Mixed Methods Research:

Students' Perceptions of Online Courses Designed by

Nationally Recognized Quality Assurance Standards and the

Perceptions' Relationship to the Effectiveness of Online College-Level Courses

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Chapter 1

Introduction

The study of quality assurance measures for online courses and the impact of these efforts must be understood by institutions which are focusing on maintaining and/or increasing online course offerings. Studies have found that eighty-five percent of students enrolled in an online course were satisfied or very satisfied with their online courses (Dobbs et. al., 2017, p.94). Although these numbers provide insight on the overall satisfaction among students enrolled in online courses, the factors that contribute to students' satisfaction must be analyzed. Furthermore, the effectiveness of the design and facilitation of these online courses must be evaluated to determine the effect of online quality assurance standards and the relationship to students' perception of online courses.

Statement of the Problem

The utilization of quality assurance standards when developing and delivering online courses is a common practice for institutions that are dedicated to providing a quality learning experience for online learners in higher education (Ozdemir & Loose, 2014, p .1). Implementing a framework for reviewing online courses includes the evaluation of active learning opportunities, effective communication opportunities, types of engaging online content and overall design of the online environment (Ozdemir & Loose, 2014, p .2). As technology is constantly changing with alternative options for delivering course content in an online format, quality assurance review practices must be consistently evaluated to ensure that students are receiving a high-quality and effective learning experience with positive learning outcomes.

Purpose

The purpose of this convergent mixed methods research study is to analyze and investigate students' perceptions of college-level online courses designed by nationally recognized quality assurance standards and the relation of these perceptions with student outcomes. Perceptions of the students will be analyzed to determine their views on their course's design features (including overall course design, communication opportunities, active learning activities, and engaging course content). The end-of-semester quantitative learning outcomes data of these online courses will be studied to determine the effectiveness of the course design. This data will also be compared with the mid-semester qualitative data collected from a sample of student interviews and mid-semester quantitative data from closed-ended survey questionnaires. The data from the convergent parallel mixed methods research study will provide online educators with information on the effectiveness of online quality assurance measures and its relation to students' perceptions of online courses designed with these standards.

Research Questions

The researcher designed questions aimed to analyze students' perceptions of courses designed by nationally recognized online quality assurance standards and the effectiveness of the implementation of such practices. The three research questions in this research study are:

1. What are the students' perceptions of online courses designed by nationally recognized quality assurance standards?

2. How does the implementation of online quality assurance measures affect student learning outcomes in college-level online courses?

3. How do students' learning outcomes relate to the students' perceptions of online courses (designed by online quality assurance standards)?

Limitations

Limitations existed in the delivery of this convergent parallel mixed methods research study. Due to the restriction of time to complete this research study, the researcher was confined to a 15-week time frame (the duration of one academic semester). The sample of qualitative data is purposely small in an effort to reduce the likelihood of bias when analyzing the quantitative data (Creswell and Plano, 2010, p. 89). If the sample of qualitative data was large, it would be more likely that those participants were also part of the quantitative data sample.

The researcher acted as the instrument in collecting the qualitative interview data; this reflects a level of possible bias. The researcher is also an employee of the institution being studied. As Creswell & Creswell (2018) explain, a level of bias may be present when the researcher is studying his/her own organization; this may involve "an imbalance of power between the inquirer and participants" (p. 184).

The research study was limited to one institution in order to analyze a similar collection of student learning outcomes data based on a standardized grading rubric used by the institution. Environmental factors of the institution (i.e., available student resources, student perceptions of faculty, etc.) may have played a part in how students responded to interview and survey questions. A broader study, including multiple institutions, would provide a larger and in-depth analysis of results.

Chapter 2: Literature Review

Introduction

An increased demand for college-level online courses has increased due to the flexible nature of the teaching modality which fits individuals' personal and professional obligations (Irvine, et. al., 2013, p. 172). As new technologies emerge and updated online pedagogies are studied, the need to educate online teachers on these enhancements is extremely important. Due to this increased demand for online courses and programs, educators must review related research on online course quality protocols and nationally recognized quality assurance standards for online learning. These protocols and standards provide a guideline for determining what constitutes high-quality online courses. Reviewing the perceptions of students enrolled in online courses allows educators to realize the connection between student learning outcomes and online course design and facilitation.

It would be beneficial to educators of institutions offering online courses and programs to be aware of online course quality standards in order to provide effective online courses; effective online courses provide students with a varying set of tools and strategies to successfully complete the course work. Understanding students' perceptions of online courses expose areas that need additional research and attention. Previous research on limitations and struggles when evaluating online courses will provide institutions a framework for addressing online program shortfalls.

