Qualitative Research Study:

Effectiveness of Online Course Quality Programs in Higher Education

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Chapter 1

Introduction

Online education offerings around the globe are continuously expanding and the number of online enrollments is increasing. In a 2015 survey of 25,000 adults around the world, 77.84% responded that they have enrolled in at least one online course (Yu & Hu, 2016). As the demand of online learning is growing, it is imperative that institutions of higher education focus on the delivery and design of high-quality online courses and programs. In order to address the quality of online programs, online course design and delivery best practices must be evaluated and implemented.

As new educational technologies become available to students and instructors of online courses, current best-practices need to be applied to ensure a quality delivery and use of those products. Due to the increasing demand of online learning and the integration of new technologies, teachers and administration must focus on improving the quality of online offerings (Yang, 2010, p.363).

Statement of the Problem

Effective online course design is imperative for the success of an online learner. The responsibility of the design of online courses does not always fall on faculty members as they may not have the design skillset to produce quality online courses. The design of online courses is often delegated to designated Instructional Designers. McGahan et. al. (2015) explain that "The success of an online course is based— in part—on the quality of instructional design. Faculty members are subject matter experts, but may not have the pedagogical background and instructional design skills necessary to develop quality online courses" (p. 127). Faculty or instructional designers who are tasked with designing online courses are key components in

producing a quality product. The designer of an online course (whether it be an instructor or instructional designer) must follow best-practices in order to create an environment conducive to student success. The implementation of quality assurance procedures in educational institutions provides a structure for instructional design best practices for online learning environments.

Purpose

This qualitative case study aims to analyze online teachers' and students' perceptions of quality assurance methodologies which are intended to improve the quality of online courses. This research study focuses on online courses offered at an institution of higher education in New Jersey. The findings of this study will provide educators, instructional designers, institutional administrators and researchers with qualitative data on the effectiveness of quality assurance best-practices for online courses in higher education. They will provide information, practices and processes that will and will not benefit online course designers during the production and facilitation phases of online courses.

Research Questions

Research questions were designed in order to analyze the perceptions of quality assurance practices which are intended to improve the quality of online courses. The following qualitative research questions were studied in this research project:

1. What are the students' attitudes towards online courses which have been built and designed based on an online course quality assurance model?
2. What are the faculty attitudes towards online courses which have been built and designed based on an online course quality assurance model?
3. What strategies are used when integrating quality assurance models into the design and facilitation of online courses?

Limitation

Limitations were present in the research study which restricted the amount of data collection. The study was conducted over a period of one academic semester (15 weeks). The sample was limited to 80 students and four faculty members involved in a course designed with an online course quality assurance framework. A level of bias was present as the researcher interviewed instructors, analyzed the data and is employed at the institution being studied.

Delimitation

The four faculty members involved in this study have completed *Quality Matters* workshop and redesigned their online courses based on the *Quality Matters* rubric and specific review standards (www.qualitymatters.org). The number of faculty members who have been trained on *Quality Matters* is limited at the institution being studied. Students involved in the study are limited to those who are enrolled in courses facilitated by instructors who have familiarity with *Quality Matters* and adhere to its framework for course design.

Assumptions

There are several assumptions associated with this qualitative research study. Online learning in higher education is continuing to grow in popularity and demand (Yu & Hu, 2016). The increased demand puts an emphasis on the need for improving online courses. There is a growing need for research studies on professional development in college-level online instruction and design (Cook & Steinert, 2013, p. 903). As technology is constantly changing, updated professional development opportunities are essential. Finally, a correlation exists between student success and quality course design (Krause et. al., 2015, p.1). A goal of all educational institutions is to improve student learning outcomes.

Chapter 2: Literature Review

Introduction

College students in the 21st century have expectations for multi-modal delivery methods for courses. Online learning provides students with the flexibility of completing courses which accommodate their busy schedules that involve both personal and professional obligations (Irvine, et. al., 2013, p. 172). Providing an alternative mode to face-to-face style courses, students are able to personalize their learning experiences to best suit their own distinct learning requirements (Irvine, et. al., 2013, p. 175). Reviewing existing research on quality assurance protocols in higher education will provide educators and administrators with information on how to implement similar procedures. It also provides faculty and staff with evidence of what was effective or ineffective when implementing quality assurance protocols to improve online learning.

Review of Relevant Studies and Theory

Types of Quality Assurance Programs for Online Learning

Institutions often create their own standards for developing and delivering high-quality online courses. A university in the Midwest of the United States implemented its own quality standards for online courses. With these standards, instructional designers work with faculty members or instructors build courses independently. When instructors work with instructional designers, they provide course content and context to the instructional designers for cohesive delivery of discipline-specific material. . Once course design is completed, the instructor and instructional designers reconvene to review all of the components of the course to ensure that it is ready to be delivered (Ozdemir & Loose, 2014, p.2). Providing faculty and instructors with an institution-developed course quality rubric, checklist and guidelines, assures courses are likely to

be delivered effectively, given that the procedures and rubric were developed with proven effectiveness and research.

