A DISRUPTION OF ONLINE LEARNING COURSE DESIGN: COMPARING SELF-REPORTED LEVELS OF FACULTY SATISFACTION WITH ONLINE COURSES CREATED APPLYING THE 2011-2013 EDITION OF THE QUALITY MATTERS™ RUBRIC STANDARDS TO THOSE ONLINE COURSES CREATED WITHOUT.

A dissertation submitted to the Kent State University College of Education, Health, and Human Services in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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Faculty satisfaction with designing online courses matters a great deal, for a number of reasons.

The purpose of this study was to investigate whether applying the Quality MattersTM Rubric [QMR] as a foundation for online course design increases faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR.

The local and national importance of this study is fully underscored by an increased emphasis from government, employers, and other stakeholders, on the rigor and role faculty play in creating efficacy through the medium of instruction, particularly online instruction. This study explored and answered the question: Does the design mode make a difference to faculty’s self-reported levels of satisfaction in terms of online course design?

The Online Faculty Satisfaction Survey [OFSS], originally developed by Bolliger & Wasilik (2009), was augmented as the Online Faculty Satisfaction Survey-Revised [OFSS-R], and was distributed throughout private higher education institutions in the state of Ohio.
There is a clear link between an increased level of faculty satisfaction and an increased level of student satisfaction in their experiences throughout online course. Therefore, it was important for this researcher to establish whether the QMR provided different levels of satisfaction when compared to other instructional design models, and the hypotheses were established to test these differences. However, analysis found no significant difference in faculty self-reported satisfaction levels between the QMR and other instructional design methods in terms of designing online courses. For this researcher, this shall be a matter of future study.
DEDICATION

This dissertation is dedicated to:

To my wife of nearly 35 years, Carol, my always and forever,

To our exceptional children Shelley and Rowan, my most gifted and special supporters,

To Mom, Dad, Nanna and Pop – for making me determined but self-effaced,

To Lynda, Janet & Brian – for cracking the whip from afar,

To Mark, Susan and Victor for believing in me, and not letting me forget it, ever!

To Dave for stepping in and up at the last minute – you are a mensch!

And last, but by no means least, to my wonderful colleagues and friends – wat altyd ‘n warm riem om my hart vastrek.
ACKNOWLEDGEMENTS

It is a distinct honor and pleasure for me to offer my sincerest appreciation in acknowledging a few folk, including those specifically mentioned in the Dedications above, who played an integral role in me getting to this point in my academic career.

First off, I reiterate my perpetual indebtedness to my dissertation committee, in particular Drs. Mark Kretovics, Victor Berardi and Susan Iverson, who’s even honesty, professional and personal encouragement, and dogged determination in getting me to meet all deadlines timelessly and completely, provided the experiences that no doctoral candidate can or should go without. Dr. Dave Dalton, a colleague and mensch, who agreed to step in, on relatively short notice, as my graduate faculty representative to serve alongside the abovementioned dissertation committee. To Dr. Drew Tiene, whose invaluable insights, given with incredible turnaround, provided interesting alternative aspects for the dissertation committee to consider.

Dr. Andrea Adolph, who agreed to serve when my dissertation journey was first getting going, and when I changed direction away from service-learning, andrea gracefully bowed out but nonetheless stayed on as a member of my cheering section.

Dr Kay Shattuck from QM for her sage and apropos advice throughout this process.

The officers at AAUP Kent State, for their unconditional support for more than a decade, in particular Professor Tracy Laux, who I consider a true friend.

Edward “Eddie” Bolden, from Kent State’s Research and Evaluation Bureau for the seamless and consummately patient manner in which he both made his time
perpetually available to me and also how he helped me to make sense of the data in its analysis, getting SPSS to produce the results for me to make the necessary research conclusions that I arrived at in this dissertation.

Dr. Linnea Stafford from Kent State’s Research, Planning, & Institutional Effectiveness Bureau who facilitated the process of getting the OFSS-R distributed to the appropriate Kent faculty who had designed and/or instructed online courses over the Period prescribed for this study.

All the designated members in the Ohio Quality Matters Consortium who gave freely their proficient advice and valuable time in the composition of the OFSS-R and then facilitating the onward and repeated distribution of the OFSS-R to their faculty at the other 39 higher educational institutions in the state of Ohio.

Dr. Jayne Moneysmith and Maureen Kilcullen, my Stark campus writing team.

Dr. Bethany Simunich from Kent’s Office of Continuing and Distance Education [OECD] for helping me stay on task.

Dr. Jarrod Tudor, who initially provided me with the courage and context to get going in this program.

Dr. Rick Rubin, who granted unhindered permission to access archives held in OECD and Dr. Deb Huntsman for making it possible.

Dr. Anita Levine for her easy manner in convincing me that the coursework I was taking on throughout the program, notwithstanding any prior knowledge of social psychology, philosophy and/or ethnography, etc. would complement the research that I
would finally conduct in getting my dissertation and other current and future publications completed.

Dr. Stephane Booth, who agreed to take me on as an intern back in spring 2008 and conveniently exposed me to the world of academic administration, assessment and accreditation, including WEAVE and AQIP, as well as including me to serve with Dr. Verna Fitzsimmons on the steering committee to define what Kent State University desired and subsequently creating a 21st century undergraduate philosophy. It was on this committee that I learned about John Seely Brown and his steadfast commitment to learning through doing.

