meet the needs of their students. Quantitative data analytics from Institutional Research offices provided universities with information about all students, whether traditional or non-traditional, on-campus or online, and, if properly analyzed, provided an information foundation that helped assess student needs and course learning outcomes (Cobo, Rocha, & Rodríguez-Hoyos, 2014; Slade & Prinsloo, 2013; Yukselturk, 2014).

Online education regulation at a state and Federal level was another influential aspect of this study as quality assurance is fundamental in most program approval and accreditation processes. The adoption of the Higher Education Act and Title IV for regulating higher education and managing the Federal financial aid program to assist students in affording a quality education created online education policies that were addressed through higher education

regulators such as regional accreditors, state higher education departments, and regional education boards (SREB, 2012; US DOEd, 2012; C-RAC, 2011). These accrediting and approval bodies require quality assurance measures for online education but, beyond providing some guidelines for determining student learning outcomes and appropriate student support, do not outline how an institution should adopt and implement program assessment policies as a regular quality improvement measure (C-RAC, 2011).

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The increased exposure of online education through expanded internet access, the advent of mobile technology made the internet available almost anywhere at any time, and learning platforms that allowed direct access to students, resulted in an increased number of people enrolling in online education expanded the research opportunities in online education. Research being conducted in online education resulted in large literature areas of course design, pedagogy techniques, and instructor training and development, and the educational implications of online programs and courses on students at all educational levels.

The related literature chapter was divided into four sections. The first section outlined the state of graduate education and online graduate education, provided an overview of the current state of graduate education in the US, and how graduate education contributed to higher education, including its distinctness from undergraduate education as providing a terminal degree past the bachelor's degree. The second section examined assessment and benchmarking practices in higher education and provided case studies of how online graduate programs were reviewed for quality improvement purposes. The next major section looked at online education itself and how online education has changed the higher education traditional model in course design, instructor training and pedagogy, and the changing student market could no longer focus on traditional, on-campus students only. The last section explained the federal, state, and accreditation policies that pushed higher education and online education to adopt and implement a continual improvement process through program review for quality assurance and the continuation of an institution's accreditation and federal financial aid support.

Literature used in the review was collected through the use of the University of Arkansas Mullins Library databases of *EBSCOhost*, *ProQuest*, and *Web of Science* and searched for keywords or phrases specific to the literature areas that included 'assessment.' 'benchmarking,' 'online education,' 'graduate education,' 'higher education,' 'online course design,' and policy.' The search results were filtered by peer-reviewed articles published since 2001. Other literature was collected through governmental and non-governmental organization websites, including the US Department of Education, the Arkansas Department of Higher Education, the Online Learning Consortium, Eduventures, and several well respected higher education news agencies such as the *Chronicle of Higher Education* and *Inside Higher Ed*.

State of Graduate Education

This review of related literature began with the question of "What is the role and current state of graduate level education in the US?" Graduate education at both the master's and doctoral levels were distinct experiences in higher education that allowed students to strengthen their intellectual knowledge of their professional field. Although many careers were achieved through an undergraduate degree, most fields had a higher level of study in which a student obtained a professional degree such as a Masters of Business Administration, a Juris Doctorate, or an academic degree such as a Masters of Arts or Doctor of Philosophy. This literature section examined the current empirical state of graduate education in the US, the role of online graduate education in understanding the changing patterns of graduate students, and the difference between online and face-to-face graduate programs.

History of Graduate Education in the United States

Graduate education in the United States (US) began in 1876 with the development of graduate work in a master's degree at Johns Hopkins University, and followed failed attempts by other US higher education institutions including Harvard, Yale, and Columbia (Berelson, 1960). Graduate education was at first opposed by faculty because it directed resources from undergraduate studies and restructured higher education from the traditional, classical undergraduate education to a pyramid structure with a specialized, professional degree placed above an undergraduate degree (Berelson, 1960). However, the resistance was overcome with growth in research-oriented science fields which refuted the classical education argument with a "needs of the times" (p. 7) argument which was shown through the country's increasingly "urbanized and industrialized" (p. 8) atmosphere and the growing acceptance of practical, professional fields (Berelson, 1960). Berelson (1960) identified four characteristics of higher education that he felt were relevant to the founding of graduate education in 1876, continued to be relevant in higher education in 1960, and were still relevant today:

1. The normal resistance to innovation and change by established faculties;
2. The tension between scholarship and professional practice as the primary objectives of graduate study;
3. The impact of a fast but unevenly growing body of knowledge;
4. The conflict between influences on educational policy from inside the academic community (the universities and the disciplines) and from outside ("the needs of the times") (p. 8).

Berelson (1960) continued his research on graduate education with surveys to academic deans and faculty on the state and direction of graduate education and identified faculty arguments between the academic field of graduate education and the professional field of graduate training. He outlined how graduate education developed through the early 20th century with the establishment and acceptance of graduate education in the early 1900s and 1910s, the

growth and expansion through the 1940s with the enrollment interruptions of the World Wars, and then the rapid expansion of enrollments and degree offerings after World War II (Berelson, 1960). The expansion of graduate education after World War II was enabled by economic growth and the need for advanced, specialized training for research to support science-oriented fields and generally expand the body of knowledge beyond the classically-oriented structure of undergraduate education (Berelson, 1960).

Graduate education was established for the advancement not only the body of knowledge through research, but to prepare students for professional careers both inside and outside academe. Numerous stakeholders were involved in graduate education beyond institutions, faculty, and students and include governmental entities such as the US Department of Education and state level departments of higher education, non-governmental entities such as organizations like the Council of Graduate Schools which advocates for the graduate research and education through the establishment of policy and best practices (CGS, 2015a), and groups which have an interest in the development of well-educated adults such as employers and communities. Due to the specialized nature of graduate education, it was administered separately from undergraduate education in institutional structures with a Graduate School that admitted students, organized programs and faculty, and developed and disseminated research, career, and professional development opportunities, and examined questions affecting or related to graduate education within the institution (CGS, 2015b; Sanford, 1978). Educational preparation at the graduate level enabled students to attain academic or practical degrees to advance their professional preparedness in research, teaching, and knowledge of the field.

Current State of Graduate Education in the United States

Graduate education continued to grow and diversify from Berelson's work in 1960 and was firmly established in the US as evidenced by reports from the Council of Graduate Schools which found in 2012-2013 that over 627,000 graduate degrees and certificates were awarded by US institutions, including 70,920 doctorates and 522,350 master's degrees (Allum, 2014). In fall 2013, first-time graduate enrollment in the US stood at 1.7 million, a loss of 0.2% from fall 2012 combining with a loss of 2.3% between fall 2011 and fall 2012 (Thompson, 2014). This decrease is detrimental to the US, as Council of Graduate Schools President Suzanne T. Ortega stated:

> 'People with graduate degrees are driving growth and innovation in our economy, and graduate-level skills are in higher demand every year. However, enrollments are not keeping pace with the projected growth in jobs requiring advanced degrees. We can't put more qualified American workers into these high-level jobs until we create more opportunities for them to earn graduate degrees. To meet the needs of our economy, we must invest in graduate education and better support the students who enroll in master's and PhD programs with more grants and fellowships to reduce their reliance on loans' (Thompson, 2014, paragraph 4).

The decreasing enrollment trend produced interesting demographics in that the enrollment of US citizens and permanent residents decreased 0.9% and the number of temporary residents rose by 11.5%. The trend also showed the while Caucasian, African American, and Native American student enrollment decreased, Latino, Asian, and Pacific Islander enrollment increased (Thompson, 2014).

Enrollment decreases in first-time graduate education were reflected in the recent postbaccalaureate enrollment projections from the National Center for Education Statistics (NCES, 2014). The projections included enrollments for master's, doctoral, and professional programs that also projected significant increases in female enrollment in graduate education versus male (NCES, 2014).

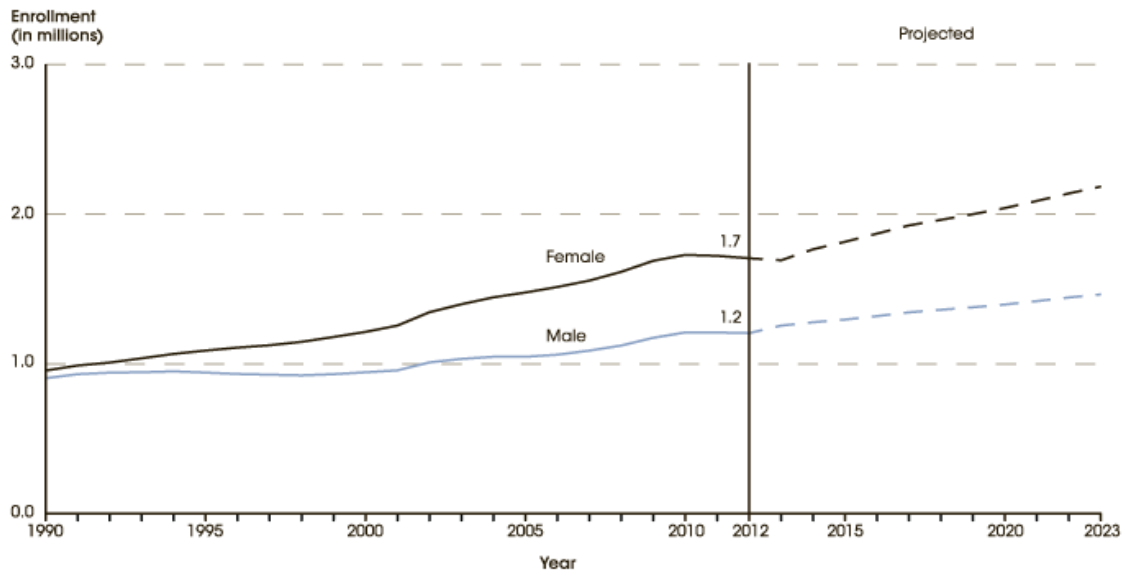

Figure 1:
Actual and projected postbaccalaureate enrollment in degree-granting postsecondary institutions, by sex: Fall 1990–2023
(Reprinted from: US Department of Education, National Center for Education Statistics, 2014)

The NCES report addressed student ages by showing the increase in enrollment for both undergraduate and graduates aged between 20 and 34 years. Results showed that between 2000 and 2012, 20-24 year olds increased enrollment by 8%, 25-29 year olds by 3%, and 30-34 year olds less than 1% (NCES, 2014).

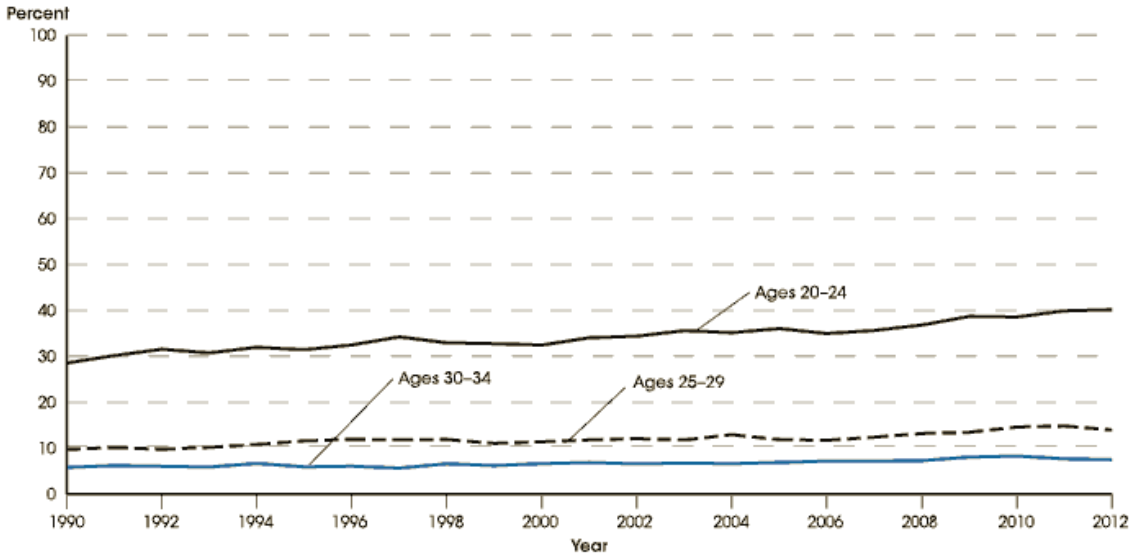

Figure 2:
Percentage of the population ages 20–34 enrolled in school, by age group: October 1990–2012
*(*Reprinted from: US Department of Education, National Center for Education Statistics, 2014)

In 2012, the NCES Postbaccalaureate Enrollment report found that of the 2.9 million students enrolled in graduate degree programs approximately 867,000 or almost 30% of graduate students enrolled in at least one distance education course and approximately 639,000 or 22% of graduate students took exclusively distance education courses (NCES, 2014). The NCES report also showed that for graduate education most students were enrolled in programs that did not require distance courses and the students who did take distance courses were mainly enrolled in private for-profit institutions (NCES, 2014).

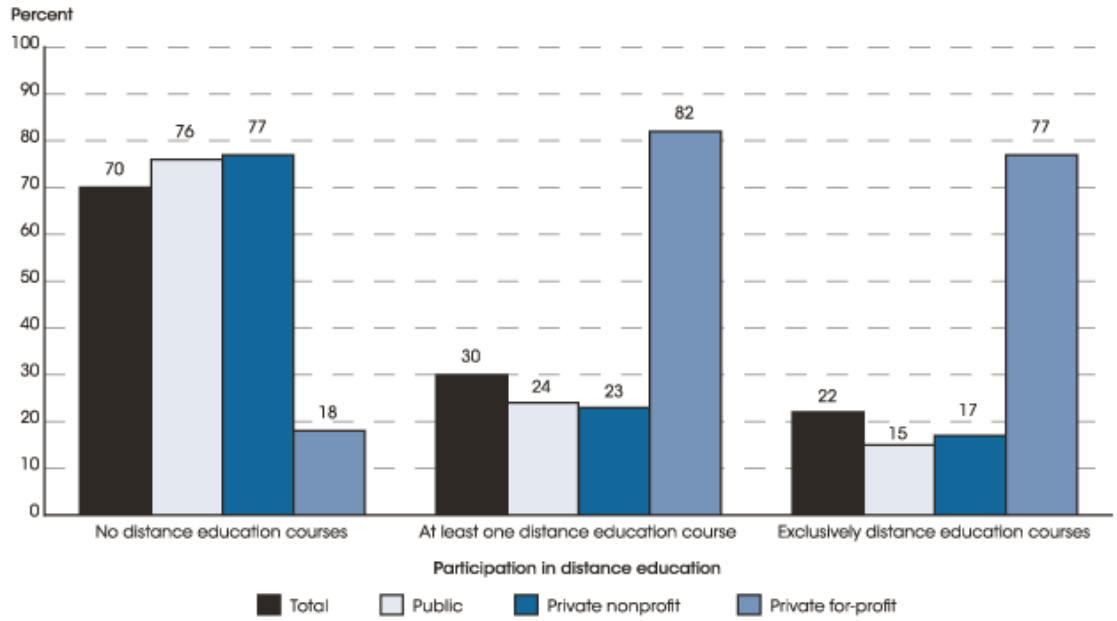

Figure 3:
Percentage of postbaccalaureate students enrolled in degree-granting postsecondary institutions who took distance education courses, by control of institution: Fall 2012
(Reprinted from: US Department of Education, National Center for Education Statistics, 2014)

The attraction of students to graduate education was based in the knowledge, professional training, and career advancement offered through attaining an advanced degree beyond the bachelor's degree (Zepeda, 2015; Wendler, Bridgeman, Cline, Millett, Rock, Bell, & McAllister, 2010). Time and financial considerations were especially important as graduate student trends showed an increase in non-traditional and 'career changers' who were older, had families, saw graduate education as a stepping stone to either career development or a new career direction, and wanted to complete their degrees in a reasonable amount of time (Wendler, et.al., 2010). Of course, there were other barriers to attending and completing graduate school besides time, including transportation and increased gasoline prices which Young (2008) argued pushed students to online enrollment during the economic recession of 2008. Stratford (2014) found that, with the median 2012 federal student loan debt for a masters of arts degree being $58,539 and $50,879 for a masters of education, financial concerns were an increasing barrier to graduate

education. However, Wendler, et.al., (2010) argued that institutions must also take responsibility for improving graduate education in recruiting qualified students, improving student support for completion rates, and introducing students to nonacademic career paths. The authors also argued that the federal and state governments must financially support graduate programs and students within higher education so that graduate education in the US will continue to be an asset to the economy and the workforce (Wendler, et.al., 2010).

Role of Online Graduate Education in Higher Education

The existence of graduate education was supported through student perceptions that obtaining a graduate degree would enable them to further their both academic and non-academic or professional careers or switch paths into another career (Beale, Brown III, & Samms Brown, 2014). The internet introduced a new category of graduate student who did not need to commute to the campus for classes or meetings. The same skills gained in on-campus graduate education were needed for career development by online students, and prompted the growth of online graduate programs across the country (Braun, 2008). Online education allowed students to demand flexibility from their programs and universities so they were able to take advantage of flexible schedules and other factors including job and family (Ginn & Hammond, 2012).

Online education research on graduate students focused on the students' perceptions of community, course rigor, and teaching methods within the program with students often citing convenience, flexibility, and quality of instruction as factors in choosing an online program (Bolliger & Shepherd, 2010; Ritter, Polnick, Fink, & Oescher, 2010; Braun, 2008; Perreault, Waldman, Alexander, & Zhao, 2008; Armstrong, 2003). Attending graduate school online presented a different set of challenges for graduate students, including the best pedagogical methods to deliver professional versus academic skills to students. However, Metrejean and

Noland (2011), found that when CPA firms recruit employees "recruiters do not perceive a difference in a candidate who receives an online MACC [Master of Accounting] and a candidate who receives a MACC from a traditional classroom-based accounting program" (p. 25) the most important assessment for the prospective employers was that students "passed all or part of the CPA [Certified Public Accountant] exam or enrollment in a CPA review course" (p. 25).

The design of an online program was adapted to the needs of students as shown by a professional master's program at the University of Florida. The program was designed for teachers so the program "embeds graduate work within school reform efforts" (Adams & Ross, 2014, p. 533) and offered course work in a blended format so teachers gained both an academic and practical contextual perspective of teaching (Adams & Ross, 2014). Another way to adapt a program to student needs was to combine the course delivery methods with a mixture of online asynchronous, live collaborative, and summer face-to-face workshops (Lau, 2007; Kelley, Kopac, & Rosselli, 2007; Albright & Nworie, 2007). The design and support of an online program also depended on the structure of the institution and whether the program was administered under a centralized or decentralized system (Williams, 2012). Sanders (2011) found that through the use of consortia, institutions joined together to develop online graduate programs by sharing of course and faculty, especially when the individual schools did not have the full resources to develop a program for the benefit of their students. Montague and Pluzhenskaia (2007) examined the Web-based Information Science Education (WISE) consortia and found that, while there were benefits in sharing courses between schools and students were generally satisfied with their educations, there was a need for continual course assessments between the consortia institutions so that faculty development and course content was integrated and consistent. Several authors outlined the various faculty development and institutional

structure strategies used by institutions when developing online graduate programs, including program development and assessment tools for creating online courses, implementing the program, and the need to evaluate the effectiveness of the courses and program (Kuboni, 2013; Smith & Torres, 2011; Lee, Paulus, Loboda, Phipps, Wyatt, Myers, & Mixer, 2010; Hollenbeck, Zinkhan, & French, 2005; Roessingh & Johnson, 2005; Baldwin & Burns, 2004; Jamieson, 2004). Waycott, Bennett, Kennedy, Dalgarno, and Gray (2010) found that while "students were concerned about access to technology and learning to use technology," (p. 1208) instructors and university staff "were concerned about increased workloads and a top-down approach to implementing new technologies in higher education" (p. 1208).

The knowledge learned in a graduate program was unique to each field and level, but the skills of critical thinking, writing, and research techniques were progressive so that a student was able to advance from the general ranks of an undergraduate student to the upper level education, assuming that the student is properly prepared by their previous program. While Hurst, Cleveland-Innes, Hawranik, and Gauvreau (2013) found that oral and written professional skills were learned by online graduate students through coursework, online communities, and program related relationships, Wittman and Auban (2015) argued that graduate programs did not properly prepare students to be academic faculty and called for program assessments to improve student training. Professional and academic training were cornerstones of graduate education, and if a program was not properly training its students and assessing their learning outcomes, then the purpose of graduate education was undermined and the program's reputation and by extension, the institution's reputation suffered.

A professional or academic graduate degree was used to progress in a student's career because they could gain a wider skill and knowledge set than if learned at the undergraduate

level. Lewis, Graham, and Quamar (2014) examined a graduate rehabilitation program and determined that students needed to be more aware of the global context, both inside and outside their fields. The authors called for graduate programs to integrate the skills of "intercultural competency, anticipating the future, making organizations learning entities, using a comprehensive framework for planning change, data-driven decision making, critical thinking, and transformational leadership" into graduate programs (Lewis, et.al., 2014, p. 26). Other authors highlighted the importance of preparing graduate students for careers outside academe and called for programs to introduce practical, professional skill sets into their programs (Blickley, Deiner, Garbach, Lacher, Meek, Porensky, Wilkerson, Winford, & Schwartz, 2013; Ardis, Bourque, Hilburn, Lasfer, Lucero, McDonald, Pyster, & Shaw, 2011; Muir & Schwartz, 2009).

The varying types of graduate programs available online per field were the reason that this research examined assessment in graduate programs. As Majeski, Damond, and Stover (2007) found when assessing a gerontology program, program assessment was imperative so that "students meet their educational objectives and are prepared to assume professional roles" (p. 543). The question of how learning was adapted to the technology depended on the program and the program's learning outcome goals, but also on the mentality of the student, attitude of the instructor, and commitment of the institution in how they approached technological pedagogy.

Summary

Most previous online graduate program research focused on students' perceptions and experiences in the programs or courses, and how the programs could have been improved. This research focused heavily on program case studies that examined issues important to graduate programs, including professional and academic preparation for career advancement. The

assessment of these graduate programs determined that students expected career advancement and professional training from participating in and completing the program, and some measure of flexibility in the program. The literature also showed the importance of determining student learning outcomes so it could be determined how well the program, faculty, and students are performing (Wittman & Auban, 2015; Beale, et.al., 2014; Majeski, et.al., 2007).