Review of Relevant Studies and Theory

Quality Assurance Standards for Online Learning

The demand for online courses and programs is on the rise with students who have individual logistical needs to complete college-level programs (Irvine, et. al., 2013, p.172). With

this demand, it is incumbent upon educators and institutions to address the need for quality assurance protocols and to assess the effectiveness of existing online course quality measurement practices. Conflicting professional opinions exist on the effectiveness of an online modality due to the uncertainty of what constitutes a high-quality course (Vlachopoulos, 2016, p. 188). A lack of understanding of factors contributing to a high-quality online learning environment necessitates a need for research on student perceptions of online learning and the correlation with online learners' success in those environments. Vlachopoulos (2016), explains that with an expanding demand for online courses and programs at all institutions of higher education, administrators and educators need to focus on online education with an "endorsement that quality is related to an efficient and effective development process and [that] view that quality concerns effective pedagogy" (p. 188)

Institutions which have implemented quality assurance protocols task instructors, instructional designers or both instructors and instructional designers to design online course based on high-quality design protocols (Ozdemir & Loose, 2014, p.2). Online course quality standards are either developed in-house (by professional online facilitators and instructional designers) or adopted from third-party organizations which provide nationally recognized rubrics for designing and assessing online course quality standards (Lowenthal & Hodges, 2015, p.85). Common characteristics of online courses which are evaluated by online course quality standards are student learning outcomes, levels of student engagement with course content and students, communication opportunities with the instructor, and course design (Aman, 2009, p.147).

Learning Outcomes' Relation to High-Quality Online Courses

Learning outcomes are used to evaluate students' achievement in all academic disciplines and in all modalities of course offerings (face-to-face, web-enhanced, blended and online).

Learning outcomes provide quantitative data on how students are meeting specific learning objectives of a course or program. In order for learning outcomes in online courses to be sufficiently analyzed, online course objectives need to be aligned with all course learning activities ("Standards from the Quality Matters Higher Education Rubric," 5th Edition).

Learning outcomes in online courses must reflect students' achievements in interacting with course content in order to verify that student learning has taken place in the course (Chapman & Henderson, 2010, p.18). Chapman and Henderson (2010) state that high-quality online course standards should be used in order to "ensure student learning include multiple assessment techniques, hands-on projects, electronic portfolios, reflective writings, collaborative projects, standardized assessment instruments, [rubrics] and course management systems to monitor mastery of learning objectives" (p.18). These standards must be implemented in concert with informing and training faculty and instructional designers on these online quality assurance standards (Ertmer & Newby, 2013, p.44). These practices should be included as standard components in online learning environments.

Student Perceptions of High-Quality Online Courses

Student perceptions of the quality of online courses are based on a set of online course expectations. Secret et. al. (2016) conducted a study in which students enrolled in an online course expressed satisfaction; results showed students were provided with clear course expectations from the instructor, a detailed course schedule, easily accessible course content, opportunities for engagement with students and instructors and opportunities for active learning activities such as Wiki assignments (p. 34). Additionally, Secret et. al. (2016) found that students having access to multiple means of retrieving course content allows for a more personalized learning experience; students with varied options for reviewing content have an option for

studying and reviewing material allowing them to adapt to the online environment to suit their learning styles (p.34).

Timely and constructive instructor feedback to students on completed online activities also plays into students' perception of the online learning experience. The students in Secret, et. al.'s (2016) study expressed a need to constructive feedback on a given topic before they are restricted to the course module where the learning activities reside (Secret et. al., 2016, p. 35). The aforementioned online components, delivered in a well-structured interface, provides students with a clear roadmap for academic success. Opportunities for synchronous and asynchronous feedback on student learning activities provide learners with valuable insight to their progress in the online course (Weisenberg & Stacey, 2005, p.388).

Online Course Design and Effectiveness of Online Courses

Instructional designers and educators are tasked with designing online courses in a way that students can easily navigate course content and complete necessary learning activities (Hollands and Tirthali, 2014, p.118). Course design is an essential component of high-quality online courses as students rely on the design in order to access course content in a structured fashion (Ivankova, 2014, p. 40). When evaluating online courses, course quality standards incorporate content placement and accessibility into the evaluation rubric ("Standards from the Quality Matters Higher Education Rubric," 5th Edition).