Finally, and most importantly, this journey would not have been possible without the unreserved dedication, unwavering support, and unconditional love from my direct and extended family. My undeniably incredible wife Carol, my brilliant daughter Shelley and my gentle son Rowan. Living with my mood swings and regular outbursts of frustration this past decade has been no mean feat and I truly appreciate that you have bitten your tongues on much more than one occasion. Advice given to me when I was young and still “king of the world” was to choose a partner that mirrored my intelligence but the perfect foil to my short temper and brash exterior. Carol, you are way smarter that I will ever be and as I mention to you over and over, I know I am the luckiest man on the planet to have found my friend, confidant, and muse. Shelley, even though you are loathe to admit it publicly, your mum is spot-on when she says you are my clone. But as with any progeny, the “parts” that you have inherited are ones that I wish I could regulate as masterfully as you do—i.e. lasting friendships, emotional intelligence, and always
being factually correct! Rowan, you, on the other hand, are a clone of your mum, mild-mannered, extremely respectful and very, very kind. I know you will make a terrific counselor when you get to practice your chosen vocation in the very near future, and also a wonderful husband and father. To my mum Moira, step-dad Vern, late dad Edgar, mother-in-law Winnie, and late father-in-law Alec, for your reserved but influential presence, albeit from 6,500 miles away. My sisters, Lynda and Janet, their children Kyle and Cara, brother-in-law Brian, and his children Gareth, Sandi and Steven; for your omnipresent, resilient and resolute thoughts for my success. And finally, my families in America—Stevens², Brooks, Berardi, Bolgrin, Kasturiarachi, Kelewae, Adams, Middleton and Reisdorf. Without you doing double duty in helping my family blend into this strange land, the progression would have been much more trying than it has been.
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CHAPTER I

*A teacher affects eternity; he can never tell where his influence stops.*
*(Adams, in Albom, 1997, p. 79)*

INTRODUCTION

Creating a learning environment in higher education that is conducive to deep and transformational learning is theoretically (through behaviorism and constructivism) and practically at the root of what teachers do (Chickering & Gamson, 1987, 1991; Dewey, 1916; Freire, 2005; Knowles, 1988; Kolb, 2005; Mezirow, 1997; Skinner, 1954; Watson, 1913). Hagedorn (2000) concludes that since “faculty share a commonality of purpose and profession that can be studied and better understood,” (p. 17) it would be apropos “to better understand the commonality that faculty share and provide a structure on which institutional analysis of job satisfaction can be based” (p. 17). Further, Hartman, Dziuban, and Moskal (2000) suggest a strong correlation exists between faculty satisfaction and student learning. Given this importance, this researcher asserts that increasing levels of faculty satisfaction with online course design lays a stronger foundation toward creating this environment, and one that is conducive for genuine learning as a first but crucial step in enhancing the bond between faculty and students. This bond enriches students’ level of interaction, heightening their will to persist, supporting institutional retention efforts, and ultimately, increasing timely undergraduate degree completion in higher education.

In their foreword to *Quality on the line-Benchmarks for success in Internet-based distance education*, Bob Chase (President, Blackboard Inc.) and Matthew Pittinsky (Chairman of the National Education Association [NEA]) claim “we believe the distance
from student to teacher must be measured in results—quality learning—achieved by our students” (Phipps & Merisotis, 2000, p. vii). Keeling and Hersh (2011) reiterate that learning quality cannot be measured by “[a]ccess, persistence, and graduation [alone, and although these elements] are all important, […] the crisis in student learning is the real issue” (p. 23). Palloff and Pratt (2001) wisely prompt that “[n]ot all faculty are suited for the online environment” (p. 21); moreover, “faculty cannot be expected to know intuitively how to design and deliver an effective online course” (p. 23), and notwithstanding online courses being more readily available to students, even “seasoned faculty have not been exposed to techniques and methods needed to make online work successful” (p. 23). Keeling and Hersh (2011) assert that many faculty are neither adequately trained to teach nor appropriately facilitate student learning, and go on to suggest that merely possessing a terminal degree in a particular discipline does not necessarily establish competence and/or proficiency in that faculty’s ability to teach in that discipline or “develop the course, prepare a syllabus, design and deliver lectures, create experiential learning opportunities, manage a classroom or laboratory, and review and grade students’ work” (p. 14). Keeling and Hersh (2011) are not suggesting that faculty do not care about their teaching efficacy or the learning of their students, because many do, and reinforce prior position by stating that “given the absence of formal study in pedagogy, learning, and assessment, most professors have to learn on the job, as it were, and wide disparities in commitment and talent exist when it comes to teaching” (p. 14), a position supported by other scholars (Allen, Seaman, Lederman & Jaschik, 2012 a & b; Ballantyne, 2003; Barr & Tagg, 1995; Dommeyer, Baum, Hanna & Chapman, 2004;
Kelly, 2012; Pike, 1998; Swan, 2010). Puzziferro and Shelton (2008) agree that initiating the development and design of an online course “is a highly complex and multifaceted process” and that there are “several levels of ‘development’ that need to occur, and no one person is likely capable of discharging all of the expertise levels and roles inherent in the process” (p. 119).

Specific research into teaching and learning online over traditional learning environments (i.e. those classes that are delivered synchronously and face-to-face) have produced insufficient evidence to support the claim that online students are not learning as deeply and as competently as their counterparts in the traditional environment. Additionally, although it is typical that faculty may be tasked with online courses, they cannot be expected to know innately how to design and deliver it in an effective manner; and as enrollment increases, this anomaly will intensify, despite claims that instructors are largely satisfied with and “felt positively about distance education” (Bolliger & Wasilik, 2009, p. 105). Addressing the issue of whether faculty satisfaction correlates with faculty performance/instructional efficacy, Fredericksen, Pickett, Pelz, Swan & Shea (2000), explored factors that influence faculty satisfaction with asynchronous teaching and learning. The factors they identified as being critical in determining instructional successes were “ability to evaluate needs, conceptualize solutions, to implement these with active faculty and students, assess our success or failure, and to apply what we have learned as we begin this process again” (p. 249).