Assessment of Graduate Programs

The next section looked at the need for assessment in higher education and how programs especially online graduate programs, were assessed. Acknowledgement for the development and implementation of assessment in higher education was shown through the existence of several professional associations, such as the National Institute for Learning Outcomes Assessment (NILOA), the Association for Institutional Research (AIR), the American Council on Education (ACE), the American Association of State Colleges and Universities (AASCU), and the Association of Public and Land-grant Universities (APLU), which examine how assessment is conducted in higher education and publish research results and recommend best practices and policy adoptions to institutions and programs in higher education. Literature examined in this section contained directional assessment questions at both the institutional and program level, provided a review of case studies assessing online graduate education programs, and covered how previous research used benchmarking as an institutional and program comparison tool.

Assessment in Higher Education

With expanding government, accreditation, and public calls for accountability, higher education became an active, competitive organization that was well situated to plan, organize, and follow-through with strategic goals, projects, and programs, instead of being a reactionary

organization (Kinicki & Williams, 2011; Marić, 2013; McMurray, Henly, Chaboyer, Clapton, Lizzio, & Teml, 2012). To facilitate these organizational needs, administration in higher education underwent a transformation that focused on the business aspects of education, including the growth of administrative positions and centralization of decision-making, instead of the traditional academic pursuits (Shattock, 2013). The business aspects of education called for strategic plans to increase revenue, enrollment, the institution's reputation, and, by extension, program quality that was identified, reported, and improved through assessment, especially as accreditation was now "a critical element of institutional planning" (Bardo, 2009, p. 54). Educational entities like the previously mentioned Council of Graduate Schools published manuals on the development and assessment of graduate programs, including "Master's Education: A Guide for Faculty and Administrators: A Policy Statement" (CGS, 2005) and "Assessment and Review of Graduate Programs" (CGS, 2011) to aid administrators in establishing and improving graduate education.

As Bardo (2009) argued, "the requirements of accreditation increasingly will need to be at the heart of institutional planning and strategy" (Bardo, 2009, p. 54). Assessment was a key accountability measure in higher education accreditation and institutional credibility, but it was only effective if the administration and faculty supported and used those assessment tools and conclusions (Emil & Cress, 2014). Central to the assessment process and instrumental in building a culture of assessment within an institution was developing a cyclical model of assessment in which effective assessment began with engaging stakeholders, forming a purpose, plan, and timeline for the assessment, efficiently and effectively implementing the plan by providing essential resources and leadership support, and then 'closing the loop' by using assessment results to improve the institution, program, course, assessment plan, etc. (Suskie &

Banta, 2010; Banta, Palomba, & Kinzie, 2015; Kuh, Ikenberry, & Jankowski, 2015). If an institution's administration and faculty collected data, but did not integrate results into their strategic plan, then the process was meaningless (Alsobrook, 2011). Kuh and Ewell (2010) agreed that all administrative, teaching, and support levels of an institution must identify the assessment process and tools that were best suited to their needs, understand the importance of the assessment and the data collected, and then use the data to make informed decisions about the strategic plans of their programs and the institution. The importance of program and course goals in assessment was highlighted by Hafeez and Mazouz (2011) when they adapted the business approaches of Total Quality Management and Quality Function Deployment to education. The authors used the two models, which had previously focused on how a company could adapt to accommodate customer needs, to identify a program's goals, learning outcomes, and the program goals and learning outcomes that should be emphasized in each course, so that assessment data could be better organized and improvements implemented based on the program and course goals and learning outcomes.

Volkwein (2010b) wrote a volume on assessment in higher education for the *New Directions for Institutional Research* journal that focused on why assessment was important, how assessment would be implemented, and what obstacles its implementation would face. He found that strategic plans could benefit from asking the five assessment questions identified as the "drivers for assessment activity" (p. 15) to determine the institution's progress on "goal attainment, improvement, professional standards, comparisons, and cost- effectiveness" (Volkwein, 2010b, p. 15). Volkwein (2010b) asked:

> Is the institution or program meetings its goals?; Is the institution or program improving?; Does the institution or program meet professional standards?; How does the institution or program compare to others?; and Is the institution or program cost-effective? (p. 15-16).

These five questions, were the second step in Volkwein's (2010b) five step assessment of institutional effectiveness model that outlined: 1) the purpose of the assessment, 2) asking the previous assessment questions, 3) determining the research design and who or what the research is assessing at the institution, program, student, or faculty level, 4) data collection and analysis, and 5) communicating and acting upon the research results.

To further attain institutional goals, Pesta and Scherer (2011) argued that institutions should correlate assessment rubrics to their admission standards to determine if they were accepting students with the best chance of success, and adjusting their admission process and student support services accordingly. Enrollment in higher education and online education was expanding, but an understanding of how to assess educational programs did not expand as rapidly; so instead many educational organizations simply provided quality guidelines for assessing programs instead of an assessment plan (Mariasingam & Hanna, 2006).

Assessment Studies of Online Graduate Programs

Assessment strategies were focused on academic outcomes at a program, course, and assignment level for a specific field of study to determine academic quality (Hughes, 2013). Departments or fields used assessment to develop their goals and expectations for students, including an appreciation of diversity and critical thinking and by requiring student assessment through student engagement, community building, and interactions such as internships (Jamison 2013; Babacan, 2011; Glassmeyer, Dibbs, & Jensen, 2011). Most assessments in online education focused on course design and faculty assessment, such as how successful an instructor was in teaching an online course and interacting with students (Piña & Bohn, 2014). These assessments benefited online, hybrid, and face-to-face courses as "faculty operate on their own,

with little data about the product they are trying to produce: an improved knowledge state in their students" (Thille & Smith 2011, p. 26).

The inclusion of graduate program assessment improved, and gave a more accurate assessment of student learning outcomes because student and faculty were more interested in the topic or course content and learning outcomes than at the undergraduate level (Ewell, Paulson, & Kinzie 2011; Pike 2000). Penn (2011) argued that assessment was needed in undergraduate general education because it opened the discussion of what knowledge and skills were expected of undergraduates, and determined what was important to the institution, not only from an educational perspective, but also the institution's individual identity (Penn, 2011). According to Pike (2000), the Educational Testing Service developed the *Graduate Record Examination* and *Major Field Tests* for the purpose of assessing student learning outside of general education and linking it to specific content. McDaniel (2011) found that for online education, measuring student effort or interaction with a class was a better method of assessment than the semester credit hour because students could be measured by the traditional three-hour a week seat time, while Kamoun and Selim (2008) argued that all credit-bearing curriculum and degree programs should have an exit exam for senior students. Using these types of field tests, combined with the technological flexibility of online education, has enabled universities to adapt classes and learning modules to support individual learning outcomes for students based on their strengths and weaknesses (Lansari, Tubaishat, & Al-Rawi, 2007).

Regulation in distance education was left to regional and field-specific accreditors, and to review programs based on an institutional self-study report. These evaluations were based on traditional postsecondary accreditation reports, and did not account for aspects of online education such as technology reliability, online quality standards, student and instructor support,

and student learning outcomes (Simonson 2007; Benson 2003). Stube, Zimmerman, Hanson, Jedlicka, Fox, and Hosford (2013) examined outcomes assessment in an online Masters of Occupational Therapy program by applying the Online Learning Consortium's "Five Pillars of Quality Online Education" (OLC, 2015a) model and surveying the graduate students and faculty to find out their levels of satisfaction with the program. The authors found that when students and faculty were sufficiently satisfied with the program, student learning outcomes were good, and that the OLC's Five Pillars model was effective in evaluating the online program's value (Stube, et.al., 2013; OLC, 2015a). Chapman and Henderson (2010) looked at the use of quality measures developed by the Institute for Higher Education Policy (IHEP) in online business courses. They found that while many of their surveyed instructors and program coordinators used the IHEP framework, it was not comprehensive enough to fully assess online courses and also needed questions on course content, technological reliability, and instructor-student interaction (Chapman & Henderson, 2010). Sebastianelli, Tamimi, & Gnanendran, (2011) researched how to improve the quality of online MBA programs through individual course assessment. The authors identified the factors of "Professor-Student Interaction, Course Content-Structure, Content Rigor, Technology, Student-Student Interaction, Assessment, Flexibility-Convenience, Team-Based Learning, and Delivery Method" (Sebastianelli, et.al., 2011, p. 809) as essential measures of online course quality, and determined that the identified factors significantly affected student learning outcomes under the assumption that improving course quality would improve the overall program experience.

Benchmarking

In the context of this research, benchmarking meant creation of a comparison standard between institutions, programs, or entities that could be considered equal. In higher education,

educational benchmarking involved a common measure of academic-standards so that one program or course was measured against a peer to determine what deficiencies the program or course had and how the program or course could be improved (Olson, 2005).

Benchmarking was essential in developing an assessment process because an institution or program had identified its peers or the programs that they wanted to emulate before they determined how to implement an assessment plan and integrate improvement policies into the institution's strategic plan (Asif, 2015; Duniway, 2012; Yeung, 2002). For higher education institutions, peer benchmarks were necessary to determine institutional missions and goals, strategic plans, effectiveness and accountability, and overall quality comparison standards (Powell, Gilleland, & Pearson, 2012; Garcia-Aracil & Palomares-Montero, 2010). For online education there were assessment strategies to examine online programs and courses by identified quality standards or benchmarks based on course content, instructor-student interaction, and instructor preparation; and institutionally there were benchmarks to determine a peer group that the institution or program compared itself to for a quality assurance guideline (Mariasingam & Hanna, 2006). Most authors in this area examined various methods of developing and implementing benchmarking frameworks to assess and improve educational quality (Mariasingam & Hanna, 2006; Yeung, 2002). Brucker and Hetherington (2011) researched benchmark characteristics between 26 institutions that offered Master of Science in Taxation programs, some of which offered online instruction. The survey-based research was intended to collect annual program data as a benchmark for administrative use and program comparisons (Brucker & Hetherington, 2011).

Articles that dealt with quality assurance benchmarking for institutions or programs typically surveyed the academic staff, instructors, or students at each institution the researcher

was interested in examining (Yeung, 2002), or were a review of the current guidelines available for quality assurance (Mariasingam & Hanna, 2006). Other researchers used established assessment measures like the National Survey of Student Engagement to determine student satisfaction with online courses (Robinson & Hullinger, 2008). Shelton (2010) performed a six round Delphi study to determine if the 70 quality indicators for online programs determined by an Institute for Higher Education Policy study in 2000 were still relevant to online education administrators, and if any other indicators should be added. The research resulted in the development and distribution of a rubric by the OLC of the *Quality Scorecard: Criteria for Excellence in the Administration of Online Programs* (OLC, 2015b). The *Quality Scorecard* rubric provided a guideline for OLC member institutions by reviewing online programs in areas of: "institutional support; technology support; course development/instructional design; course structure, teaching and learning; social and student engagement; student support; and evaluations and assessment" (OLC, 2015b, paragraph 1).

A number of independent organizations identified assessment standards that they presented as benchmarking standards for the online course industry. For example, the Quality Matters Program (QM) (2014) considered its quality assessment rubric a benchmark standard in online course assessment. The program was developed by Maryland Online through a US Department of Education (US DoEd) Fund for the Improvement of Postsecondary Education (FIPSE) grant to develop a non-profit organization to create course standards and course evaluations for online courses (Quality Matters, 2014). The QM rubric was then used to evaluate online courses for higher education, K-12 education, and government organizations, and provided training workshops and certification for professionals in the field. The workshops were organized by QM, and conducted by QM approved trainers external to the institution at a

predetermined institutional cost that covered trainer compensation and workshop materials (Quality Matters, 2014). Over 800 institutions in 47 US states and over six countries subscribed to the QM program and led to over 25,000 faculty and instructional design staff being trained in the rubric use, and more than 5,000 approved course assessors. The rubric identified eight evaluation areas that should be addressed in an assessment of online courses: "Course Overview and Introduction, Learning Objectives (Competencies), Assessment and Measurement, Instructional Materials, Course Activities and Learner Interaction, Course Technology, Learner Support, and Accessibility and Usability" (Quality Matters, 2014, slide 14). QM described itself as providing peer feedback for the continuous development and improvement of a course so that it met an agreed upon standard of best practices. Three QM-certified peer reviewers, one master reviewer, and the faculty developer assessed courses using the rubric to perform the course review (Quality Matters, 2014).

Mariasingam and Hanna (2006) introduced a quality assessment proposal in which the authors outlined institutional, learner, and faculty requirements with the learner and faculty requirements similar to previously identified course content, faculty development, and student responsibility factors. The institutional requirements did provide some recommendations for an online program assessment guideline (Table 1) with institutions being responsible for:

Table 1:
Institutional Requirements for Quality Assurance

Mission	- Quality assurance and quality enhancement as part of mission of the institution. - Use of technology to enhance quality is included in the mission.
Continuous Quality Improvement Measures	- Effective system of institutional self-assessment of programs for quality is in place. - Self-assessment of programs for continuous quality improvement is in place.
Access	- Providing wider access to education through the use of technology to those who have no or limited access to education is included in the mission.
Evaluation of Program Effectiveness	- Ongoing evaluation of program effectiveness is an essential part of the continuous quality improvement process and is done to improve program effectiveness.
Student Satisfaction	- A Course Experience Survey to obtain information on student perceptions of their experiences at university for the purposes of quality improvement is done.
Post-Graduation Employment Success Assessment	- A Graduate Destination Survey is to be completed by graduates six months after completion of their course to collect information on student career placement.

(Mariasingam & Hanna, 2006, Table 1)

The quality assessment proposal by Mariasingam and Hanna (2006) and the benchmarking standards developed by Shelton (2010) and Quality Matters (2011) were examples of the assessment processes that could be applied to all online education programs, including both undergraduate and graduate due to the similar technological and institutional support needs of students and faculty.

Summary

Assessment in higher education needed the support of administration and faculty to be implemented and effective in program and course improvement, and in institutional strategic planning. Assessment strategies needed institutional and program goals to determine how a program should be assessed, including how benchmark comparisons with peer institutions or programs was beneficial and what student learning outcomes should apply to the data analysis. However, assessment was a continuous process that needed not only administrative and faculty support to be implemented, but also action taken on the part of the program to improve program and individual course quality and student satisfaction with their educational experience (Bardo, 2009; Mariasingam & Hanna, 2006).

Educational Quality in Online Programs

The next section examined previous research on the educational quality of online programs. The related literature review used instructional and student examples from both graduate and undergraduate courses and programs so a more complete understanding of quality in online education was achieved. Specific sections examined the related literature of online course design, how instructor and students influenced the success or failure of an online course, and how online education affected higher education student recruitment.

Online Course Design

Online education, which delivered information via internet accessible technology, was both praised and condemned by stakeholders inside and outside the field. Those skeptical of online courses maintained that learners had to deal with technology problems, low motivation,

isolation, and lack of contact with teachers (Dykman & Davis, 2008a). Those in support of online courses maintained that these courses facilitated more engagement with course materials, increased communication with the instructor and collaboration with other students, increased responsibility for learning, and led to computer-skill development, which allowed them to develop responsibility and adaptability in a technology reliant world (Dykman & Davis, 2008a). However, the true issue might have been that:

> more emphasis has been placed on the 'utopian' possibilities of the technology and its potential to transform teaching and learning. But not enough 'pragmatism' has been applied to allow for a discussion of the practical implications—and limitations—of technology as a supplement to enhance teaching and learning (Merisotis 2001, p. 594).

While several organizations determined guidelines for designing quality online courses, there was no universally accepted quality framework. Swan, et.al. (2012) used quality assessment guidelines such as Quality Matters (QM) and Community of Inquiry (COI), and found that a standardized course development guideline improved learning and clarity of the material in a user friendly format. QM acknowledged that it was not a complete answer to quality course assessment in online education, but, it was an important instrument in course assessment for online education. Like other assessment instruments, QM maintained that the rubric was designed for the course, and for the continuous diagnosis and improvement of course quality. Wu and Lin (2012) also determined course quality assessment was based on student satisfaction surveys, and ultimately identified 14 technical requirements that would have to be assessed to develop a quality online class, the most important of which were curriculum development, evaluation, guidance and tracing, instructional design, and teaching materials. Shelton (2011) examined 13 of the various quality assessments used nationwide and argued that

there was “a strong need for a common method for assessing the quality of online educational programs” that united the discipline into a common, “consistent approach” (p. 9).

Unless a university had design guidelines or rules for course creation, the use of technology in online courses and programs was often left to the determination of the instructor and the instructional designer working on the course. Much of the quality of an online course, like an on-campus or hybrid course, relied too on the skill and experience of the instructor in the academic field, the specific course topic, and understanding online teaching pedagogy enough to determine the best teaching methods, course materials, and technology tools to engage students and ensure learning through the internet (Gros, Garcia, & Escofet, 2012; Senn, 2008). Some authors argued that it was the responsibility of the institution to provide instructors with the technological and instructional support necessary to develop a quality online course and understand the differences between an online and traditional classroom (Downing & Dyment, 2013; Betts, 2009; Kopyc, 2007). To ensure student learning and interaction, some instructors introduced interactive environments to online education including gamification, collaborative learning, video lectures, and integrating quizzes, assignments, and puzzles into their course learning platforms (Amemado, 2014; Chiong & Jovanovic, 2012). Teaching in both the traditional and online classroom was complex and relied on the pedagogical skills of each individual instructor with “the uninitiated often think that teaching online will be much easier than teaching in the conventional classroom setting. That is a very dangerous point of view to bring into the online classroom” (Dykman & Davis 2008b, p. 162).

Course design and the success of online programs was reliant on pedagogy, available technology, and being able to deliver a quality course design easily and conveniently to students (Roehrs, 2011; Rovai & Downey, 2010; Smyth, 2011). Blake, Wilson, Cetto, and Pardo-

Ballester (2008) found that second language oral proficiency was the same for first year face-to-face, hybrid, and online only students at the University of California – Davis and that:

> the required synchronous chat sessions for both DL [distance learning] and hybrid students… [were] a major contribution to the level of individual practice and the extent of instructor attention, which might even exceed what can be found in traditional classrooms given their burden of 25 to 30 students in a 50-minute period (Blake, et.al. 2008, p 123).

To design and deliver quality courses, online program designers had to know which devices students were using, where they were using the devices, and what were the best teaching methods to deliver an online course to the device (Gaved, Collins, Mulholland, Kerawalla, Jones, Scanlon, Littleton, Blake, Petrou, Clough, & Twiner, 2010; Stokes, Collins, Maskall, Lea, Lunt, & Davies, 2012). Course quality relied on student and faculty interaction, availability of reliable technology, and a well-designed course platform that contained a strong pedagogy knowledgeable on the differences between teaching online and face-to-face (Dykman & Davis, 2008b). Online education was not the ideal course delivery method for all students, just as traditional on-campus delivery was not ideal for all students, but providing the course delivery methods together created adaptability and flexibility for the institution, faculty, and students to increase enrollment and graduation rates (Ginn & Hammond, 2012).

Students and Instructors

Not all students and faculty were right or were ready for online education, either due to differences in learning and teaching styles, inexperience with or anxiety toward technology, enjoyment of the traditional classroom, or need for the structure provided by a face-to-face classroom experience (Hauser, Paul, & Bradley, 2012; Saadé 2008). Some research focused on finding differences between online and face-to-face education found that, unlike the traditional face-to-face classroom, the quality of instruction in online classrooms was not affected by

influences such as gender divisions and class size, but were influenced instead by the student's reasons for taking an online course and the instructor's experience level in creating clear class goals, while challenging and supporting students (Gros, et.al., 2012; Liu, 2012; Edwards, Perry, & Janzen, 2011; Dykman & Davis, 2008a; Dykman & Davis, 2008b; Saadé, 2008). However, while online courses needed different considerations to evaluate quality of learning, most learning quality depended on the student's interaction with other students and their ability to form a community, especially through course discussion boards (Duranton & Mason, 2012; Nandi, Hamilton, & Harland, 2012; Glassmeyer, Dibbs, & Jensen, 2011; Bolliger & Wasilik, 2009). Another study by Fillion, Limayem, Laferrière, and Mantha, (2009), found that student autonomy, anxiety, and motivation played a larger role in the student's learning outcomes than the instructor's experience, and that while there were some performance and satisfaction differences between on-campus and online students, "students' learning was as effective online as in the classroom" (Fillion, et.al. 2009, p. 235).

Since the late 1990s, and especially the early 2000s, distance education focused on online education through the emergence of the internet as a viable, reliable communications source that could support a technology based platform for course materials, videos, face-to-face chat rooms, discussion boards, etc. These platforms were very successful for the desktop setting for which they were designed, but now with the advent of mobile technology, online education had to adapt to the expectations of a new generation of digital natives in which effective communication skills and pedagogical guidance at both a human and electronic level were essential to their educational success (Thompson, 2013; Margaryan, Littlejohn, & Vojt, 2011; Betts, 2009; Chepya, 2007). These digital natives were the first generation to be raised with the internet and smart phones, tablets, and laptops that enabled them to access the internet from almost any location, and to

expect communication through digital methods that included email, messaging, and social media, in additional to face-to-face interaction (Betts, 2009). To meet the needs and expectations of the digital generation, online education tried to adapt learning management platforms to the sites and applications that students were used to accessing via their mobile devices. If this adaptation was done correctly, Chepya (2009) argued, "the mobile education world will be a place students look forward to accessing as much as they do their serious social and entertainment distractions…[because for them]…mobile communication is a habitual source of pleasure" (p. 64).