Some institutions may not have the resources (time, staff, experience, etc.) for creating quality assurance protocols and procedures for online courses and programs. In these situations, institutions rely on online course quality rubrics and guidelines developed by other institutions or third-parties (Lowenthal & Hodges, 2015). Some of the well-known and data-proven quality assurance entities which created their own systems of measurement include: *California State University Chico Rubric* (http://www.csuchico.edu/roi/the_rubric.shtml), *iNACOL Standards and Rubrics* (http://www.inacol.org/resources/resourcesearch/?resource_topics=16), *Online Learning Consortium* (http://onlinelearningconsortium.org/about/quality-framework-five-pillars/) and *Quality Matters* (https://www.qualitymatters.org) (Lowenthal &Hodges, 2015, p. 85).

Common themes among online course measurement tools include: the level of achievement/outcomes, learner engagement with instructors and students, appropriate course formatting, opportunities for learner-to-learner interaction and instructor-to-learner interactions (Aman, 2009, p.147). Additional components of quality standards include alignment of learning activities and content with course objectives, accessibility and access to support services (*Quality Matters*, www.qualitymatters.org).

Increased Demand Requires Increased Resources

Universities have implemented increased resource allocation for online course development and support as the demand for such courses increases. Over a 6-year period, The University of Nebraska at Kearney experienced an increase from two online courses to 78 online courses. This development triggered the institution to utilize *Quality Matters* online course

quality protocols and hire additional instructional designers to meet the demand of developing additional high-quality online courses (McGahan et. al., 2015, p.129).

Technology training for faculty, support staff and students consumes resources. Additionally, pedagogical training is needed for faculty and instructional designers when developing and delivering online courses (Ertmer & Newby, 2013, p.44). Costs for online course delivery include faculty and support staff (instructional and technical) salaries. Additional costs involve implementing high-quality online course technologies (video components, simulations, academic integrity tools, etc.) and procuring or developing course quality assurance protocols (Hollands & Tirthali, 2014, p.118). With the increasing demand for online learning, the amount of resources allocated to online course quality will rise.

Managing Quality from the Administrative Level

Administrators at institutions of higher education play an important role in providing quality online courses and programs. With adequate support from administration, educators have access to sufficient resources to deliver effective online courses and programs. These resources can include support, compensation, technical and pedagogical expertise (McGahan, 2015). Some institutions' administration may provide support for online education by way of incorporating a dedication to high-quality online courses and programs in the institution's mission statement. (McGahan et. al., 2015, p.127). The degree of support from administration will determine the level of success and scalability of online course offerings.

The assignment of trained and experienced online educators is an effective way to produce high-quality online programs. The recruitment of such educators can come from the administrative level (Yang, 2010, p.364). Without hiring qualified online educators, a system

must be in place to train existing or newly hired faculty with workshops and guidelines for delivering quality online courses (Hollands & Tirthali, 2014).

Faculty Development to Ensure Quality Assurance

Providing faculty with an outlet for discussing, learning about and sharing best-practices in online learning is a proven effective way to increase the delivery of high-quality online courses. At the University of Calgary and Deakin University, an online program was designed to address the need for specific design components to ensure a high quality product. The universities developed plans to address five areas in faculty development sessions pertaining to their online programs. These areas included:

> The need to spend considerable time in the pre-delivery phase of program design, the more complex nature of teaching in a more complex online learning environment, the effect of different communication media on communication dynamics, the value of synchronous communication for in-depth critical reflection and analysis, and the importance of empowering students to take responsibility for their learning (Weisenberg & Stacey, 2005, p. 388).

University of Calgary and Deakin University found that offering an outlet for these discussions provided a valuable resource for faculty to address the need of facilitating a student-centered learning community. This addressed the online course and program designs so that they synchronized with the instructors' varying teaching styles and techniques (Weisenberg & Stacey, 2005, p.388).

Institutions of higher education are bound by the requirements and recommendations of accreditation agencies (i.e., Middle States Commission of Higher Education). This requires that administrators take action on recommended and required changes to be made to existing online

course and program designs. Aman (2009) explains that institutions must adhere to requirements that online programs "assure academic achievement within the context of an online format" (p.153). Accreditation agencies must be provided with concrete data and information that learning outcomes achieved in traditional face-to-face courses can be achieved in online formats of the same course or programs (Aman, 2009).