Fredericksen, et al. (2000) state that for the instructional design of a course to be considered effective, it must have/be;
• a complete and explicit leading orientation, particularly in the syllabus and its learning objectives;
• a consistent module and sub-module structure;
• both abundant and redundant with instructional cues and related prompts for student continuity;
• unambiguously-named modules, sub-modules, assignments, etc., so as to clearly convey all relative content or instructional information to the student, and
• clear overviews and explicit expectations for each and every learning activity and/or process throughout the duration of that course.

**Why faculty satisfaction?**

According to *Understanding Faculty Satisfaction* (2006), the Institutional Research and Planning department at Cornell University determined that “satisfaction with being a faculty member is a succinct and compelling measure of the ‘quality of work life’ among faculty” (p. III-7). There are obviously many measures that can be taken to determine faculty satisfaction but, in the opinion of this researcher, the overwhelming measure and the foundational reason to conduct this study, was their satisfaction with the design of their courses. Hartman, Dziuban, and Moskal (2000) explored factors that contributed to faculty satisfaction and ultimately improved faculty performance and instructional efficacy. They found that administrative leadership and robust institutionalized models for faculty development are essential for creating high quality online learning courses, and that “technology-focused faculty development programs
should strive to become woven into the fabric of the institution and agents of institutional transformation” (Hartman et al., 2000, p. 158). Dewey (1916) supports this by claiming that the objective of instructional efficiency, as with any educational objective, “must be included within the process of experience” (p. 143), and that this experience “is measured by tangible external products and not by the achieving of a distinctly valuable experience, it becomes materialistic” (p. 143). Dewey (1916) asserts that “[t]he nature of experience can be understood only by noting that it includes an active and a passive element peculiarly combined” (p. 163).

But is this enough?

This researcher feels that notwithstanding improved faculty performance, instructional efficacy, and vast teaching experience; genuine student learning and ultimately educational competency at course’s end is a truer test of instructional productivity. However, a measure of faculty’s self-reported levels of satisfaction designing and teaching online courses is an appropriate departure point, and one this researcher deemed worthy of further investigation. The position taken by this researcher here is bolstered by recent calls by politicians and education authorities alike for higher education institutions to bring forward acceptable evidence attributing not only that students learned, but that they also acquired the necessary levels of competency in online courses. In terms of assessment, these calls highlight the problems with the inconsistent instructional design of online courses, and therefore the pressing need to investigate its impact on the above-raised issues becomes quite apparent.
Although only a small part of the issues noted above, by staging the previously mentioned QMR as an acceptable standard in designing online courses, allays these limitations, given that it was developed with complimentary research-based standards and is now applied nationally and internationally for inter-institution peer review of online courses (Quality Matters, n.d.). The QMR and its concomitant peer review process is now adopted and/or endorsed by more than 615 institutions worldwide (Bento & White, 2010; Bogle, Cook, Day & Swan, 2009; Hoffman, 2012; Legon, 2006; Legon & Runyon, 2007; Sax, 2006; Sener, 2005; Sener & Shattuck, 2005; Shattuck, 2012, 2011, 2007; Shelton, 2011; Tornwall, 2008; Wang & Shao, 2008). To substantiate the purpose and significance of this study; enrollment in online courses has increasing at a steady rate; however, student persistence in online courses stays significantly lower than those students in other learning modes (Angelino, Williams & Natvig, 2007; Cao & Gabb, 2006; Diaz & Cartnal, 2006; DiRamio 2005; Hammond, 2005; Patterson & McFadden, 2009; Picciano, 2002; Potts, Sutton & Weiner, 2009). Wasilik and Bolliger (2009) identify that “[f]aculty satisfaction is a crucial success factor of successful development and implementation of online programs” (p. 173), claiming further that “opportunities such as the involvement in instructional design and development can be perceived by faculty as either positive or negative depending on their attitudes” (p. 174). Please refer to Appendix N for a contrast of instructor-generated components, both positive and negative, for teaching in an online environment.

Wasilik and Bolliger (2009) claim that “[p]rofessional development support in online instruction and design has a positive impact on faculty satisfaction” (p. 174). As a
result, this researcher believed it was possible that inconsistent online course design and delivery may be one major factor decreasing faculty satisfaction with online courses in general. A strong correlation exists between the level of faculty satisfaction with the structure and effectiveness of online course design and resultant student satisfaction in those courses (Bolliger & Wasilik, 2009; National Education Association, 2000; Wasilik & Bolliger, 2009; Wendt & Wendt, 2012). However, it must be noted that the QMR is essentially a design methodology; and the primary determinant in adjudicating the efficacy of online course design, the actual delivery of online courses, is necessarily controlled for and delimited from this study. To that end, this study sought to establish whether a consistent foundation for online course design, i.e. applying the QMR was instrumental in increasing the satisfaction of those faculty tasked with designing online courses using the QMR, beyond those faculty tasked with designing online courses not using the QMR.

This researcher believed (and has investigated intermittently throughout this dissertation) continued success in higher education is founded on an instructional design protocol that, in research over time, has proven to be statistically significant and boosts both internal and external validity and reliability (Bolliger & Martindale, 2004; Bolliger & Wasilik, 2009; Howard, Conway & Maxwell, 1985; Marsh & Roche, 1997; Pike, 1998; Scanlan, 2003), leading to a learning environment that conforms to instructional design best practices (Chen & Steber, 2012; Cronje, 2006 & 2012; Evans, 2011; Jonassen, 1997 & 2000; Lewis, 2009; Meyers & Nulty, 2009; Ragan & Smith, 199; Swan 2001; Swan, Matthews, Bogle, Boles & Day, 2012; Wendt & Wendt, 2012; Young, M.
1993; Young, P. 2009). Wendt and Wendt (2012), in their analysis of the “structure and effectiveness of online graduate courses as well as the students’ motivation and expertise of the instructor,” (p. 448), where “[a]pproximately half of the survey questions related to specifics of course design” (p. 449), conclude that “[e]ach of the significant correlations may have an effect on course design and give insight into online learners” (p. 451).

