QUALITY COURSE DESIGN: ARE FACULTY SELF-PERCEPTIONS OF IMPLEMENTED COURSE DESIGN REFLECTIVE OF COURSE DESIGN QUALITY MEASURES?

by

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WE, THE UNDERSIGNED MEMBERS OF THE COMMITTEE,

HAVE APPROVED THIS DISSERTATION

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Abstract

Higher education institutions utilize faculty who possess subject-matter expertise and terminal degrees in specific disciplines. Often, faculty are not formally trained in educational theory, pedagogy, or best practices related to student learning. Best practices in course design standards are available to faculty who seek them out. However, with little formal education or design training, faculty deploy courses lacking best practices in course design to students. This creates a mismatch between how faculty perceive they are utilizing subject-matter expertise to educate students and how students receive the educational information from faculty. Before an investigation into whether focused training in best practices of course design standards may be helpful to faculty, a comparison of the course design standards faculty perceive they implement to the design standards that can be observed in their courses needed to be completed.

Utilizing a quantitative approach, this study compared faculty self-perception of their inclusion of course design quality elements in a self-designed fully online course to investigator-observed course design quality elements in the faculty's self-designed fully online course. Faculty participants in this study all taught at least 1 fully online course for a small Midwestern health care college during a single academic year. The results of the study demonstrated disconnects between faculty self-perception of the inclusion of best practices in course-design elements and the observed inclusion of best practice course-design elements in these areas. The disconnects were identified in the following areas: The presence of materials in the course that support efficient student course navigation and communicate general faculty expectations of students, the presence of materials that help students to clearly understand the syllabus and what work is expected to be completed within a certain timeframe, and the presence of clear information about the delivery method of the course.

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Chapter 1

Elements of Quality Course Design

Backward Design is a method of curriculum creation described by Wiggins and McTighe (1998) that helps faculty create course materials and experiences to meet the learning and knowledge needs and desires of students. According to Wiggins and McTighe, the creation of courses with the end in mind identifies standards to direct and formulate the materials and activities utilized by instructors in a course. Providing a framework for identification of materials and strategies, Backward Design supports the construction of learning experiences for students, guiding them to demonstrate necessary achievement at the end of a course (Wiggins & McTighe, 1998). This research clearly articulated that intentional learning experiences by students must be deliberately designed by instructors.

Background of the Problem

Backward Design is not an intuitive manner of course planning. Wiggins and McTighe (2005) pointed out in *Understanding by Design* that instructors often perceive this method of course planning to be uncomfortable, as it detours from a traditional planning methodology of listing course activities without directly relating the activities to the course outcomes. Traditional planning methods are driven by course activities and breadth of content rather than identification of the necessary materials and activities that allow students to perform course expectations (McTighe & Wiggins, 2012). Support in the utilization of alternate, student-performance-based planning methods must be given to those responsible for course planning.

The authors of *Understanding by Design* partnered with the Association for Supervision and Curriculum Development to create a guide sheet to assist educators in implementing the Backward Design process (Wiggins & McTighe, 2005). Similarly, Wiggins (2012) collaborated

with the University of North Carolina at Greensboro to provide a framework for embedding Backward Design into faculty processes. A curriculum planning process directed toward nurse educators was presented by Emory (2014). Likewise, Michael and Libarkin (2016) offered a similar course- development framework that embedded Backward Design into course development for higher education faculty in all content areas. These articles have provided a foundation for faculty to develop courses aimed at the intentional integration of learning outcomes in course work at the lesson or unit level. The Backward Design framework also directed the intent of this study to expand outcomes-focused design into the development of a fully online course.

Although Backward Design provides faculty with a framework for intentional course design, faculty have the freedom to deviate from the design process. Ensuring that online course materials meet a minimum of standards, the Quality Matters organization developed a standards measurement tool. Quality Matters, an organization that expanded from the Maryland Online Consortium, provides training, a rubric, and supporting materials for higher education institutions to evaluate online course design. Quality Matters methods are used specifically to evaluate eight different categories related to the design of a course. These categories are the following: course overview and introduction, learning objectives or competencies, assessment and measurement, instructional materials, learning activities and learner interaction, course technology, learner support, and accessibility and usability (Helping You Deliver on Your Online Promise, 1997). Similarly, the Online Learning Consortium has endorsed the Open SUNY Course Quality Review (OSCQR) rubric for online course review in higher education. The OSCQR evaluates the design of the following areas of a course: overview and information, technology and tools, design and layout, content and activities, student-student or student-faculty

interactions, and assessment and feedback (*OSCQR*, n.d.). Both tools can be utilized by faculty, designers, or course reviewers to evaluate the comprehensiveness and quality of online course design.

Tools and supports such as the Backwards Design, Quality Matters, and the OSCQR are in place to assist faculty in developing courses that promote student interaction and achievement of course outcomes; yet, many faculty continue to perceive their own design abilities to be content-centric (You, 2010). Institutions of higher education traditionally place more value on research than teaching excellence; therefore, faculty who are traditionally research focused rather than instruction focused need structured supports to create effective educational experiences for students (Marentic Požarnik & Lavric, 2015). Consequentially, Marentic Požarnik and Lavric (2015) pointed out that providing exemplary targeted training in teaching and learning is especially important for beginning higher education faculty, as it establishes standards and practices to support the teaching role

In the article, "Accidental Composition: How the Ph.D. Machine Fails Our Students," Vance (2018) discussed the negative impacts on students when a faculty member does not know how to teach. Vance also pointed out that faculty hiring committees should be expected to identify any pedagogical training needs to the faculty chair so that the individual faculty member's training needs can be addressed during the orientation or on-boarding process. Institutions of higher education fail the faculty, and therefore the students, by neglecting an environment of continuous pedagogical improvement, resulting in faculty who either cannot teach or who are left to their own devices to learn or relearn how to teach (Vance, 2018).

Formalized pedagogical training and implementation of standardized course design support tools are lacking in higher education (Khalil & Elkhider, 2016). Without organized

pedagogical supports such as training faculty to teach in higher education, faculty default to creating courses that are comfortable for them to teach, rather than searching out ways for students to engage fully with the learning process (Negassa & Engdasew, 2017). The lack of intentional faculty support with the tools and training to provide quality content and pedagogy is a failure in institutions of higher education.

Statement of the Problem

Although online course design tools and evaluation methods are available, no standardized process exists to guide faculty through the how of implementation. Wiggins and McTighe (1998) and Khalil and Elkhider (2016) worked from the assumption that those implementing Backward Design are formally trained educators. Michael and Libarkin (2016) pointed out that the "lack of pedagogical training that faculty members receive becomes apparent when a new instructor has to teach a course for the first time" (p. 46). An assumption of Wiggins and McTighe and Khalil and Elkhider was that all educators have at least a working understanding of pedagogy. Michael and Libarkin found that higher education faculty lack pedagogical training results in outcome misalignment and a lack of student-centered interaction in course design (You, 2010).

Formalized design processes and alignment of learning expectations to educational activities remain challenges for most faculty who have not been formally trained in pedagogical practices (Shaver, 2017). Faculty in higher education need support to create intentional connections among content, assignments, and course outcomes. Recognition by faculty of the need for intentional design to create course material and course outcome connections is necessary but cannot occur without training. Research of Shaver (2017) has shown the importance of sound pedagogical and course design practices in higher education. However, the

degree to which faculty perceive their own course design ability has not been measured in the literature.

Purpose of the Study

The purpose of this study was to investigate if higher education faculty accurately perceive the extent to which they are providing students with course materials that meet minimum design standards. This was determined through a comparison of the faculty's self-perceived ability to design a quality course and a course evaluation using the design standards of the OSCQR rubric. The comparison identified gaps between faculty's self-perceived ability to design quality courses and observed inclusion of best practice elements in deployed fully online courses.

The focus of the study was on the design of online courses at a small, private, health care college. Faculty were surveyed to determine their perception of their own competency in the design of welcome and introductory information in courses at both the undergraduate and graduate levels. The perceptions were compared with an evaluation of the course based on the OSCQR rubric's Overview and Information subscale to determine if any gaps existed between faculty's self-perception of the inclusion of essential quality elements and the existence of those elements in the deployed course.

Importance of the Study

According to Michael and Libarkin (2016), higher education faculty typically have no formalized training in andragogical methods or course design quality. Support for faculty to implement best practices in course design and pedagogy is necessary to create overt connections among course materials, assignments, and course outcomes (Khalil & Elkhider, 2016). Facilitating acquisition of new knowledge and creating a cognitive structure around the new

knowledge is necessary for students to learn successfully (Charikova & Zhadanov, 2017). The OSCQR tool is intended to evaluate implementation of the essential elements of course design necessary to elicit student performance that meets the intended course outcomes. Comparing the faculty survey and the OSCQR scores of courses taught by the surveyed faculty determined how self-aware and adept faculty were in developing course materials and assignments overtly connected to the course outcomes. This study also identified additional training opportunities for faculty regarding how to incorporate course design elements that assist students in meeting the intended outcomes of a course.

Definition of Terms

Assessment: evaluation or ability of a student to demonstrate the performance of academic learning.

Assignment: work assigned as a part of academic study.

Backward Design: method of course design, described by Wiggins and McTighe (2005) that identifies the intended outcomes prior to the creation of any course activities.

Case Study: research process related to the implementation of a newly designed tool.

Course Design: a process completed by an instructor or instructional team that plans for successful completion of academic study for students.

Course Material: activity, reading, interaction, lecture, or other content used to support student achievement and demonstration of course outcomes.

Course Outcome: statement that describes what a student is expected to demonstrate after fully interacting with course materials.

Curriculum: a program of study.

Faculty: higher education instructor.

Higher Education: college or university instructional program.

OSCQR Rubric: a tool designed by SUNY and the Online Learning Consortium that informs faculty or instructional design teams of the quality, effectiveness, and efficiency of course design.

Pedagogy: processes and methods used to teach an academic topic.

Limitations and Delimitations of the Study

The researcher conducting this study assumed that the faculty member participants did not already intentionally utilize design principles and had not already utilized instructional designer assistance when developing a course. However, faculty who participated in this study may have already been exposed to the elements of quality design as measured by the OSCQR rubric. The study was designed to review a variety of course content areas at multiple levels of instruction taught by different faculty. The study's breadth was intended to gain insight into the varying course design abilities and perceptions of multiple faculty members at one small college.

Essential Questions and Objectives

The main objective of the study, to identify faculty perception of their own ability to provide students with course materials that meet minimum design standards, was investigated through the question: Do faculty accurately perceive their course design ability? To meet this objective of the study, courses designed by individual faculty members were scored to determine whether their course design met minimum standards on the OSCQR Overview and Information subscale.