Several authors such as Mueller and Oppenheimer (2014), Mangen, Walgermo, and Brønnick, (2013), and Uhls, Michikyan, Morris, Garcia, Small, Zgourou, and Greenfield (2014) showed some negative effects of the internet and mobile technology on education, including students taking notes verbatim on a laptop instead of by importance, a lack of knowledge retention while reading online, and the inability to read the emotions and facial expressions of others. While these were legitimate concerns affecting students, Betts (2009) found that as visual and verbal cues influence face-to-face communication, there are also visual and verbal cues in written and mobile media that the so called 'digital native' could use to interpret mood or emotions. In contrast to the Mangen, et.al (2013) study, Subrahmanyam, Michikyan, Clemmons, Carrillo, Uhls, and Greenfield (2013) "found no significant difference between paper, tablet, and laptop for reading time or comprehension" (p. 15) for students at a large urban university in Southern California. The authors did find that multitasking on an internet ready device slowed reading times and that students found it easier to take notes and highlight on paper, but these factors did not have an overall impact on reading comprehension and students preferred reading on electronic screens due to environmental, financial, and logistical interests (Subrahmanyam,

et.al. 2013). Lynch (2014) argued that, if properly implemented, mobile technology improved course instruction by increasing engagement levels so that students felt an ownership of the educational information, by tracking student progress, by adapting a module so it reflected student needs, and created less environmental and labor pressure on teachers.

Online courses relied on the instructors' willingness and ability to either build their own courses or work with an instructional designer to build a course that fit the course material, student needs, and student learning goals. An online instructor had to build an in-depth course platform with instructional materials, assignments, and chat boards that required students to 'attend class,' think about the materials, and respond to other students (Blake, et.al. 2008). Using her own face-to-face, hybrid, and online course designs, Stine (2010) found that "given the right students, the right teacher, and the right structure, it [was] clear that wholly online basic writing courses can be successful" (p. 50). Online education relied on "student postings of answers and dialoging about the discussion questions demonstrate clarity of thought, grasp of concepts presented in the readings, and analytical ability applied to the topics in the course" (Dykman & Davis, 2008a, p. 285) as well as topic based papers which contributed to a student's ability to apply writing and critical thinking skills and could also help assess the student's learning in the course (Dykman & Davis, 2008a) and be used to monitor and assess the rigor and quality of the online course.

The Online Student Market

Innovation and the role of online learning in the future of non-profit, public and private higher education was a complex topic composed of: emerging technology; curriculum redesigns in flipped, blended, and hybrid classes; and advocated for new educational models that included the need for expanded revenue and a wide variation in on-campus, blended or hybrid, and fully

online program learning (Alexander, 2014; Lucas, 2013; Mintz, 2014; Weise & Christensen, 2014). Thille and Smith (2011) argued that higher education was not sufficiently "educating an increasingly diverse body of students while containing the cost that is putting postsecondary education beyond the reach of a growing percentage of the world's population" (p. 22). The growth of the online market was demonstrated when The Economist (June 28, 2014) found that:

> whereas online courses can quickly adjust their content and delivery mechanisms, universities are up against serious cost and efficiency problems, with little chance of taking more from the public purse…[so that]… as an alternative to an overstretched, expensive model of higher education, they are more likely to prosper than fade (paragraphs 29-30)

and Fitch Credit Ratings argued that it:

> expects the growth of online courses to continue as more and more students, parents, faculty, and administrators embrace online learning as a means to supplement the traditional face-to-face learning environment. Institutions view online programs as a potential revenue generator by augmenting existing enrollment levels or offsetting enrollment declines in certain degree programs (Walsh, 2014, paragraph 3).

Online learning is not expected to replace on-campus education because online and on-campus programs attract different student markets depending on the individual needs of the student, including traditional, non-traditional, and transfer students for both graduate and undergraduate programs (Selingo, 2013). The on-campus experience with face-to-face classes will appeal to a certain group of students, and online programs will appeal to a different group. The two populations might overlap for some students such as those on-campus individuals who needed an online class due to a scheduling conflict, or an online student who wanted to take an on-campus class if they could come to campus. In general, the two student markets were very different, and the skill sets and experiences they wanted were also different (Wiese & Christensen, 2014).

The structured online course, which is designed in conjunction with an instructional designer and an instructor familiar with the academic field should be, and is, the real future of online education as it provides a viable option to students for a quality education at their location (Jackson, 2012). Online programs enhanced higher education by producing a new student market and new revenue stream at a time when public subsidized support was decreasing, student tuition and fees accounted for a higher portion of the university operating budget, employers were demanding a more technology based skill set, and universities were adding more debt through building projects to attract and support students (Lucas, 2013; Martin, 2012; Oblinger & Dehoney, 2014; Weise & Christensen, 2014). Institutions were motivated to develop online programs because a quality online program allowed a university to expand its enrollment, curriculum, and revenue beyond the university's brick and mortar campus. The expansion of tuition revenue from increased enrollment provided financial relief for institutions both public and private, with the increased cost of technology, building maintenance, and utilities to operate the institution (Miller & Morris, 2008; Blumenstyk, 2006; Lu, 2003). Online education worked with traditional higher education to expand educational appeal through improved retention and graduation rates as schedules and classes became more flexible, making higher education more accessible and affordable for all students, and saving some low enrollment on-campus programs from closure by providing new student markets for recruitment (Miller & Morris, 2008).

Summary

Online education was not the correct match for all students and faculty due to a variety of factors including learning, academic discipline, and teaching styles and individual need for face-to-face contact (Hauser, et.al. 2012; Saadé 2008). However, with institutional design and training support, online education could be a viable alternative to students who could not or did not want

to have the traditional campus experience (Selingo, 2013; Stine, 2010). Online education and its student market was expected to continue to grow and become a revenue generator for overextended traditional universities. Assuring quality in online education would enable the field to continue to grow and support student and institutional success (The Economist, June 28, 2014; Walsh, 2014).

Policy and Regulatory Dimensions of Online Education

This related literature section examined what was previously done toward online education policy at the federal level including State Authorization policy, the role of states, and regulatory compliance within quality assurance. The purpose of this section was to develop an understanding of the importance of quality assurance and assessment and how state and federal regulations affected quality assurance in online education.

Federal Policy Regarding Online Education

The role of government in higher education has been limited to economic factors such as federal student loans and monetary provisions to universities including research grants and state-based operational support; so the role the federal government played in distance education was no greater than government intervention in traditional universities through federal financial aid regulation. The US Constitution did not provide the federal government with the power to create and implement education policies inside states, but it did grant the power to regulate federal funds, specifically federal student loan funds (US DOEd, 2012). Federal level control of student loan funds gave the US federal government the power to negotiate and oversee implementation and maintenance of policies at a state level. The government used this power to encourage traditional postsecondary institutions to implement federal education policies and maintain

regional accreditation for access to federal student loan money. Online students enrolled at accredited higher education institutions were eligible for federal financial aid in the form of student loans under the US Higher Education Act of 1965 (Higher Education Act) (USDOEd, 2012). This act allowed distance education students to take out federal student loans, and made creating regulation and accountability extremely important because of the need to account for and justify the expenditures of federal tax dollars to advance student educational achievements. Part of this justification of federal student loan expenditure rested on the quality of distance education programs and the success of online students.

Online regulation policy, especially federal policies regarding financial aid, had a direct effect on the students who enrolled in online classes or in online degree programs, and on the universities that relied on revenue from student tuition and fees. The involvement of federal funds increased the need for regulatory oversight as poor program results and poor student performance could be perceived by the public and by policymakers as a waste of federal tax funds, thus increasing the likelihood of federal and state government intervention. The problem of poor online program results and student performance was the focus of a Senate Committee on Health, Education, Labor, and Pensions investigation led by Chairman Tom Harkin between June 2010 and July 2012. According to Harkin, the investigation:

> was undertaken to better understand the enormous growth in both the number of students attending for-profit colleges and the federal student aid investment that taxpayers are making in the colleges. This growth has occurred as for-profit colleges have increasingly been acquired or created by publicly traded companies and private equity firms that are closely tracked by and by investors seeking quick returns. Unlike traditional non-profit and public colleges, virtually all of the revenues of for-profit colleges come directly from taxpayers, and significant portions of their expenses are dedicated to marketing and recruiting and to profit (Senate HELP Committee, 2012, pre-page).

Increasing the likelihood of federal intervention in distance education was the Senate Committee's further findings that "in 2009 when all sources of federal taxpayer funds, including military and veterans' benefits, are included, the 15 publicly traded for-profit education companies received 86 percent of revenues from taxpayers" (Senate HELP Committee, 2012, 3) and that:

> students who attended a for-profit college accounted for 47 percent of all federal student loan defaults (Senate HELP Committee, 2012). [Strengthen this part] More than 1 in 5 students enrolling in a for-profit college (22 percent) default within 3 years of entering repayment on their student loans (Senate HELP Committee, 2012, 8).

In contrast, one student in 11 at public and non-profit schools defaulted within the same 3-year period (Senate HELP Committee, 2012, 18). However, a recent report by Allen and Seaman (2014) showed a decrease in the number of online students enrolled in for-profit institutions while overall, enrollments in online education continued to increase:

Figure 4:
Growth of Distance Education: 2012 to 2013
(Reprinted graphic from: Pearson, 2015 from Allen and Seaman, Allen and Seaman, 2014)

These numbers were encouraging for the field as online education was a way to increase institutional tuition revenue streams through increased enrollment and as a way to improve graduation and retention rates as universities examined various course delivery methods, including competency-based and individualized or adaptive learning (Pedersen, 2015). Online

education was also held up as an affordable option for students because, as higher education tuition outpaced inflation in 2014 and the average loan debt for graduating undergraduates was $28,500, universities typically charged less for online courses and were even experimenting with fixed price undergraduate and graduate online degrees (Pedersen, 2015).

When the issue of online program accountability first came to the US DOEd's agenda, they decided to treat it as a state level institutional authorization problem, which was supposed to be corrected at an individual state level. However,

> the U.S. Department of Education had never defined minimum requirements for state authorization, and many states have taken a passive or minimal role in approving institutions, reviewing and addressing complaints from students and the public, and ensuring that colleges are in compliance with state consumer protection laws (Senate HELP Committee, 2012, 8).

The original policy measure presented by the US DOEd was intended to enforce the states' higher education authorization rules with the consequence of non-compliance being the loss of federal student loan funds to students within the state where the unlicensed institution was operating (WCET, October 29, 2012). The US DOEd implemented state authorization policy to address the avoidance of program authorization regarding state level operations by postsecondary institutions involved in online education, and to try to protect US consumers and taxpayers.

State Authorization Compliance

State authorization policy:

> required schools offering postsecondary education through distance or correspondence education in a state in which it was not physically located, to meet any of that state's requirements in order for it to offer postsecondary education to students located in the state. The purpose of this requirement was to ensure that schools offering online classes to students in multiple states were properly authorized by each of the states. Without this requirement, and what is happening currently, is that many schools that primarily offer

> online classes to students located across the country only have to be authorized by the state in which they are headquartered (Cummings, 2012, paragraph 5).

The US DOEd's state authorization policy, released as a series of Dear Colleague letters in March and April 2011 (US DOEd, 2011b; US DOEd, 2011a), was the first attempt by an entity of the US federal government to regulate quality and accountability in the distance education market. State authorization policy, within distance education, developed from the Higher Education Act of 1965, which established 'Title IV' policies and the academic quality requirements for a postsecondary school to receive federal student financial aid. Title IV regulations were concerned only with the on-campus course quality of 'traditional' postsecondary schools until October 2010 when the US DOEd decided to improve the 'integrity' of Title IV programs by amending the Higher Education Act to include distance education or 'online' programs (US DOEd, 2011b). The amendment was presented as:

> The State Authorization Regulation Chapter 34, § 600.9(c) - If an institution is offering postsecondary education through distance or correspondence education to students in a State in which it is not physically located or in which it is otherwise subject to State jurisdiction as determined by the State, the institution must meet any State requirements for it to be legally offering distance or correspondence education in that State. An institution must be able to document to the Secretary the State's approval upon request (WCET, March 5, 2012).

State educational regulations were decided at the individual state level, and states could decide to establish whatever scale or type of regulation they felt necessary to ensure educational quality within that state (US DOEd, 2012). Postsecondary schools providing distance education were expected to follow their respective state laws, but federal regulations had never mandated the step of obtaining permission to offer online courses from states where an institution might offer online courses, but did not consider themselves geographically located. Until the US DOEd introduced these regulations, institutions were expected to be in operational compliance with

individual state DOEds, but institutions did not have to prove operational compliance. After the US DOEd's state authorization policy, non-compliance with the Higher Education Act could be punishable by the loss of financial aid and the possible issue of cease-and-desist orders toward the school's distance education courses (Eduventures, 2011). The WICHE Cooperative for Educational Technologies (WCET), a leading distance education commission, argued that:

> the greatest weapons for state regulators may be in using the media to notify students in their state and policymakers in your state that your institution is out-of-compliance. Students could file lawsuits against institutions that have not received the proper local approval and did not notify the student (WCET, March 5, 2012, p. 2).

While these regulations were not directly enforced by the federal government and the US DOEd, they were a direct attempt to referee the distance education market and compel programs to gain state authorization if the program and the university wanted to continue receiving government funding.

State authorization policy was the first attempt by a government entity to enforce oversight of distance education and was met with legal challenges and legislative controversy. Two main interest groups in the for-profit postsecondary education market, the Association of Private Sector Colleges and Universities (APSCU) and the National Association of Independent Colleges and Universities (NAICU) challenged the regulations' legality on the grounds of intrusive government regulation. In addition, non-profit postsecondary institutions joined the private college associations to litigate against the new regulations (Kelderman, 2010). These coalitions were successful in court and gained a decision in July 2011 to 'vacate' the regulations of because the US Constitutional right to due process and the Negotiated Rulemaking Process that requires a proposed federal requirement to be posted for comment before being enacted (WCET, October 29, 2012; Eduventures, 2011). Lobbyist groups celebrated the win by "calling

the ruling ‘a major victory for innovation in higher education and an important answer to the department’s obvious overreach in this area’” (Field, 2011, paragraph 3). However, Richard Garrett, Managing Director at Eduventures noted that:

> the District Court ruled against the DOEd on lack of due process and did not address the substance of the [US]DOEd’s position on state regulation and distance learning. The fact that the court upheld the DOEd's stance on incentive compensation, misrepresentation and other aspects of state authorization, suggests that the DOEd is in a strong position to reassert its case. This court ruling is unlikely to be the end of federal involvement on this issue (Eduventures, 2011, paragraph 4).

The legality of state authorization policy was also debated in the US House of Representatives when Congresswoman Virginia Foxx of North Carolina introduced H.R. 2117 to repeal state authorization and “prohibit the Department of Education from overreaching into academic affairs and program eligibility under title IV of the Higher Education Act of 1965” (H.R. 2117, 2011). The repeal of state authorization was approved through a House committee panel vote that “fell along party lines” (paragraph 9) with Republicans voting to rescind the US DOEd’s rules (Montaño, 2011). The main Republican argument against state authorization was explained in Senator Michael B. Enzi of Wisconsin’s letter to Secretary of Education Arne Duncan in November 2010. Senator Enzi stated that:

> while some states may continue to show restraint in respecting the independence of higher education, we are concerned that other states could choose to use these regulations as an excuse to become deeply involved in setting course requirements, quality measures, faculty qualifications, and various mandates about how and what to teach (Field, 2010, paragraph 3).

While the US DOEd’s policy solution was rejected in the Federal Court of Appeals, the Department did intend to reissue state authorization regulations with the next reauthorization of the Higher Education Act (Poulin, 2014; Poulin, 2013; Cummings, 2012). In the meantime, many postsecondary schools closely examined individual state Departments of Education

authorization policies and brought their applications up-to-date in anticipation of the US DOEd re-implementing state authorization (Cummings, 2012). Distance education and state authorization featured in a variety of statutory and regulatory citations in the proposed Higher Education Act, but effectively required institutions to be authorized in each state in which they offer distance programs (Poulin, 2014). There were two proposed ways for an institution to be authorized in a state: (1) an institution could apply and be approved in each state, or (2) an institution could be part of a reciprocity agreement between its home state and the host state so the institution does not have to apply for individual approval (Poulin, 2014). In August 2013, a variety of stakeholders including state regulators, accrediting agencies, regional education compacts, and higher education institutions formed the National Council for State Authorization Reciprocity Agreements (NC-SARA) to streamline the process of state authorization and reduce the staff and fee costs for postsecondary institutions (NC-SARA, 2015). NC-SARA was a voluntary, state-level reciprocity agreement that relied on the home state of the institution offering an online program to approve the institution based on accreditation and financial stability as following the Council of Regional Accrediting Commissions' best practices guidelines (NC-SARA, 2015). If an accredited higher education institution was approved for SARA in the home state then the institution was able to offer its online programs to students in any other SARA member state (NC-SARA, 2015).

Quality Assurance Policy in Online Education

Online quality assurance through course design and instructor training was a heavily researched topic in online education. Quality assurance was applied not only to courses and instructors but to the programs to which the courses and instructors belonged, due to the larger policy regulations of Title IV in which federal financial aid funds were provided to students

enrolled at accredited institutions. To gain access to Title IV funds, an institution had to be accredited by a regional or national accrediting body recognized by the US Department of Education, and evaluated and approved by the institution's home state education regulator. This partnership of the US DOEd, a recognized accrediting body, and a state regulator was known as the "accountability triad" (NC-SARA, 2015, paragraph one). The evaluation process that went into determining if an institution was eligible for accreditation is central to quality assurance in online education because of accountability and best practices guidelines outlined for online education providers by organizations like the Council of Regional Accrediting Commissions (C-RAC). To aid accrediting bodies with evaluating online education programs, the C-RAC published its *Interregional Guidelines for the Evaluation of Distance Education* in 2011 (C-RAC, 2011). These guidelines listed nine items that, if proven by the institution in "actions, processes and facts," should assure online quality for consumers.

Table 2:
Interregional Guidelines for the Evaluation of Distance Education

1.	Online learning is appropriate to the institution's mission and purposes.
2.	The institution's plans for developing, sustaining, and if appropriate, expanding online learning offerings are integrated into its regular planning and evaluation processes.
3.	Online learning is incorporated into the institution's systems of governance and academic oversight.
4.	Curricula for the institution's online learning offerings are coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats.
5.	The institution evaluates the effectiveness of its online learning offerings, including the extent to which the online learning goals are achieved, and uses the results of its evaluations to enhance the attainment of the goals.

(table continues)

Table 2, continued

6.	Faculty responsible for delivering the online learning curricula and evaluating the students' success in achieving the online learning goals are appropriately qualified and effectively supported.
7.	The institution provides effective student and academic services to support students enrolled in online learning offerings.
8.	The institution provides sufficient resources to support and, if appropriate, expand its online learning offerings.
9.	The institution assures the integrity of its online offerings.

(C-RAC, 2011, p. 1-3)

Other educational entities, including regional education compacts such as the Southern Regional Education Board with their "Principles of Good Practice – The Foundation for Quality of Southern Regional Education Board's *Electronic Campus*" and advisory groups such as the Online Learning Consortium through their "Five Pillars of Quality Online Education" and *Quality Scorecard: Criteria for Excellence in the Administration of Online Programs* presented quality assurance or best practices guidelines focused on helping institutions develop their online programs through program, course, and faculty assessment and institutional accountability (SREB, 2012; OLC, 2015a; OLC, 2015b).

Summary

Regulation in online education is an ongoing process (Cummings, 2012; Poulin, 2013; Poulin, 2014). Policymakers at both the federal and state levels want to ensure that students received a quality education using online technology, especially with the rise of the competing for-profit higher education sector (Senate HELP Committee, 2012). To this end, several guideline documents were handed down to institutions from accreditors and federal and state

regulators to determine what criteria institutions and online programs should use, (C-RAC, 2011; SREB, 2012; OLC, 2015a; OLC, 2015b) but the question of how individual institutions and programs developed and implemented program review policies on their campuses was the main focus of this research.

Chapter Summary

For online programs, assessments were designed and implemented for programs to address general questions and the specifics of the academic field. To create a foundation for assessing online programs, this review of related literature examined existing literature dealing with how online programs were assessed previously, how benchmarking was used in higher education, and why accreditation guidelines and state approval regulations required quality assurance for online programs.

The studies examined established the current state of graduate education in both higher education and online education, and introduced case studies related to online graduate education showing how online graduate programs were previously been studied at individual institutions or as a comparison of one academic degree between multiple institutions. The review also examined how assessment was conducted in higher education and looked at several institutional directions that involved strategic plans and program reviews through benchmarking with peer institutions, and program and quality assurance rubrics that can be applied to courses and programs. The third section discussed the online environment as applied to course design, instructor training, and student market expansion including how quality course design and instructor training affected online programs highlighting the need for quality course design and student and instructor interest for an online courses and programs to be successful. The quality and success of an online program was important to the fourth section due to the current federal

and state regulatory policies and accreditation guidelines toward online education that include required measures of quality assurance and some type of program review for state program approval and federal financial support through Title IV.

Each of these areas needed to be reviewed to determine how assessment was applied to higher education and how online education programs and courses, university strategic plans, and government regulations affected student learning outcomes and program quality. The reviewed sections were separate and yet interwoven because for quality assurance: 1) a university needed a strategic plan and state and federal support to operate; 2) an academic program needed well designed and well taught courses to form the program; and 3) students needed a quality learning experience in order to become successful professionals who reflect well on the program, institution, and federal and state programs which supported higher education.

CHAPTER III

METHODS

Accrediting and approval bodies such as regional accreditors, state higher education departments, and regional education boards required quality assurance measures for online education and guidelines for determining student learning outcomes, but did not outline how an institution should adopt and implement program assessment policies as a regular quality improvement measure (SREB, 2012; US DOEd, 2012; C-RAC, 2011). From an administrative perspective, either as an institutional administrator, state education regulator, or state policymaker, a more robust assessment process for online programs would assist the institution in meeting program reporting and accreditation standards. This study formed an understanding of the online program assessment and assessment processes within higher education, and how program review processes were adopted and implemented through institutional policies. The sections in this chapter outlined the methods that were used to collect the data and perform the appropriate analytical processes needed to answer the research questions.

The study design collected data primarily through an electronic survey using quantitative questions and secondly, used document content analysis through comparing the processes of the benchmarked institutions and the quality assurance documents provided by regional and national accrediting agencies. The study sample was 194 institutions, consisting of 78 online programs and 116 on-campus programs, classified as very high, high, or research universities by the Carnegie Classifications and which offered online masters programs focusing on preparing students for positions in educational leadership. Study results examined the process of assessment at the surveyed institutions, if there was any difference between online and on-campus program reviews and assessment processes, and if the assessment process showed

compliance with the best practice guidelines established by educational entities for online education programs.