Bolliger and Wasilik (2009) share what Lock Haven University had stated in 2004; that because “faculty are instrumental in the success of distance education programs, levels of faculty satisfaction are one measure for the assessment of program effectiveness,” (p. 105). This was supported earlier in 2000 by the National Education Association (NEA), which “found that approximately 75% of faculty surveyed felt positively about distance education” (p. 105).

Shattuck (2012) claims that “[c]ourse retention is often associated in the literature with student satisfaction” (p. 8). Addressing the question of whether faculty satisfaction impacts both theirs and the performance of their students and resultant student retention, Fredericksen, et al. (2000) claim that when their respondents were polled on the resultant variation in their students’ performance in online versus the traditional classroom, almost 45% felt their online students performed better, almost 44% felt there was no difference, and barely 9% saw their traditional students as having performed better. What is further remarkable about the Fredericksen, et al. (2000) study is that;

- Almost 48% of their respondents “felt that the level of interaction between their on-line students was Higher or Much Higher than that of their classroom students” (p. 259), and
Comparing faculty ratings for student interaction with faculty level of satisfaction with their experience teaching online, “those who rated their student’s level of interaction as higher or much higher were significantly more satisfied with the experience than those who felt it was much lower” (p. 259).

This phenomena is supported by Kroncke (2006), who noted among certain variables when assessing the correlation between faculty satisfaction and student satisfaction in higher education, that there existed a particular direct relationship with public school teachers’ satisfaction and their performance. Certain variables, e.g. organizational pressure, time pressure, unrealistic or excessively tight deadlines, etc. also have marginal disutility, in that they increase performance and ultimately satisfaction to a point but beyond that point tend to dramatically reduce both performance and satisfaction.

Shattuck (2012) recognizes that from inception, numerous practitioners and faculty alike had voiced their gut feelings that improving the design of a course would invariably lead to higher rates of retention, as well as the rates at which students completed courses (ultimately their programs of study). However, Shattuck (2012) also recognized the limitations and challenges to “studying student retention in online education [because such study] begins with a lack of common definition of retention” (p. 9). Loser and Trabandt (in Shattuck, 2012), contemplating the impact that structured learning activities have on course completion, originally “hypothesized that by revising learning activities to be more engaging (one of the QM Rubric standards) more students
would complete the course” (p. 8). Although Loser and Trabandt (in Shattuck, 2012),
found no significant differences in completion rates, students commented summarily that
the changes made were positively received. Studies of a more longitudinal nature on
courses taught by the same instructors showed completion rates were consistently higher
for these online courses as compared to the average rate of course completion (Shattuck,
2012).

Fredericksen, et al. (2000) recognize that some of the factors they identify that
significantly contribute to and impact faculty satisfaction when teaching online may well
be the same that influence their satisfaction when teaching face-to-face. Nonetheless,
they identify the following factors that significantly contribute to and impact faculty
satisfaction when teaching online, as:

- student performance;
- level of student interaction in the course;
- reason for choosing to teach on-line;
- satisfaction with the [online learning network];
- a positive perception of the effects of the technology;
- low levels of technical difficulties;
- and how well the faculty got to know their students (p. 258).

Kroncke (2006) admits that although her extensive research clearly illustrates the
“complexities of the satisfaction-performance relationship,” (p. 9), she nonetheless
determined there to be a clear and unambiguous role that quality plays, both in
instructional efforts and student learning outcomes, in determining the level of student
satisfaction and ultimately student retention. Reemphasizing the importance in
maintaining quality-continuity through secondary school to post-secondary education,
Kroncke (2006) conclusively declared her study “especially relevant considering the similarity in professions between public school teachers and a public university’s faculty” (p. 8). Kroncke (2006) specifies a definition of quality that is a more appropriate measure in a higher education setting could be “quality as fitness for purpose” (p. 16), because it “helps to describe why students are coming to a university” (p. 16). Kroncke (2006) recognizes that added complexity is understanding a “customer’s perception of quality, which has been found to have a direct relationship with the individual’s level of satisfaction” (p. 15), claiming further that a “customer’s satisfaction with a service is often an essential method used to evaluate its quality” (p. 15).

In order to determine whether employee satisfaction has any effect on the quality of service performance, Wilson and Frimpong (2004) concluded that “although job satisfaction may not necessarily result in technical or quantitative service performance, extant research provides strong support for its critical role in organisational efforts to deliver quality services to both internal and external customers,” (p. 477), and found most significantly that higher educational institutions, much like service organizations, should not continue to ignore elements in their control to effect improved employee satisfaction, and subsequently those employee’s attempts to deliver quality services. Kroncke (2006) found that the perceived and resultant experienced quality of the instructor “was the most important facet to a student’s perception of quality” (p. 16).

It is important at this juncture for this researcher to emphasize that he is not attempting to associate students with customers, but merely recognizing some overlap in dimensions specified as not negotiable when it comes to either’s expectation of quality,
e.g. tangibles; reliability; responsiveness; service assurance and empathy, referred to as the RATER model (Berry, Zeithaml & Parasuraman, 1990). Kroncke (2006) emphasizes this researcher’s position, stating that “[a]lthough it is typically not the case in a higher education setting that students’ satisfaction would be the only method for judging a school’s quality, this measure can greatly impact external perceptions of a university who are interested in statistics like student retention” (p. 15).