Two additional objectives of this study were to identify faculty strengths and weaknesses (through a comparison of faculty perception of course design abilities of course overview and information and scores on the OSCQR Overview and Information subscale) and to identify areas

for suggested faculty training in course design standards. These last two objectives attempted to answer the question: Could training be provided to faculty to address potential gap areas? Table 1 summarizes the objectives and methods of measurement for each objective in this study.

Table 1

Table of Study Objectives and Measurement Methods

Objective	Measurement Method
Measure faculty perception of their own course design ability	An eight-statement survey based on the best practices survey utilized in, *A Study of Faculty Members' Perceived Utilization of Best Practices in Distance Learning Course Design and Delivery and the Role of Instructional Designers* by You (2010) was given to faculty for self-evaluation.
Determine overall course design quality based on the minimum standards of the OSCQR Overview and Information subscale	Eight items from the OSCQR rubric's Overview and Information subscale were scored by the investigator to evaluate the course design of courses developed by surveyed faculty, resulting rubric output indicated the estimated total additional design workload needed to meet minimum rubric standards.
Identify faculty strengths and weaknesses through a comparison of faculty perception of course design abilities with scores from the OSCQR Overview and Information subscale	Faculty survey results were compared with OSCQR Overview and Information subscale scores.
Identify areas for suggested faculty training in course design standards	The OSCQR subscale scores were reviewed to identify patterns (i.e., in any areas with 2+ hours of additional design work necessary to meet minimum rubric standards).

Note. Study objectives with corresponding measurement methods

Summary

Faculty in higher education are more often discipline-specific subject matter experts

rather than educational practice experts. The research noted in this review demonstrated the need for faculty support in the design of teaching strategies in their deployed courses. Through a survey of faculty self-perceptions of about course design best practices, this study identified the degree to which faculty perceive their own course design ability. Through the comparison of faculty perception of course design abilities with the OSCQR subscale, this study sought to identify areas for potential design concepts support or training.

Chapter 2:

Review of Literature

The Elementary and Secondary Education Act of 1965 and subsequent reauthorizations were the driving forces for educational accountability in K-12 education. Following the act's passage, research about which teaching and learning strategies provided the most impact on K-12 student learning began to emerge. As students progressed from the K-12 educational environment into higher education, they began to expect the same quality of teaching and learning to be offered as a part of their higher education experience. Such an expectation by students generated the need to improve the educational accountability of higher education. To ensure educational accountability, design methods and evaluation tools were needed so faculty could measure the effectiveness of delivered course content. The focus of this literature review is to discuss research demonstrating faculty strengths and weaknesses in providing students with course materials that integrate best practices in course design.

History

The importance of how education is delivered and the connections between educational delivery and student achievement were noted as early as the 1970s. In his article, "Five Evaluation Frameworks: Implications for Decision Making in Higher Education," Gardner (1977) set out to provide guidance in how to best measure educational accountability in terms of delivery and achievement. According to Gardner, student evaluation methods, teaching strategies, and educational methods should all be considered when determining educational effectiveness. That is, appropriate pedagogical methods for learning outcomes are necessary to verify student achievement of course outcomes.

Looking forward to the 1990s, research was published about the effectiveness of course

delivery in higher education. Ramsden (1991) concluded that students are uniquely qualified to judge instructional effectiveness without any formalized training. As consumers of education, students are able to measure objectively teaching performance simply because they see so much instruction. A student's interpretation of teaching performance is based on the instructor's ability to convey clearly expert knowledge to the student through effective course design strategies (Ramsden, 1991).

Liow, Betts, and Lit (1993) identified a direct relationship between teaching methods and learning outcomes and emphasized the importance of intentional planning of such methods in order to reach outcomes. Up until this period, no resources were found that addressed the relationship between intentional course design and learning outcomes. The authors concluded that in order for students to have the greatest opportunity to achieve all the educational outcomes for learning, courses must be developed with applicability to the expected learning goal rather than to a specific group of students or toward specific content consumption. However, Liow et al. concluded there is no correlation between the implementation of a specific teaching strategy and increasing student performance of specific learning outcomes. That is, the student demonstration of learning outcome achievement relates to the learning design intentionality rather than the learning method (Liow et al., 1993). Therefore, based on the work of Liow et al., student performance can be directly related to how clearly the materials are delivered rather than the strategy used to deliver the materials.

As a result of educational research in the 1990s, learning came to be understood as a process rather than a culminating event. For example, Lea (2004) discussed the relationships among learning, the method of learning, and the formation of knowledge. Lea identified this process as a negotiation that is unique for each student in collaboration with the teacher, the

materials, and the environment. Each experience is different and must be intentionally planned. Deliberate design of instructional interactions and the learning environment must be uniquely addressed from both the instructor and student perspective.

Recognition of the need to consider the student experience in terms of the educational process toward the achievement of learning outcomes was brought to the forefront in the Kelting-Gibson (2005) study, "Comparison of Curriculum Development Practices." The data results revealed that students who participated in a course that was developed using a Backward Design process outperformed students who participated in a course that was developed using a traditional design process. Using design standards to create intentional design within online courses provides students with a structure that supports learning in the upper domains of cognition as defined by Bloom's Taxonomy (Dole & Bloom, 2009). Educational settings that are centered on learning, knowledge, assessment, and community solicit greater student learning outcome achievement than do educational settings that are constructed in a content-centered manner (Dole & Bloom 2009).

Simply placing content in front of students for them to sift through in a learning management system is not enough to engage students in authentic learning (Hixon, Barczyk, Buckenmeyer, & Feldman, 2011). Studies relating the importance of the design of learning and learning outcomes eventually led the process of Backward Design created by Wiggins and McTighe (1998). Their work provided the first comprehensive design guide for educators, focusing on content, instructional strategies, and student achievement measurements. Although not written for any particular educational level, the book provided guiding principles for intentional instructional and materials design with the goal of learning for student outcomes. Wiggins and McTighe reiterated, frequently, the need to consider continually the student and

supports necessary for student achievement, rather than the needs of the educator. All focus should be on the student and how to guide the student to achieve the desired results of the course using targeted performance measures. The basic foundation of the Wiggins and McTighe design guide is to consider what the student should know, understand, and do at the conclusion of the course. The end of the course is intended to be the beginning of the planning process (Wiggins & McTighe, 2008). Implementing the Backward Design process can specifically craft a learning environment conducive to student achievement of expected learning outcomes through the utilization of appropriate instructional strategies and materials.

Even with the guidance provided by Backward Design concepts and processes, research continued in fields related to best practices for instruction and design, particularly in online instructional best practices. Through best practice research, an organization grew from grassroots efforts in Maryland, eventually leading to the creation of Quality Matters. Quality Matters (QM) directly supports implementation of design and interaction standards that fosters student learning (Helping You Deliver On Your Online Promise, 1997). Research then began to include design expectations as outlined by QM, resulting in much more evidence about how online instruction should be implemented. Varonis (2014) studied the processes outlined by QM, pointing out a disconnect between subject matter experts' instructional practices and best practice instruction and design. Faculty, the subject matter experts, do not typically possess the pedagogy or strategy knowledge to support the resources students need in a fully online environment (Varonis, 2014). The literature referenced in this section is specific to lesson or unit planning for achievement of learning outcomes.

Many faculty in higher education lack educational training or experience (Chao, Saj, & Hamilton, 2010). As a result, the deficit knowledge and skills held by faculty in the intentional

creation of a learning environment that solicits authentic learning by students, is naturally inclusive of student individuality and conveys clearly stated outcomes and expectations (Smidt, McDyre, Bunk, Li, & Gatenby, 2014). Therefore, faculty need intentional guidelines to navigate the course creation process (Chao et al., 2010). Equally helpful in the design process is the collaboration between the faculty and an instructional designer (Chao et al., 2010). Not all faculty have unlimited access to instructional designers, but access to faculty who have successful experience in course design is nearly as helpful as the guidance of an instructional designer (Chao et al., 2010).

Research has not only focused on what formally trained educators deem necessary as best practices of quality course design but also on the student viewpoint. Fayer (2014) noted that students identified course organization, relevance of course work to authentic experiences, timely feedback from the faculty, and the ability to self-assess achievement of learning outcomes as necessary elements in successful courses (Fayer, 2014). These course elements, as identified by students, are aligned with the best practice elements identified by the Backward Design process, QM, and the relationship between teaching methods and student achievement (Helping You Deliver On Your Online Promise, 1997; Liow et al., 1993; Wiggins & McTighe, 2008).

To date, the literature documents the practice of Backward Design beginning with Wiggins and McTighe (1998) through present day (Chao et al., 2010; Jones, Vermette, & Jones, 2009; Khalil, & Elkhider, 2016; Kelting-Gibson, 2005; Lea, 2004; Lenert, & Janes, 2017; Marshall, 2015; Michael & Libarkin, 2016; Neal & Hampton, 2016; Reynolds & Dowell Kearns, 2017; Sun & de la Rosa, 2015; Vance, 2018; Whitehouse, 2014). Additionally, Marshall (2015) and You (2010) presented research that called out the lack of pedagogical training for higher education faculty and characterized faculty's individual implementation of intentional

pedagogical practices into courses. However, the topic of faculty integration compared to faculty perception of pedagogical practices into course design is an understudied phenomenon.

Current Implications of Literature

Research and writings related to the *Understanding by Design* tenets brought about research related to the implementation of the concepts of Backwards Design (Chao et al., 2010; Jones et al., 2009; Khalil, & Elkhider, 2016; Kelting-Gibson, 2005; Lea, 2004; Lenert & Janes, 2017; Marshall, 2015; Michael & Libarkin, 2016; Neal & Hampton, 2016; Reynolds & Dowell Kearns, 2017; Sun & de la Rosa, 2015; Vance, 2018; Whitehouse, 2014). This work resulted in a more defined course development framework intended to provide guidance for faculty in higher education. Faculty guidance regarding course design is necessary because, as pointed out in several studies, higher education faculty have not been formally trained in the pedagogical practice application necessary for facilitating student learning (Negassa & Engdasew, 2017). According to Wiggins and McTighe (1998) instructors are encouraged to capitalize upon the resources available to them to identify, write, design, and deliver courses that guide students toward the achievement of the identified learning outcomes. Subsequently, much effort has gone into identifying and refining a process that supports content creation and student course work expectations that faculty can utilize when planning instruction intended to produce effectively student learning outcomes (examples: Jones et al., 2009; Whitehouse, 2014).

Research conducted between 1998 and present day has advanced a process of course development with emphasis on Backward Design in higher education. Much of this work has extended educational theory long embedded in K-12 education to higher education. Discipline-specific studies by Michael and Libarkin (2016) and Neal and Hampton (2016) focused on implementation of Backward Design in higher education. Although these studies focused on

differing methods, educational levels, and content areas, both studies concluded that Backward Design facilitates the internalization and application of the intended learning outcomes of formalized education.