Perceptions of Online Learning Quality Assurance Measures

Perception of online learning quality assurance measures vary among individuals who are involved in the facilitation and design of online courses. These varying perceptions are related to the level of expertise in the area, the type of quality assurance measures that they have been provided with and the level of support they are provided with. A sample of institutions across the United States was studied to assess the perceptions of instructors and staff of online learning practices at their respective institutions (Allen et. al., 2012). The results of the study found that less than half of the instructors surveyed believed that their institutions provided them with an adequate amount of tools and resources to effectively deliver online courses (Allen, et. al. 2012, p.20).

Conversely, among the staff at these institutions who are responsible for providing tools and services to online teachers, more than half believed that their institutions had adequate tools and resources in place in order to deliver effective online courses (Allen, et. al. 2012, p.20). The varying results, between educators and staff, notes a discrepancy in beliefs of what constitutes an appropriate level of online course quality assurance support and tools.

Summary

In this chapter, the researcher provided examples and theories of quality assurance protocols at institutions of higher education. The varying approaches and perceptions of the stakeholder involved in online education indicate a need to evaluate the current landscape of quality

assurance systems available to educators. The next chapter will outline the methodology used to analyze the educators' perceptions of quality assurance protocols at an institution of higher education. Students' perceptions on the quality of online courses they have completed will also be analyzed.

Chapter 3: Methodology

Introduction

Quality assurance in online courses promotes the design and delivery of effective online courses. In this study, the *Quality Matters* standards will be used to analyze the effectiveness of quality assurance processes in online learning (Standards from the *Quality Matters* Higher Education Rubric, 5th Edition). *Quality Matters* is often used as guide for measuring and implementing design best practices for online courses at all educational levels (Moorefield-Land et. al., 2016).

This qualitative case study assessed the quality assurance effectiveness through the observation of online practices and analyzation of student and instructor perceptions of the implementation of online quality assurance practices. The following research questions were addressed in this research study:

1. What are the students' attitudes towards online courses which have been built and designed based on an online course quality assurance model?
2. What are the faculty attitudes towards online courses which have been built and designed based on an online course quality assurance model?
3. What strategies are used when integrating quality assurance models into the design and facilitation of online courses?

Research Design

This qualitative case study utilized an ethnographic design as it studied the actions and behaviors of two groups (faculty and students) in a common setting (online course environments) over the period of one academic semester (Creswell & Creswell, 2018, p. 13). Qualitative research was best suited for this this study as a group of individuals were studied in a similar setting where questions emerged in a scenario which has many moving parts. Common themes

were analyzed and interpretations were made by the researcher (Creswell & Creswell, 2018, p. 4). This case study utilizes a variety of sources of data including data from observations (virtually through the online course environments), questionnaires and interviews of subjects (faculty and students).

Population & Sample

The sample of this research study involved instructors and students of four college-level online courses including English, Computer Science, Geoscience and Business disciplines. The courses were offered by New Jersey City University in a fully online format and campus services (faculty and student technology support, academic support services, library, etc.) were available to students on campus, by phone or online. Each course encompassed one instructor and 20 students. This totaled four instructors and 80 students in this research study. Each of the instructors were trained on the *Quality Matters* rubric by completing the "Applying the *Quality Matters* Rubric Workshop" and received certificates of completion (www.qualitymatters.org). The duration of the study was one academic semesters which began in January of 2018 and lasted through May of 2018.

The instructors involved in the study have taught online courses for at least two consecutive years in the same discipline. Each of the instructors also teach traditional face-to-face courses each semester. The student population involved ranged from freshmen to seniors. All of the students in the study were also enrolled in a traditional face-to-face course in the semester that the study took place.

Each of the four courses in the study were reviewed by a *Quality Matters* Peer Review team to ensure that the course design met the standards described by the *Quality Matters* rubrics and annotations and were granted the distinction of a "*Quality Matters* Certified Course"

(www.qualitymatters.org). By *Quality Matters* requirements, a *Quality Matters* certified online course meets all of the standards at an eighty-five percent level. Two of the courses that completed the peer review procedures did not meet the standards at an eighty-five percent standard. These courses were redesigned and reviewed again; this resulted in the courses becoming certified.

The research study involved stratification as individuals of the sample needed to be involved in an online college-level course. As Creswell & Creswell (2018) explains that stratification "means that characteristics of the individuals are represented in the sample and the sample reflects the true proportion in the population of individuals with certain characteristics" (p. 150). Stratification in this study allowed the researcher to include students who have taken face-to-face courses as well as the online course involved in the study. Stratification of faculty took place as faculty who have taught online courses in the past two years were chosen to be part of the study. Faculty included in the study were chosen based on their involvement with *Quality Matters*.