That students persist and ultimately graduate is slim comfort to higher education stakeholders when one ponders whether they are actually learning, as a result of their studies. That same 2000 NEA poll of instructors of online courses reiterated an ongoing finding that “[m]easures of learning—and of quality—are elusive and often controversial in higher education” (Oblinger, Barone, & Hawkins, 2001, p. 19). Or as Meyer (2002) suggests in her chapter on “The Significance of ‘No Significance,’” emphasizing the earlier Russell (1999) study which Meyer (2002) states as “being the most quoted, and misunderstood body of research on distance education,” Meyer (2002) claims limitations, particularly those examining the significance of a faculty’s “first foray into evaluating whether the technology works,” (p. 15) where said research often ignored the need to “separate the instructor from the researcher” (p. 15).

Given the distinct absence of a generally acceptable measure of resultant student learning (Bennett, 2001; Cody, 2012; Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson & Beechum, 2012; Flinn & Crumbley 2009; Harvey & Green, 2012; Hénard & Roseveare, 2012; Keeling & Hersh, 2012; Orenstein, 1990), this researcher’s emphasis must then shift to instructional design (particularly for online courses) and
concentrate on faculty satisfaction, because its premise has been empirically linked to student satisfaction and/or faculty/institutional support with their online learning experience (Aman, 2009; Bolliger & Martindale, 2004; Clawson, 2007; Gibson, 2008; Herbert, 2006; Lee, Srinivesan, Trail, Lewis & Lopez, 2011; Keeling & Hersh, 2011; Kent, 1930; So & Brush, 2008; Swan, 2010; Swan, Richardson, Ice, Garrison, Cleveland-Innes & Arbaugh, 2008; Woods, 2008). Thorpe (2002) claims that “[t]raditionally, learner support is seen as that which happens after the course materials have been made” (p. 106), and Lee et al. (2011) state that framing institutional support of faculty as a crucial add-on “to pre-designed courses…it has since been recognized that it should be considered and integrated into course design” (p. 158). Kroncke (2006) declared her most “groundbreaking” finding in correlations made between faculty satisfaction and student satisfaction in higher education was the “apparent impact that social relationships amongst faculty members can have on students’ overall satisfaction’ (p. 45), but similarly evident was “the lack of correlations between student satisfaction and factors that satisfy faculty members” (p. 45). Kroncke (2006) reminded us that faculty members, as evident at most higher education research institutions, are rewarded “based on their research contributions, but this does not translate into more satisfied students” (p. 45), and although some students understand this as a necessary consequence in academia, emphasizing the commercial value of research above that of teaching, that the reality somewhat negatively affects students’ overall feelings of satisfaction.

To reiterate, this researcher has explored, through the research presented in this study, if designing an online course using the QMR positively elevates faculty’s self-
reported levels of satisfaction as opposed to their self-reported levels of satisfaction with online courses that were not designed using the QMR. Fortino and Wolf (2007) saw a paradigm shift occurring and suggested that the cycle of destruction first described by Joseph Schumpeter and later expounded upon by Clayton Christensen, insofar as online learning goes, could enable an innovative institution employing a “disruptive technology” to effectively destroy the long-held monopoly held by their bricks-and-mortar competitors. Christensen (n.d.) coined the phrase “disruptive innovation” as a term to describe “a process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually displacing established competitors” (para. 1). Christensen and Eyring (2011) qualified online learning as a distinctly disruptive technology, identifying its effect as being “at work in higher education, allowing both for-profit and traditional not-for-profit institutions to rethink the entire traditional higher education model,” (para. 5) and suggested that “it would be unfortunate if internal delay caused change to come through external regulation or pressure from newer, nimbler competitors” (para. 6). Madsen-Brooks (2013) challenges the notion of a paradigm shift and external pressures to effect arbitrary change, suggesting instead that innovative disruption comes not from outside the institution but from within, where faculty and students embrace technology as tool in designing high impact practices into online courses, previously reinforced by Meyer (2002), suggesting that “[t]echnology then, is merely, a means of delivering instruction, a delivery truck, so to speak, that does not influence achievement” (p. 14). Madsen-Brooks (2013) “emphasizes that technology-enhanced ‘high-impact practices’ lead to
‘meaningful learning gains’ as well as ‘high retention and persistence rates’ because they encourage [...] specific behaviors” (para. 11). Although instructional design has had to endure many “disruptions” to this point in distance learning practices, many regard contemporary online learning practices to be imminently significant as disruptions, laid out in terms of questionable student competency (Soares, 2012), rapidly increasing numbers of both traditional and non-traditional students preferring online courses (Fain, 2013 Jan 21), and the reach and early successes of massive open online courses (MOOC’s) (Kolowich, 2012; Ripley, 2012; Young, 2012) [despite current low completion rates, (Catropa, 2013; Jordan, 2013)], which could soon see traditional higher education institutions, like the ones being researched in this dissertation, ‘disrupted’ into second place, or worse.

Another worrying factor is that the stability, and hence institutional efficacy with and desirability of online learning courses in higher education, is further weakened (disrupted) greatly by higher than normal attrition rates in online courses: “With large numbers of students dropping out of online programs, determining which students will succeed has become a widespread concern” (Kelderman, 2011, p. B5), claiming further “that online education is not for everybody” (Kelderman, 2011, p. B5). Beck (2000) offers that “Attrition rates for most distance education programs are worse than for traditional college courses, with dropout rates as high as 80 percent at some colleges.” The example applied by Beck (2000) is that from Piedmont Technical College, in Greenwood, SC, where the “overall attrition rates for traditional classes average 25 percent, while attrition rates for online courses average 45 percent” (para. 1). In her
analysis of online learning, Cook (2011) posed the following question, “What is one possible reason for higher student attrition in online courses than in face-to-face classes?” Her analysis revealed that there has been a “demand for increased student access (especially traditionally underserved populations)” (p. 24), and more so that “[o]nline classes open the possibility of college for rural, low-income students who may depend on their workplace for Internet access, [b]ut when life intrudes, they have fewer resources to deal with it, so they’re more likely to drop out of school” (p. 25).