Limitations and Struggles When Evaluating Online Course Quality

Challenges and barriers exist when evaluating the effectiveness of online courses. In order to adequately assess the quality of online courses, analyzation of course design and components needs to be conducted with knowledge of the content being taught ("Standards from the Quality Matters Higher Education Rubric," 5th Edition). Quality Matters, an organization

nationally recognized for developing standards for evaluating the level of effectiveness of online courses, requires the inclusion of subject matter experts who work with other online course quality reviewers who are certified in the field of online quality assurance ("Standards from the Quality Matters Higher Education Rubric," 5th Edition).

The inclusion of subject matter experts in in a course review process (for certifying the course as being a quality online course) is relevant as the quality and nature of the course content can be reviewed in an effort to find alignment of course content with course objectives. Charalampidi and Mammond (2016) conducted a research study which has found that the quality of online collaboration and learning activities may not be straightforward enough to be effectively evaluated (p.275). Additionally, this study discovered there may be instances where students may be interacting in a private arena (course messages or email) where they feel more comfortable collaborating; this makes it hard for course observers to evaluate the engagement of an online course environment (Charalampidi & Mammond, 2016, p.275). This example has potential of labeling a course as not utilizing opportunities for active learning activities.

Summary

This literature review provides an outline of current practices of evaluating the quality of online courses, examples of previous research studies of the relation of student learning outcomes and design of online courses. Research is lacking in the area of the relationship between student perceptions of online learning and the learning outcomes of online courses certified as high-quality products. Therefore, the research questions which are addressed in this research study, will benefit educators in the field of online learning.

Chapter 3: Methodology

Introduction

For this mixed methods research study a convergent parallel design was conducted in order to investigate the perceptions of students enrolled in college-level online courses and the relationship to the effectiveness of the online course design.

The research study aims to address and analyze students' perceptions of courses designed by nationally-recognized online quality assurance standards and the effectiveness of the implementation of such practices. The three research questions in this research study are:

1. What are the students' perceptions of online courses designed by nationally recognized quality assurance standards?

2. How does the implementation of online quality assurance measures affect student learning outcomes in college-level online courses?

3. How do students' learning outcomes relate to the students' perceptions of online courses (designed by online quality assurance standards)?

Research Design

Using mixed methods research as an approach to study the perceptions of students and the relation to the effectiveness of online courses provides a valuable context of this distinctive setting. In this convergent parallel design, both quantitative and qualitative data was collected and analyzed independently; when studying the results of the study, both data sources were combined to determine inferences of the study (Creswell & Plano Clark, 2011, p. 71). Mixing the qualitative and quantitative results provided the researcher with a complete understanding of the research topic.

Research studies on similar topics have adopted convergent mixed method design successfully. For example, Heckerson (2014) conducted research on how students' satisfaction

of online learning played a part in the creating leaders in the field on science; interview questions were used as a way to collect qualitative data on students' level of satisfaction and closed-ended surveys to collect quantitative data on what contributed to students' level of satisfaction (p. 84). This convergent mixed method design provided the researcher with an in-depth analysis of how students' satisfaction affects the development of leaders in the field of science.

As explained in a qualitative study of online course effectiveness by Hammond (2015), the research provided qualitative data on students' perceptions of online courses in which they were enrolled (p. 229). This study, in particular, did not involve quantitative data (i.e., student outcomes, instances of course components, etc.). Thus, the study left room for debate on what was provided by the collection of qualitative data. As an example, Hammond (2015) explains that qualitative data was collected in order to analyze the perceptions of students regarding the availability of student tutors; due to the qualitative nature of the data, the analysis of the data was open for debate (p. 231). Hammond (2015) states that "claims about online affordances have become seen as overstated and it is recognized that participants in both formal and informal environments are differentiated in their behavior" (p.231). Incorporating quantitative data in this study would help the researcher come to a structured and credible realization on the topic.

Studying the effectiveness of online courses with mixed methods research can provide a more detailed and informative result. Ivankova (2014) explains that "conducting mixed methods studies [ensures] the process is systematic and rigorous...methodological guidance on how to assess and establish quality during a mixed methods study design and implementation may enhance a study's validity and ensure the credibility of the inferences..." (p.26). Students' perceptions of online course quality in relation to their respective student learning outcomes can provide this larger and more precise evaluation of online learning.