Researcher's Position

In an effort to avoid disruptions and distractions, the researcher played a role of an observer. This ensured that the researcher was not interfering with online course activities and lessons. The online format of these courses made this easy to achieve. The researcher is an employee of the institution where the courses in the study were offered, but since the *Quality Matters* workshop and course review process was facilitated by the *Quality Matters* organization, the relationship of the researcher and the institution did not interfere with the study.

The researcher was placed into each of the four online courses in an observer role and was not granted permission or ability to post or interact with the students or instructors in the

online learning environments. The researcher was able to navigate the course environment in order to observe the course content, collaboration activities and access student resources. The researcher is certified and trained on the learning management system that was utilized in the study. Additionally, the researcher is trained and certified as a *Quality Matters* peer reviewer and workshop facilitator. These credentials provide the researcher with the necessary knowledge of the *Quality Matters* rubrics to be able to make connections with what is observed in the online courses and the *Quality Matters* rubric.

Procedures

Upon receiving approval from the IRB at New Jersey City University, the research study commenced. Faculty were asked to voluntarily provide access to their online courses, students and answer questions in an interview. Students were asked to participate in the study by providing answers to open-ended questions in a qualitative survey. Data from the four courses was collected throughout the duration of the semester (January through May of 2018). This data consisted of course observations of the online courses, surveys and interviews of students and instructors.

Within the first three weeks of the study, the four faculty members in the study were interviewed (Appendix A) with open-ended questions. These questions aimed to understand their perceptions of delivering online courses, designing courses based on the *Quality Matters* standards and their students' experiences in their online courses. Throughout the next three weeks of the study, the researcher virtually observed the four online courses based on the observation forms which the researcher created (Appendix C). The observation form aimed to record evidence of course components, learning activities, opportunities for collaboration and alignment of course components with learning objectives. At the end of the semester, students

were asked to complete an open-ended survey which asked questions based on their experience with the online course (Appendix B).

Data from the faculty interviews, course observations and student surveys were compiled, analyzed and compared with each of the other online courses studied. Faculty interview data and students' survey responses were analyzed in conjunction with the online course observation data. Correlations between survey responses, interview data and notes from the online course observations were recorded to ensure confirmability, credibility and truth value. To ensure validity of the data, a triangulation of data was collected. Interview data was collected from the online instructors, open-ended data was collected from student surveys and notes were taken from the course observations. This ensures that the collected data was from several sources and perspectives of the research study's participants (Creswell & Creswell, 2018, p.200).

Coding of the data from all sources took place in order to find themes and categories of the data (Creswell & Creswell, 2018, p.193). Based on the themes and categories from the data sources, the researcher produced "expected codes" which the researcher expected to find and "surprising codes" which the researcher did not anticipate to find (Creswell & Creswell, 2018, p.195).

With the analyzed results from the three data sources the researcher was able to answer the following research questions:

1. What are the students' attitudes towards online courses which have been built and designed based on an online course quality assurance model?
2. What are the faculty attitudes towards online courses which have been built and designed based on an online course quality assurance model?

3. What strategies are used when integrating quality assurance models into the design and facilitation of online courses?

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Appendix A

Faculty Interview

1. How would you describe your role as an online instructor as opposed to a traditional face-to-face instructor? How are the types similar and different?

2. How do you feel the design of your course effects the learning outcomes of your students?

3. How do quality assurance standards affect how online courses are delivered?

4. How do the *Quality Matters* standards help you when designing your course?

5. How does *Quality Matters* affect student attitudes towards the subject matter being taught?

6. What are some of the advantages and disadvantages of teaching this course (designed based on quality assurance standards in an online format as opposed to a traditional face-to-face modality?

7. How would you rate the *Quality Matters* rubric (please include any recommendations for future editions of the rubric)?

8. Explain obstacles that exist when designing and delivering an online course?

Appendix B

Student Survey

1. What online course activities do you feel made this course engaging?

2. How would you describe the design of this course (structure, navigation, access to resources)?

3. How would you describe your comfort level with taking an online course as opposed to a traditional face-to-face course?

4. What do you feel was the most helpful types of activities in this course which helped you to understand the course subject?

5. What would have made this online course more effective to aid you in the completion of the course?

6. What recommendations do you have for all online instructors at the college level?

Appendix C

Online Course Observation

Date of Observation:

Course Name:

Instructor:

Course Content Components of the Online Course	**Researcher's Comments**

Learning Activities in the Online Course	Researcher's Comments

Opportunities for Collaboration in the Online Course	**Researcher's Comments**

Evidence of Alignment of Activities and Learning Objectives	**Researcher's Comments**