According to Park, Boman, Care, Edwards, and Perry (2008), a reason that higher education institutions in the United States “measure persistence and are concerned about it is that the federal Department of Education uses persistence as the measure of ‘programs that work’” (p. 225). Those programs that are found not to be working see their institutions receiving less federal funding, and considering today’s tight higher education budget environment, this could eventually be detrimental to those programs. Much research conducted in this area in the past has revealed that attrition is costly to both the student and their institution, and as indicated in Student attrition: Consequences, contributing factors, and remedies (2012), “[a]trition is a concern for any type of educational or certification program in that costs are incurred with respect to time, resources and tuition for students, faculty, institutions and other members of society” (p. 1). Additionally, when students leave beyond the dates for additional enrollment, their ‘seats’ remain vacant for the remainder of the semester, squandering the opportunity for the institutional to optimize revenue, and should the students not return to complete their program of study, they do not get to enter the workforce at a level that would have
substantiated the return on investment that taxpayers had expected ("Student attrition: Consequences, contributing factors, and remedies," 2012, p. 2). However, attrition is a symptom that this researcher did not attempt to identify as a link, if any, to lowered perceptions of learning by students in online courses, and/or self-reported levels of satisfaction held by faculty for courses that have or have not been designed appropriately, e.g. by not applying the QMR and hence accelerating the higher than normal attrition rate of students from online courses in higher education institutions. This researcher, instead, purposefully investigated whether applying the QMR as a foundation for online course design increases faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR.

Given this researcher’s own experience with QMR-designed online courses in regard to faculty satisfaction (as was discussed at the opening to this chapter), he believed that exploring this issue in the current higher education climate which demands more online course offerings and versatility was crucial. More on the background of this researcher’s study shall be discussed in the next section.

**Background to the Study**

When teachers do not focus on the development of student understanding and have poor conceptions of learning technologies, they tend to use e-learning as a way of delivering information by bolting it on to course design in an unreflective way. Teachers who focus on the development of student understanding and have richer conceptions of learning
technologies, not only integrate e-learning into their approach to teaching, but also stress the importance of the integration of learning across physical and virtual spaces (Ellis & Goodyear, 2010, p. 104).

Since the early 1950s, enrollment in higher education increased at a rapid rate, but since the early 2000s, enrollment in online courses has increased at an even faster and more extreme rate (Allen & Seaman, 2011, 2010, 2009, 2008, 2007 & 2006; Anderson, 2008). Frand (2000) predicted that online education “is expected to grow at a compound annual growth rate of 33 percent,” and that “[a]nalysts predict that distance education demand will increase from 5 percent of all higher education students in 1998 to 15 percent by 2002” (p. 11). Webley (2012) acknowledged, “[t]he growth in online education over the past decade has been nothing short of meteoric: a November 2011 report by the Babson Survey Research Group found that more than 6.1 million students took at least one online class during the fall of 2010, a 10% increase over the previous year and nearly four times the number of students taking online courses a decade ago” (para. 3).

Unfortunately, and contrary to what Frand (2000) had predicted (see Table 1), the average increase in total enrollment for the past nine years is 2.66%, and online enrollment over the same period only managed to increase on average by 17.52%—still almost seven times greater when compared to total enrollment, but way short of Frand’s (2000) predictions.
Table 1

Total and Online Enrollment in Degree-Granting Postsecondary Institutions - fall 2002 through fall 2011.

<table>
<thead>
<tr>
<th>Fall</th>
<th>Total Enrollment</th>
<th>Annual Growth Rate Total Enrollment</th>
<th>Students Taking at Least One Online Course</th>
<th>Online Enrollment Increase over Previous Year</th>
<th>Annual Growth Rate Online Enrollment</th>
<th>Online Enrollment as a Percent of Total Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>16,611,710</td>
<td>NA</td>
<td>1,602,970</td>
<td>NA</td>
<td>NA</td>
<td>9.6%</td>
</tr>
<tr>
<td>2003</td>
<td>16,911,481</td>
<td>1.8%</td>
<td>1,971,397</td>
<td>368,427</td>
<td>23.0%</td>
<td>11.7%</td>
</tr>
<tr>
<td>2004</td>
<td>17,272,043</td>
<td>2.1%</td>
<td>2,329,783</td>
<td>358,386</td>
<td>18.2%</td>
<td>13.5%</td>
</tr>
<tr>
<td>2005</td>
<td>17,487,481</td>
<td>1.2%</td>
<td>3,180,050</td>
<td>850,267</td>
<td>36.5%</td>
<td>18.2%</td>
</tr>
<tr>
<td>2006</td>
<td>17,758,872</td>
<td>1.6%</td>
<td>3,488,381</td>
<td>308,331</td>
<td>9.7%</td>
<td>19.6%</td>
</tr>
<tr>
<td>2007</td>
<td>18,248,133</td>
<td>2.8%</td>
<td>3,938,111</td>
<td>449,730</td>
<td>12.9%</td>
<td>21.6%</td>
</tr>
<tr>
<td>2008</td>
<td>19,102,811</td>
<td>4.7%</td>
<td>4,606,353</td>
<td>668,242</td>
<td>16.9%</td>
<td>24.1%</td>
</tr>
<tr>
<td>2009</td>
<td>20,427,711</td>
<td>6.90%</td>
<td>5,579,022</td>
<td>972,669</td>
<td>21.10%</td>
<td>27.30%</td>
</tr>
<tr>
<td>2010</td>
<td>21,016,126</td>
<td>2.90%</td>
<td>6,142,280</td>
<td>563,258</td>
<td>10.10%</td>
<td>29.20%</td>
</tr>
<tr>
<td>2011</td>
<td>20,994,113</td>
<td>-0.10%</td>
<td>6,714,792</td>
<td>572,512</td>
<td>9.30%</td>
<td>32.00%</td>
</tr>
</tbody>
</table>

(Allen & Seaman, 2013, p. 17 updated)

Because the online learning trend now extends all the way from pre-kindergarten through twelfth grade (K-12), future incoming higher education students will therefore expect more courses of higher quality being taught online by satisfied faculty, given they will have become familiar with the benefits, and have necessarily overcome some of the limitations sometimes faced by higher education students encountering online learning for the first time, i.e. commitment, self-discipline, increased tolerance for uncertainty, etc. (Fain, 2012 May 16; Frick, Chadha, Watson, Wang & Green, 2007; Horspool and Lange, 2012; Moore, Sener & Fetzner, 2009). Faculty satisfaction, as Moore, Sener and Fetzner (2009) reiterate, reflect those institutions that continuously improve retention and
persistence, regard student success as “an unambiguous, institution-wide priority, driven from the top and pursued over the long term” (p. 87).