Design and Instrumentation

The research design was a between-methods, mixed-method using quantitative methods in the form of one electronic, online survey sent to 194 benchmarked institutions and documented collection and content analysis to determine the similar themes surrounding quality assurance in online education (Teddlie & Tashakkori, 2009). In between-method designs, data were collected using two or more data instruments with at least one quantitative and one qualitative instrument per study, so that a researcher could use a survey to collect quantitative data, and secondary document collection for qualitative data (Oleinik, 2011; Teddlie & Tashakkori, 2009). A between-methods research design provided a more comprehensive data collection that offered better validity and established a causal relationship between the independent and dependent variables identified in the research question so a more reliable research answer is produced (Teddlie & Tashakkori, 2009).

The first research instrument was an electronic quantitative survey that allowed quick, efficient data collection on how the institutions reviewed their online educational leadership or administration program, what assessment techniques or tools the participant perceived as most effective, and if program reviews were required by and reported to their institutional administrations. The survey (Appendix E) took approximately 10 to 15 minutes to complete with most questions being multiple-choice, Likert-type scale, and some yes or no questions with one open-ended, optional qualitative question at the end to determine if respondents had any program review improvement they would like to see implemented at their institutions (Table 3). Prior to distribution, the survey was approved by the University of Arkansas Institutional Review Board

(IRB). Once the survey was IRB approved (Appendix C), it was distributed to the identified institutions (Appendix A) via individual emails to participants (Appendix B) with links to the survey in the University of Arkansas' licensed Qualtrics software. The Qualtrics software survey was open for two-weeks and was restricted so that participants were only able to respond once.

The survey operated on the UA's server so that the participant responded directly to the survey on the Qualtrics site and did not complete the survey through email or a personal download. Distributing the survey through individual email requests and Qualtrics ensured that only the benchmarked participants completed the survey and minimized possible survey corruption (Couper, 2004). The online survey was relatively low-cost as the hardware and software for the survey were already in place, and it was easily distributed and responses received almost immediately after submission. The online survey method also allowed for greater respondent control, and provided for more complex questioning through the branching or routing of previous question responses so faculty involved in on-campus, online, and mixed course delivery methods were surveyed (Couper, 2004).

The research questions, as well as both internal and external validity, played an important role in the research design. Validity has been described as the confidence that a researcher had in the research design, meaning that the research design could answer through the research instrument and data collection and analysis what it intended to answer from the research question (Oleinik, 2011; Teddlie & Tashakkori, 2009). For this study, the research validity was assured through multiple reviews of the survey by the researcher and dissertation committee members to determine if the survey questions were understandable for online administrators and were reliable in collecting the needed data.

The secondary research design instrument was a document collection for content analysis that used assessment guidelines from regional and national accreditation agencies, non-governmental educational entities, and governmental policies of quality assurance toward online education from the US Department of Education (SREB, 2012; OLC, 2015a; OLC, 2015b; C-RAC, 2011). Document content analysis allowed the researcher to compare the online program quality assessment documents collected during the study, determine the common themes within the documents, and determine how a policy process could then be integrated into the institution and required of online graduate programs for the quality assurance requirement demanded by accreditors and state level regulators.

Verification Questions

Participant verification was confirmed through responses to survey question two. The initial survey question was simply an informed consent question in which respondents agreed to participate in the study, if the respondent selected "no" to the question he or she was immediately exited from Qualtrics. The second question reflected the institution's Carnegie Classification with three possible responses "Research University – Very High Activity," "Research University – High Activity," "Research University," and "Other." Since the study examined only very high, high, and research institutions, if a participant selected "Other" the survey response was removed from the results analysis. The third, fourth, and fifth questions were benchmarking questions that identified the regional accreditation of the respondent institutions, showed that the institutions had generally large to medium student populations which were expected to be between 20,000 and 40,000 undergraduate and graduate students, and determined how many graduate students were enrolled in the online masters programs at the

universities. This information formed a descriptive report of the surveyed institutions in the final results.

Table 3:
Survey Questions

Survey Question Number	Purpose of Question	Data Type	Literature Reference
6	Existence of program goals (Quality Assurance Criteria)	binary	SREB (2012); C-RAC (2011)
7	Areas influenced by program goals (Quality Assurance Criteria)	ordinal	SREB (2012); C-RAC (2011)
8	Determine why program goals are not developed (Institutional Process)	categorical	SREB (2012); C-RAC (2011)
9	Existence of program review (Quality Assurance Criteria)	binary	SREB (2012); C-RAC (2011)
10	Frequency of program reviews (Institutional Process)	ordinal	SREB (2012); C-RAC (2011)
11	Review requirements (Institutional Process)	categorical	SREB (2012); C-RAC (2011)
12	Determine why reviews are not performed (Institutional Process & Quality Assurance Criteria)	categorical	SREB (2012); C-RAC (2011)

(table continues)

Table 3, continued

18	Assessment Techniques	binomial	Volkwein (2010a, 2010b); Stassen, Doherty, & Poe (2001)
19	Assessment Technique Determination	categorical	Volkwein (2010a, 2010b); Stassen, Doherty, & Poe (2001)

Population and Sample

A single graduate program field was selected to gain a faculty administrator perspective on program review and assessment practices. Masters programs focusing on educational leadership or administration were selected because:

1) programs focused on educational leadership or administration that prepare administrators for k-12 and post-secondary careers would be expected to have continual assessment practices, program review processes, and accreditation reviews as applicable, and
2) there was a more extensive masters level offering nation-wide than doctoral programs.

The institutions included in the sample were selected because they:

1) offered masters programs either online or on-campus with degree keywords in educational leadership, educational administration, school education, or professional educator focused on preparing students for k-12 and post-secondary administrative careers;
2) were non-profit, four-year institutions classed by the Carnegie Classifications as research (Carnegie Classifications, 2015a), high (Carnegie Classifications, 2015b), or very high (Carnegie Classifications, 2015c) research levels;

3) were all regionally accredited, but were not accredited by the same bodies, nor were all accredited by the national educational accrediting body, National Council for the Accreditation of Education Preparation (NCATE, 2015).

To determine the sample, the researcher selected all non-profit, four-year institutions from the Carnegie Classification search site, and individually sorted the 286 initial schools by program offerings to a final list of 194 schools (Appendix A), which met the above criteria. A single academic degree program, master of educational leadership or educational administration, was chosen to gain a program leader perspective of assessment requirements at the institutions and determine what institutional level support was given or was needed to adopt and implement a program self-study. The decision to use a single academic degree program within the educational leadership or administration field was so the survey respondents had a consistency in academic discipline and so the participating faculty provided their opinions based on their experiences in their own institution and their professional knowledge of the field (Ewell, Paulson, and Kinzie, 2011). The study sample included a mixture of online and on-campus programs that provided a comparison between the assessment processes, techniques, and improvement plans required and implemented by the graduate programs.

Collection of Data

For the research, the data collection strategy focused on the previously discussed electronic survey and on secondary document collection. The majority of data was collected through a quantitative survey distributed to the 194 postsecondary institutions listed in Appendix A. The survey participants were administrators and faculty members in masters programs focused on educational leadership or administration with titles such as program or graduate coordinator, department chair, or professor depending on the institution's structure. Participation

request emails were sent out to the identified participants on September 9th, 2015 with further announcement emails sent out on September 10th and 11th, 2015 (Appendix B) to newly identified participants who were recommended as alternative participants from the original group. Survey distribution began on September 14th, 2015 at 7:30am Central Standard Time via the UA provided Qualtrics software (Appendix B). Some participants identified in the original group recommended alternate program representatives after the survey had been distributed so a separate survey participation request email was sent to these new participants from Qualtrics between September 15th and 23rd, 2015 (Appendix B). Email reminders were sent out on September 16th, 21st, and 24th, 2015 to participants who had not completed the survey (Appendix B). The survey closed on Friday, September 25, 2015 (Appendix B). Though Dillman, Phelps, Tortora, Swift, Kohrell, Berck, and Messer (2009) found that response rates "tend to be lower for Internet surveys than for other modes" (p. 2), these email reminders increased response rates to those similar to Dillman's which ranged from the response rate of 12.7% obtained by Dillman, et.al. (2009) to the 58% response rate obtained by an earlier Schaefer and Dillman study in 1998 in which they sent email surveys to faculty at Washington State University (Dillman, 2007). Dillman (2007) contended that there were a variety of techniques to improve response rates and a variety of causes for differing response rates including length of survey, delivery method, and question type. A researcher should aim for a high response rate, as high as 70%, with the understanding that depending on participants, contact techniques, and survey content the response rates might be lower. However, for surveys with lower response rates it was important that the researcher applied the results to the survey participant sample, but not to the entire population (Dillman, 2007).

Data collection in relation to the four research questions was that the first three questions were answered according to quantitative responses in the electronic survey and focused on examining institutional review processes through a case study of online masters of educational leadership or administration programs. The fourth question was answered using public policy focused document collection and content analysis of the assessment and best practices guidelines from regional and national accreditation agencies, non-governmental educational entities, and governmental policies of quality assurance toward online education from the US Department of Education (SREB, 2012; OLC, 2015a; OLC, 2015b; C-RAC, 2011).

Data Analysis

Within the research design, the data collection strategies enabled the researcher to collect the needed data, but then the data required analysis to discover the relationships between the independent and dependent variables and determine the answer to each research question (Teddlie & Tashakkori, 2009). For the study, independent variables included the sample institutions and their institutional characteristics, including Carnegie Classification, institutional and program level enrollment numbers, and the program review structures such as how frequently the program was reviewed while dependent variables included the assessment techniques and program review processes, such as how were reviews supported and performed at each institution. Questions one through three were answered through the data collected by the electronic survey (Appendix E) distributed to participants and the fourth question was answered through a combination of the analyzed data from questions one through three, and the document analysis of quality assurance and assessment guidelines of governmental and non-governmental educational actors. IBM's SPSS Statistics Software was the data analysis tool used to determine

the descriptive statistics and cross-tabulation with chi-squared analysis needed to answer the research questions.

Research Question One: How do research oriented universities assess their online masters programs focusing on educational leadership?

- *Who performs program reviews and where are results reported within the institution and to external entities?*
- *What assessment techniques do the sample universities use?*

The first research question focused on discovering the assessment processes used by the sample universities, including the mechanics of who performs program reviews, and how results are reported. This question also looked at the assessment techniques used to collect learning outcome data for program reviews and tried to determine how program goals and learning outcomes were established. Data collected from the survey determined descriptive statistics including mean and standard deviations so that the results were generalized in areas of program review frequency, why program reviews were performed, and who was responsible for reviewing the program. Questions two and three verified that the institutional responses were relevant to the research question and questions four, five, and six provided comparison category data for institutional accreditation and institution student and program sizes. Question seven provided the first directional question asking if the program had identified learning goals and objectives as a baseline for program reviews which were included in the quality assessment guidelines by SREB (2012) and C-RAC (2011), with the survey branching out to different sets of questions depending on if the answer was ‘yes’ or ‘no’. Questions eight and nine questioned how learning goals and objectives were tied to the program or, if no learning goals had been established, why not. Question 10 was another directional question asking if the program had participated in a

program review and branching into different questions depending on the 'yes' or 'no' response. Participant responses to questions 11, 12, 13, 18, and 19 answered how often reviews were performed, why the program participated in program reviews, and who or which office performed program reviews.

The use of assessment techniques section of the research question was answered primarily by question 17 on the electronic survey. Frequency distribution based on survey data showed if the different assessment techniques used by the surveyed institutions, such as if the institutions used predominately student focused techniques, for example, course completion surveys, interviews, essays, are more used than faculty or alumni focused program review techniques, or if there was a mixture of techniques. Survey data was used to find descriptive statistics including mean and standard deviation to determine which listed assessment techniques were most frequently used, and which techniques are not used according to the respondents' perceptions.

Research Question Two: What assessment techniques do the sample universities perceive as have been most effective for their online educational leadership program reviews?

Building off research question one in which descriptive results showed which student assessment techniques were most popular with the programs, research question two used cross-tabulation to show which techniques were the most frequently used, how frequently a program used an assessment tool, and if program administrators perceived the techniques to be effective measures of assessment. The question was answered by survey question 17. Both analysis of variances (ANOVAs) were run to show if a difference existed between the program groups and which techniques the respondents frequently used, and which the respondents perceived as most effective. Chi-squared analyses were also run to show if there was any statistical significance

between the programs and which techniques the respondents frequently used, and which the respondents perceived as most effective. The answer to this question relied on results from survey question 17 that listed the assessment techniques identified in the previous literature references with the ANOVA and chi-squared analysis of how frequently each technique was used, and if the respondent perceived the technique to be an effective measurement. Question 17 results were used to answer research question two by building on the previous question one answer and determined if the most frequently used techniques were also perceived by respondents as effective measurements. Question 16 contributed to how the sample programs determined which assessment techniques were used for measuring learning outcomes through descriptive statistics and cross-tabulation between who determined which techniques were used and the frequency and effectiveness of the technique implementation.

Research Question Three: How are the program review results used, how do programs with the online educational leadership programs perceive that program reviews are integrated into institutional policy, and who do programs perceive the reviews benefit?

Research question three focused on the policy structure of research institution and how or if the results are used. To determine an answer, survey data from questions 14, 15, 20, 21, and 22 was analyzed based on frequency distribution, descriptive statistics, including mean and standard deviation, and chi-squared analyses to determine relationships and any statistical significance between variables. The mean and standard deviation generalized the results to show the distribution of program reviews between the institutions and accreditation agencies, how the reviews were tied to the institution through institutional policy or external requirement, if reviews were supported within the program and institution, and who respondents perceived as benefitting the most from program reviews. Cross-tabulations were run to determine the

relationship between the individual program's variables, including accreditation levels, enrollment size, and frequency of program reviews, and if program reviews were required by the institutions, how programs reviews were tied to institutional policy, who reviewed the programs, and who received the reports. Chi-squared analysis was used to determine if the relationships between how verified institutions tied program reviews to policy; strategic plans and goals; if they were supported by the administration and faculty; if the respondents perceived program reviews as beneficial and, if so, who benefited most from the reviews are statistically significant.

Research Question Four: Based on the findings, what quality assurance policies in assessment processes are needed to ensure regular program reviews that can lead to program improvement?

This question's answer required a combination of the analyzed data from research questions one through three, a qualitative document analysis of quality assurance and assessment guidelines of governmental and non-governmental educational actors, and a review of the public policy cycle theoretical framework through an agenda-setting policy lens. Survey question 23 allowed for an open-ended, optional response to determine if there were qualitative content analysis themes that emerged from participant responses and contributed to research question four. The purpose was to determine if programs and, by extension, the institutions were properly meeting the quality assurance guidelines requested of online education. The quality assurance documents used in question four included accountability and best practices guidelines for online education provided by organizations like the Council of Regional Accrediting Commissions' "Interregional Guidelines for the Evaluation of Distance Education" in 2011 (C-RAC, 2011), the Southern Regional Education Board with their "Principles of Good Practice – The Foundation for Quality of Southern Regional Education Board's *Electronic Campus*" and advisory groups

such as the Online Learning Consortium through their "Five Pillars of Quality Online Education" (SREB, 2012; OLC, 2015a).

Chapter Summary

The purpose of this study was to form an understanding of the online program assessment and assessment processes within higher education. This chapter supported the purpose of the research by describing the quantitative and qualitative methodological tools that were used to answer the study's research questions. Although the focus of the study was on quality assurance, the research also determined if there was a relationship between the institutional characteristics and the dependent variables identified as assessment techniques and the interwoven pieces of the program review process.

Descriptive statistics and frequency distribution were used in question one to determine and the mean and standard deviations of responses in the survey data and the frequency of use of the assessment techniques. ANOVA and chi-squared analysis were used in question two to show the differences and any statistical significance between the programs respondents and how frequently each technique was used and if the respondent perceived the technique to be an effective measurement. Descriptive statistics, frequency distribution, and chi-squared analysis calculations were used in question three as a comparison of responses between the dependent and independent variables to determine what relationships exist between variables and if the relationships are statistically significant. The fourth question was a compilation of the statistics results from questions one through three and a document analysis of quality assurance guidelines for online education to create a better understanding of program reviews and how their results are used within institutions. The goal of the research was to learn more about the program

reviews and assessment techniques used in online education, and if program reviews were integrated into institutional policy to establish quality assurance standards.

CHAPTER IV

RESULTS

Introduction

In higher education, quality assurance processes are required for courses and instructors, as well as programs. These review processes enable the institution to be approved for specialized and regional accreditation and Title IV student financial aid funds. From an administrative perspective, either as an institutional administrator, state education regulator, or state policymaker, a more robust assessment process for online programs has assisted institutions in meeting program reporting and accreditation standards. Both on-campus and online programs undergo review processes, but the question of this research was to determine how the review processes operated at various public, four-year institutions, how the review processes were similar or different, and if the processes followed a best practices recommendation for online programs. Chapter IV provided the results for the study using responses generated by an electronic survey of both on-campus and online masters programs in educational leadership or administration. The chapter includes a summary of the study and survey responses, data analysis related to the four research questions, and a chapter summary.

Summary of the Study

The purpose of the study was to form an understanding of the online program reviews and assessment processes in higher education, and how program review processes were adopted and implemented through institutional policies. Literature areas supporting the research included: the current state of graduate education and online graduate education in the UA and how graduate education contributed to higher education; assessment and benchmarking practices in

higher education and how online graduate programs were reviewed for quality improvement purposes; and online education and how it has changed the higher education traditional model in course design, instructor training, pedagogy, and the student recruitment market; and finally, the federal, state, and accreditation policies that pushed higher education and online education to adopt and implement a continual improvement process through program review for quality assurance. Each of these areas needed to be reviewed to determine how assessment was applied to higher education, and how online education programs and courses, university strategic plans, and government regulations affected student learning outcomes and program quality.

The study looked at institutions classified as very high, high, or research universities by the Carnegie Classifications and which also offered online masters programs focused on preparing students for positions in educational administration. The study used an electronic survey and content analysis through institutional policy and quality assurance documents, to develop a recommendation for an institutional level quality procedure for online programs to assure that reviews were performed. Academic degree programs, usually awarding a masters of educational leadership or education administration, were chosen to gain a perspective of assessment and program review requirements and to determine what institutional level support was provided to programs.

The research and conclusions contribute to the academic fields of online education, quality assurance, and public policy by determining common review processes for graduate-level online programs. The study could influence: 1) the ability of policy makers to support online education with confidence in the quality of online programs, 2) how online administrators ensure regular review of their programs, and 3) accreditation and state regulation of online education since a program will be able to show its quality assurance process and outcomes. With regular

review processes for learning outcomes in place, stakeholders in public policy and higher education can show that students received the same level of education through either an online or an on-campus course delivery method and students can feel confident in the education they receive. From an administrative perspective, either as an institutional administrator, accreditor, state education regulator, or state policymaker, a more identifiable assessment process for online programs assists the institution in meeting program reporting and accreditation standards and in determining student satisfaction with the program. Quality assurance reviews also encourage society to continue to support financial investment in higher education, and employers have more confidence in hiring new graduates of online programs. Identifying the strengths and weaknesses in an online program through learning outcome assessment, and adjusting the program accordingly, leads to higher student enrollment, retention, and graduation rates, and also leads to an increase in employment rates for new graduate as the reputation of the program grew.

The research design was a between-methods, mixed-method using quantitative methods in the form of one electronic online survey sent to 194 benchmarked institutions, and documented collection and content analysis to determine the similar themes surrounding quality assurance in online education (Teddlie & Tashakkori, 2009). The survey (Appendix E) took approximately 10 to 15 minutes to complete with most questions being multiple-choice, Likert-type scale, and some yes or no questions with one open-ended, optional qualitative question at the end to determine if respondents had any program review improvements they would like to see implemented at their institutions (Table 3). Document collection was used as a secondary research design instrument for content analysis so that assessment guidelines from regional and national accreditation agencies, non-governmental educational entities, and governmental policies of quality assurance toward online education from the US Department of Education

could be examined in the research results (SREB, 2012; OLC, 2015a; OLC, 2015b; C-RAC, 2011).

Survey Participation Results

Following the timeline outlined in Chapter Three, on September 14th, 2015, the announcement email was sent to the 194 identified participants. Of the 194 contacted, three participants responded that their master's programs were inactive and did not participate, 22 participants responded that they would fill out the survey when it was distributed, and 22 suggested alternate program faculty members to participate in the survey. The initial survey distribution email was sent to the 191 remaining participants. Reminder emails were sent out on September 16th, 21st, and 24th (Appendix B) to participants who had not completed the survey. After the initial survey distribution, 10 participants were identified as alternate program representatives so survey participation request emails and subsequent reminder emails were sent to these new participants from Qualtrics between September 15th and 23rd, 2015 depending on when they were added to the participant list (Appendix B).Correspondence emails were sent between the primary researcher and participants to answer questions regarding the survey or the research almost every day. The survey was closed on September 25th at 5:00pm Central Standard Time with a total of 128 surveys started and 113 completed surveys resulting in a response rate of 128 of 191 (67%) for all surveys and 113 of 191 (59%) of completed surveys.

Institution Results

Of the responding institutional participants, 57 of 128 (45%) were identified as representing a 100% online master's program, and 71 of 128 (55%) were on-campus or hybrid programs that required students to attend meetings at a physical location. The study focused on

institutions classified by the Carnegie Classification as having very high, high, and research classifications so the participants selecting 'Other' were removed from the results. The cross-tabulation in Table 4 provided the reported Carnegie Classification distribution, showing that the online versus on-campus program respondents were equal in Very High Research and almost equal in respondents for the High Research category.

Table 4:
Carnegie Classifications

	Research University - Very High Activity	Research University - High Activity	Research University	Total
Online	22	14	18	54
	40.70%	25.90%	33.30%	100.00%
On Campus	22	17	23	62
	35.50	27.40	37.10	100.00
Total	44	31	41	116
	37.90	26.70	35.30	100.00

As shown in Figure 5, the distribution of the respondents by their Carnegie Classifications highlighting the information that the largest number of online programs were from institutions with Very High Research activity and the largest number of on-campus programs were from Research institutions.