As Lave and Wenger (2011) explain, a community of practice involves participants interacting with objects and individuals in a social environment; to study a community of practice, an individual must learn from exemplary masters in order to become full practitioners in a specific area (p. 95). When analyzing qualitative data of participants in an online environment researchers gain access to valuable information regarding individual perceptions of online environments and how individuals participated in a community of practice (i.e., the online course environment). The observation of "legitimate peripheral participation" will allow the researcher to study students' interactions with instructors (masters) and other students; this will allow the researcher to observe the students' contributions to their goal of reaching "mastery of knowledge" (Lave and Wenger, 2011, p.29). Additional analysis of quantitative data, such as student learning outcomes, will validate collected qualitative data and assist the research study in making connections between online course components with student success.

Population and Sample

The population for this study was 250 students enrolled in general education online courses. The qualitative sample size was smaller than the quantitative sample size. The different sample sizes, according to Creswell and Plano Clark (2011), provides the researcher with a large amount of statistical data (from the quantitative data) and the small sample of qualitative data will provide themes of the data. A larger sample size provides the researcher with a more accurate collection of inferences (Creswell & Creswell, 2018, p. 151). The population was confined to one institution in order to retrieve consistent and standardized grading criteria from the rubrics used to assess student outcomes (see Appendices C-E).

The researcher obtained a sample of 225 students through convenience sampling for the quantitative sample; 25 students of the population declined to participate in the study for

unknown reasons. Convenience sampling was used as the researcher had access to faculty teaching online courses at the institution where the courses were offered. The researcher confirmed that the online general education courses were designed by the Quality Matters standards ("Standards from the Quality Matters Higher Education Rubric," 5th Edition). These general education courses were offered in the spring 2018 semester at the university where the courses were offered and delivered. With the online course instructors' permission, the researcher distributed letters to request student participation in the research study and 225 students volunteered their participation in the study.

The researcher obtained 20 students as a sample for qualitative data through purposeful sampling. The researcher requested and received permission to include two students from each of the online courses in the study. Each general education course has a standard grading rubric for each academic discipline (see Appendices C-E). The 20 students' achievement scores of "above average" (a grade of 85% or higher) or "below average" (a grade of 75% or lower) were retrieved from the completed Signature Assignment rubrics. This provided quantitative data for the research study. One student with an above average score on the Signature Assignment was randomly selected from each discipline. Similarly, a student with a below average score on the Signature Assignment was randomly selected from each discipline. These same 20 students participated in an interview which provided a strand of qualitative data for the mixed methods research study.

General education courses from all disciplines, require students to complete Signature Assignments. Student Signature Assignment scores were collected from the institution's general education department's student grade database.

The population of students consisted of 50 students from five different disciplines (totaling 250 students) in order to analyze a wide range of academic disciplines. These disciplines included: Math, English, Business, Computer Science and Psychology. Two courses from each of the five disciplines had enrollments of 25 students; this results in the population equal 225 students (excluding the 25 students who declined to participate in the study). The researcher interacted with the samples from the first day of the spring 2018 semester through three months after the spring semester ended; the duration of the research study totaled 7 months.

Procedures

Upon approval by the Institutional Review Board (IRB) of the institution where the study was conducted, the researcher was permitted to begin the convergent parallel mixed methods research study to analyze and investigate students' perceptions of college-level general education online courses designed by nationally recognized quality assurance standards. Within the first week of receiving approval from the IRB, an overview of the research study, along with a request to participate in the research study, was disseminated via email to the instructors of ten courses involved in the study in the first week of the spring 2018 semester. All instructors agreed to the study. Letters requesting permission to use two data collection instruments (see Appendices F and G) were sent to the instrument creators by way of email (email addresses were retrieved from the creators' online publications); permissions were granted.

An overview of the research study, along with a request for permission to access student outcomes data and utilize the standardized Signature Assignment grading rubrics (see Appendices C-E) from the general education department was emailed to the director of the IRB; permission was granted (see Appendix H). Student outcomes data from these online general

education courses provided the researcher with a set of data with consistent grading criteria from the rubrics.

By the end of the second week of the study, the researcher confirmed that the instructors of the online courses had been trained on the Quality Matters rubric by requesting and receiving certificates of completion of the Quality Matters professional development workshop through email exchanges. Quality Matters is a nationally recognized organization which provides course quality standards and a rubric to assess the effectiveness of online courses ("Standards from the Quality Matters Higher Education Rubric," 5th Edition). Additionally, the researcher collected qualitative data of the online course components, to ensure that each course was delivered at a high-quality level, by way of observation (see Appendix I); this took place by the second week of the spring 2018 semester. The researcher virtually observed the online courses in the learning management system where the courses were delivered; the instructors (from each of the ten courses) granted online course access to the researcher for a duration of two weeks; this provided the researcher with access to online course material in order to complete the online course observations (see Appendix I).