It must be emphasized that this study sought not to transform the ‘structure’ of teaching in either environment, but rather examined whether faculty satisfaction is increased when a strong design foundation is laid when applying a consistent method of design, e.g. the QMR. As was evidenced by the sharing of this researcher’s personal experience with QMR-designed online courses in the introduction of this chapter, he believed that applying a strong design foundation increased his sense of satisfaction, but wanted to investigate whether his belief held true from a broader faculty perspective.

Within the literature on the subject, Swan (2003) shared that in 1991, Kozma, while accepting Clark’s 1983 position on the “importance of instructional design, […] argued that media mattered too,” reinforcing the media’s “ability to deliver instruction that is individualized for every student and that provides them with extensive practice and immediate feedback” (p. 3). Swan (2003) contrasted this with Twigg’s 2000 contention that the bigger “obstacle to innovation in online learning is thinking things can or should be done in traditional ways” (p. 3), and further cautioned that “trying to make online education “as good” as traditional education often encourages us to make it the same as traditional education” (p. 4). At worst, a student’s perception of learning online should attribute no significant difference to learning in a traditional environment, and at best, it should be healthier. Bottom line and logically: In higher education’s effort to provide students with the best return on their educational investment, instructors designing online courses should strive to ensure that there is no significant difference in pedagogical
method and approach between how instructors design their traditional course/s, and how they design the same or similar course/s to present it/them online.

Highlighting the realities of online learning capabilities in an executive briefing paper prepared for the Alliance for Higher Education Competitiveness, Rob Abel (2005), while discussing the phenomena of “the disruptive innovation” (i.e. online learning) in higher education, claimed, “One extreme view is that technology can have absolutely nothing to do with learning – it is just a tool. The other end of the spectrum is that technology is a panacea that will enable creation of ‘learning objects’ that will revolutionize how education is delivered and received” (p. 3). The Hart Research Associates (2013) found that a majority of employers, across industries and career disciplines, believe that higher education institutions should place a more rigorous emphasis on key learning outcomes in order to increase undergraduates’ success in today’s global economy. More specifically, employers say that critical emphasis should be placed on: “Critical thinking and analytical reasoning (82% more emphasis, 7% less); Complex problem solving and analysis (81% more emphasis, 6% less); Written and oral communication (80% more emphasis, 8% less) and the application of knowledge and skills in real-world settings” (78% more emphasis, 6% less)” (p. 8).

Despite its platform, this researcher did not advance Abel’s (2005) argument that online courses are the “panacea” to higher education’s woes in the 21st century, precisely because at this point, the lack of universally accepted best practices in terms of instructional design of online courses makes it impossible to compare learning outcomes in online courses in any meaningful way to the outcomes of the same courses offered
through other modes. As discussed previously, this researcher had used the QMR as an online course design foundation for his own courses, in part because of positive recommendations from colleagues who had used the QMR themselves and believed it to be a sound rubric for online course design. However, this researcher has also had discussions with colleagues who believe that adhering to the QMR in terms of online course design inhibits their pedagogical freedom, and therefore preferred to design courses they believed worked best for them and their students, until such time as another rubric they believed to be more academically appropriate emerged. Given the range of responses regarding the pros and cons of online course design standardization in the literature, and in his conversations with colleagues regarding same, it was deemed necessary to investigate this matter in a broader and more empirical manner. Hence, this study narrowed its focus to investigate whether applying the QMR as a foundation for online course design increases those faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to those faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR. More on the statement of the problem that was investigated for this study shall be discussed in the next section.

**Statement of the Problem**

have responded by offering as many online options as possible, including the creation of entire online degree programs. Between 2002 and 2013, online course offerings at this researcher’s home institution grew from zero to six graduate level programs, 12 undergraduate and nine certificate programs. However the level of faculty satisfaction with designing these online courses had yet to be established, let alone the differing self-reported levels of satisfaction with their online courses designed using the QMR, in comparison to their self-reported levels of satisfaction with online courses that were not designed using the QMR.

Fredericksen, et al. (2000) conclude that after administrating their Faculty Satisfaction Survey it “revealed a number of indicators which address the issue of teaching satisfaction,” (p. 273). More specifically, “Eighty three percent responded that they found their on-line teaching experiences very satisfying and seventeen percent found them somewhat satisfying” (Fredericksen, et al., 2000, p. 273), and further, “One-hundred percent of the faculty responded that they plan to continue teaching on-line courses. Eighty-three noted that developing an on-line course had a very positive impact on their classroom teaching” (Fredericksen, et al., 2000, p. 273). When the respondents were asked what they thought created resistance in some mainstream to teaching online, they responded as follows:

- Afraid of the technology. Unsure of the pedagogy. Question the authenticity. Can't be sure who is answering the questions.
- Because they are afraid of the unknown and the potential work involved in trying something new.
It threatens the territory in which they have become comfortable.

Technophobia and not having done thorough research or having had exposure to the methodology.