Faculty often lack the experience and training to recognize their own gaps in pedagogical practices (You, 2010). Institutions of higher education often fail the faculty and, therefore, the students by placing more focus on research practices than on pedagogical improvement (Khalil & Elkhider, 2016; Vance, 2018). The focus on research rather than instruction results in faculty relying on implementation of the instructional methodologies and tools with which they are most familiar (You, 2010). Faculty need to be empowered to identify, discuss, and engage in pedagogical practices that are unfamiliar to them in order for learning mastery to occur for students (Brown & Ramasamy, 2017). In order for quality courses to be deployed, institutions of higher education must devote resources toward course design processes that are strongly rooted in pedagogical strategies and technical supports (Rucker, Edwards, & Frass, 2015). Institutions of higher education need to have professionally trained support personnel and easily accessible course design and review processes for faculty in order to implement effectively best practices in online instruction.

Faculty need to have access to the tools and processes of informed instruction, including the ability to make data-driven decisions regarding instruction, in order to provide the most appropriate learning environment for students. “Reflection on practice, making meaning together, and sharing of expertise are essential for those navigating the unfamiliar landscape of online teaching and learning” (Collay, 2018, p. 35), and there is a “critical need for ‘good modeling’ for future instructors, within the quality design process” (Lenert & Janes, 2017, p. 10). Faculty should have access to pedagogical and design training related to quality course design,

guidance from instructors who have successful design experience, or feedback from instructional designers in order to create a quality course design with learning and outcomes at the forefront (Michael & Libarkin, 2016). Recognition of the need for inclusivity specific to a group of students in a class or the students' educational community is a learned trait by faculty and must be fostered in order to be effectively learned (Lenert & Janes, 2017). Faculty need to be flexible in adapting to an environment of planning, growth, change, continuous improvement based on student feedback, uncertainty, and revision of course content and instruction (O'Connor, 2012). When faculty recognize the positive impact that refining content, pedagogical practices, and assessments can have on student success, they will be more likely to embrace the opportunity to learn and incorporate such practices (Collay, 2018). Course review processes that identify gaps in instructional knowledge also need to be in place to offer faculty development that expands the teaching capabilities of the online instructor (Northcote, Gosselin, Reynaud, Kilgour, & Anderson, 2015).

Adaptability as outlined by O'Connor (2012) and Lenert and Janes (2017)(Source not listed in reference section.) can be supported through the identification of gaps in course content via tools such as the QM and Online Learning Consortium standards. Faculty who participate in QM training are informed in areas such as writing and associating learning objectives and creating outcome assessments (Sun & de la Rosa, 2015). Research has demonstrated that courses designed by QM-trained faculty produced an increase in student learning from instructional materials, learner interactions, and course technologies (Sun & de la Rosa, 2015). Although all of these identified areas are impacted by faculty training, none is more improved than student interaction (Sun & de la Rosa, 2015).

Though the literature has demonstrated the necessity of faculty training, it is also

important to determine baseline information for how faculty are performing and for how they perceive their own performance related to online course design. Marshall (2015) focused on the connection between faculty rank and course design to determine if faculty who held a higher faculty rank in their institution were more able to provide a course that utilized quality course design practices. The study found that no connection was evident between faculty rank and quality course design (Marshall, 2015). However, there continues to be a gap in the literature as there has not been a comparison of faculty self-perception of course design quality with course design quality standards. Without such measures, it is difficult to level appropriately the needed supports and training to build on faculty strengths, illuminate misconceptions, or identify areas of needed improvement.

Summary

Institutions of higher education continue to work to identify the best methodologies for implementing intentional instructional design for faculty who lack formal educational training. The studies discussed in this chapter focused on faculty training and design expertise. No study was identified by the researcher that identified alignment between student-centered instructional design and deployed instruction in the higher education setting. As the literature review discussed, a study focused on the alignment of faculty self-perception as compared to the course materials provided for students in fully online courses is needed.

Chapter 3

Methods

Methodology

This study surveyed faculty who had taught at least one fully online course to determine faculty self-perception of course design quality within the introductory components of the course. The survey was based on You's (2010) Likert-scale rating of self-perception statements, resulting in numerical values associated with the survey responses. Numerical values were also obtained from the OSCQR Overview and Information subscale. The OSCQR rubric is a course review tool made available by Online Learning Consortium, in association with the State University of New York (SUNY). The scores were the result of reviews completed by the researcher who is an experienced educator with 12 years of experience in instructional design. The OSCQR subscale values reflected either that the course had met the OSCQR standard or that there would be a specific amount of workload associated with bringing the course elements up to the standard for each criterion. These numerical measurements were analyzed and compared, resulting in a quantitative study. The study was designed to be utilized in a small private health care college, limiting the number of participants.

Tools

As mentioned, two tools were utilized in this study. First, the faculty self-perception statements originated from You's (2010) work *A Study of Faculty Members' Perceived Utilization of Best Practices in Distance Learning Course Design and Delivery and the Role of Instructional Designers*. The full list of statements from You's study, based on a forced-choice, four-degree Likert scale, are provided in APPENDIX A. Additional optional questions were asked at the conclusion of the survey to gather respondent demographic information. These

questions are provided at the end of APPENDIX A.

Second, the OSCQR rubric was used to evaluate the course designs. As displayed in APPENDIX B, the OSCQR was constructed to rate the design of a course in the areas of overview and information, technology and tools, design and layout, content and activities, interaction, and assessment and feedback (*OSCQR*, n.d.). The OSCQR identified the total number of work hours, post design, each course would need in order to meet the minimum qualifications of a well-designed course.

Data Collection

Essential questions answered in this study were:

- Do faculty accurately perceive their online course design abilities?
- What gaps exist between faculty's self-perception of online course design and implementation of essential course design elements in their courses?
- Could training be provided to faculty to address potential gap areas?

Content validation data collection. Data collection was conducted in two phases. First, content validation data was collected to determine alignment between faculty self-perception statements and the OSCQR rubric subscales. The participant sample for content validation consisted of one instructional designer and one faculty member per rating iteration. Instructional designer participants must have had a minimum of two years of online design experience and faculty member participants must have earned a terminal degree and had experience teaching fully online courses. Content validation participants must also have had design or teaching experience in a Midwestern health care-focused institution. Participants from the investigator's home institution and the institution under investigation were excluded.

To initiate the validation, statements were selected from You's (2010) 30-statement

survey (APPENDIX A) that aligned with the selected items from the OSCQR rubric's seven subscales (APPENDIX B). The researcher paired a single self-perception statement from the You study with a single criterion from the OSCQR rubric. Once results of each pair surveyed were completed, the researcher edited the self-perception statement to incorporate the feedback provided by the participants. The iterative process resulted in modified self-perception statements that were subsequently provided to a new pair of participants for feedback. New participants were identified and surveyed until items were determined to be valid for alignment of measures, clarity, simplicity, and ambiguity.

The initial goal was to align all 30 of You's (2010) faculty self-perception statements with all seven of the OSCQR rubric subscales. However, as described in Chapter 4, the only complete OSCQR subscale for which valid alignment could be determined was the OSCQR Overview and Information subscale, which corresponded to eight faculty self-perception statements related to course welcome and introduction information.

Faculty self-perception and OSCQR data collection. Once validation was complete, data collection for the study commenced. Faculty members who had taught at least one fully online course were given a randomized participant number and the eight-statement electronic survey. The survey provided numeric representations of faculty members' qualitative perceptions of the integration of course design best practice into the course welcome and introductory information. A research assistant was utilized in the assignment of the participant numbers in order to randomize the participants.

The faculty also selected a fully online course that they had developed in the 2018–2019 academic year and communicated their selection to the research assistant, who identified the course by the same randomized number used on the faculty survey so that the results could be

matched. The researcher blindly reviewed the identified course using the OSCQR Overview and Information subscale, which includes information related to the general setup of the course and clear expectations for participation and learning. This measurement provided quantitative data to determine the quality of each course's design on the indicated subscale of the OSCQR rubric. The ultimate goal of using You's (2010) statements and the OSCQR rubric was to compare faculty self-perception of design quality with the level of design quality identified by an external reviewer using a standardized tool.

Reliability

The reliability of You's (2010) study statements was determined by implementation of the Rasch model. The statements were determined to have a 0.83 reliability per participant of the 36-participant group, indicating the questions in the initial study were constructed and delivered in a reliable manner. Because this study was based on You's model and statements, a reasonable determination was made that reliability did not need to be piloted again in this study.

Validity

You's (2010) study statements had already been determined to be reliable for content and construct as a part of the initial study. As a part of the pilot study included in You's (2010) research, the statements were provided to subject matter experts in instructional design to determine the construct of the statement and the appropriateness of the language. The statements were then modified and presented to 70 faculty members at two separate universities who were chosen through a stratified random sampling method. The methods used by You validated the statements' content and construct.

The OSCQR rubric was developed and tested by a broad range of instructional designers, librarians, distance learning directors, and technologists to create criteria and a rating system that

were based on the best practices of teaching and learning in higher education. This rubric was tested in the SUNY system and found to be a valid instrument in determining course design with alignment to the Open SUNY fundamental competencies for online teaching (*OSCQR*, n.d.). To ensure alignment between the survey statements and the OSCQR rubric, the researcher conducted a content validation index.

Data Analysis

Content validation data analysis. The content validation data was analyzed by calculating the mean response value of the pair of respondents in each round. Validity was considered to be reached when item scores were greater than 0.75. Full alignment for a complete subscale of the OSCQR rubric was necessary to ensure validity and reliability of that OSCQR subscale. In other words, if alignment was obtained between some of the self-perception statements and some, but not all, of the criteria within an OSCQR subscale, the scale was not utilized because of validity concerns. Because of this validation requirement, the content validation process only resulted in a full alignment between the faculty self-perception statements and the OSCQR Overview and Information subscale (these results are presented in detail in Chapter 4).

Faculty self-perception and OSCQR data analysis. In order to analyze the study data, each of the eight validated survey statements was paired with an OSCQR Overview and Information subscale criteria. The mean score of each pair was calculated to determine an average score for each survey participant's question group. A Wilcoxon Signed Ranks Test was used to analyze the paired responses. This nonparametric measurement identifies the differences between individual responses of paired data to determine the averages of the differences between individual pairs. The Wilcoxon Signed Ranks Test was additionally used to determine if the two

dependent data sets could be assumed to have similar distributions applicable to all populations. The OSCQR Overview and Information subscale also resulted in a mean score. The mean scores were then used to calculate *t*-values, which reflected the difference between the rubric scores and survey scores, and *P*-values, to identify the probability that the *t*-values were achieved by chance. These values demonstrated associations between faculty perception of the implementation of quality course design and scored course design quality.

Summary

The quantitative methodology used by the researcher in this study aligned selected survey statements from You's (2010) study to the OSCQR rubric's Overview and Information section. Items included in the data collection were deemed to be reliable and validated through a content validation process that resulted in a reduced usage of the self-perception statements and the OSCQR rubric. The alignment between the faculty survey statements and the OSCQR scores was analyzed to determine differences between faculty self-perception of course design implementation and the OSCQR rubric value associated with courses designed.