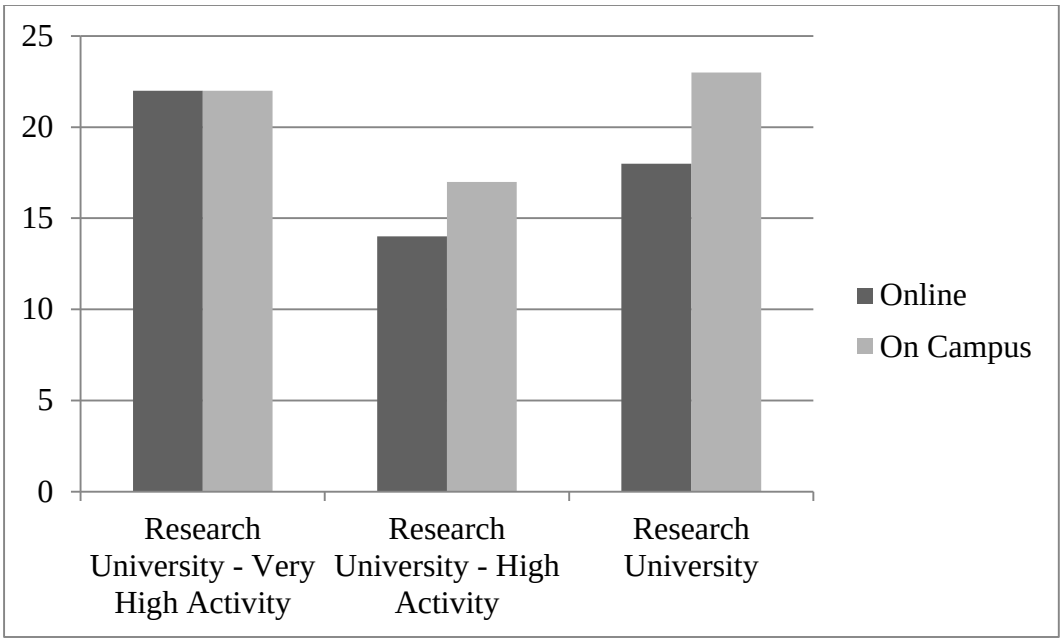

Figure 5:
Carnegie Classifications Distribution

As shown in Table 5, the majority of respondents in bother online and on-campus programs were publicly supported. The majority of these institutions were located in states represented by the Higher Learning Commission and the Southern Association of Colleges and Schools (Table 6).

Table 5:
Type of School

		Public	Private	Total
	Online	45	9	54
		83.30%	16.70%	100.00%
	On Campus	44	17	61
		72.10	27.90	100.00
Total		89	26	115
		77.40	22.60	100.00

Table 6:
Regional Accreditation

	MSACS	NEASC	HLC	NAC	SACS	WASC	Total
Online	8	0	18	2	19	5	52
	15.40%	0.00%	34.60%	3.80%	36.50%	9.60%	100.00%
On Campus	9	1	15	3	25	4	57
	15.80	1.80	26.30	5.30	43.90	7.00	100.00
Total	17	1	33	5	44	9	109
	15.60	0.90	30.30	4.60	40.40	8.30	100.00

Table 7 shows the distribution of institutional-level student enrollment between the online and on-campus programs with approximately one-third of respondents enrolling between 10,000-19,000 students. While the largest respondent group for both program types was 10,000-19,999, it was interesting to note that the second largest group for online programs has over 40,000 students and the second largest group for on-campus programs has 20,000-29,999 with the two largest categories 30,000-39,999 and over 40,000 being the fourth and fifth rank in the on-campus row results.

Table 7:
Student Attendance (Undergraduate and Graduate)

	Over 40,000	30,000 - 39,999	20,000 - 29,999	10,000 - 19,999	Under 10,000	Total
Online	13	10	11	14	6	54
	24.10%	18.50%	20.40%	25.90%	11.10%	100.00%
On Campus	7	7	17	22	8	61
	11.50	11.50	27.90	36.10	13.10	100.00
Total	20	17	28	36	14	115
	17.40	14.80	24.30	31.30	12.20	100.00

Tables 8 shows the distribution of program-level student enrollment between the online and on-campus respondents with the overall distribution being highest at under 50 and the second

highest being over 150. For online programs, almost 30% of respondents enrolled over 150 students compared to 14.50% of on-campus programs.

Table 8:
Number of Students in Master's Program

	Over 150	126 - 150	101 - 125	76 - 100	50 - 75	Under 50	Total
Online	16	4	4	9	12	9	54
	29.60%	7.40%	7.40%	16.70%	22.20%	16.70%	100.00%
On Campus	9	7	4	9	11	22	62
	14.50	11.30	6.50	14.50	17.70	35.50	100.00
Total	25	11	8	18	23	31	116
	21.60	9.50	6.90	15.50	19.80	26.70	100.00

Overall, survey respondents were from medium to large public institutions within the SACS and HLC accreditation regions, and enrolled a varying number of students with most online programs enrolling over 150 students and most on-campus programs enrolling under 50 students.

Data Analysis

Research Question One: How do research oriented universities assess their online masters programs focusing on educational leadership?

- *Who performs program reviews and where are results reported within the institution and to external entities?*
- *What assessment techniques do the sample universities use?*

Survey results showed that a majority of respondents do participate in program reviews, 95% of online programs and 84% of on-campus programs answered 'yes,' and an overall total of

11% answered ‘no.’ Table 9 shows the program review distribution between online and on-campus programs.

Table 9:
Program Review Participation

	Yes	No	Total
Online	52	3	55
	94.50%	5.50%	100.00%
On Campus	52	10	62
	83.90	16.10	100.00
Total	104	13	117
	88.90	11.10	100.00

Table 10 shows that the programs had similar response rates when respondents were asked if their programs had established overarching or program-wide goals, with most institutions answering that their program curriculum, course design and content, and institutional strategic goals were tied to their program-wide learning goals and objectives. For programs responding that they did not have learning goals and objectives, the most selected answer was that the ‘program functions without needing goals and objectives.’

Table 10:
Program-wide Learning Goals and Objectives

	Yes	No	Total
Online	52	2	54
	96.30%	3.70%	100.00%
On Campus	57	5	62
	91.90	8.10	100.00
Total	109	7	116
	94.00	6.00	100.00

Table 11 shows the results of how learning goals and objectives are tied to programs, with both online and on-campus programs reporting that program curriculum designated as “1 - definitely

yes" is the strongest consideration with course design and content and institutional strategic goals second and third.

Table 11:
Learning Goals and Objectives

	Online			On Campus		
	M	SD	Range	M	SD	Range
Program Curriculum	1.12	0.38	2	1.08	0.28	1
Course Design and Content	1.25	0.52	2	1.21	0.58	3
Institutional Strategic Goals	1.58	0.80	2	1.69	0.72	3

Cross-tabulation in Table 12 provides a distribution of how often the participant programs are reviewed with the overall high being every seven years and the low being every three years. By delivery method, for online programs, the high is every five years with the low being every three years and for on-campus programs, the high is every seven years with the low being every year. Several programs, both online and on campus, responded that they had multiple review cycles as required by their institution, state higher education entity, and accreditor with a majority reporting annual institutional level reviews and then a longer cycle of 5-10 years for their state higher education entity and accreditors.

Table 12:
Frequency of Program Reviews

	7 Years	5 Years	3 Years	Every Year	Every 6 Months	Total
Online	14	21	4	8	0	47
	29.79%	44.68%	8.51%	17.02%	0%	100.00%
On Campus	24	14	7	5	0	50
	48.00	28.00	14.00	10.00	0	100.00
Total	38	35	11	13	0	97
	39.18	36.08	11.34	13.40	0	100.00

Table 13 shows that for both online and on-campus programs, reviews were performed mainly as part of an accreditation requirement. For programs responding that they did not participate in program reviews, the most frequently selected response was that program reviews were ‘not required by the institution or the accrediting agency.’ Program respondents who selected ‘other’ provided answers for why program reviews were performed, including that it was part of their state higher education requirement for program approval and that they used program reviews for continual quality improvement to benefit the programs.

Table 13:
Why Are Review Performed

	Internal requirement of your department	Institutional requirement	Accreditation requirement	Total
Online	15	30	43	88
	17.05%	34.09%	48.86%	100.00%
On Campus	11	27	44	82
	13.41	32.93	53.66	100.00
Total	26	57	87	170
	15.29	33.53	51.18	100.00

For both online and on-campus programs, a majority of programs reviews were performed by the program’s faculty and staff as a self-review (Table 14). Internal entities and parties external to the institution also perform or participate in program reviews. The most common responses for the departments external to the program that performed reviews were assessment and institutional research offices, dean’s offices, provost’s offices, and external reviewers sent into the program by state higher education entities and specialized accreditors such as Council for the Accreditation of Educator Preparation (CAEP).

Table 14:
Who Performs Reviews for Online Programs

	Self-review by program faculty and staff	Internal Entity	Third Party – External to Institution	Total
Online	45	18	11	74
	60.81%	24.32%	14.87%	100.00%
On Campus	34	13	12	59
	57.63	22.03	20.34	100.00
Total	79	31	23	133
	59.40	23.31	17.29	100.00

Table 15 shows that, for both online and on-campus programs review, results are almost always provided as internal information to program faculty and staff. For online programs, reporting review results to other internal entities was the second highest response with accreditation agencies and state higher education departments ranked third and fourth, though all possible responses received high results from the ‘most of the time’ and ‘always’ categories. For on-campus programs, reporting review results to an accreditation agency was the highest response after program internal information with internal entity and state higher education department receiving respectively ‘most of the time’ and ‘sometimes’ results. For both online and on-campus, sending review results to a third party outside of an accreditation agency and state higher education department received the lowest responses with ‘rarely’ for online and ‘rarely’ to ‘never’ for on campus.

Table 15:
Where Completed Reviews are Reported

	Online			On Campus		
	M	SD	Range	M	SD	Range
Program faculty and staff as internal information	4.66	0.91	4	4.71	0.63	3
Internal Entity	4.55	1.16	4	4.28	1.35	4
Accreditation Agency	4.17	1.36	4	4.52	0.99	4
State Higher Education Department	3.85	1.46	4	3.00	1.62	4
Third Party - External to Institution	2.20	1.41	4	1.61	0.99	3

Table 16 describes how assessment techniques used by programs were determined with both online and on-campus programs identifying accreditation guidelines as the first consideration in designing assessments for the program. Internal institutional guidelines and faculty preferences were second and third in results for both program types, with comparisons to benchmarked institutions the last consideration of both programs types. Three programs, one online and two on campus, reported that the programs adopted a set of research-based standards for their assessments, including the Educational Leadership Constituent Council Standards and the Interstate School Leaders Licensure Consortium Standards.

Table 16:
How Assessment Techniques Are Determined

	Accreditation guidelines	Faculty preferences	Benchmarked institutions	Internal Institutional guidelines for all programs	Total
Online	42	17	11	23	93
	45.16%	18.28%	11.83%	24.73%	100.00%
On Campus	36	14	4	14	68
	52.94	20.59	5.88	20.59	100.00
Total	78	31	15	37	161
	48.45	19.25	9.32	22.98	100.00

Based on the survey results of the assessment technique matrix, tables 17 and 18 show the assessment techniques that were used by the sample universities and how frequently they were used. Based reported frequency, the assessment techniques used most often by online programs were: institutional data including growth rates, student GPAs, and retention rates; course completion surveys; and classroom assignments. The three least frequently used techniques were faculty questionnaires, alumni interviews, and faculty focus groups. For on-campus programs, the most often used assessment techniques by reported frequency were classroom assignments, institutional data, and portfolios. The three least used techniques were the same as the online programs, but in a different order faculty focus groups, alumni interviews, and faculty questionnaires.

Table 17:
Which Assessment Techniques Are Used by Programs by Frequency Distribution

	Online		On Campus	
	Yes	No	Yes	No
Institutional data (ex. growth rates, student gpa, retention rates)	93.18%	6.82%	80.00%	20.00%
Course Completion Survey	75.51	24.49	74.36	25.64
Classroom assignments	66.67	33.33	82.50	17.50
Comprehensive exams	65.96	34.04	56.41	43.59
Student questionnaire	64.58	35.42	65.79	34.21
Student Interviews	62.50	37.50	47.37	52.63
Portfolios	60.42	39.58	77.50	22.50
Student Program Exit Survey	58.33	41.67	61.54	38.46
Alumni surveys	57.14	42.86	55.26	44.74

(table continues)

Table 17, continued

Course exams	56.25	43.75	55.26	44.74
Essays	56.25	43.75	43.24	56.76
Student Focus Groups	52.08	47.92	50.00	50.00
Presentations	51.06	48.94	55.26	44.74
Faculty Interviews	41.67	58.33	27.78	72.22
Employer surveys	38.30	61.70	47.37	52.63
Faculty Focus Groups	25.53	74.47	22.22	77.78
Alumni interviews	23.40	76.60	23.68	76.32
Faculty questionnaire	19.15	80.85	26.32	73.68

Table 18 shows which the assessment techniques were perceived by respondents as the most frequently by the programs. Online programs were, in order of most frequently used by participant perception, institutional data including growth rates, student GPAs, and retention rates; portfolios; and course completion surveys. The three least used techniques were faculty focus groups; faculty questionnaire; and alumni interviews. For on-campus programs, the most frequently used assessment techniques were portfolios; classroom assignments; and course completion surveys. The three least frequently used techniques by respondent perception were the same as the online programs, but in a different order: faculty questionnaires, faculty focus groups, and alumni interviews.

Table 18:
Which Assessment Techniques Are Used Most Frequently by Programs

	Online			On Campus		
	M	SD	Range	M	SD	Range
Institutional data (ex. growth rates, student gpa, retention rates)	4.19	0.95	4	4.32	1.08	4
Portfolios	4.10	1.27	4	4.53	0.97	4
Course Completion Survey	4.05	1.37	4	4.34	1.17	4
Comprehensive exams	3.97	1.31	4	3.88	1.62	4
Classroom assignments	3.89	1.33	4	4.38	0.79	2
Student Program Exit Survey	3.67	1.30	4	4.25	1.32	4
Essays	3.56	1.27	4	3.62	1.40	4
Course exams	3.38	1.36	4	3.61	1.37	4
Student Interviews	3.30	1.40	4	3.23	1.18	4
Presentations	3.26	1.55	4	3.64	1.32	4
Student questionnaire	3.11	1.41	4	4.13	1.16	4
Alumni surveys	3.24	1.27	4	3.65	1.52	4
Faculty Interviews	2.93	1.46	4	2.91	1.69	4
Student Focus Groups	2.83	0.96	3	2.78	1.28	4
Employer surveys	2.77	1.51	4	3.10	1.59	4
Faculty Focus Groups	2.67	1.49	4	2.47	1.65	4
Faculty questionnaire	2.65	1.69	4	2.65	1.62	4
Alumni interviews	2.33	1.28	4	2.18	1.19	4

Other assessment techniques reported as used by both online and on-campus programs in ‘other’ categories were state licensure and certification exam results and internship assessments. These

assessment techniques were reported as almost always used by the programs. The chi-squared analyses for question one revealed no significant statistical relationship between the online and on-campus programs and the frequency of use of the assessment techniques (Appendix D) except for the student questionnaire, which returned a chi-squared result of 0.50 showing that on-campus programs are more likely to assess students using a student questionnaire than online programs (Appendix D).

Answer Summary

Survey results showed that a majority of programs do participate in program reviews with program curriculums being the most often used way of integrating program-wide learning goals and objectives into the program itself. The majority of online program reviews occur every five years and are performed mainly for accreditation requirements, with respondents who did not perform reviews stating that reviews were not required by the institution or an accrediting agency. A majority of program reviews are performed by the faculty and staff with additional reviews performed by internal offices such as assessment and institutional research and dean's offices, and some by external entities such as state higher education offices and specialized accreditors. Respondents reported that results were mostly reported to the programs themselves as internal documents with state higher education departments and accreditation agencies receiving the lowest means, but still being sent the review results almost always. Assessment techniques were reported as mainly decided by accreditation guidelines with internal institutional guidelines the second consideration. Assessment techniques used most often by online programs were: institutional data including growth rates, student GPAs, retention rates; course completion surveys; and classroom assignments. The three least used techniques were: faculty questionnaire; alumni interviews; and faculty focus groups. In terms of frequency, the assessment techniques

used most by online programs were: institutional data including growth rates, student GPAs, retention rates; portfolios; and course completion surveys. The three least used techniques were: faculty focus groups; faculty questionnaires; and alumni interviews.

Research Question Two: What assessment techniques do the sample universities perceive as have been most effective for their online educational leadership program reviews?

Table 19 provides response results of which assessment techniques used by the participant universities were perceived as the most effective. For online programs, the assessment techniques perceived to be most effective were, in order, student program exit survey; portfolios; and classroom assignments. The techniques perceived to be least effective were faculty questionnaires; course exams; and course completion survey. For on-campus programs, the assessment techniques perceived to be most effective were portfolios; comprehensive exams; and student questionnaires. The least effective techniques were employer surveys; faculty focus groups; and faculty questionnaires. The previously discussed assessment techniques of state licensure and certification exam results and internship assessments reported as 'other' categories by both online and on-campus programs were reported with a mean of 4.25, or closest to 'very good' by the programs that used them.

Table 19:
Which Assessment Techniques Are Perceived As Most Effective

	Online			On Campus		
	M	SD	Range	M	SD	Range
Student Program Exit Survey	3.74	1.12	4	3.46	1.03	4
Classroom assignments	3.70	0.97	4	3.56	0.99	4

(table continues)

Table 19, continued

Portfolios	3.70	0.95	3	3.80	1.06	4
Institutional data (ex. growth rates, student gpa, retention rates)	3.61	0.86	3	3.42	1.09	4
Alumni interviews	3.57	1.02	3	3.33	1.15	4
Student Interviews	3.55	1.12	4	3.30	0.88	4
Faculty Interviews	3.48	1.16	4	3.38	1.09	4
Essays	3.48	0.85	3	3.45	1.10	4
Comprehensive exams	3.47	1.08	4	3.65	1.04	4
Presentations	3.46	0.96	4	3.56	1.16	4
Faculty Focus Groups	3.42	1.22	4	2.83	1.19	4
Student Focus Groups	3.42	1.10	4	3.32	0.89	3
Student questionnaire	3.42	1.00	4	3.59	0.98	3
Alumni surveys	3.42	0.90	4	3.22	1.04	4
Employer surveys	3.27	1.22	4	2.71	1.04	4
Course Completion Survey	3.19	0.92	4	3.10	1.23	4
Course exams	3.16	1.08	4	3.43	1.16	4
Faculty questionnaire	3.13	1.15	4	3.08	1.16	4

Chi-squared analyses for question two revealed no significant statistical relationship between the online and on-campus and the perceived effectiveness of the assessment techniques (Appendix D). Analysis of variances (ANOVAs) were run on the results from frequency of use of the assessment techniques (Table 20) and the perceived effectiveness of each technique (Table 21) using the online or on-campus designation as the dependent variable. While no significant

differences were found between individual assessment techniques and their perceived effectiveness by the online and on-campus programs, significant relationships were found between the assessment techniques: student questionnaire and classroom assignments, and their frequency of use in online and on-campus programs, meaning that student questionnaires and classroom assignments were frequently used to contribute to program reviews.

Table 20:
Differences Between Frequency of Use and Assessment Techniques Between Online and On-campus

		SS	df	MS	F	P
Course Completion Survey	Between Groups	1.102	1	1.102	0.653	0.422
	Within Groups	104.648	62	1.688		
	Total	105.75	63			
Student Interviews	Between Groups	0.24	1	0.24	0.14	0.709
	Within Groups	92.314	54	1.71		
	Total	92.554	55			
Student questionnaire	Between Groups	14.153	1	14.153	8.092	0.006
	Within Groups	104.943	60	1.749		
	Total	119.097	61			
Faculty Interviews	Between Groups	2.315	1	2.315	1.001	0.323
	Within Groups	99.463	43	2.313		
	Total	101.778	44			
Faculty questionnaire	Between Groups	0.013	1	0.013	0.004	0.947
	Within Groups	95.988	34	2.823		
	Total	96	35			
Course exams	Between Groups	0.674	1	0.674	0.357	0.553
	Within Groups	94.307	50	1.886		
	Total	94.981	51			
Essays	Between Groups	0.001	1	0.001	0	0.985
	Within Groups	81.666	46	1.775		
	Total	81.667	47			
Portfolios	Between Groups	1.873	1	1.873	1.367	0.247
	Within Groups	73.967	54	1.37		
	Total	75.839	55			
Presentations	Between Groups	1.1	1	1.1	0.484	0.490
	Within Groups	113.727	50	2.275		
	Total	114.827	51			

(table continues)

Table 20, continued

Student Focus Groups	Between Groups	0.159	1	0.159	0.132	0.718
	Within Groups	51.619	43	1.2		
	Total	51.778	44			
Faculty Focus Groups	Between Groups	0.213	1	0.213	0.082	0.776
	Within Groups	93.05	36	2.585		
	Total	93.263	37			
Classroom assignments	Between Groups	5.215	1	5.215	4.117	0.047
	Within Groups	78.52	62	1.266		
	Total	83.734	63			
Comprehensive exams	Between Groups	0.728	1	0.728	0.332	0.567
	Within Groups	113.81	52	2.189		
	Total	114.537	53			
Student Program Exit Survey	Between Groups	2.561	1	2.561	1.454	0.233
	Within Groups	93.367	53	1.762		
	Total	95.927	54			
Alumni surveys	Between Groups	0.26	1	0.26	0.133	0.717
	Within Groups	95.661	49	1.952		
	Total	95.922	50			
Alumni interviews	Between Groups	1.053	1	1.053	0.653	0.425
	Within Groups	51.565	32	1.611		
	Total	52.618	33			
Employer surveys	Between Groups	0.109	1	0.109	0.047	0.829
	Within Groups	103.551	45	2.301		
	Total	103.66	46			
Institutional data (ex. growth rates, student gpa, retention rates)	Between Groups	0.321	1	0.321	0.324	0.571
	Within Groups	61.429	62	0.991		
	Total	61.75	63			

The ANOVA results for the respondents' perception of frequent assessment technique used by programs showed significant differences in the online and on-campus program use of student questionnaires and classroom assignments, with on-campus programs using both student questionnaires and classroom assignments more frequently than online programs. Similar results were reflected in the statistically significant chi-squared result in question one (p. 87) regarding

the relationship between the use of student questionnaires and on-campus programs (Appendix D).