A summary and request for participation in the study were emailed to the population (250 students); the researcher received permission from 225 students within the first two weeks of the study. The sample of 225 students consisted of 20-25 students from five different disciplines: Math, English, Business, Computer Science and Psychology. Two courses from each of the courses had enrollments of 25 students; this results in the sample equal to 225 students (including a deduction of 25 students who declined to participate in the study).

In the third month of the research study, which was the midpoint of the spring 2018 semester, students were provided with an online closed-ended survey (created and delivered

through Google Forms) in order to collect quantitative data on their perceptions of the online

courses which they were enrolled (see Appendix B). Prior to disseminating the survey, a letter

was emailed to the creator of the survey requesting permission to utilize the survey instrument in

this study; permission was granted (see Appendix F).

By the fifth month of the research study, which was the end of the spring 2018 semester,

students had received their final grades for the Signature Assignment submitted for their online

courses. All general education courses from all disciplines, require students to complete

Signature Assignment. Student Signature Assignment scores were collected from the

institution's general education department's student grade database.

Each general education course had a standard grading rubric for each academic discipline

(see Appendices C-E). The 20 students' achievement scores of "above average" or "below

average" was retrieved from the completed (by the instructors) Signature Assignment rubrics.

This provided quantitative data for the research study. One student with an "above average"

score on the Signature Assignment was randomly selected from each online course (two students

from each discipline). Similarly, a student with a "below average" score on the Signature

Assignment was randomly selected from each online course (two students from each discipline).

The collection of data from students at both score levels was done in anticipation of correlations

between student outcomes and student perceptions of online course design.

These same 20 students participated in an interview which provided a strand of

qualitative data for the convergent mixed methods research study (see Appendix A). These

interviews took place in the sixth month of the research study (one month after the end of the

spring 2018 semester). Each interview had a duration of approximately 20 minutes. This

provided the researcher with sufficient time to collect the student outcomes data from the graded

Signature Assignments (with Appendices C-E). The interviews were included to provide insight into the students' views/opinions of the delivery and design of the online general education courses (Creswell & Creswell, 2018, p. 187). Half of this sample was interviewed synchronously on Blackboard Collaborate Ultra; these students were individually provided a unique link to a live web session in an email and the interview took place at a mutually agreed upon time. The remaining half of the sample was interviewed in person at the institution where the students are enrolled in the researcher's office; these interview times were mutually agreed upon.

During the seventh month of the research study, strands of quantitative qualitative data were analyzed to answer the following research questions:

1. What are the students' perceptions of online courses designed by nationally recognized quality assurance standards?

2. How does the implementation of online quality assurance measures affect student learning outcomes in college-level online courses?

3. How do students' learning outcomes relate to the students' perceptions of online courses (designed by online quality assurance standards)?

Research question #1 was answered by analyzing the quantitative data collected from the closed-ended survey submissions and the strand of qualitative data from the student interviews. Research question #2 was answered by the researcher's analysis of the quantitative student learning outcomes collected from the graded Signature Assignments by way of the standard rubrics provided by the institution's general education department (see Appendices C-E). Research question #3 was answered by synthesizing the collection of quantitative and qualitative data (student learning outcomes data, survey responses and interview data).

The results of the convergent mixed methods research study provide online educators with information on the effectiveness of online quality assurance measures and their relationship to students' perceptions of online courses designed with these standards.

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Appendix A

Student Interview Questions

Qualitative Interview Questions

1. How many online courses have you completed?

2. What were your reasons for enrolling in the online section over the in-class section?

3. Generally speaking, what aspects of online courses have you found most beneficial?

4. Least beneficial?

5. In your opinion, have online and in-class courses been equally effective in terms of experience and knowledge acquired? What experiences have most influenced your opinion?

6. How important a role do you feel interaction with your fellow students and the professor plays in your learning process?

7. If yes it is important– Tell me about how you have experienced this in online and in-class courses. If no it is not important– Why have you not found it to be helpful? What have you found to be most helpful?

8. What were your interactions/discussions like with fellow students and the professor in this class?

9. Did you feel the discussions contributed to your learning experience?

10. Were you encouraged to formulate your own ideas and opinions?

11. Tell me about your experience with support services (IT, library, student affairs, program administration, registrar, etc.)