Chapter 4

Findings

Two data collection processes were initiated in the completion of this study. One data collection process was to validate the content alignment of the faculty self-perception statements with the OSCQR rubric criterion. The second data collection process was to survey the faculty to determine their self-perceptions of the inclusion of quality course design elements as identified in the OSCQR Course Overview and Information subscale. This section describes the findings from each of data collection process.

Content Validation Results

The purpose of the content validation was to ensure alignment between the self-perception statements and the OSCQR rubric criterion. A total of three designer-faculty pairs were involved in the iterative validation process described in Chapter 3. One faculty member chose to withdraw from the content validation process once the process was initiated, resulting in three course designers and two faculty members providing their input to complete the content validation process.

One pair at a time, an instructional designer and a faculty member were asked to provide feedback that continued until consensus was reached. The completion of the data collection resulted in the inability to ensure validation among the 30 faculty self-perception statements from You's (2010) survey and the criterion in all seven OSCQR rubric subscales. Content validity results displayed in Table 2 showed that not all of You's survey questions could be validated for alignment of measures, clarity, simplicity, and ambiguity with > 0.75 index value.

Table 2

Faculty Self-Perception Content Validity Findings

Overview & Information[a]	Self-Perception Statement[b]	Content Validity Index
Learners have easy access to a well-designed and up-to-date gradebook.	I make sure the gradebook is current and understandable by students.	0.927*
An orientation or overview is provided for the course overall, as well as in each module. Learners know how to navigate and what tasks are due.	I provide course navigation instructions, as well as course, module, or unit introductions and due dates so students know what is expected and how to meet the expectations.	0.781*
A printable syllabus is available to learners.	I provide students with a viewable & printable syllabus.	0.865*
Course includes a Course Information area that deconstructs the syllabus for learners in a clear and navigatable way.	I distribute assignment–task due dates throughout the semester, explain the patterns of due dates, and provide easy navigation to assignments.	0.823*
Course includes links to relevant campus policies on plagiarism, computer use, filing grievances, accommodating disabilities, etc.	I reference relevant College or University policies in the syllabus or in the course.	0.917*
Course information states whether the course is fully online, blended, or web-enhanced.	I clearly state on the homepage that the course is in an online format.	0.990*
Course objectives–outcomes are clearly defined, measurable, and aligned to learning activities and assessments.	I use measurable learning objectives to design student assessments.	0.906*
Course provides contact information for instructor, department, and program.	I provide students with my contact information and office hours.	0.979*
Technology & Tools[a]	Self-Perception Statement[b]	Content Validity Index
Technical skills required for participation in course learning activities scaffold in a timely manner (orientation, practice, and application-where appropriate).	I pay particular attention to the skills required to successfully complete learning activities and scaffold technical skills when necessary.	0.760
Design & Layout[a]	Self-Perception Statement[b]	Content Validity Index
A logical, consistent, and uncluttered layout is established. The course is easy to navigate (consistent color scheme and icon	I make sure the look of my course is uncluttered and easy to navigate. I make sure the course has a logical and consistent layout.	0.833

layout, related content organized together, self-evident titles).		
Content & Activities[a]	Self-Perception Statement[b]	Content Validity Index
Course offers access to a variety of engaging resources that facilitate communication and collaboration, deliver content, and support learning and engagement.	I use a variety of materials, including different media formats, to present course materials in order to facilitate student engagement (e.g., web pages, audio, or video clips).	0.823
Course provides activities for learners to develop higher-order thinking and problem-solving skills, such as critical reflection and analysis.	I use active learning activities (e.g. discussions, case studies, problem-based learning, and simulations etc.) to develop students' higher-order thinking skills such as problem solving, critical reflection, and analysis.	0.823
Course provides activities that emulate real-world applications of the discipline, such as experiential learning, case studies, and problem-based activities.	I use simulated or real-world problems (e.g. case-studies, problem-based learning activities) to engage students' learning.	0.917
Where available, Open Educational Resources, free, or low-cost materials are used.	I provide students with free or low-cost materials whenever possible.	0.938
Text content is available in an easily accessed format, preferably HTML. All text content is readable by assistive technology, including a PDF or any text contained in an image	I strive to create an inclusive and accessible course environment through the design of my content and activities.	0.708
A text equivalent for every nontext element is provided (alt tags, captions, transcripts, etc.).	I provide a text alternative for all images and closed captions for all videos.	0.927
Text, graphics, and images are understandable when viewed without color. Text should be used as a primary method for delivering information	The visual aids I use in the course can be clearly understood without color and are not used as the only method of delivering information to students.	0.490
Interaction[a]	Self-Perception Statement[b]	Content Validity Index
Expectations for timely and regular feedback from the	I tell my students when they can expect to receive feedback on	0.750

instructor are clearly stated (questions, e-mail, assignments).	assignments and how quickly to expect other regular communications (i.e., e-mail or phone response) from me.	
Expectations for interaction are clearly stated (netiquette, grade weighting, models/examples, and timing and frequency of contributions).	I establish clear policies and expectations for student interaction.	0.781
Learners have an opportunity to get to know the instructor.	I provide a biography about myself or other opportunities for students to get to know me.	0.813
Course contains resources or activities intended to build a sense of class community, support open communication, and establish trust (at least one of the following- Icebreaker, Bulletin Board, Meet Your Classmates, Ask a Question discussion forums).	I include resources to build a sense of community in my course (e.g., FAQ page or a discussion topic for projects or general questions on discussion board).	0.854
Course offers opportunities for learner to learner interaction and constructive collaboration.	I use Internet communication tools to promote student interaction and collaboration frequently.	0.667
Assessment & Feedback[a]	Self-Perception Statement[b]	Content Validity Index
Course grading policies, including consequences of late submissions, are clearly stated in the course information area or syllabus.	I provide students with an explanation of grading policies including consequences of late or incomplete work.	0.990
Course includes frequent and appropriate methods to assess learners' mastery of content.	I provide multiple opportunities for students to demonstrate (assess) their learning of the same topics.	0.688
Criteria for the assessment of a graded assignment are clearly articulated (rubrics, exemplary work).	I provide a clear explanation of assignment grading criteria to students.	0.750
Learners have opportunities to review their performance and assess their own learning throughout the course.	I give students opportunities to reflect on their own learning throughout the semester, especially in the middle and at the end of a semester.	0.917
Learners are informed when a timed response is required. Proper lead time is provided to ensure	I give students sufficient time to notify me of needed accommodations and to complete	0.750

there is an opportunity to prepare an accommodation.	their assignments.	
Learners have easy access to a well-designed and up-to-date gradebook.	I make sure the gradebook is current and understandable by students.	0.927
Learners have multiple opportunities to provide descriptive feedback on course design, course content, course experience, and ease of online technology.	I give student opportunities to provide feedback regarding course materials, experience, and ease of use during the semester.	0.875

Note. Content validity of OSCQR statements as matched with faculty self-perception statements. * Indicates subscale items validated for continued study.
[a]Adapted from *OSCQR* version 3.0 by SUNY, n.d., Retrieved from http://oscqr.org/. Copyright n.d.by the Online Learning Consortium. Adapted courtesy of the copyright holder under a Creative Commons License CC by 4.0. (https://creativecommons.org/licenses/by/4.0/) [b]Adapted from *A study of faculty members' perceived utilization of best practices in distance learning course design and delivery and the role of instructional designers* by J. You, 2010, pp. 160–162. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=toledo1279298347. Adapted with permission.

To accommodate for the gaps in question alignment to OSCQR criterion, the researcher limited the scope of this study to only the OSCQR Overview and Information subscale, as this was the only complete section of the rubric that could be fully validated with the faculty self-perception statements. Table 3 lists the self-perception statements aligned with the OSCQR Overview and Information subscale and used in this study.

Table 3

Faculty Survey Statements Aligned With OSCQR Overview and Information Subscale

Faculty Survey Statement

9. I distribute assignment–task due dates throughout the semester.[a]
19. I include an FAQ page or a discussion topic for projects or general questions on discussion board.[a]
20. I use appropriate terms and icons on the homepage so that course materials can be easily located on the course homepage.[a]
24. I reference to the university academic dishonesty policy in the syllabus or on the course.[a]
29. I use learning objectives to design the student assessment.[a]
I provide students with my contact information and office hours.[b]
I clearly state on the homepage that the course is in an online format.[b]
I provide students with a syllabus.[b]
I provide course, module, or unit introductions so students know what is expected.[b]

Note. Adapted from *A study of faculty members' perceived utilization of best practices in distance learning course design and delivery and the role of instructional designers* by J. You, 2010, pp. 160–162. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=toledo 1279298347 Adapted with permission.
[a]Self-perception statements and numbering reproduced from You (2010). [b]Self-perception statements modified from You (2010) through the content validation process.

Faculty Self-Perception and OSCQR Results

Upon completion of the content validation process, data collection was initiated from faculty participants. The faculty population was limited to a single small Midwestern health care college. The institution had a total of 24 faculty who had taught at least one fully online course in the 2018–2019 academic year; these faculty were identified as potential participants. Two of these faculty were eliminated from the participant pool because the identified fully online course had been cancelled for the academic year, leaving a total population of 22 faculty participants. Each faculty was contacted via e-mail recruitment. Of the 22 potential participants, 12 elected to participate in the study, resulting in a 55% participation rate. Each faculty participant was assigned a participant number used to randomize his or her self-perception survey. A research assistant was utilized at this stage of the study to facilitate the randomization.

Basic demographic information was gathered to garner information about the online

teaching experience of faculty respondents. Five faculty participants self-reported having less than five years of experience teaching in an online format. Four faculty participants self-reported having between five and nine years of experience teaching in an online format. Two faculty participants self-reported having between 10 and 14 years of experience. One faculty participant reported having more than 15 years' experience teaching in an online format. When asked to identify the number of course design trainings each faculty participant had engaged in during the past two years, five faculty participants reported participating in less than five; four faculty participants reported participating in five to nine trainings; two faculty participants reported participating in 10 to 14 trainings; one faculty participant reported participating in more than 15 trainings. Recruited faculty participants then responded to an eight-statement survey to gain quantitative measurements to ascertain the faculty members' perceptions of their own course design quality with regard to introductory course information. The survey statements asked the faculty participants to self-assess and provide a rating on a 4-degree Likert scale.

Responses from faculty self-perception surveys were aligned to the OSCQR Overview and Information subscale rubric rows as identified by the content validation index conducted prior to the initiation of this stage of the study (as shown in Table 3). The faculty participant identified a course to be reviewed and communicated his or her selection to the research assistant. The research assistant assigned the same randomized number to the course that had been used for the faculty survey so that the ratings could be matched for analysis. Although some of the faculty participants had taught more than one fully online course in the 2018–2019 academic year, participants each identified a single fully online course to be scored using the OSCQR Overview and Information subscale. The courses identified by faculty participants included nine undergraduate- and three graduate-level courses.