Table 21:
Differences Between Effectiveness and Assessment Techniques Between Online and On-campus

		SS	df	MS	F	P
Course Completion Survey	Between Groups	0.534	1	0.534	0.519	0.474
	Within Groups	61.676	60	1.028		
	Total	62.21	61			
Student Interviews	Between Groups	1.166	1	1.166	1.1	0.299
	Within Groups	54.079	51	1.06		
	Total	55.245	52			
Student questionnaire	Between Groups	0.008	1	0.008	0.008	0.929
	Within Groups	54.926	58	0.947		
	Total	54.933	59			
Faculty Interviews	Between Groups	1.658	1	1.658	1.314	0.260
	Within Groups	40.371	32	1.262		
	Total	42.029	33			
Faculty questionnaire	Between Groups	0.021	1	0.021	0.016	0.901
	Within Groups	33.386	25	1.335		
	Total	33.407	26			
Course exams	Between Groups	0.298	1	0.298	0.246	0.622
	Within Groups	59.389	49	1.212		
	Total	59.686	50			
Essays	Between Groups	0.041	1	0.041	0.045	0.832
	Within Groups	39.437	44	0.896		
	Total	39.478	45			
Portfolios	Between Groups	0.147	1	0.147	0.154	0.696
	Within Groups	51.282	54	0.95		
	Total	51.429	55			
Presentations	Between Groups	0.007	1	0.007	0.006	0.938
	Within Groups	52.238	47	1.111		
	Total	52.245	48			
Student Focus Groups	Between Groups	0.149	1	0.149	0.156	0.695
	Within Groups	37.363	39	0.958		
	Total	37.512	40			
Faculty Focus Groups	Between Groups	1.957	1	1.957	1.278	0.268
	Within Groups	41.354	27	1.532		
	Total	43.31	28			

(table continues)

Table 21, continued

Classroom assignments	Between Groups	0.425	1	0.425	0.445	0.507
	Within Groups	61.106	64	0.955		
	Total	61.53	65			
Comprehensive exams	Between Groups	0.168	1	0.168	0.141	0.709
	Within Groups	55.954	47	1.191		
	Total	56.122	48			
Student Program Exit Survey	Between Groups	1.936	1	1.936	1.709	0.197
	Within Groups	58.898	52	1.133		
	Total	60.833	53			
Alumni surveys	Between Groups	0.432	1	0.432	0.487	0.489
	Within Groups	38.146	43	0.887		
	Total	38.578	44			
Alumni interviews	Between Groups	0.427	1	0.427	0.354	0.558
	Within Groups	27.733	23	1.206		
	Total	28.16	24			
Employer surveys	Between Groups	4.002	1	4.002	3.486	0.071
	Within Groups	37.883	33	1.148		
	Total	41.886	34			
Institutional data (ex. growth rates, student gpa, retention rates)	Between Groups	0.793	1	0.793	0.973	0.328
	Within Groups	51.361	63	0.815		
	Total	52.154	64			

No significant differences were found in the ANOVA run between online and on-campus programs and the respondents' perceived effectiveness of the assessment techniques.

Answer Summary

For online programs, assessment techniques perceived to be most effective were: student program exit surveys, portfolios, and classroom assignments. Techniques perceived to be least effective were: faculty questionnaires, course exams, and course completion surveys. No significant differences were found between individual assessment techniques and their perceived effectiveness by online or on-campus programs. However, ANOVA results showed significant differences between the frequency of use of student questionnaires and classroom assignments

assessment techniques and their use in online and on-campus programs with on-campus programs reporting significantly more frequent use of the two assessment techniques than online programs.

Research Question Three: How are the program review results used, how do programs with the online educational leadership programs perceive that program reviews are integrated into institutional policy, and who do programs perceive the reviews benefit?

Table 22 shows the frequency distribution of program recommendations resulting from program reviews that were used for both online and on-campus programs. The rankings were almost the same for both online and on-campus programs with accreditation the top consideration and creating an action plan for the program being the second consideration in both groups. The only difference in the ranking was that personnel adjustments were a higher consideration than internal institutional requirement for online programs, and reviews being an internal institutional requirement was a higher consideration than personnel adjustments for on-campus programs. Other uses for program review results were reported as benchmarking against other institutions and that recommendations might only be implemented depending on the cost involved.

Table 22:
How Are Program Review Results Used

Online n=151	f	On Campus n=127	f
Accreditation Review	38	Accreditation Review	36
Create an Action Plan	31	Create an Action Plan	32
Personnel Adjustments	23	Internal Institutional Requirement	22
Internal Institutional Requirement	22	Personnel Adjustments	18
Budgeting and Finance	18	Budgeting and Finance	9
Other Resource Allocation	13	Other Resource Allocation	9
Recommendations not implemented or used in any way	6	Recommendations not implemented or used in any way	1

Table 23 shows how the respondents perceived program reviews integrating into their institutions. Online program responses were that program reviews were strongly encouraged and supported by institutional administration, used to plan program improvements, considered to be integrated into standard institutional policy, and enforced. For on-campus programs, respondents agreed that program reviews were integrated into standard institutional policy, encouraged by the administration, and enforced by institutional policy. The question of how program reviews were integrated into institutional policy was also asked of respondents who answered that their program did not perform program reviews. The responses from online programs indicated that they would not like to see program reviews integrated into institutional policy and were neutral on whether program review results should be used to determine program goals and student learning outcomes. On-campus program results showed that they would support program reviews

being integrated into all the categories and would especially like to see reviews supported by the faculty and administration.

Table 23:
How Are Program Reviews Integrated Into Institutions by Program Type

	Online			On Campus		
	M	SD	Range	M	SD	Range
Encouraged by the administration	5.00	1.09	5	4.91	1.28	5
Used to Plan Program Improvements	4.92	1.34	5	4.83	1.22	5
Supported by the administration	4.86	1.14	5	4.83	1.25	5
Supported by the faculty	4.73	1.25	5	4.33	1.12	5
Used to determine program goals	4.71	1.40	5	4.83	1.16	5
Integrated into standard institutional policy	4.69	1.18	4	5.02	1.09	5
Used to determine student learning outcomes for courses	4.51	1.36	5	4.51	1.25	5
Important to institutional strategic plans	4.42	1.53	5	4.31	1.36	5
Integrated into standard institutional policy but not enforced	2.69	1.56	5	2.48	1.36	5
Separate from institutional policy	2.59	1.53	5	2.42	1.36	5

As shown in Table 24, respondents perceived as benefiting most from program reviews, faculty benefiting second for online programs, and students benefiting second for on-campus programs. External entities were selected as benefiting the least by both online and on-campus programs.

Table 24:
Who Benefits From Program Reviews

	Online			On Campus		
	M	SD	Range	M	SD	Range
Programs	4.08	0.77	3	3.96	0.76	3
Faculty	3.89	1.00	3	3.74	0.88	4
Students	3.83	1.04	4	3.85	0.87	3
Institution Administration	3.57	0.99	4	3.29	1.18	4
External Entities	2.91	1.22	4	3.11	1.06	4

The chi-squared analysis run for research question three did not find statistically significant relationships between online and on-campus programs and how program reviews are integrated into their institutions, including how program reviews are tied to policy, strategic plans and goals, if program reviews are supported by the administration and faculty, and if the respondents perceived program reviews as beneficial and, if so, who benefited most from the reviews (Appendix D).

Answer Summary

Survey results showed that, for online programs, accreditation reporting was the top consideration in how review results were used with creating an action plan for the program being the second consideration. Online program responses were that program reviews were strongly encouraged and supported by institutional administration, used to plan program improvements, considered to be integrated into standard institutional policy, and enforced. The online program respondents also indicated that they perceived programs as benefiting most from program reviews, and faculty benefiting second with external entities benefiting the least from program reviews.

Research Question Four: Based on the findings, what quality assurance policies in assessment processes are needed to ensure regular program reviews that can lead to program improvement?

To answer this research question, the regulations influencing the program review process were examined because, as previous research has shown, regulations especially from accreditors and state entities played a large role in the implementation and continuance of program reviews. Lamar Alexander (R-TN), current chairman of the Senate Committee on Health, Education, Labor, and Pensions, released a statement on accreditation in higher education that called for "redesign and reform accreditation to strengthen the quality of colleges and universities, promote competition and innovation in higher education, and provide accountability to government stakeholders and taxpayers" (Senate HELP Committee, 2015, p. 1). Continued calls for improved academic quality and accountability from government and public stakeholders were answered by higher education institutions through program reviews and data analysis to support the institution's response that it was engaged in an internal and external or accreditation review process, and provided a quality education and opportunities for personal growth to students. Course and program assessment techniques were part of the review process to identify areas where the program could improve and show a pattern of continuous quality improvement.

Institutional and program accrediting and approval bodies required quality assurance measures for online education and provided guidelines for evaluating online education, but did not outline how an institution should implement program review policies as a regular quality improvement measure (SREB, 2012; US DOEd, 2012; C-RAC, 2011). The "Interregional Guidelines for the Evaluation of Distance Education" focused on the integration of online education to the institution's "regular planning and evaluation process," "systems of governance

and academic oversight," "curricula for the institution's online learning offerings were coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats," and "the institution evaluates the effectiveness of its online learning offerings, including the extent to which the online learning goals were achieved, and used the results of its evaluations to enhance the attainment of the goals" (C-RAC,2 011, p. 1-3). These guidelines were supported by the Southern Regional Education Board's (SREB) "Principles of Good Practice" that emphasized the importance of pedagogical techniques for online education and institutional commitment to online education (SREB, 2012). The SREB (2012) require in their evaluation and assessment guidelines that "the institution evaluates program and course effectiveness, including assessments of student learning, student retention and student and faculty satisfaction" (SREB, 2012, p. 3) and "at the completion of the program or course, the institution provides for assessment and documentation of student achievement in each course and degree completion where applicable" (SREB, 2012, p. 3). The OLC's "Five Pillars of Quality Online Education" identified the five areas of "learning effectiveness, access, scale (capacity enrollment achieved through cost-effectiveness and institutional commitment), faculty satisfaction, and student satisfaction" which should be evaluated and assessed as "building blocks" for quality assurance in online programs and their institutions (OLC, 2015a) but did not address how often reviews should occur or how the review should be conducted. To support and encourage quality assurance reviews in online education, the OLC sponsored development of the OLC *Quality Scorecard for the Administration of Online Programs* which provided an in-depth rubric for institutions to conduct online program reviews of "institutional support, technology support, course development/instructional design, course structure, teaching and learning, social

and student engagement, faculty support, student support, and evaluation and assessment" (OLC, 2015b).

State educational regulations were decided at the individual state level, and states could decide to establish whatever scale or type of regulation they felt necessary to ensure educational quality within that state (US DOEd, 2012). Postsecondary schools providing distance education were expected to follow their respective state laws, as well as, obtain permission to offer online courses from states where an institution might offer online courses. There are two ways for an institution to be authorized in a state: (1) an institution could apply and be approved in each state, or (2) an institution could be part of a reciprocity agreement between its home state and the host state so the institution does not have to apply for individual approval (Poulin, 2014). In August 2013, a variety of stakeholders including state regulators, accrediting agencies, regional education compacts, and higher education institutions formed the National Council for State Authorization Reciprocity Agreements (NC-SARA) to streamline the process of state authorization and reduce the staff and fee costs for postsecondary institutions (NC-SARA, 2015). NC-SARA was a voluntary, state-level reciprocity agreement that relied on the home state of the institution offering an online program to approve the institution based on accreditation and financial stability as following the Council of Regional Accrediting Commissions' best practices guidelines (NC-SARA, 2015). If an accredited higher education institution was approved for SARA in the home state then the institution was able to offer its online programs to students in any other SARA member state (NC-SARA, 2015).

Until the US DOEd introduced these regulations, institutions were expected to be in operational compliance with individual state DOEds, but institutions did not have to prove operational compliance. After the US DOEd's state authorization policy, non-compliance with

the Higher Education Act could be punishable by the loss of financial aid and the possible issue of cease-and-desist orders toward the school's distance education courses (Eduventures, 2011). The WICHE Cooperative for Educational Technologies (WCET), a leading distance education commission, argued that:

> the greatest weapons for state regulators may be in using the media to notify students in their state and policymakers in your state that your institution is out-of-compliance. Students could file lawsuits against institutions that have not received the proper local approval and did not notify the student (WCET, March 5, 2012, p. 2).

While these regulations were not directly enforced by the federal government and the US DOEd, they were a direct attempt to referee the distance education market and compel programs to gain state authorization if the program and the university wanted to continue receiving government funding.

Quality assurance was applied not only to courses and instructors but to the programs to which the courses and instructors belonged, due to the larger policy regulations of Title IV in which federal financial aid funds were provided to students enrolled at accredited institutions. To gain access to Title IV funds, an institution had to be accredited by a regional or national accrediting body recognized by the US Department of Education, and evaluated and approved by the institution's home state education regulator. This partnership of the US DOEd, a recognized accrediting body, and a state regulator was known as the "accountability triad" (NC-SARA, 2015, paragraph one). The state regulator played a pivotal role in program accountability because it is the first educational entity external to the institution to receive information on, and an approval request, for a new academic program. The ability of the state higher education regulator to approve or deny a program development or change in an institution allows it to set guidelines for program review and reporting requirements ensuring an institution or program complies with

its regulations. For example, the Arkansas Higher Education Coordinating Board (AHECB) of the Arkansas Department of Higher Education (2015) set out the following program approval guidelines for institutions requesting to add an online option to "an existing certificate or degree program in which at least 50 percent of the total credits will be offered through distance technology" (AHECB, 2015, p. 5.11.8).

> The Letter of Notification must indicate why the institution plans to offer the program through distance technology. If the institution is planning to offer its first degree by distance technology, a new program proposal must be submitted to ADHE by the established deadline. The institution also must submit a copy of its responses to the Higher Learning Commission--NCA document that outlines institutional best practices for electronically offered programs. ADHE staff will conduct an on-campus visit prior to Coordinating Board consideration of the new distance technology program. Assessment of distance programs must be consistent with institutional assessment practices on the campus and program outcomes must be the same for both traditional and distance delivery methods. ADHE staff review of programs offered through distance technology will be conducted on a 5-year cycle. (AHECB, 2015, p. 5.11.8)

So, state educational entities like the ADHE and AHECB add another layer to the review and assessment requirements for program approval that is separate from yet integrated with the requirements of regional accreditors like the HLC's *Distance or Correspondence Education Substantive Change Application* which questions the applying institution and program on areas of:

- Characteristics of the Change Requested;
- Institution's History with Distance or Correspondence Education Offerings;
- Institutional Planning for Distance or Correspondence Education Offerings;
- Curriculum and Instructional Design;
- Institutional Staffing, Faculty, and Student Support; and
- Evaluation (HLC, 2015, p. 4-7).

The evaluation process that went into determining if an institution was eligible for accreditation is central to quality assurance in online education because of accountability and best practices guidelines outlined for online education providers by organizations like the Council of Regional Accrediting Commissions (C-RAC). To aid accrediting bodies with

evaluating online education programs, the C-RAC published its *Interregional Guidelines for the Evaluation of Distance Education* in 2011 (C-RAC, 2011). These guidelines listed nine items that, if proven by the institution in "actions, processes and facts," should assure online quality for consumers.

Table 25:
Interregional Guidelines for the Evaluation of Distance Education

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

(C-RAC, 2011, p. 1-3)

Banta, Palomba, and Kinzie (2015) explained the best practices of assessment as phases that encompassed "planning, implementing, and improving and sustaining the process" (p. 15). The authors divided each phase into steps (Table 26) that an institution or program must take into account when developing an assessment process:

Table 26:
Essentials of the Assessment Process

Planning Effective Assessment	- Engaging Stakeholder. - Establishing purpose. - Designing a thoughtful approach to assessment planning - Creating a written plan - Timing assessment
Implementing Effective Assessment	- Providing leadership. - Selecting or designing data collection approaches. - Providing resources. - Educating faculty and staff. - Assessing resources and process as well as outcomes. - Sharing findings.
Improving and Sustaining Assessment	- Obtaining credible evidence. - Ensuring the use of assessment findings. - Reexamining the assessment process.

The program review process and the assessment techniques used in the programs was the central focus of the survey research and results described how program reviews were currently implemented and used by programs. The final survey question was optional and open-ended and 26 of the 54 online participants and 26 of the 59 on-campus participants responded. Respondents consistently requested improved data collection processes, consistency in the analysis and evaluation, and a comprehensive method to collect program review results and apply the results

to multiple applications including annual reports and accreditation reviews. Several online program respondents said that the reviews needed to be adapted to their fields, needed more fiscal support from the institution, more faculty support in their departments, and the overall process needed to be simplified and clarified. Four respondents in the online group also reported that they would like more consideration given to the amount of time that program reviews take from their schedules, and one of the respondents recommended release-time be allowed for faculty participating in program reviews. One online respondent pointed out the demands on faculty time by writing that:

> The requirements are ever increasing, but the support - both financial and professional - is not there. We are two faced when discussing goals: 1. more focus on program improvement, student outcomes, graduation rates, and employ-ability, while then demanding a more intense research focus (increased tenure requirements and review). These are competing priorities that lead to increased workload, stress, and turnover.

On-campus program respondents provided similar improvement suggestions to the online programs, including recognition of the time involved in the review process, consistency in and support for the review process from program faculty, institution, state, and accreditor level, and better ways to collect the needed data. Seven respondents in the on-campus group discussed the redundancy in program reviews at all relevant levels, and wanted to see a comprehensive and streamlined process as described by one respondent who wrote:

> There is a redundancy between program reviews conducted by the institution for accreditation and by the state department for general evaluation and monitoring purposes for certification programs. It would be wonderful…[if]…we only have to do it once, rather than repeat ourselves;

and another respondent wrote "Besides the state [education] department, we are subject to review by SACS and NCATE. I think the program review process would be enhanced if we chose only one master to serve."

Answer Summary

This research question focused on the regulations influencing the program review process because, as previous results have shown, regulations especially from accreditors and state entities played a large role in the implementation and continuance of program reviews. Regional education compacts such as the Southern Regional Education Board with their "Principles of Good Practice – The Foundation for Quality of Southern Regional Education Board's Electronic Campus" and advisory groups such as the Online Learning Consortium through their "Five Pillars of Quality Online Education" and Quality Scorecard: Criteria for Excellence in the Administration of Online Programs presented quality assurance or best practices guidelines focused on helping institutions develop their online programs through program, course, and faculty assessment and institutional accountability (SREB, 2012; OLC, 2015a; OLC, 2015b). Quality assurance policies in assessment processes are needed to ensure the regular performance of program reviews that can lead to program improvement. Institutions need to ensure that program reviews are integrated into institutional policy and that the policy is based on guidelines from accreditors and federal and state regulators. The results determined that accreditation regulation and guidelines pushed the implementation of program reviews even though the programs did see internal benefits to conducting reviews. Accreditation and state regulations can be used to determine what criteria institutions and online programs should use to review their programs and let programs determine which assessment techniques will be used to collect the data reported in the review results. With the idea of a continual cycle of reviews and results feedback, institutions must also ensure that programs are using results to form an improvement action plan and implementing the action plan so there is measureable improvement between review cycles.

Chapter Summary

Chapter IV provided results of the data collected from the electronic survey and an analysis of the contents of relevant documents for recommending how program reviews could be integrated into institutions. The sections included how the survey was distributed to participants, the response rates, and the demographic results by institutions. The primary purpose of Chapter IV was to provide statistical results for the research questions highlighting the similarities and differences between the online and on-campus populations, and giving a platform to present the results according to each research question.

Survey results showed that a majority of respondents did participate in program reviews and participants had similar response rates when asked if their programs had established overarching or program-wide goals, with most respondents answering that their program curriculum, course design and content, and institutional strategic goals were definitely tied to their program-wide learning goals and objectives. Research results showed that program reviews were integrated into institutional policy and required for program operation, but results also showed that institutions and programs needed to review the policies to examine if the reviews truly reflected the needs of the programs and accreditors, or if they needed to be edited for elimination of repetition. Program reviews were integrated into institutional policy as reporting requirements for the institution, but were viewed by some as a duplicative process that did not add meaningful value to the program. The practices and responses illustrated the necessity for institutions and programs to find common ground for gathering the information needed on program performance and student learning outcomes for program reviews and reports.

CHAPTER V

CONCLUSIONS AND DISCUSSION

Introduction

Higher education has had to adjust its understanding and response to calls by government, non-government, and public entities for greater accountability and transparency in higher education, especially surrounding student learning outcomes and the value added to higher education graduates. To show accountability to these government, non-government, and public entities, higher education developed assessment practices and processes to collect data on learning outcomes in courses and programs so the data could be presented in program and accreditation reviews (Baker, Jankowski, Provezis, and Kinzie, 2012). The study showed: 1) the ability of policy makers to support online education with confidence in the quality of online programs, 2) how online administrators ensure regular review of their programs, and 3) accreditation and state regulation of online education since a program will be able to show its quality assurance process and outcomes. With regular review processes for learning outcomes in place, stakeholders in public policy and higher education are able to argue that students receive the same level of education through either an online or on-campus course delivery method and students can feel confident in the education they receive. From an administrative perspective, either as an institutional administrator, state education regulator, or state policymaker, a more identifiable assessment process for online programs could assist the institution in meeting program reporting and accreditation standards, and in determining student satisfaction with the program.

The educational reputation of online education improved as 70.8% of university leaders indicated in a 2014 study that online education was “critical to their long-term strategy”

(Pedersen, 2015, paragraph 4). The emergence of online learning made higher education more aware of demographic data related to students both on-campus and off-campus so that institutions knew information about all students, whether traditional or non-traditional, on-campus or online, and, if properly analyzed, provided an information foundation to help assess student needs and course learning outcomes (Cobo, Rocha, & Rodríguez-Hoyos, 2014; Slade and Prinsloo, 2013; Yukselturk, 2014).