12. Do you feel you received the same quality of support as you would have if you were an in-class student?

13. For the purpose of this research, quality is defined as learning what you set out to learn in the course, as well as having a positive learning experience. Do you feel your learning experience was a "quality" one? Why or Why not?

14. What are the first words that come to mind when you think of your overall experience in this course?

15. The goal of this research is to improve the quality of online education we provide. What factors are most important to you with regards to a "quality" learning experience?

16. The online and in-class Introduction to the U.S. Judicial System Course was taught by the same professor and all students were given the same assignments. Do you think you would have acquired the same amount of knowledge in the in-class course as you did in the online course?

17. Do you feel that your signature assignment in the course was due in part by the design of the online course?

Appendix B

Student Closed-Ended Survey

1). Why did you choose to take this class in the online format? (Select all that apply.)

- I was unable to take the traditional face-to-face class
- Time constraints made me look to online
- I prefer online courses
- This online course was recommended to me
- This online instructor was recommended
- I heard the online class was easier
- Other

2) What grade did you receive in this course?

- A - to A
- B to B+
- C- to C+
- D to C-
- F

3) Which of the following were used to determine your grade? (Select all that apply.)
- Discussion board responses
- Quizzes
- Tests
- Reflection papers
- Written assignments
- Projects

4) Was this the grade you expected? (Select one.)
- Yes
- No

5) How was the content of this course delivered? (Select all that apply.)
- Podcasts
- Skype
- Jing
- PowerPoint
- YouTube
- Discussion Boards
- Wiki
- Other

6)

Did you work in groups with your classmates?	Always	Often	Sometimes	Never
Did you feel a sense of community with your classmates?	Always	Often	Sometimes	Never
Was the instructor prompt with feedback?	Always	Often	Sometimes	Never
Did the instructor provide constructive feedback?	Always	Often	Sometimes	Never
Did the instructor use guided discussion boards?	Always	Often	Sometimes	Never
Was the instructor available to you when you had questions?	Always	Often	Sometimes	Never
Were grades readily available?	Always	Often	Sometimes	Never
How often was this class "teacher centered"?	Always	Often	Sometimes	Never
How often was this class "student centered"?	Always	Often	Sometimes	Never
Did the instructor offer to give feedback on assignments before they were turned in for a grade?	Always	Often	Sometimes	Never

7) How did your instructor prepare you for using the technology necessary for this course? (Select all that apply.)

- Provided tutorials
- Provided links to tutorials
- Provided links to support
- Didn't need to provide because technology used was only basic

- Offered no assistance
- Was unable to offer assistance when asked for help
- Other

8) When you encountered problems with technology, where did you seek help?

- Consulted with my professor
- Consulted with others in the online course Consulted with other students in my program
- Consulted with the helpdesk
- Figured it out on my own
- Gave up
- I did not encounter any problems with technology
- Other

9) Was this online course what you expected? (Select one.)
- Yes, it lived up to my high expectations
- Yes, it met my modest expectations
- Yes, although my expectations were very low
- No, it was much better than I expected
- No, it was worse than my expectations

10) (Select one per row.)

	Strongly Agree		Neither Agree nor Disagree		Strongly Disagree
If I had to do it over, I would take this class online again.	1	2	3	4	5
The content of this course would be better presented as a hybrid class (part online and part delivered traditionally).	1	2	3	4	5
This class should be only offered in a traditional	1	2	3	4	5

face-to-face setting.					
I would recommend the online format of this course to other students.	1	2	3	4	5
I would recommend this instructor in the online format to other students.	1	2	3	4	5
This class inspired me to take more classes online.	1	2	3	4	5

11) For the following prompts, use the given scale to compare your experiences with online and traditional, face-to-face classes. (Select one per row.)

	Online	Both Formats, Equally	Traditional
I learn best in this format.	1	2	3
This format is most demanding of my time.	1	2	3
This format allows me to use my time wisely	1	2	3
This format is most academically challenging.	1	2	3
I enjoy this format the most.	1	2	3
This format is most conducive to my learning style.	1	2	3
This format is most convenient.	1	2	3
This format is most conducive to learning the class material.	1	2	3

Appendix C:

Information and Technological Literacy Rubric

*NJCU Gen Ed Tier-Level Targets ▶	*Tier III Target = Score of 4	*Tier II Target = Score of 3	*Tier I Target = Score of 2	*Below Tier I Target = Score of 1 or 0
Determine the Extent of Information and Technology Needed	Effectively defines the scope of the research question or thesis and the technology needed to access and/or utilize information. Effectively determines key concepts. Types of information and technology selected directly relate to concepts or answer research question.	Defines the scope of the research question or thesis and technology needed to access and/or utilize information completely. Can determine key concepts. Types of information and technology selected clearly relate to concepts or answer research question.	Defines the scope of the research question or thesis and technology needed to access and/or utilize information incompletely (parts are missing, remains too broad or too narrow, etc.). Can determine key concepts. Types of information and technology selected partially relate to concepts or answer research question.	Has difficulty defining the scope of the research question or and technology needed to access and/or utilize information. Has difficulty determining key concepts. Types of information and technology selected do not relate to concepts or answer research question.
Access and Use Needed Information with Appropriate Strategies and Technologies	Accesses information with effective, well-designed search strategies and most appropriate information sources. Utilizes information in conjunction with appropriate technologies to extract maximum value.	Accesses information with a variety of search strategies and relevant information sources. Demonstrates ability to refine search and utilize information in conjunction with appropriate technology to achieve desired result.	Accesses information with simple search strategies, retrieves information from limited and similar sources, and utilizes information with appropriate technology in a limited way.	Accesses information randomly, retrieves information that lacks relevance and quality, and is unable to effectively use information in conjunction with technology.
Evaluate Sources and Applications of Information Critically	Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources and determines applications after considering the importance (to the researched topic) of the multiple criteria used (such as relevance to the research question, currency, authority, audience, bias or point of view.) Determines full array of data needed.	Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources and determines applications using multiple criteria (such as relevance to the research question, currency, authority.) Finds a broad array of data from which to choose.	Chooses a variety of information sources, but not necessarily appropriate to the scope and discipline of the research question. Selects sources and determines applications using basic criteria (such as relevance to the research question, currency.) Finds a limited array of data from which to choose.	Chooses a few information sources. Selects sources and determines applications using limited criteria (such as relevance to the research question.) Finds a narrow array of data types and sources from which to choose.
Use Information	Communicates, organizes, and synthesizes information	Communicates, organizes, and synthesizes information	Communicates, organizes, and utilizes information from sources in a limited	Communicates information from sources, but information is fragmented and/or used

Effectively to Accomplish a Specific Purpose, Using Technology as Needed	from sources, using appropriate technology as needed to fully achieve a specific purpose, with clarity and depth,	from sources, using appropriate technology as needed. Intended purpose is achieved.	manner. The information is not yet synthesized, so the intended purpose is not fully achieved.	inappropriately (misquoted, incorrectly paraphrased), intended purpose is not achieved.
Access and Use Information and Technology Ethically and Legally	Students use correctly all of the following information and technology use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information and technology.	Students use correctly three of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information and technology.	Students use correctly two of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information and technology.	Students use correctly one of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information and technology.
Application of Information Literacy and Technology Resources	Demonstrates a superior understanding of how to use the World Wide Web and other technology resources to access, process, and utilize information.	Demonstrates a solid understanding of how to use the World Wide Web and other technology resources to access, process, and utilize information.	Demonstrates a limited understanding of how to use the World Wide Web and other technology resources to access, process, and utilize information.	Needs to demonstrate sufficient understanding of how to use the World Wide Web and other technology resources to access, process, and utilize information.
Evaluation of Web-Based and Technology Resources	Critically and systematically evaluates the authenticity and validity of World Wide Web resources. Identifies and utilizes all appropriate technological resources.	Systematically evaluates the authenticity and validity of World Wide Web resources. Identifies and utilizes many appropriate technological resources.	Haphazardly evaluates the authenticity and validity of World Wide Web resources. Identifies and utilizes some appropriate technological resources.	Uncritically accepts the authenticity of World Wide Web resources. Identifies and utilizes few, if any, appropriate technological resources.

Appendix D

Written Communication Rubric

*NJCU Gen Ed Tier-Level Targets ►	*Tier III Target = Score of 4	*Tier II Target = Score of 3	*Tier I Target = Score of 2	*Below Tier I Target = Score of 1 or 0
Context of and Purpose for Writing *Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s).*	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).	Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience).
Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and Disciplinary Conventions *Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).*	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task (s) including organizat ion, content, presentation, formatting, and stylistic choices	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for	Demonstrates an attempt to use sources to support ideas in the writing.

	the discipline and genre of the writing	and genre of the writing.	the discipline and genre of the writing.	
Control of Syntax and Mechanics	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.