Each course was blindly reviewed by the researcher using the OSCQR Overview and Information subscale. The OSCQR subscale ratings were then paired to the faculty self-perception responses. This matching process allowed the researcher to analyze measures, comparing faculty self-perception with observed inclusion of quality course design elements that resulted in quantitative data. The data sets were aggregated to determine if alignment existed between faculty self-perception of course design quality and the minimum course design quality standards the researcher observed using the OSCQR Course Overview and Information subscale.

Results of the faculty self-perception survey, identified by SP, as matched to the OSCQR Overview and Information subscale criterion, identified by CR, are displayed in Table 4. Each statement or criterion is followed by an item number indicator utilized in the subsequent data analysis tables.

Table 4

Participant Response Data

	Randomized Participant Number											
Statement or Criterion	359	989	824	936	555	899	796	657	792	239	167	402
SP: I use welcome and getting started information on the homepage so that course materials can be easily located. (A1)	4	4	4	4	4	4	4	4	4	4	4	4
CR: Course Includes Welcome and Getting Started Content. (A2)	4	4	4	4	4	4	3	4	4	4	4	3
SP: I provide course navigation instructions, as well as course, module, or unit introductions and due dates so students know what is expected and how to meet the expectations. (B1)	3	4	3	3	4	4	4	4	4	4	4	4

CR: An Orientation or Overview is provided for the course overall, as well as in each module. Learners know how to navigate and what tasks are due. (B2)	2	4	4	2	4	3	4	4	2	1	4	1
SP: I provide students with a viewable and a printable syllabus. (C1)	4	4	4	4	4	4	4	4	4	4	4	4
CR: A printable syllabus is available to learners. (C2)	4	4	4	1	3	4	4	4	3	4	3	4
SP: I distribute assignment–task due dates throughout the semester, explain the patterns of due dates, and provide easy navigation to assignments. (D1)	4	3	2	4	4	4	4	4	4	4	3	3
CR: Course includes a Course Information area that deconstructs the syllabus for learners in a clear and navigable way. (D2)	2	2	2	1	2	2	2	2	2	2	2	2
SP: I reference relevant College or University policies in the syllabus or in the course. (E1)	4	4	3	3	4	4	4	4	4	4	4	4
CR: Course includes links to relevant campus policies on plagiarism, computer use, filing grievances, accommodating disabilities, etc. (E2)	4	4	4	1	2	4	4	4	4	4	2	1
SP: I clearly state on the homepage that the course is in an online format. (F1)	3	4	2	4	4	4	4	4	4	4	4	4
CR: Course information states whether the course is fully online, blended, or web-enhanced. (F2)	3	4	3	1	3	3	4	4	4	3	4	4
SP: I use measurable learning objectives to design student assessments. (G1)	3	3	2	3	4	4	4	4	4	4	4	4
CR: Course objectives/outcomes are clearly defined, measurable, and aligned to learning activities and assessments. (G2)	1	1	1	1	1	4	4	1	1	1	1	1

SP: I provide students with my contact information and office hours. (H1)	4	4	2	4	4	4	4	4	4	4	4	4
CR: Course provides contact information for instructor, department, and program. (H2)	3	3	3	3	3	3	3	3	3	3	3	3
SP: How many years have you taught in an online format?	< 5	< 5	5–9	10–14	5–9	< 5	< 5	≥15	10–14	5–9	< 5	5–9
SP: How many different course design trainings have you participated in over the past two years? (estimate to the best of your ability)	5–9	< 5	≥15	10–14	< 5	5–9	< 5	5–9	10–14	5–9	< 5	< 5

Note. Table displays self-perception response data and OSCQR score data for individual faculty participants. CR = OSCQR Overview and Information subscale criterion; Adapted from *OSCQR* version 3.0 by SUNY, n.d., Retrieved from http://oscqr.org/ Copyright n.d.by the Online Learning Consortium. Adapted courtesy of the copyright holder under a Creative Commons License CC by 4.0. (https://creativecommons.org/licenses/by/4.0/). SP = Faculty self-perception statement; Adapted from *A study of faculty members' perceived utilization of best practices in distance learning course design and delivery and the role of instructional designers* by J. You, 2010, pp. 160–162. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=toledo 1279298347 Adapted with permission.

Results from the faculty self-perception survey were analyzed compared to the OSCQR Overview and Information subscale using several analysis methods. One analysis method was the Wilcoxon Signed Ranks Test. This nonparametric measurement identifies the differences between individual responses of paired data to determine the averages of the differences between individual pairs. The Wilcoxon Signed Ranks Test is also used to determine if two dependent data sets can be assumed to have similar distributions applicable to all populations. Table 5 displays the Wilcoxon Signed Ranks Test for the 12 participants. The purpose of this analysis was to determine the mean differences between the faculty self-perception and the OSCQR Overview and Information subscale rating by individual participant.

Table 5

Wilcoxon Signed Ranks Test Table

Items	Number of Occurrences	Mean Rank	Sum of Ranks
A2 < A1	2	1.50	3.00
A2 > A1	0	0.00	0.00
A2 = A1	10		
B2 < B1	6	4.25	25.50
B2 > B1	1	2.50	2.50
B1 = B1	5		
C2 < C1	4	2.50	2.50
C2 > C1	0	0.00	0.00
C2 = C1	8		
D2 < D1	11	6.00	66.00
D2 > D1	0	0.00	0.00
D2 = D1	1		
E2 < E1	4	3.50	14.00
E2 > E1	1	1.00	1.00
E2 = E1	7		
F2 < F1	4	3.13	12.50
F2 > F1	1	2.50	2.50
F2 = F1	7		
G2 < G1	10	5.50	55.00
G2 > G1	0	0.00	0.00
G2 = G1	2		
H2 < H1	11	6.50	71.50
H2 > H1	1	6.50	6.50
H2 = H1	0		

Note. $N = 12$.

The data results compared in Table 5 are individual faculty respondents' self-perception

ratings of the inclusion of course design elements within the identified fully online course. Item one of each pair marks the faculty respondent rating of self-perception and item two of each pair marks the researcher's rating for the corresponding item as scored using the OSCQR Overview and Information subscale.

The first pair, pair A, is the faculty self-perception rating of the statement: I use welcome and getting started information on the homepage so that course materials can be easily located as compared to the OSCQR Overview and Information subscale criterion: Course Includes Welcome and Getting Started Content. Analyzed results showed that two faculty self-perception responses were labeled as negative ranks, which means two of the faculty participants rated themselves higher than what was observed by the researcher. Zero faculty self-perception responses were labeled as positive ranks, which means that no researcher observations rated the observed materials higher than the respondents' self-ratings. The researcher made observations of materials being present that were equal to the faculty self-perceptions of materials inclusion for 10 of the faculty self-perception responses, as indicated by tied ranks.

The mean rank of each comparison identified the average of the items for a particular comparison pair. The first pair, pair A, of the faculty self-perception rating of the statement: I use welcome and getting started information on the homepage so that course materials can be easily located as compared to the OSCQR Overview and Information subscale criterion: Course Includes Welcome and Getting Started Content showed that of the two respondents who self-rated higher than the researcher's observations, the mean rank was 1.50 and the sum of the researcher's ratings for these two respondents was 3.00.

Items marked as pair B compared the faculty self-perception statement: I provide course navigation instructions, as well as course, module, or unit introductions and due dates so student

know what is expected and how to meet the expectations with the OSCQR Overview and Information subscale criterion: An orientation or Overview is provided for the course overall, as well as in each module. Learners know how to navigate and when tasks are due when. The Wilcoxon Signed Ranks Test showed that six faculty self-perception responses were labeled as negative ranks, which means six of the faculty participants rated themselves higher than what was observed by the researcher. One faculty self-perception response was labeled as a positive rank, which means that for one faculty respondent the researcher rated the observed materials higher than the respondents self-rated. Ties indicated the researcher made observations of materials being present that were equal to the faculty self-perceptions of materials inclusion for five of the faculty participant responses. The mean rank of Pair B measures showed that six respondents self-rated higher than the researcher's observations, resulting in a mean rank of 4.25 with a sum of 25.50. The positive rank for this pair showed that of the one faculty participant's self-perception rating was marked lower than the observations made by the researcher with a mean rank of 2.50 and a sum rank of 2.50.

The next pair, pair C, displayed the faculty self-perception rating of the statement: I provide students with a viewable and a printable syllabus as compared to the OSCQR Overview and Information subscale criterion: A printable syllabus is available to learners. Results showed that four faculty self-perception responses are labeled as negative ranks, which means four of the faculty participants rated themselves higher than what was observed by the researcher. Zero faculty self-perception responses are labeled as positive ranks, which means that no researcher observations were made rating the observed materials higher than the respondents self-rated. Ties indicated the researcher made observations of materials being present that were equal to the faculty self-perceptions of materials inclusion for eight of the faculty participant responses. The

mean rank of each comparison showed that of the four respondents who self-rated higher than the researcher's observations, the mean rank was 2.50 and the sum of the ranks for these four participant responses was 10.00.

The next pair, pair D, displayed the faculty self-perception rating of the statement: I distribute assignment–task due dates throughout the semester, explain the patterns of due dates, and provide easy navigation to assignments as compared to the OSCQR Overview and Information subscale criterion: Course includes a Course Information area that deconstructs the syllabus for learning in a clear and navigable way. Results showed that 11 faculty self-perception responses are labeled as negative ranks, which means 11 of the faculty participants rated themselves higher than what was observed by the researcher. Zero faculty participant ratings qualified for positive ranks, which means that no researcher observations were made rating the observed materials higher than the respondents self-rated. As is indicated, the researcher made observations of materials being present that were equal to the faculty self-perceptions of materials inclusion for one faculty participant's response. The mean rank of each comparison showed that of the 11 respondents who self-rated higher than the researcher's observations, the mean rank was 6.0 and the sum of the ranks was 66.00.

Items marked as pair E compared the faculty self-perception statement: I reference relevant College or University policies in the syllabus or in the course with the OSCQR Overview and Information subscale criterion: Course includes links to relevant campus policies on plagiarism, computer use, filing grievances, and accommodating disabilities, etc. The Wilcoxon Signed Ranks Test showed that four faculty self-perception responses were labeled as negative ranks, which means four of the faculty participants rated themselves higher than what was observed by the researcher. One faculty self-perception response was labeled as a positive

rank, which means that one researcher observation was made rating the observed materials higher than the respondent self-rated. Ties indicated the researcher made observations of materials being present that were equal to the faculty self-perceptions of materials inclusion for seven of the faculty participants' responses. The mean rank of pair E measures showed that of the four respondents who self-rated higher than the researcher's observations, the mean was 3.50 and the sum of the faculty participants' ranks was 14.0. The positive ranks for this pair showed that the one faculty participant the researcher scored higher had a mean rank of 1.0 and the sum of 1.0.