Summary of the Study

The purpose for conducting the study was to form an understanding of the online program assessment and assessment processes in higher education, and how program review processes were adopted and implemented through institutional policies in regard to industry quality assurance standards. The study looked at institutions classified as very high, high, or research universities by the Carnegie Classifications, and which offered online masters programs focused on preparing students for positions in educational administration or leadership roles. The study used an electronic survey and content analysis through institutional policy and quality assurance documents, to develop a recommendation for institutional level quality procedure of online programs to assure reviews are performed. The electronic survey was distributed to 194 institutions and results were analyzed using descriptive statistics, cross-tabulation with chi-squared analysis, and ANOVAs to determine the strength and weaknesses of the relationships the dependent and independent variables. A single academic degree program, usually awarding a masters of educational leadership or education administration, was chosen to gain a program leader perspective of assessment requirements at the institutions, and to determine what institutional level support was given or needed to adopt and implement a program self-study. The content analysis allowed the researcher to examine online graduate program level quality

assessment, determine the most effective policy integration processes, and determine how a policy process could then be integrated into the institution, and required of online graduate programs for the quality assurance requirement demanded by accreditors and state level regulators.

Research question one asked how research oriented universities assess their online masters programs focused on educational leadership, who performed program reviews, where were results reported within the institution and to external entities, and what assessment techniques did the sample universities use. Survey results showed that a majority of programs did participate in program reviews and had program-wide learning goals and objectives integrated into the program curriculum. A majority of online program reviews occurred every five years and were performed mainly for accreditation requirements. Faculty and staff performed most reviews with additional reviews performed by internal offices such as assessment and institutional research, dean's offices, and some by external entities such as state higher education offices and specialized accreditors. The survey also showed that most results were reported to the programs themselves as internal documents with state higher education departments and accreditation agencies receiving the lowest means, but still almost always being sent the review results. Assessment techniques were mostly determined by accreditation guidelines and the most often used techniques were: institutional data that included growth rates, student GPAs, and retention rates; course completion surveys; and classroom assignments. The three least used techniques were: faculty questionnaires; alumni interviews; and faculty focus groups. Assessment techniques most frequently used by online programs were: institutional data including growth rates, student GPAs, retention rates; portfolios; and course completion surveys.

The three least used techniques were: faculty focus groups; faculty questionnaires; and alumni interviews.

The second research question examined what assessment techniques did the sample universities perceive as the most effective for their online educational leadership or administration program reviews. For online programs, the assessment techniques perceived to be most effective were: student program exit surveys; portfolios; and classroom assignments; while the techniques perceived to be least effective were: faculty questionnaires; course exams; and course completion survey. No significant relationships were found between individual assessment techniques and their perceived effectiveness by the online programs, but significant relationships were found between the assessment techniques, student questionnaires and classroom assignments, and their frequency of use in online programs.

Research question three addressed how the program review results were used, how online educational leadership or administration programs perceived that program reviews were integrated into institutional policy, and who the programs perceived to benefit from the reviews. For online programs, accreditation reporting was the top consideration in how review results were used, with creation of an action plan for the program as the second consideration. The research also found that program reviews were strongly encouraged and supported by institutional administration, used to plan program improvements, integrated into standard institutional policy, and that the review process was enforced at institutions. Also, programs benefited the most from program reviews, and external entities like state higher education and accreditation entities benefited the least from program reviews.

The fourth research question asked what quality assurance policies in assessment processes were needed to ensure regular program reviews that could lead to program

improvement. Institutions needed to ensure that program reviews were integrated into institutional policy, that the policy was based on guidelines from their accreditors and federal and state regulators, and review timelines were enforced with support from the administration. Research determined that accreditation regulation and guidelines pushed implementation of program reviews even though the programs did see internal benefits to conducting reviews. Accreditation and state regulations could be used to determine what criteria that institutions and online programs should use to review their programs, and let programs determine which assessment techniques will be used to collect the data reported in the review results. With the idea of a continual cycle of reviews and results feedback, institutions must also ensure that programs used results to form an improvement action plan, and implemented the action plan so there was measureable improvement between review cycles.

With these results, it should be noted that one program review and assessment strategy would not suit all institutions or programs and should be designed to meet the needs of the institution and program.

Conclusions

1. Nearly all programs conducted systematic program reviews due to accreditation and institutional requirements.
2. Program reviews are performed mainly by faculty and staff, and institutional research and assessment offices with findings sent first internally to the institution and then to external entities.
3. Assessment techniques focus on current students either in the program or its courses with information from faculty, alumni, and employers rarely utilized.

4. Accreditation pushes the adoption and enforcement of program reviews even though program faculty see the benefit to the program of collecting the data and forming an improvement plan based on the results.
5. Institutions need to develop a program review strategy based on accreditor and state regulatory guidelines that efficiently and effectively collects the needed data without repetition and redundancy.

Recommendations for Practice

The purpose of program reviews and assessment requirements is to promote continual improvement for institutions and programs. Below are several recommendations for developing best practices in online program reviews to promote accountability and continual quality initiative for institutions:

1. Institutions, and specifically administrators, need to begin developing a "culture of assessment" (Suskie & Banta, 2010; Banta, Palomba, & Kinzie, 2015; Kuh, Ikenberry, & Jankowski, 2015).
    a. Institutions should establish a strategic plan to create buy-in from faculty and staff about the benefits of assessments for the growth and improvement of their programs, courses, and careers (Suskie & Banta, 2010; Banta, Palomba, & Kinzie, 2015; Kuh, Ikenberry, & Jankowski, 2015).
2. Institutions need to ensure that program reviews are a centralized, systematic, and unified process in institutional policy.
    a. Institutions should develop a plan to reevaluate the internal review process and policy to determine:

i. If review information requests overlap from an institutional, state, and accreditor level;

ii. If action plans are developed with measurable and attainable program improvements;

iii. How the information could be gathered as a single, combined document that is updated annually with program data and institutional, state, and accreditor requirements so it contains all the program information needed to answer internal and external reporting requests.

b. Annual program reviews should be performed by, and housed within, an office external to the program, but inside the institution, such as an assessment, institutional research, or dean's office to negate conflict of interest concerns and alleviate pressure on program faculty to perform their own program reviews.

    i. The third party office responsible for the reviews should be responsible for:

        1. Compiling data for and writing the combined review document;
        2. Sharing review results with program faculty to establish an action plan for program improvement tailored to the program or an individual academic field;
        3. Guiding programs to set measurable and achievable goals within an established timeframe;
        4. Determining what resources the program needs from the institution to implement the improvements;

5. Ensuring the action plan was implemented, and the program was successfully strengthened by the plan.

3. For online programs, continual improvement plans must contain assessments focusing on the best practices areas of program, faculty, and student support in technology, services, and academics outlined by accreditation, state, and professional education entities.

Recommendations for Future Research

There are several areas examined in this research that future researchers could develop, dealing mainly with the deepening and widening of the research topic:

1. The study used educational leadership or administration masters programs for comparisons with online programs and on-campus programs because of similar curricular and administrative structures of graduate education programs in higher education. Widening the sample to other academic fields and institutions would increase the data's usefulness and significance to higher education, state and federal entities, and accrediting agencies when determining quality review measures. Expanding the research sample to other institutions would also emphasize the importance of action plans and strategic planning on programs and institutions to develop a culture of assessment and continuous improvement.
2. Future research could examine the accreditation structure in the United States, the accreditor review procedures within the US Department of Education, and program and curriculum review procedures at state departments of higher education, such as the Arkansas Department of Higher Education.

3. A researcher could examine how recommendations from program reviews are implemented at the institution to determine if programs and institutions are truly "closing the loop" in assessment and quality improvement initiatives.
4. Future researchers can use this research as a base to look further at the program review processes, goal setting, and student learning outcomes within a specific institution or group of institutions. This direction could include the perspectives of other faculty members, departments, and administrators at the institutions to determine if the review process is efficient and effective, what improvements could be made in the process, how program and institutional goals are established, and if the goals and student learning outcomes are measurable, attainable, and align with the strategic plan of the institution and higher education.
5. Researchers could also examine in-depth the review processes and institutional support for program, faculty, and student support areas at individual or benchmarked institutions using one of the distance education guidelines or rubrics discussed in this research such as the Online Learning Consortium's *Five Pillars of Quality Online Education* (OLC, 2015a) or the *Quality Scorecard: Criteria for Excellence in the Administration of Online Programs* (OLC, 2015b).

Discussion

Policymakers at all educational administrative levels have an interest in creating and implementing efficient and effective processes that show the value and virtues of higher education. This interest is based in the need to demonstrate that higher education policies, such as the Higher Education Act, are successfully serving society in developing an educated workforce supported by federal and state tax revenue through direct allocation, and student grant

and loan programs. This research combined many aspects of higher education including online education, assessment techniques and processes used by institutions and programs, and the quality assurance compliance requirements of accreditors both regional and specialized, state, and federal governmental entities. These areas individually had extensive previous research, especially when examining institutional assessment practices and state policies governing the assessment compliance requirements for the institutions under individual state guidelines.

The study adds to the body of literature by combining the areas of program review processes and assessment techniques used in higher education with the growing practical and literary field of online education, and the policies and regulations that guide its expansion. The research contributes a case study of online educational graduate programs to build on existing case studies of online and graduate education, while focusing on how the programs perform reviews to satisfy federal, state, and institutional quality assurance reporting requirements. Assessment is a key accountability measure in higher education accreditation and institutional credibility, but it is only effective if the administration and faculty support and use those assessment tools and conclusions (Emil & Cress, 2014). Results support the argument that not only do faculty understand the importance of assessment, but that online education is equal to on-campus education by showing the similarities between program review and assessment techniques used by both delivery methods, and by showing differences in the programs which can be improved upon through continuous quality assurance initiatives supported by institutions and external educational entities. These results support the online education literature field by showing the viability of online graduate education to stakeholders, including future students and employers.

As Bardo (2009) argued, "the requirements of accreditation increasingly will need to be at the heart of institutional planning and strategy" (Bardo, 2009, p. 54). Accrediting agencies, both regional and specialized, and state higher education entities have their own review and assessment guidelines which help institutions and programs prepare for reviews. These guidelines often supply self-study templates or self-review outlines to institutions and require specific data collection related to student and course enrollment, retention, graduation, and learning outcomes. Some accreditor and state guidelines have more stringent compliance requirements than others, so it is essential for institutions and programs to know, understand, and follow their own accreditor's and state's compliance guidelines as these guidelines will also be a factor in determining the types and levels of assessments conducted at the institutions (Ewell, Jankowski, & Provezis, 2010).

Online education and program reviews were central factors in this study that questioned the implementation of quality assurance policies in higher education. Quality assurance policies are supported by both quantitative and qualitative data to show that an institution and program do add value to a student's educational experience. Using assessment techniques to collect student learning outcomes data is a cornerstone of the program reviews process and essential when building a culture of assessment compliance within an institution (Kuh, Ikenberry, & Jankowski, 2015). Due to the pressure from accreditors, state and federal agencies, and public entities for higher education institutions to show the value they add to students, institutions are more willing to implement assessment and program reviews processes, and even develop a cyclical model of assessment in which effective assessment begins with engaging stakeholders, forming a purpose, plan, and timeline for the assessment, efficiently and effectively implementing the plan by providing essential resources and leadership support. They then 'close the loop' by using

assessment results to improve the institution, program, course, assessment plan, etc. (Suskie & Banta, 2010; Banta & Blaich, 2011; Banta, Palomba, & Kinzie, 2015; Kuh, Ikenberry, & Jankowski, 2015).

Institutional Research offices provide universities with quantitative data about all students, whether traditional or non-traditional, on-campus or online, and, if properly analyzed, this information can be the foundation assessment of student and course learning outcomes (Cobo, Rocha, & Rodríguez-Hoyos, 2014; Slade & Prinsloo, 2013; Yukselturk, 2014). A National Institute for Learning Outcomes Assessment (NILOA) study conducted in July 2012 examined nine two- and four-year higher education institutions to determine examples of good assessment practices within institutions (Baker, Janknowski, Provezis, & Kinzie, 2012). Baker, Janknowski, Provezis, and Kinzie found that all of the case studies, while having robust assessment programs compared to other institutions, spoke of advancing their assessment practices by "focusing assessment efforts, harnessing accountability for internal improvement, communicating widely about assessment, and allowing time for internal stakeholders to make meaning of and to reflect of assessment results" (2012). This finding showed the embeddedness of assessment culture and the ideas of a continuous quality improvement cycle existing in these institutions. Integrating a cycle or culture of assessment into an institution's administration, faculty, and staff can not only prepare programs and institutions for accrediting reviews, but create a continuous quality improvement plan for presentation to non-institutional stakeholders, including state and national policymakers, organizations, and the public to support the ongoing educational mission of higher education.

In the last few years, federal and state governments turned their attention to distance education and policy issues such as quality assurance and accountability, to protect both

taxpayers and students as the funders and the borrowers of student loans. Hansson, et.al (2005) argued that since US educational control rested at a state and local level, "universities are left to their own devices and capabilities for implementation" (p. 285) of program quality assurance. Saltmarsh, Sutherland-Smith, and Kitto (2008) called for further research into the political-cultural-technological nexus that gave emerging technologies a place in policy and social contexts, especially as concerns consumer culture and online education. This study did not focus on a specific policy, but on how policy was already applied through quality assurance measures in program assessments that were required for online program regulatory approval and accreditation at the state level. Research addressed how online programs assess their curricula for the quality assurance required by accrediting and state education regulators. Data collected through the surveyed institutions focused on a single type of graduate program, and showed how knowledge of online programs and assessment techniques was similar between institutions. Determining the assessment processes in online education programs allows programs to present a more complete picture of their processes and functions within higher education, shows how the field measured against best practices guidelines, and increases understanding and buy-in for assessment from institutional administrators, stakeholders, and policymakers.

The study was limited in population scope, and limited in the questions that were asked through the electronic survey so that while the survey was longer than standard, it did not and could not examine in depth questions of program review policy at individual institutions like a qualitative study might have. However, the survey was sufficient to answer the research questions and become a foundation for deepening and potentially widening future research. The questions of what is the best practice to assess student learning outcomes, the value added by higher education, and the success of post-secondary degree programs will continue with new

recommendations, theories, software, and assessment techniques such as the creation of standardized exams. But, what one must recognize is that the question of best practices and its evolving answers stem from the political, social, and economic environment of the country so that when funding and recognition is needed for higher education and online education, assessment results and program reviews with their requisite data collection will be the evidence to support the arguments to policymakers and the public regarding the value of higher education to society and the economy. The data collected through program reviews and the use of assessment techniques support institutions offering both online and on-campus programs through the continuous political-economic-social cycle that: an institution needs a strategic plan and state and federal support to operate; an academic program needs quality courses that are well designed and taught to produce positive student learning outcomes; and students need a quality learning experience to become successful professionals who show the success of the program, institution, and federal and state programs which supported higher education so that economic, political, and social support for higher education continues.

Chapter Summary

This study focused on the need for quality assurance in online education by examining the program review process at sample institutions offering both online and on-campus master's program in education administration, and comparing the review processes to the best practices recommendations. The best practices recommendations came from recognized educational entities such as Council of Regional Accrediting Commissions, the Southern Regional Education Board, and the Online Learning Consortium. Conclusions were drawn from the survey results and document analysis. The importance of quality assurance in online education was discussed, and future research recommendations made for further research in areas of accreditation,

assessment, and program reviews. The research showed the need for consistency and transparency in not only the program review process at post-secondary institutions, but also in accreditation, state, and institutional level reporting processes for the improvement of higher education programs and their students' learning outcomes and future career successes.

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APPENDIX A

Higher Education Institutions and Participants in the Sample Population

Programs Sampled

Institution	Location
Adelphi University	Garden City, New York
Alliant International University	San Diego, California
Andrews University	Berrien Springs, Michigan
Arizona State University	Tempe, Arizona
Ashland University	Ashland, Ohio
Auburn University Main Campus	Auburn University, Alabama
Azusa Pacific University	Azusa, California
Ball State University	Muncie, Indiana
Barry University	Miami, Florida
Baylor University	Waco, Texas
Boston College	Chestnut Hill, Massachusetts
Boston University	Boston, Massachusetts
Bowie State University	Bowie, Maryland
Bowling Green State University	Bowling Green, Ohio
Brigham Young University	Provo, Utah
Cardinal Stritch University	Milwaukee, Wisconsin
Central Michigan University	Mount Pleasant, Michigan
Clemson University	Clemson, South Carolina
Cleveland State University	Cleveland, Ohio
College of William and Mary	Williamsburg, Virginia
CUNY Graduate School and University Center	New York, New York
DePaul University	Chicago, Illinois
Drexel University	Philadelphia, Pennsylvania
Duquesne University	Pittsburgh, Pennsylvania
East Carolina University	Greenville, North Carolina
East Tennessee State University	Johnson City, Tennessee
Edgewood College	Madison, Wisconsin
Fielding Graduate University	Santa Barbara, California
Florida Agricultural and Mechanical University	Tallahassee, Florida
Florida Atlantic University	Boca Raton, Florida
Florida International University	Miami, Florida
Florida State University	Tallahassee, Florida
Fordham University	Bronx, New York

(Appendix A table continues)

Appendix A table, continued

Institution	Location
George Mason University	Fairfax, Virginia
George Washington University	Washington, District of Columbia
Georgia State University	Atlanta, Georgia
Harvard University	Cambridge, Massachusetts
Idaho State University	Pocatello, Idaho
Illinois State University	Normal, Illinois
Immaculata University	Immaculata, Pennsylvania
Indiana State University	Terre Haute, Indiana
Indiana University-Bloomington	Bloomington, Indiana
Indiana University-Purdue University-Indianapolis	Indianapolis, Indiana
Iowa State University	Ames, Iowa
Jackson State University	Jackson, Mississippi
Johns Hopkins University	Baltimore, Maryland
Kansas State University	Manhattan, Kansas
Kent State University Kent Campus	Kent, Ohio
Lamar University	Beaumont, Texas
Lehigh University	Bethlehem, Pennsylvania
Louisiana State University and Agricultural & Mechanical College	Baton Rouge, Louisiana
Louisiana Tech University	Ruston, Louisiana
Loyola University Chicago	Chicago, Illinois
Lynn University	Boca Raton, Florida
Marquette University	Milwaukee, Wisconsin
Maryville University of Saint Louis	Saint Louis, Missouri
Miami University-Oxford	Oxford, Ohio
Michigan State University	East Lansing, Michigan
Middle Tennessee State University	Murfreesboro, Tennessee
Mississippi State University	Mississippi State, Mississippi
Montana State University	Bozeman, Montana
National-Louis University	Chicago, Illinois
New Mexico State University	Las Cruces, New Mexico
New York University	New York, New York
North Carolina State University at Raleigh	Raleigh, North Carolina
North Dakota State University	Fargo, North Dakota
Northern Arizona University	Flagstaff, Arizona
Northern Illinois University	Dekalb, Illinois
Nova Southeastern University	Fort Lauderdale, Florida

(Appendix A table continues)

Appendix A table, continued

Institution	Location
Oakland University	Rochester Hills, Michigan
Ohio State University	Columbus, Ohio
Ohio University	Athens, Ohio
Oklahoma State University	Stillwater, Oklahoma
Old Dominion University	Norfolk, Virginia
Oregon State University	Corvallis, Oregon
Our Lady of the Lake University-San Antonio	San Antonio, Texas
Pace University-New York	New York, New York
Pennsylvania State University-Main Campus	University Park, Pennsylvania
Purdue University-Main Campus	West Lafayette, Indiana
Regent University	Virginia Beach, Virginia
Rutgers University-New Brunswick	New Brunswick, New Jersey
Saint John Fisher College	Rochester, New York
Saint Louis University	Saint Louis, Missouri
Saint Mary's University of Minnesota	Winona, Minnesota
Sam Houston State University	Huntsville, Texas
San Diego State University	San Diego, California
Seton Hall University	South Orange, New Jersey
South Dakota State University	Brookings, South Dakota
Southern Illinois University Carbondale	Carbondale, Illinois
Southern Methodist University	Dallas, Texas
St. John's University-New York	Queens, New York
Stanford University	Stanford, California
Stony Brook University	Stony Brook, New York
SUNY at Albany	Albany, New York
Syracuse University	Syracuse, New York
Teachers College at Columbia University	New York, New York
Temple University	Philadelphia, Pennsylvania
Tennessee State University	Nashville, Tennessee
Texas A & M University	College Station, Texas
Texas A & M University-Commerce	Commerce, Texas
Texas A & M University-Corpus Christi	Corpus Christi, Texas
Texas A & M University-Kingsville	Kingsville, Texas
Texas Christian University	Fort Worth, Texas
Texas Southern University	Houston, Texas
Texas Tech University	Lubbock, Texas
Texas Woman's University	Denton, Texas

(Appendix A table continues)

Appendix A table, continued

Institution	Location
The University of Alabama	Tuscaloosa, Alabama
The University of Tennessee	Knoxville, Tennessee
The University of Texas at Arlington	Arlington, Texas
The University of Texas at Austin	Austin, Texas
The University of Texas at El Paso	El Paso, Texas
The University of Texas at San Antonio	San Antonio, Texas
The University of West Florida	Pensacola, Florida
Trevecca Nazarene University	Nashville, Tennessee
University at Buffalo	Buffalo, New York
University of Akron Main Campus	Akron, Ohio
University of Alabama at Birmingham	Birmingham, Alabama
University of Arizona	Tucson, Arizona
University of Arkansas	Fayetteville, Arkansas
University of Arkansas at Little Rock	Little Rock, Arkansas
University of California-Berkeley	Berkeley, California
University of California-Los Angeles	Los Angeles, California
University of Central Florida	Orlando, Florida
University of Cincinnati-Main Campus	Cincinnati, Ohio
University of Dayton	Dayton, Ohio
University of Delaware	Newark, Delaware
University of Denver	Denver, Colorado
University of Florida	Gainesville, Florida
University of Georgia	Athens, Georgia
University of Hawaii at Manoa	Honolulu, Hawaii
University of Houston	Houston, Texas
University of Idaho	Moscow, Idaho
University of Illinois at Urbana-Champaign	Champaign, Illinois
University of Iowa	Iowa City, Iowa
University of Kansas	Lawrence, Kansas
University of Kentucky	Lexington, Kentucky
University of La Verne	La Verne, California
University of Louisiana at Lafayette	Lafayette, Louisiana
University of Louisville	Louisville, Kentucky
University of Maine	Orono, Maine
University of Massachusetts-Boston	Boston, Massachusetts
University of Massachusetts-Lowell	Lowell, Massachusetts
University of Memphis	Memphis, Tennessee
University of Michigan-Ann Arbor	Ann Arbor, Michigan
University of Minnesota-Twin Cities	Minneapolis, Minnesota