Appendix E

Critical Thinking and Problem-Solving Rubric

*NJCU Gen Ed Tier-Level Targets ▶	*Tier III Target = Score of 4	*Tier II Target = Score of 3	*Tier I Target = Score of 2	*Below Tier I Target = Score of 1 or 0
Topic Identification and Management	Identifies a creative, focused, and manageable topic that addresses potentially significant yet previously less explored aspects of the topic.	Identifies a focused and manageable/doable topic that appropriately addresses relevant aspects of the topic	Identifies a topic that while manageable/doable, is too narrowly focused and leaves out relevant aspects of the topic.	Identifies a topic that is far too general and wide-ranging as to be manageable and doable.
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Theoretical Framework or Approach	All elements of the methodology or theoretical framework are skillfully	Critical elements of the methodology or theoretical framework are appropriately developed, however, more subtle elements	Critical elements of the methodology or theoretical framework are missing, incorrectly developed, or unfocused.	Inquiry design demonstrates a misunderstanding of the methodology or theoretical framework

	developed. Appropriate methodology or theoretical frameworks may be synthesized from across disciplines or from relevant sub-disciplines.	are ignored or unaccounted for.		
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

Appendix F

Letter for Permission to Use Student Closed-Ended Question Survey

To: Barbara A. Burns Professor

Co-Chair Teacher Education Department

Canisius College Buffalo, NY 14208 USA

Dear Dr. Barbara Burns,

My name is Daniel Ward and I am a doctoral student of Educational Technology Leadership at New Jersey City University. I am conducting a research study on the "Perceptions of Students on Online Courses Designed by Nationally Recognized Quality Assurance Standards and its Effectiveness for College-Level Courses." I came across your research study on "Students' Perceptions of Online Courses in a Graduate Adolescence Education Program." The purpose of this message is to request permission to use your closed-ended question survey which you used in your study.

With your permission, I will use your instrument for my research purposes only. I would also like to modify the instrument to exclude questions with do not pertain to my research today.

I appreciate your anticipated response.

Regards,

Daniel Ward

Burns, B. A. (2013). Students' perceptions of online courses in a graduate adolescence education
        program. *Journal of Online Learning and Teaching, 9*(1), 13. Retrieved from
        https://search.proquest.com/docview/1500386860?accountid=12793

Appendix G

Letter for Permission to Use Interview Questions

Dear Dr. Hope Kentnor.

My name is Daniel Ward and I am a doctoral student of Educational Technology Leadership at New Jersey City University. I am conducting a research study on the "Perceptions of Students on Online Courses Designed by Nationally Recognized Quality Assurance Standards and its Effectiveness for College-Level Courses." I came across your research study on "Investigating and understanding student learning outcomes in an online and face-to-face graduate-level legal administration course: An embedded mixed methods design." The purpose of this message is to request permission to use your set of interview questions which you used in your study.

With your permission, I will use your instrument for my research purposes only. I would also like to modify the instrument to exclude questions with do not pertain to my research today.

I appreciate your anticipated response.

Regards,

Daniel Ward

Kentnor, H. E. (2015). *Investigating and understanding student learning outcomes in an online and face-to-face graduate-level legal administration course: An embedded mixed methods design* (Order No. 3715376). Available from ProQuest Central; ProQuest Dissertations & Theses Global. (1701629781). Retrieved from https://search.proquest.com/docview/1701629781?accountid=12793

Appendix H:

Letter Permission to Use General Education Rubrics

Dr. Ashok Vaseashta

IRB Chair

New Jersey City University

Dear Dr. Ashok Vaseashta,

My name is Daniel Ward and I am a doctoral student of Educational Technology Leadership at New Jersey City University. I am conducting a research study on the "Perceptions of Students on Online Courses Designed by Nationally Recognized Quality Assurance Standards and its Effectiveness for College-Level Courses." In my study I will be analyzing student learning outcomes and student perceptions of online courses. In that regard, I am requesting permission to use and reference the "Information and Technological Literacy,"   "Critical Thinking and Problem-Solving," and the "Written Communication" rubrics utilized for General Education courses. In a separate request, I will be submitting an IRB application to include NJCU online general study courses in my study.

I appreciate your consideration in this matter and your anticipated response.

Regards,

Daniel Ward

Appendix I:

Course Virtual Observation

Date of Online Observation:

Course Title and Section:

Online Course Content Examples	Researcher's Comments

Online Course Learning Activities	Researcher's Comments

Online Student Engagement Components	Researcher's Comments

Alignment of Online Activities and Course Objectives	Researcher's Comments