The next pair, pair F, displayed the faculty self-perception rating of the statement: I clearly state on the homepage that this course is in an online format as compared to the OSCQR Overview and Information subscale criterion: Course Information states whether the course is fully online, blended, or web-enhanced. Results showed that four faculty self-perception responses were labeled as negative ranks, which means four of the faculty participants rated themselves higher than what was observed by the researcher. One faculty self-perception response was labeled as a positive rank, which means that one researcher observation was made rating the observed materials higher than the respondent self-rated. Ties indicated the researcher made observations of materials being present that were equal to the faculty self-perceptions of materials inclusion for seven faculty participant responses. Of the four respondents who self-rated higher than the researcher's observations, the mean rank was 3.13 and the sum of the ranks for these four respondents was 12.50. The positive ranks for this pair showed that the one faculty participant the researcher scored higher had a mean rank of 2.50 and the sum of those ranks 2.50.

The next pair, pair G, displayed the faculty self-perception rating of the statement: I use measurable learning objectives to design student assessments as compared to the OSCQR

Overview and Information subscale criterion: Course objectives–outcomes are clearly defined, measurable, and aligned to learning activities and assessments. Results showed that 10 faculty self-perception responses are labeled as negative ranks, which means 10 of the faculty participants rated themselves higher than what was observed by the researcher. No faculty self-perception responses are labeled as positive ranks, which means that no researcher observations were made rating the observed materials higher than the respondent self-rated. Ties indicated the researcher made observations of materials being present that were equal to the faculty self-perceptions of materials inclusion for two faculty participant responses. The mean rank of each comparison showed that of the 10 respondents who self-rated higher than the researcher's observations, the mean rank was 5.50 and the sum of the ranks was 55.00.

The final pair, pair H, displayed the faculty self-perception rating of the statement: provide students with my contact information and office hours.' as compared to the OSCQR Overview and Information subscale criterion: Course provides contact information for instructor, department, and program. Results showed that 11 faculty self-perception responses were labeled as negative ranks, which means 11 of the faculty participants rated themselves higher than what was observed by the researcher. One faculty self-perception response was labeled as a positive rank, which means that one researcher observation was made rating the observed materials higher than the respondent self-rated. Ties indicated the researcher made no observations of materials being present that were equal to the faculty self-perceptions of materials inclusion for the faculty participant responses. The mean rank of each comparison showed that of the 11 respondents who self-rated higher than the researcher's observations, the mean rank was 6.50 and the sum of the ranks for these 11 respondents was 71.50. The positive ranks for this pair showed that the one faculty participant the researcher scored higher had a mean rank of 6.50 and

the sum of those ranks 6.50.

Summarizing the Wilcoxon Signed Ranks Tests, the researcher identified that the number of positive faculty self-perceptions was equal to or greater than the researcher's positive observations in the following pairs of measurements:

(A1) I use welcome and getting started information on the homepage so that course materials can be easily located.

(A2) Course includes welcome and getting started content.

(C1) I provide students with a viewable and a printable syllabus.

(C2) A printable syllabus is available to learners.

(E1) I reference relevant College or University policies in the syllabus or in the course.

(E2) Course includes links to relevant campus policies on plagiarism, computer use, filing grievances, accommodating disabilities, etc.

(F1) I clearly state on the homepage that the course is in an online format.

(F2) Course information states whether the course is fully online, blended, or web-enhanced.

The Wilcoxon Signed Ranks Test showed that the number of positive faculty self-perceptions was equal to the researcher's observations in the following pairs of measurements:

(B1) I provide course navigation instructions, as well as course, module, or unit introductions and due dates so students know what is expected and how to meet the expectations.

(B2) An orientation or overview is provided for the course overall, as well as in each module. Learners know how to navigate and what tasks are due.

The Wilcoxon Signed Ranks Test showed that the number of positive faculty self-

perception was less than the researcher's negative observations in the following pairs of measurements:

(D1) I distribute assignment–task due dates throughout the semester, explain the patterns of due dates, and provide easy navigation to assignments.

(D2) Course includes a course information area that deconstructs the syllabus for learners in a clear and navigable way.

(G1) I use measurable learning objectives to design student assessments.

(G2) Course objectives–outcomes are clearly defined, measurable, and aligned to learning activities and assessments.

(H1) I provide students with my contact information and office hours.

(H2) Course provides contact information for instructor, department, and program.

A paired sample *t*-test was used to determine if a paired set of data resulted in a mean differences calculation of zero. A test that results in a zero mean difference indicates that the hypothesis of the study is invalid. Calculation of the paired sample statistics was completed to determine if the overall mean of faculty self-perception was similar to or different from the OSCQR Overview and Information subscale rating for the group of faculty participants, shown in Table 6.

Table 6

Paired Sample Statistics

Pair	Item	*M*	*SD*	*SE*
Pair A	A1	4.00	0.000	0.000
	A2	3.83	0.389	0.122
Pair B	B1	3.75	0.452	0.131

	B2	2.92	1.240	.358
Pair C	C1	4.00	0.000	0.000
	C2	3.50	0.905	0.261
Pair D	D1	3.58	0.669	0.193
	D2	1.92	0.289	0.083
Pair E	E1	3.83	0.389	0.112
	E2	3.17	1.267	0.386
Pair F	F1	3.75	0.622	0.179
	F2	3.33	0.888	0.256
Pair G	G1	3.58	0.669	0.193
	G2	1.50	1.168	0.337
Pair H	H1	3.83	0.577	0.167
	H2	3.00	0.000	0.000

Note. $N = 12$. M = Mean, SD = Standard Deviation, SE = Standard Error Mean

The Paired Sample Statistics in Table 6 showed that the widest variances (as measured by standard deviation) occurred within the researcher's OSCQR ratings of the courses. The following three items are listed in order, starting with the largest standard deviation:

(E2) Course includes links to relevant campus policies on plagiarism, computer use, filing grievances, accommodating disabilities, etc. (*SD* 1.267)

(B2) Learners know how to navigate and what tasks are due. (*SD* 1.240)

(G2) Course objectives–outcomes are clearly defined, measurable, and aligned to learning activities and assessments. (SD 1.168)

The widest variance occurred within the researcher's observations because the researcher has been trained to observe the major and minor differences when observing what is present in courses.

The paired response data was analyzed for correlation between the individual pairs of measures. In Table 7, the results of the *t*-test paired samples correlations are displayed.

Table 7

Paired t-*Test Samples Correlation*

Pair	Correlation	Significance
Pair A	0.000	0.000
Pair B	0.122	0.707*
Pair C	0.000	0.000
Pair D	0-.196	0.541*
Pair E	0.246	0.441
Pair F	0.165	0.609*
Pair G	0.291	0.359
Pair H	0.000	0.000

Note. $N = 12$, $*p < 0.05$

A significant correlation of greater than 0.05 is noted between the following paired faculty self-perception and researcher observation. Pair B items had a significance of 0.707 when observing:

(B1) I provide course navigation instructions, as well as course, module, or unit introductions and due dates so students know what is expected and how to meet the expectations.

(B2) An orientation or overview is provided for the course overall, as well as in each module.

Paired D items had a significance of 0.541 when observing:

(D1) I distribute assignment–task due dates throughout the semester, explain the patterns of due dates, and provide easy navigation to assignments.

(D2) Course includes a course information area that deconstructs the syllabus for learners in a clear and navigable way.

Paired F items had a significance coefficient of 0.609 when observing:

(F1) I clearly state on the homepage that the course is in an online format.

(F2) Course information states whether the course is fully online, blended, or web-enhanced.

No significance was found to be present for the following pairs:

Pair A

(A1) I use welcome and getting started information on the homepage so that course materials can be easily located.

(A2) Course Includes Welcome and Getting Started Content.

Pair C

(C1) I provide students with a viewable and a printable syllabus.

(C2) A printable syllabus is available to learners.

Pair H

(H1) I provide students with my contact information and office hours.

(H2) Course provides contact information for instructor, department, and program.

A *t*-test of paired samples was also completed to provide analysis of the *p*-value of the pairs of data. A *p*-value is displayed in Table 8 as the Sig. (two-tailed) indicating that the *p*-value was calculated using the paired data. A Sig. result of 0.005 or larger is considered to be of significance. Table 8 displays these values.

Table 8

t-*Test of Paired Differences*

	Paired Differences						
	M	*SD*	*SE*	95% CI	*t*	*df*	Sig. (Two-tailed)
Pair A	0.167	0.389	0.112	[-0.081, .0414]	1.483	11	0.166
Pair B	0.833	1.267	0.366	[0.028, 1.639]	2.278	11	0.044*
Pair C	0.500	0.905	0.261	[-0.075, 1.075]	1.915	11	0.082
Pair D	1.667	0.778	0.255	[1.172, 2.161]	7.416	11	0.000*
Pair E	0.667	1.231	0.355	[-0.115, 1.449]	1.876	11	0.087
Pair F	0.417	0.996	0.288	[-0.216, 1.050]	1.449	11	0.175
Pair G	2.083	1.165	0.336	[1.343, 2.823]	6.197	11	0.000*
Pair H	0.833	0.577	0.167	[0.467, 1.200]	5.000	11	0.000*

Note. *M* = Mean, *SD* = Standard Deviation, *SE* = Standard Error Mean, CI = Confidence Interval, *$p < .05$.

Observations from the *t*-test of paired differences demonstrated strong evidence between all faculty self-perception measurements and researcher observations with the exception of two measures. The faculty self-perception statement (A1): I use welcome and getting started information on the homepage so that course materials can be easily located and OSCQR Course overview and information criterion item (A2): Course Includes Welcome and Getting Started Content showed weak evidence of connection between the faculty self-perception statement and the OSCQR Overview and Information subscale measure. The faculty self-perception statement (F1): I clearly state on the homepage that the course is in an online format and OSCQR Overview and Information subscale item (F2): Course information states whether the course is fully online, blended, or web-enhanced also demonstrated weak evidence of connection between the faculty self-perception statement and the OSCQR measure. A weak evidence of connection means that a large enough difference is present between the faculty self-perception value and the OSCQR rubric score based on observations made by the researcher.

The results of the study indicated that faculty self-perception of some course materials identified by the OSCQR Overview and Information subscale were also observed as present when the course materials were reviewed. Additionally, the results indicated that some materials are not observed to be present, though the faculty perceived them to be present. Items of particular note in this regard are related to supporting students in efficient course navigation and outlining expectations faculty have students in the course (related to pair B), helping students to understand the syllabus and what work is expected to be completed within a certain timeframe (related to pair D), and providing information for students about the delivery method of the course (related to pair F).