(Appendix A table continues)

Appendix A table, continued

Institution	Location
University of Mississippi Main Campus	University, Mississippi
University of Missouri-Columbia	Columbia, Missouri
University of Missouri-Kansas City	Kansas City, Missouri
University of Missouri-St Louis	Saint Louis, Missouri
University of Nebraska at Omaha	Omaha, Nebraska
University of Nebraska-Lincoln	Lincoln, Nebraska
University of Nevada-Reno	Reno, Nevada
University of New Mexico	Albuquerque, New Mexico
University of New Orleans	New Orleans, Louisiana
University of North Carolina at Chapel Hill	Chapel Hill, North Carolina
University of North Carolina at Charlotte	Charlotte, North Carolina
University of North Carolina at Greensboro	Greensboro, North Carolina
University of North Dakota	Grand Forks, North Dakota
University of North Texas	Denton, Texas
University of Northern Colorado	Greeley, Colorado
University of Notre Dame	Notre Dame, Indiana
University of Oklahoma	Norman, Oklahoma
University of Oregon	Eugene, Oregon
University of Pennsylvania	Philadelphia, Pennsylvania
University of Pittsburgh	Pittsburgh, Pennsylvania
University of Rochester	Rochester, New York
University of San Diego	San Diego, California
University of San Francisco	San Francisco, California
University of South Alabama	Mobile, Alabama
University of South Carolina-Columbia	Columbia, South Carolina
University of South Dakota	Vermillion, South Dakota
University of South Florida-Tampa	Tampa, Florida
University of Southern Mississippi	Hattiesburg, Mississippi
University of St Thomas	Saint Paul, Minnesota
University of the Pacific	Stockton, California
University of Toledo	Toledo, Ohio
University of Utah	Salt Lake City, Utah
University of Vermont	Burlington, Vermont
University of Virginia-Main Campus	Charlottesville, Virginia
University of Washington-Seattle Campus	Seattle, Washington
University of Wisconsin-Madison	Madison, Wisconsin
University of Wisconsin-Milwaukee	Milwaukee, Wisconsin
University of Wyoming	Laramie, Wyoming
Utah State University	Logan, Utah

(Appendix A table continues)

Appendix A table, continued

Institution	Location
Virginia Commonwealth University	Richmond, Virginia
Virginia Polytechnic Institute and State University	Blacksburg, Virginia
Washington State University	Pullman, Washington
Wayne State University	Detroit, Michigan
West Virginia University	Morgantown, West Virginia
Western Michigan University	Kalamazoo, Michigan
Wichita State University	Wichita, Kansas
Widener University	Chester, Pennsylvania
Wilmington University	New Castle, Delaware
Wright State University	Dayton, Ohio

APPENDIX B

Research Emails to Participants

Announcement Email to Participants (September 9th, 10th, and 11th, 2015):

Dr. _____,

My name is Lindsay Turner and I am a PhD student in the Public Policy program at the University of Arkansas working with Dr. Michael T. Miller. For my dissertation, I am conducting a study on program assessment processes and techniques used in higher education, and how program review processes are adopted and implemented from the perspective of academic departments. The study sample includes institutions which offer masters programs focusing on preparing students for positions in educational administration and leadership.

The survey will take approximately 10 to 15 minutes to complete and all data obtained from participants will be kept confidential to the extent allowed by law and University policy and will only be reported in an aggregate format.

I will distribute the survey on **Monday, September 14th** with an Informed Consent Form as the first question. Your participation in my dissertation research survey will be much appreciated.

Thank you,
Lindsay Turner

Ph.D. Candidate
Public Policy Program
University of Arkansas
xxxxxxxx@uark.edu

Survey Distribution Email (September 14th, 2015):

Dr. _____,

Below please find the Qualtrics survey link for my dissertation research.

Survey Link:
Take the Survey

Or copy and paste the URL below into your internet browser:
http://uark.qualtrics.com/SE?SID=SV_2lRxRFSiE0rNs7b&Q_CHL=email&Preview=Survey

Please answer the questions to the best of your knowledge based on your experiences and perceptions as a faculty member in your Master's degree program focusing on educational administration and leadership. Questions are designed to determine how you perceive your

program's review process, how program reviews are conducted at your institution, and what assessment techniques are used in your program.

The questionnaire will take approximately 10 to 15 minutes to complete.

If you would like more information, please contact me (xxxxxxxx@uark.edu) or my dissertation advisor Dr. Michael T. Miller (mtmille@uark.edu).

Thank you for your participation in my dissertation research.

Lindsay Turner

Ph.D. Candidate
Public Policy Program
University of Arkansas
xxxxxxxx@uark.edu

First Reminder Email (September 16th, 2015 to Earlier Identified Participants, 21st, 2015 to Later Identified Participants):

Dr. _____,

Please consider completing your survey for my dissertation research. The survey link is below and the average completion time has been less than 10 minutes.

I would greatly appreciate your participation in my research.

Survey Link:
Take the Survey

Or copy and paste the URL below into your internet browser:
http://uark.qualtrics.com/SE?SID=SV_2lRxRFSiE0rNs7b&Q_CHL=email&Preview=Survey

Please answer the questions to the best of your knowledge based on your experiences and perceptions as a faculty member in your Master's level degree program. Questions are designed to determine how you perceive your program's review process, how program reviews are conducted at your institution, and what assessment techniques are used in your program.

Thank you for your time,
Lindsay Turner

Ph.D. Candidate
Public Policy Program
University of Arkansas
xxxxxxxx@uark.edu

Second Reminder Email (September 21st , 2015 to Earlier Identified Participants):

Dr. _____,

I realize that it is Monday morning but I am really close to the response rate required by my dissertation committee.

Please consider completing the 10-15 minute survey via the link below. Your input would be greatly appreciated.

Follow this link to the Survey:
${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

Please answer the questions to the best of your knowledge based on your experiences and perceptions as a faculty member in your Master's degree program. Questions are designed to determine how you perceive your program's review process, how program reviews are conducted at your institution, and what assessment techniques are used in your program.

If you would like more information, please contact me (xxxxxxxx@uark.edu) or my dissertation advisor Dr. Michael T. Miller (mtmille@uark.edu).

Thank you for your participation in my dissertation research.

Lindsay Turner

Ph.D. Candidate
Public Policy Program
University of Arkansas
xxxxxxxx@uark.edu

Survey Participation Request Sent to Participants Identified After Initial Distribution (September 15th to 23rd, 2015):

Dr. _____,

My name is Lindsay Turner and I am a PhD student in the Public Policy program at the University of Arkansas working with Dr. Michael T. Miller. For my dissertation, I am conducting a study on program assessment processes and techniques used in higher education, and how program review processes are adopted and implemented from the perspective of academic departments.

The survey will take approximately 10 to 15 minutes to complete and all data obtained from participants will be kept confidential to the extent allowed by law and University policy and will only be reported in an aggregate format.

Below please find the Qualtrics survey link for my dissertation research.

Survey Link:
${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

Please answer the questions to the best of your knowledge based on your experiences and perceptions as a faculty member in your Master's degree program focusing on educational administration. Questions are designed to determine how you perceive your program's review process, how program reviews are conducted at your institution, and what assessment techniques are used in your program.

If you would like more information, please contact me (xxxxxxxx@uark.edu) or my dissertation advisor Dr. Michael T. Miller (mtmille@uark.edu).

Thank you for your participation in my dissertation research.

Lindsay Turner

Ph.D. Candidate
Public Policy Program
University of Arkansas
xxxxxxxx@uark.edu

Final Reminder Email (September 24st, 2015 Sent to All Participants Who Had Not Completed the Survey):

Dr. _____,

There is still time for you to complete your survey for my dissertation research!

The survey will close at 5:00pm Central Standard Time tomorrow (Friday, September 25) and your participation would be greatly appreciated.

The survey takes approximately 10 minutes to complete.

Follow this link to the Survey:
${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

Please answer the questions to the best of your knowledge based on your experiences and perceptions as a faculty member in your Master's degree program. Questions are designed to determine how you perceive your program's review process, how program reviews are conducted at your institution, and what assessment techniques are used in your program.

If you would like more information, please contact me (xxxxxxxx@uark.edu) or my dissertation advisor Dr. Michael T. Miller (mtmille@uark.edu).

Thank you for your participation in my dissertation research.

Lindsay Turner

Ph.D. Candidate
Public Policy Program
University of Arkansas
xxxxxxxx@uark.edu

APPENDIX C

IRB Approval Letter

Office of Research Compliance
Institutional Review Board

June 30, 2015

MEMORANDUM

TO:	Lindsay Turner Michael Miller
FROM:	Ro Windwalker IRB Coordinator
RE:	New Protocol Approval
IRB Protocol #:	15-06-783
Protocol Title:	*Applying Assessment and Program Review Processes: Quality Assurance Policies in Graduate Online Education*
Review Type:	☒ EXEMPT ☐ EXPEDITED ☐ FULL IRB
Approved Project Period:	Start Date: 06/29/2015 Expiration Date: 06/28/2016

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (https://vpred.uark.edu/units/rscp/index.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 250 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.

109 MLKG • 1 University of Arkansas • Fayetteville, AR 72701-1201 • (479) 575-2208 • Fax (479) 575-6527 • Email irb@uark.edu

APPENDIX D

Chi-Squared Results

Which Assessment Techniques Are Used Most Frequently - Online and On-Campus Programs

	Pearson Chi-Square
Course Completion Survey	.503
Student Interviews	.891
Student questionnaire	.050
Faculty Interviews	.553
Faculty questionnaire	.609
Course exams	.794
Essays	.925
Portfolios	.410
Presentations	.652
Student Focus Groups	.284
Faculty Focus Groups	.263
Classroom assignments	.187
Comprehensive exams	.348
Student Program Exit Survey	.138
Alumni surveys	.293
Alumni interviews	.617
Employer surveys	.692
Institutional data (ex. growth rates, student gpa, retention rates)	.359

Which Assessment Techniques Are Perceived As Most Effective - Online and On-Campus Programs

	Pearson Chi-Square
Course Completion Survey	.471
Student Interviews	.147
Student questionnaire	.795
Faculty Interviews	.173
Faculty questionnaire	.964
Course exams	.509
Essays	.376
Portfolios	.741
Presentations	.208
Student Focus Groups	.366
Faculty Focus Groups	.409
Classroom assignments	.655
Comprehensive exams	.967
Student Program Exit Survey	.306
Alumni surveys	.929
Alumni interviews	.657
Employer surveys	.060
Institutional data (ex. growth rates, student gpa, retention rates)	.668

How Are Program Reviews Integrated Into Institutions by Program - Online and On-Campus Programs

	Pearson Chi-Square
Encouraged by the administration	.654
Used to Plan Program Improvements	.553
Supported by the administration	.971
Supported by the faculty	.388
Used to determine program goals	.949
Integrated into standard institutional policy	.340
Used to determine student learning outcomes for courses	.324
Important to institutional strategic plans	.264
Integrated into standard institutional policy but not enforced	.847
Separate from institutional policy	.556

Who Benefits From Program Reviews - Online and On-Campus Programs

	Pearson Chi-Square
Programs	.502
Faculty	.060
Students	.622
Institution Administration	.478
External Entities	.323

APPENDIX E

Program Review Processes Survey

Informed Consent Form

Introduction

This study will form an understanding of the program assessment and assessment processes within higher education, and how program review processes are adopted and implemented through institutional policies.

Procedures

You will be asked to complete a short questionnaire about your masters of educational administration or leadership program. The questionnaire will take approximately 10 to 15 minutes to complete. Questions are designed to determine how you review your program and how program reviews are conducted at your institution. This questionnaire will be conducted with a Qualtrics-created survey.

Risks/Discomforts

Risks are minimal for involvement in this study. Although we do not expect any harm to come upon any participants due to electronic malfunction of the computer, it is possible though extremely rare and uncommon.

Benefits

There are no direct benefits for participants. However, through your participation, the researchers will learn more about programs reviews and assessment techniques used in higher education.

Confidentiality

All data obtained from participants will be kept confidential to the extent allowed by law and University policy and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). The data collected will be stored in the Qualtrics-secure database until it has been deleted by the primary investigator.

Compensation

There is no direct compensation.

Participation

Participation in this research study is completely voluntary. You have the right to withdraw at any time or refuse to participate entirely without jeopardy to you or your university. If you desire to withdraw, please close your internet browser.

Questions about the Research

If you have questions regarding this study, you may contact Lindsay Turner, at 479-575-6486, xxxxxxxx@uark.edu.

Questions about your Rights as Research Participants

If you have questions you do not feel comfortable asking the researcher, you may contact Dr. Michael Miller, 479-575-3582, mtmille@uark.edu. If you have any questions or concerns about your rights as a research participant, please contact the University of Arkansas' Compliance Coordinator, Ro Windwalker, 479-575-2208, irb@uark.edu.

Q1 I have read, understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study.

- ❍ Yes (1)
- ❍ No (2)

If No Is Selected, Then Skip To End of Survey

Q2 Please select which Carnegie Classification best describes your institution:

- ❍ Research University - Very High Activity (1)
- ❍ Research University - High Activity (2)
- ❍ Research University (3)
- ❍ Other (4) _____

Q3 Please select which type of school best describes your institution:

- ❍ Public (1)
- ❍ Private (2)

Q4 Please select your regional accreditation:

- ❍ Middle States Association of Colleges and Schools (1)
- ❍ New England Association of Schools and Colleges (2)
- ❍ Higher Learning Commission, North Central Association of Colleges and Schools (3)
- ❍ Northwest Accreditation Commission (4)
- ❍ Southern Association of Colleges and Schools (5)
- ❍ Western Association of Schools and Colleges (6)

Q5 How many students total (undergraduate and graduate) attend your institution?

- ❍ Over 40,000 (1)
- ❍ 30,000 - 39,999 (2)
- ❍ 20,000 - 29,999 (3)
- ❍ 10,000 - 19,999 (4)
- ❍ Under 10,000 (5)

Q6 How many masters students are in your program?

- ❍ Over 150 (1)
- ❍ 126 - 150 (2)
- ❍ 101 - 125 (3)
- ❍ 76 - 100 (4)
- ❍ 50 - 75 (5)
- ❍ Under 50 (6)

Q7 Does your program have overarching (program-wide) learning goals and objectives?

- ❍ Yes (1)
- ❍ No (2)

Answer If Does your program have overarching (program-wide) learning goals and objectives? Yes Is Selected

Q8 Are the program's learning goals and objectives tied to:

	Definitely yes (1)	Probably yes (2)	Probably not (3)	Definitely not (4)
Program Curriculum (1)	❍	❍	❍	❍
Course Design and Content (2)	❍	❍	❍	❍
Institutional Strategic Goals (3)	❍	❍	❍	❍

Answer If Does your program have overarching (program-wide) learning goals and objectives? No Is Selected

Q9 Why does your program not have defined learning goals and objectives (Please select all that apply)?

- ❑ Lack of internal program agreement (1)
- ❑ Not required by institution (2)
- ❑ Program functions without needing goals and objectives (3)
- ❑ Other (4) _____

Q10 Has your program participated in a program review?

- ❍ Yes (1)
- ❍ No (2)

Answer If Has your program participated in a program review? Yes Is Selected

Q11 How frequently is your program reviewed?

- ❍ 7 years (1)
- ❍ 5 years (2)
- ❍ 3 years (3)
- ❍ Every year (4)
- ❍ Every 6-months (5)
- ❍ Other (6) _____

Answer If Has your program participated in a program review? Yes Is Selected

Q12 Do you perform a program review because (Please check all that apply):

- ❑ Internal requirement of your department (1)
- ❑ Institutional requirement (2)
- ❑ Accreditation requirement (3)
- ❑ Other (4) _____

Answer If Has your program participated in a program review? No Is Selected

Q13 Why did you not participate in program reviews (Please check all that apply)?

- ❑ Not required by the institution or the accrediting agency (1)
- ❑ Not enough benefit to program if reviewed on annual basis (2)
- ❑ Program is too young to have undergone a review (3)
- ❑ Other (4) _____

Answer Do you participate in program reviews? No Is Selected

Q14 If you did participate in program reviews, who do you feel benefits:

	Never (1)	Rarely (2)	Sometimes (3)	Most of the Time (4)	Always (5)
Institution Administration (1)	❍	❍	❍	❍	❍
External Entities (2)	❍	❍	❍	❍	❍
Programs (3)	❍	❍	❍	❍	❍
Faculty (4)	❍	❍	❍	❍	❍
Students (5)	❍	❍	❍	❍	❍
Other (6)	❍	❍	❍	❍	❍

Answer If Do you participate in program reviews? No Is Selected

Q15 Would you like to see program reviews:

	Definitely yes (1)	Probably yes (2)	Probably not (3)	Definitely not (4)
Integrated into institutional policy (1)	❍	❍	❍	❍
Important to institutional strategic plans (2)	❍	❍	❍	❍
Used to determine program goals (3)	❍	❍	❍	❍
Used to determine student learning outcomes for courses (4)	❍	❍	❍	❍
Encouraged by the administration (5)	❍	❍	❍	❍
Supported by the administration (6)	❍	❍	❍	❍
Supported by the faculty (7)	❍	❍	❍	❍

If Definitely yes Is Displayed, Then Skip To End of Survey

Q16 How are the assessment techniques used in your program review determined (Please select all that apply):

- ❍ Accreditation guidelines (1)
- ❍ Faculty preferences (2)
- ❍ Benchmarked institutions (3)
- ❍ Internal Institutional guidelines for all programs (4)
- ❍ Other (5) _____

Q17 Which assessment techniques contribute to your program reviews?

	Do you use it?		How frequently?					Is it an effective measurement?				
	Yes (1)	No (2)	Never (1)	Rarely (2)	Sometimes (3)	Most of the Time (4)	Always (5)	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)
Course Completion Survey (1)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Student Interviews (2)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Student questionnaire (3)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Faculty Interviews (4)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Faculty questionnaire (5)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Course exams (6)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Essays (7)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Portfolios (8)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Presentations (9)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Student Focus Groups (10)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Faculty Focus Groups (11)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Classroom assignments (12)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Comprehensive exams (13)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Student Program Exit Survey (14)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Alumni surveys (15)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Alumni interviews (16)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Employer surveys (17)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Institutional data (ex. growth rates, student gpa, retention rates) (18)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Other (19)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Other (20)	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍

Q18 Who compiles and analyses your program review results?

- ❑ Self-review by program faculty and staff (1)
- ❑ Internal Entity (Please indicate which office) (2) _____
- ❑ Third Party - External to Institution (Please indicate which office) (3) _____
- ❑ Other (4) _____

Answer If Who compiles and analyses your program review results? Self-review by program faculty and staff Is Selected

Q19a After your program review is complete, who are the results submitted to?

	Never (1)	Rarely (2)	Sometimes (3)	Most of the Time (4)	Always (5)
Program faculty and staff as internal information (1)	❍	❍	❍	❍	❍
Internal Entity (2)	❍	❍	❍	❍	❍
State Higher Education Department (3)	❍	❍	❍	❍	❍
Accreditation Agency (4)	❍	❍	❍	❍	❍
Third Party - External to Institution (5)	❍	❍	❍	❍	❍
Other (6)	❍	❍	❍	❍	❍

Answer If Who compiles and analyses your program review results? Third Party - External to Institution (Please indicate which office) Is Selected And Who compiles and analyses your program review results? Internal Entity (Please indicate which office) Is Selected And Who compiles and analyses your program review results? Other Is Selected

Q19b After the Third Party reviews your program, who are the results submitted to?

	Never (1)	Rarely (2)	Sometimes (3)	Most of the Time (4)	Always (5)
Program faculty and staff as internal information (1)	❍	❍	❍	❍	❍
Internal Entity (2)	❍	❍	❍	❍	❍
State Higher Education Department (3)	❍	❍	❍	❍	❍
Accreditation Agency (4)	❍	❍	❍	❍	❍
Third Party - External to Institution (5)	❍	❍	❍	❍	❍
Other (6)	❍	❍	❍	❍	❍

Q20 Program reviews at my institution are:

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Integrated into standard institutional policy (1)	❍	❍	❍	❍	❍	❍
Integrated into standard institutional policy but not enforced (2)	❍	❍	❍	❍	❍	❍
Separate from institutional policy (3)	❍	❍	❍	❍	❍	❍
Important to institutional strategic plans (4)	❍	❍	❍	❍	❍	❍
Used to Plan Program Improvements (5)	❍	❍	❍	❍	❍	❍
Used to determine program goals (6)	❍	❍	❍	❍	❍	❍
Used to determine student learning outcomes for courses (7)	❍	❍	❍	❍	❍	❍
Encouraged by the administration (8)	❍	❍	❍	❍	❍	❍
Supported by the administration (9)	❍	❍	❍	❍	❍	❍
Supported by the faculty (10)	❍	❍	❍	❍	❍	❍

Q21 Are program recommendations resulting from your program review used to? (Please select all that apply)

- ❍ Create an Action Plan (1)
- ❍ Accreditation Review (2)
- ❍ Budgeting and Finance (3)
- ❍ Personnel Adjustments (4)
- ❍ Other Resource Allocation (library, computers, office equipment, etc.) (5)
- ❍ Internal Institutional Requirement (6)
- ❍ Recommendations not implemented or used in any way (7)
- ❍ Other (8) _____

Q22 Who do you feel benefits from program reviews:

	Never (1)	Rarely (2)	Sometimes (3)	Most of the Time (4)	Always (5)
Institution Administration (1)	❍	❍	❍	❍	❍
External Entities (2)	❍	❍	❍	❍	❍
Programs (3)	❍	❍	❍	❍	❍
Faculty (4)	❍	❍	❍	❍	❍
Students (5)	❍	❍	❍	❍	❍
Other (6)	❍	❍	❍	❍	❍

Q23 What improvements to the program review process would you like to see at your institution? (Open Ended)