Observation of the *t*-test results showed a significant relationship between the following faculty self-perception ratings and the corresponding OSCQR Overview and Information subscale as displayed in Table 9, demonstrating evidence of a relationship between the faculty self-perception values and the researcher observation values of the OSCQR rubric.

Table 9

Paired Statements Shown to Be Significant by the t*-Test Paired Samples Test*

Faculty Self-Perception Statement[a]	OSCQR Overview & Information Subscale[b]
(B1) I provide course navigation instructions, as well as course, module, or unit introductions and due dates so students know what is expected and how to meet the expectations.	(B2) An Orientation or Overview is provided for the course overall, as well as in each module. Learners know how to navigate and what tasks are due.
(C1) I provide students with a viewable and a printable syllabus.	(C2) A printable syllabus is available to learners.
(D1) I distribute assignment/task due dates throughout the semester, explain the patterns of due dates, and provide easy navigation to assignments.	(D2) Course includes a Course Information area that deconstructs the syllabus for learners in a clear and navigable way.

(E1) I reference relevant College or University policies in the syllabus or in the course.	(E2) Course includes links to relevant campus policies on plagiarism, computer use, filing grievances, accommodating disabilities, etc.
(G1) I use measurable learning objectives to design student assessments.	(G2) Course objectives–outcomes are clearly defined, measurable, and aligned to learning activities and assessments.
(H1) I provide students with my contact information and office hours.	(H2) Course provides contact information for instructor, department, and program

Note. [a]Adapted from *A study of faculty members' perceived utilization of best practices in distance learning course design and delivery and the role of instructional designers* by J. You, 2010, pp. 160-162. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=toledo 1279298347. Adapted with permission. [b]Adapted from *OSCQR* version 3.0 by SUNY, n.d., Retrieved from http://oscqr.org/. Copyright n.d.by the Online Learning Consortium. Adapted courtesy of the copyright holder under a Creative Commons License CC by 4.0. (https://creativecommons.org/licenses/by/4.0/)

Summary

The researcher planned the study to determine if faculty perception of the inclusion of course design elements was equivalent to the observed inclusion of course design elements. The data collected in this study demonstrated significant findings of some of the faculty self-perception ratings as compared to some OSCQR overview and information criterion observations made by the researcher. The significant findings this study demonstrated the need to support faculty in the intentional design of course materials to facilitate student achievement of course outcomes and expectations. Although this study focused on course overview and information materials, the illuminated gaps support the need for further investigation to determine if faculty provide essential materials for students to master the discipline-specific content vital to professional success.

Chapter 5

Conclusions, Recommendations, and Summary

This final chapter serves three purposes: to state conclusions made by the researcher, to discuss recommendations the researcher has in response to the study results, and to provide an overall summary of the research conducted in this study.

Conclusions

Historically, faculty in higher education have been shown to be deficient in specific training related to instructional design, resulting in a lack of intentionality in creating learning environments that solicit authentic learning (Smidt et al., 2014). Faculty often lack the experience and training to recognize their own gaps in pedagogical practices (You, 2010). When faculty neglect to utilize effective teaching strategies or provide necessary communication related to course materials, students are unsure of faculty expectations. Therefore, resources are necessary to support faculty in the deployment of courses designed to elicit quality learning experiences (Rucker et al., 2015).

The results of this research study support the findings of previous studies in which faculty were unable to identify adequately their own gaps in course design quality. One objective of this study was to identify faculty perception of their own ability to design courses. This objective was expected to be answered through investigation of the question: Do faculty accurately perceive their course design abilities?

Based on paired *t*-test data analysis, the OSCQR Overview and Information subscale was compared with faculty self-perceptions in the following broad areas: The presence of materials in the course that support efficient student course navigation and communicate general faculty expectations of students, the presence of materials that help students to understand clearly the

syllabus and what work is expected to be completed within a certain timeframe, and the presence of clear information about the delivery method of the course.

The results of this study indicated that faculty self-perceived they included materials to assist students in course welcome and getting started information (Pair A). However, according to the observations made by the researcher and scored using the OSCQR Overview and Information subscale, some faculty in this study did not provide this information for students. Likewise, faculty in this study self-perceived that they communicated the course delivery format to students (Pair F). However, the majority of faculty in this study did not clearly communicate delivery format to students.

Liow et al. (1993) determined that in order for students to have the greatest chance of achieving all the educational objectives of a course, the course must be designed with intentionality and scaffolding in place to support student achievement of the learning goals. However, the results of the Wilcoxon Signed Ranks Test within this study demonstrated that there are differences between faculty self-perception of their use of learning outcomes to design student assessments and the researcher's observation of defined and measurable learning outcomes tied to student assessments (Pair G).

The results of the *t*-test for pair G showed that the mean paired samples for item G1, faculty self-perception, was 3.58 with a standard deviation of 0.669 and the mean paired samples for item G2, OSCQR Overview and Information subscale score, was 1.50 with a standard deviation of 1.168. The results of the paired differences had a mean of 2.083 with a standard deviation of 0.996 with a significant factor of 0.000, indicating this particular pair of items was not an accurate measure of the presence of learning objectives in a course if only the statistic measure is considered. However, this value may also be an indicator of the faculty self-

perception of the presence of an item that is not present in the course. These scores demonstrated a wide range of observable variance in the connections between learning objectives and student assessments. The scores also evidenced faculty self-perception that learning objectives were included in student assessments, indicated by the 3.58 mean of faculty self-perception responses. Though the significance of the ability to measure accurately this pair is minimal and would need to be further tested for reliability. The results point to the need for clear communication to students about how the learning objectives in a course relate to the course materials and activities and the measurability of learning objectives.

The works of Lea (2004) and Dole and Bloom (2009) identified the need for deliberate instructional interactions, clear interaction expectations, and formal instruction related to interactions. Thus, the structure of the course must set students up for success in an online environment. Using design standards, providing students with a predictable course layout, and outlining expected interactions within the learning management system are necessary for students to engage with materials at the upper levels of Blooms Taxonomy (Dole & Bloom, 2009). Consequently, when faculty lack design knowledge, there is a negative impact on the student experience in the online environment (Smidt et al., 2014).

The failure of faculty to recognize clearly and understand their course design assumptions in the online environment were validated by the results of pair B in this study. Pair B measured faculty self-perception of providing course navigation instructions, module or unit instructions, due dates, and performance expectations as compared to the observed provision of these items using the OSCQR Overview and Information subscale criterion. The *t*-test paired sample data results showed a faculty self-perception mean of 3.75 with a standard deviation of 0.452 and an OSCQR Overview and Information subscale mean of 2.92 with a standard deviation of 1.240.

These values showed a wide variance of observed elements, as evidenced by the OSCQR standard deviation of 2.92, meaning that observed elements on this OSCQR criterion varied nearly 3 points among courses (on the 5-point scale), while faculty self-perceived a consistent use of the elements in this item. The paired differences of this item showed a mean difference of 0.833, almost a whole point difference in the means between faculty self-perception and OSCQR observations. The standard deviation of this item pair was 1.267, again reflecting a wide variance between what is self-perceived and what is observed. The significance of this item pair was found to be 0.044, or within the parameters of demonstrating evidence of the measure's accuracy, as the significance of a two-tailed paired samples *t*-test determines significance as items approach 0.05.

Pair C reviewed the faculty self-perception of providing a viewable and printable syllabus for students. Pair D reviewed the navigation of assignments, predictability of due dates, and clear communication of task due dates for students. Provision of these items would demonstrate evidence of predictable and clear navigation for students discussed by Lea (2004) and Dole and Bloom (2009). In their 2014 article "Faculty Attitudes about Distance Education," Smidt et al. (2014) investigated the idea that faculty lack knowledge of how to create intentionally a learning environment that solicits authentic student learning, how to account naturally for student individuality, and how to convey clearly stated outcomes and expectations. The findings discussed here further validate the Smidt et al. research related to Pair D in that the majority of faculty in this study self-perceived their inclusion of course specific navigation information for students; however, this information was not recordable in the OSCQR Overview and Information subscale.

Lenert and Janes (2017) called out the need for faculty to include course element

attributes that are specific to the groups of learners in their courses. The authors specifically pointed to the need for faculty to facilitate creation of a student educational community. Progress toward the creation of an educational community for students can be achieved by providing connections to institution-wide policies and procedures, especially with regard to accommodations and fully online course performance expectations. Pair E measured faculty self-perception of the inclusion of campus policies related to plagiarism, computer use, grievances, and accommodations as compared to the observations made using the OSCQR Overview and Information subscale. The mean of paired differences for item E was 0.667 with a standard deviation of 1.231 and significance of 0.087. These results showed a smaller variance between faculty self-perception of inclusion of these items in their course as compared to the observed items from the OSCQR Overview and Information subscale, but a wider gap between individual faculty performances of item inclusion. The strength of the measurement's significance is demonstrated by a small significance as compared to other findings in this study.

Two additional objectives that the study intended to identify were the faculty strengths and weaknesses through a comparison of faculty perception of course design abilities with the OSCQR rubric category scores, determined to be limited to the OSCQR Overview and Information subscale during the content validation process, and to identify any potential areas for suggested faculty training in course design standards. These last two objectives were an attempt to answer the question: Could training be provided to faculty to address potential gap areas?

Hixon et al. (2011) completed a study showing that simply providing students with course-specific information without guiding them through engagement with the materials does not result in an impactful experience for students. Wiggins and McTighe (2008) stated that the focus of a course should be on the student and how to guide the student to achieve the desired

outcomes of the course using targeted performance measures. However, higher education faculty may lack the needed training and experience in implementation of course design methodologies that would provide students with value-added experiences in the fully online learning environment (Chao et al., 2010).

Based on the findings of multiple researchers, it was hypothesized that faculty's self-perception of inclusion of basic course design elements could be mismatched with what is observable in a deployed online course. Gaps between faculty self-perception and observations made using the OSCQR Overview and Information subscale were found in three item pairs using the Wilcoxon Signed Ranks Test: Pair D, related to deconstruction of the syllabus and due date predictability; Pair G, related to the observation of measurable learning objectives; and Pair H, related to contact information for the instructor, program, and department. All three pairs had negative ranks that outnumbered the positive or tied ranks. These negative ranks indicated that faculty self-perception was scored higher than what is observed using the OSCQR Overview and Information subscale for each item. This discrepancy between the two measures means that faculty believed materials were included in the course, but those materials were not found when the researcher observed the course.

Limitations and Recommendations

Based on the study's limitations and the conclusions drawn in the previous sections, the researcher makes the following recommendations:

Recommendation 1. This study was limited to the OSCQR Overview and Information subscale. The researcher recommends expanding the faculty self-perception survey to include aligned statements for each of the criterion in the full OSCQR Course Review rubric. To fulfill this recommendation, further work would need to be completed to develop self-perception

statements and then validate the alignment between the self-perception statements and rubric criterion. The researcher was unable to complete a full alignment between the two tools; however, achieving alignment between the two tools would provide greater insight into potential gaps between the design elements faculty believe they are providing for students and the elements observable in a deployed course.

Recommendation 2. This study was limited to faculty participants from a small Midwestern health care college. The faculty participants needed to have taught at least one fully online course during a specific academic year. The researcher recommends expanding the population sample to a larger set of participants in an attempt to gain transferability of the findings across a larger population of online faculty. Expanding the population sample through engaging larger institutions of higher education, recruiting from multiple institutions, or including multiple academic years to determine transferability may eventually lead to identification of a recommended training regimen for online faculty in higher education.

Recommendation 3. This study was limited to group analysis of the data. The researcher recommends further analysis of the data to determine if any patterns exist based on the number of years of online teaching experience or the amount of course design training completed by the participants. The existence of any identifiable patterns could inform a suggested training regimen for online faculty, especially in this particular institution.

Recommendation 4. This study identified specific gaps in faculty self-perception of the distribution of assignments and tasks throughout the term, the outward alignment of learning outcomes to guide assignment expectations, and the presence of contact information for the instructor, departments, and program. The researcher recommends providing targeted training and written guidelines for this particular institution to facilitate consistent guidelines for faculty

inclusion of these course design elements within all fully online courses.

Summary

This study concluded with limited success. The research started out to answer specific questions related to course design quality. These essential questions were:

- Do faculty accurately perceive their online course design abilities?
- What gaps exist between faculty's self-perception of online course design and implementation of essential course design elements in their courses?
- Could training be provided to faculty to address potential gap areas?

The study intended to look at all elements of course design within a full course. However, the researcher was unable to validate alignment between all of the faculty self-perception questions in the You (2010) study, *A Study of Faculty Members' Perceived Utilization of Best Practices in Distance Learning Course Design and Delivery and the Role of Instructional Designers*, and the full OSCQR rubric.

The initial study intention of reviewing full course design element implication was not achieved. However, partial review of course design elements in the OSCQR Overview and Information subscale provided information demonstrating gaps between faculty self-perception of the inclusion of course design elements and the course design elements observed in the course. Therefore, the researcher was able to answer partially the essential questions identified at the onset of the study. The research was able to identify four recommendations for further study. These additional recommendations were targeted to support additional validation of the results of this study and to affirm the historical studies used to support this study's research.

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APPENDIX A

Faculty Self Perception Statements

The following list of 30 faculty self-perception statements is from You (2010): "Please specify the extent that you agree that your distance learning courses reflect the following best practices of design and delivery. Select the one that best matches your opinion.

a. Strongly disagree b. Disagree c. Agree d. Strongly agree

1. I use Internet communication tools to promote faculty and student interaction frequently.
2. I establish clear policies for faculty-student communication.
3. I use Internet communication tools to encourage student-student interaction.
4. I make student's thinking visible to entire class (ask students to post their thoughts, homework, or group projects on class discussion board or blog, wiki).
5. I use active learning activities (e.g. discussions, case studies, problem-based learning, and simulations etc.) to engage students.
6. I use simulated or real-world problems to engage students' learning.
7. I provide constructive feedback on student' assignments and other inquiries in a timely manner.
8. I give students sufficient time to complete their assignments.
*9. I distribute assignment/task due dates throughout the semester.
10. I assign challenging tasks to students to communicate high expectations.
11. I select exemplary student projects and make them available as examples to the class with student's permission.

12. I allow students choose their own projects according to the project requirements with my guidance.

13. I use different media formats to present course materials (e.g., web pages, audio, or video clips).

14. I consider students' learning characteristics in the selection of technological tools.

15. I give students opportunities to reflect on their own learning throughout the semester, especially in the middle and at the end of a semester.

16. I give student opportunities to provide feedback regarding course content during the semester.

17. I make specific course resources (professional journals, associations, user groups) available to students on the course site.

18. I add links to the library, tech support, writing support, etc on the course site.

*19. I include an FAQ page or a discussion topic for projects or general questions on discussion board.

*20. I use appropriate terms and icons on the homepage so that course materials can be easily located on the course homepage.

21. I organize the course materials in a logical format.

22. I use visual aids when necessary to support student learning.

23. I work with instructional designers to make sure that students with special needs can access course materials.

*24. I reference to the university academic dishonesty policy in the syllabus or on the course.

25. I used assessment strategies that deter academic dishonesty (e.g. use authentic assessment, proctored tests, lockdown browser, or Turnitinn etc.)

26. I follow the fair use guidelines (or TEACH Act) when using copyrighted materials.

27. I use learning objectives to design the learning activities.

28. I use learning objectives in the selection of technological tools.

*29. I use learning objectives to design the student assessment.

30. What other strategies or best practices of distance learning course design and delivery you use in your online courses but not listed in this survey?"

(You, 2010, p. 160-162). *Indicates items used in this study.

Optional Demographic Questions:

1. Indicate the number of fully online courses you have taught for any College or University.
    a. 0-4
    b. 5-9
    c. 10-14
    d. 15 or more
2. Indicate the number of fully online courses you have design for any College or University.
    a. 0-4
    b. 5-9
    c. 10-14
    d. 15 or more

Appendix B

OLC QUALITY SCORECARD SUITE

OSCQR Course Design Review

	Need ideas? Click on a standard below for explanations and examples from OSCQR.org	*Estimated time needed for revision:*	Sufficiently Present	Minor Revision *1/2 hour or less*	Moderate Revision *1/2-2 hours*	Major Revision *2+ hours*	Not Applicable	Action Plan
1. COURSE OVERVIEW AND INFORMATION								
1	Course includes Welcome and Getting Started content.							
2	An orientation or overview is provided for the course overall, as well as in each module. Learners know how to navigate and what tasks are due.							
3	Course includes a Course Information area that deconstructs the syllabus for learners in a clear and navigable way.							
4	A printable syllabus is available to learners (PDF, HTML).							
5	Course includes links to relevant campus policies on plagiarism, computer use, filing grievances, accommodating disabilities, etc.							
6	Course provides access to learner success resources (technical help, orientation, tutoring).							
7	Course information states whether the course is fully online, blended, or web-enhanced.							
8	Appropriate methods and devices for accessing and participating in the course are communicated (mobile, publisher websites, secure content, pop-ups, browser issue, microphone, webcam).							
9	Course objectives/outcomes are clearly defined, measurable, and aligned to learning activities and assessments.							
10	Course provides contact information for instructor, department, and program.							
2. COURSE TECHNOLOGY & TOOLS								
11	Requisite skills for using technology tools (websites, software, and hardware) are clearly stated and supported with resources.							
12	Technical skills required for participation in course learning activities scaffold in a timely manner (orientation, practice, and application - where appropriate).							
13	Frequently used technology tools are easily accessed. Any tools not being utilized are removed from the course menu.							
14	Course includes links to privacy policies for technology tools.							
15	Any technology tools meet accessibility standards.							

ONLINE LEARNING CONSORTIUM

OPEN SUNY

OLC Quality Scorecard Suite: OSCQR

Need ideas? Click on a standard below for explanations and examples from OSCQR.org	*Estimated time needed for revision:*	Sufficiently Present	Minor Revision *1/2 hour or less*	Moderate Revision *1/2-2 hours*	Major Revision *2+ hours*	Not Applicable	Action Plan
3. DESIGN AND LAYOUT							
16	A logical, consistent, and uncluttered layout is established. The course is easy to navigate (consistent color scheme and icon layout, related content organized together, self-evident titles).						
17	Large blocks of information are divided into manageable sections with ample white space around and between the blocks.						
18	There is enough contrast between text and background for the content to be easily viewed.						
19	Instructions are provided and well written.						
20	Course is free of grammatical and spelling errors.						
21	Text is formatted with titles, headings, and other styles to enhance readability and improve the structure of the document.						
22	Flashing and blinking text are avoided.						
23	A sans-serif font with a standard size of at least 12 pt is used.						
24	When possible, information is displayed in a linear format instead of as a table.						
25	Tables are accompanied by a title and summary description.						
26	Table header rows and columns are assigned.						
27	Slideshows use a predefined slide layout and include unique slide titles.						
28	For all slideshows, there are simple, non-automatic transitions between slides.						
4. CONTENT AND ACTIVITIES							
29	Course offers access to a variety of engaging resources that facilitate communication and collaboration, deliver content, and support learning and engagement.						
30	Course provides activities for learners to develop higher-order thinking and problem-solving skills, such as critical reflection and analysis.						
31	Course provides activities that emulate real world applications of the discipline, such as experiential learning, case studies, and problem-based activities.						
32	Where available, Open Educational Resources, free, or low cost materials are used.						
33	Course materials and resources include copyright and licensing status, clearly stating permission to share where applicable.						
34	Text content is available in an easily accessed format, preferably HTML. All text content is readable by assistive technology, including a PDF or any text contained in an image.						
35	A text equivalent for every non-text element is provided ("alt" tags, captions, transcripts, etc.).						
36	Text, graphics, and images are understandable when viewed without color. Text should be used as a primary method for delivering information.						
37	Hyperlink text is descriptive and makes sense when out of context (avoid using "click here").						

OLC Quality Scorecard Suite: OSCQR

	Need ideas? Click on a standard below for explanations and examples from OSCQR.org *Estimated time needed for revision:*	Sufficiently Present	Minor Revision *1/2 hour or less*	Moderate Revision *1/2-2 hours*	Major Revision *2+ hours*	Not Applicable	Action Plan
5. INTERACTION							
38	Expectations for timely and regular feedback from the instructor are clearly stated (questions, email, assignments).						
39	Expectations for interaction are clearly stated (netiquette, grade weighting, models/examples, and timing and frequency of contributions).						
40	Learners have an opportunity to get to know the instructor.						
41	Course contains resources or activities intended to build a sense of class community, support open communication, and establish trust (at least one of the following - Ice-breaker, Bulletin Board, Meet Your Classmates, Ask a Question discussion forums).						
42	Course offers opportunities for learner to learner interaction and constructive collaboration.						
43	Learners are encouraged to share resources and inject knowledge from diverse sources of information in their course interactions.						
6. ASSESSMENT AND FEEDBACK							
44	Course grading policies, including consequences of late submissions, are clearly stated in the course information area or syllabus.						
45	Course includes frequent and appropriate methods to assess learners' mastery of content.						
46	Criteria for the assessment of a graded assignment are clearly articulated (rubrics, exemplary work).						
47	Learners have opportunities to review their performance and assess their own learning throughout the course (pre-tests, automated self-tests, reflective assignments, etc.).						
48	Learners are informed when a timed response is required. Proper lead time is provided to ensure there is an opportunity to prepare an accommodation.						
49	Learners have easy access to a well designed and up-to-date gradebook.						
50	Learners have multiple opportunities to provide descriptive feedback on course design, course content, course experience, and ease of online technology.						

OVERALL NARRATIVE