They believe on-line teaching is too impersonal--doesn't allow for meaningful interaction--they're wrong (Fredericksen, et al., 2000, p. 273).

When asked what they thought could be done to minimize, eliminate or obviate this resistance, the respondents replied:

- Demonstrate effective pedagogy. Testimonials from respected colleagues. Roundtable discussions with experienced on-liners.
- Set a good example and outline the positive features about teaching over the Internet.
- Convince them it's not a threat, just an enhancement.
- Professional development seminars where faculty are interactive within a course for a period of a week or two.
- Have one-on-one demonstrations with faculty who are cautiously suspicious, but who have some possibilities. Show them a course and answer their questions. Suggest that they take a course on-line themselves before teaching one. It could be simply auditing someone's course (Fredericksen, et al., 2000, p. 273).

As indicated earlier in this chapter, these findings have been both partially and fully reiterated by many (e.g., Bolliger & Wasilik, 2009; Heilman, 2007; Keeling &
Hersh, 2011; Lee, 2001; McLawhon & Cutright, 2012; Puzziferro & Shelton, 2008; The National Education Association, 2000). Further, and more specifically by Bolliger and Wasilik (2009), who declared after developing their own instrument, the Online Faculty Satisfaction Survey [OFSS], “[f]aculty satisfaction is positively influenced when faculty believe that they can promote positive student outcomes” (p. 106), and when coupled to other faculty-related factors e.g. “self-gratification, […] intellectual challenge, and an interest in using technology” (p. 106), it became somewhat more clear to this researcher that faculty unsatisfied with the quality of the design of their online courses invariably transfer that dissatisfaction into the delivery of the online course, possibly resulting in less than desired student learning outcomes and/or unnecessarily increasing attrition rates from those online courses.

You, Hochberg, Ballard, Xiao and Walters (2014) declared that the express objective of the “QM review process is to continuously improve online course quality” and in the opinion of this researcher, instructional efficacy and resultant instructor and student productivity. Discussions regarding the true measure of instructional productivity encouraged Sullivan, Mackie, Massy, and Sinha (2012) to claim that “[t]he quality of education is the elephant in the room” (p. 79), and then formed the opinion that although there has been significant progress made on the development of a quality assessment, e.g. the QMR, there is still no near-term expectation of a general agreement on an acceptable measure for the instructional design of online courses. Academe has traditionally and understandably been skeptical of attempts to quantify faculty productivity, and Sullivan et al. (2012) acknowledge that different calculations might be needed to account for
valuable work at research universities (where faculty might spend less time teaching) and at two-year colleges (where fewer degrees might be awarded if students seek to transfer or earn vocational credentials). The Institute for Higher Education Policy (IHEP) (1998) undertook a study that, among their other recommendations, identified a pressing need to improve research into the design of online learning courses and whole programs, particularly quality standards. This was followed in 2000, when IHEP were commissioned by the NEA and Blackboard, Inc. to investigate the matter further, resulting in the production of *Quality on the Line: Benchmarks for Success in Internet-Based Distance Education*. The report “identified 24 separate quality indicators chosen by various respected online education leaders of higher education institutions out of the original 45 indicators provided by a literature search” (Shelton, 2010, p. 3).

Clawson (2007) mapped and designed the *Taxonomy for Online Course Quality* because, in her opinion, “a review of the literature revealed a lack of formal research reinforcing the connection of quality standards with student satisfaction or achievement in online education” (p. 12). Dilbeck (2008) used the quality indicators identified in the 2000 IHEP study as a basis for the survey instrument he developed, which Shelton (2010) expanded upon in the assessment paradigm for evaluating the quality of online education programs designing the *Quality Scorecard*. According to You et al. (2014), when measuring the comparative quality standards in the design of online courses, they determined that reviewers and students concurred on most measures, but “differed significantly with three of the essential standards regarding course objectives, unit learning objectives, and grading policy” (p. 35). They posited a possible determining
factor being that “reviewers look for solid evidencing aligned with measurable learning outcomes while students look for clearly articulated objectives” (p. 35). What is possible, and the direction taken in this study, was to comparably measure faculty’s self-reported levels of satisfaction between online courses designed with the QMR and those designed without the QMR. Questionable online course design and subsequent student learning is not just a problem for students in those courses. Indeed, it also calls into question the integrity of the specific institutions who offer online courses, as Kelderman (2011) declared:

The U.S. Education Department has issued new regulations to keep distance educators in check, and has pressured the groups that accredit colleges and universities to keep a tighter rein on those that offer online courses. Members of Congress blame accreditors for lax oversight of online programs that have engaged in alleged fraud and deception. Accreditors counter that they are adapting to the fast-growing world of online education by requiring colleges to prove that students learn as much in distance courses as in face-to-face classes (p. B4).

Kelderman (2011) continues his discussion of this trickle-down ‘lack of accountability’ effect by stating that no one body, from accreditors, to higher education administrators, to faculty members, really feels they deserve the blame for ill-designed online courses given the level of misunderstanding of the mode of online learning in each body. In assessing factors that may influence faculty participation in online course design and teaching, Betts (1998), in point number 6 of her Conclusions, declared that
“[f]aculty participation will not increase significantly unless the administration begins to eliminate inhibitors that deter faculty from participating.” Other factors influencing faculty participation in online course design and teaching are evidenced in research as being technology-related (Almeda & Rose, 2000, in Wasilik & Bolliger, 2009, p. 177) and impeded by the absence of face-to-face contact with students (Arvan & Musumeci, 2000, in Wasilik & Bolliger, 2009, p. 177). Test & Cornelius-White (2009) found that “faculty perceptions of general university governance issues” were “[m]ore strongly associated with faculty satisfaction,” including “satisfaction with the level of shared governance, the direction in which the university is moving, the particular policies and procedures of the university and its colleges, and the degree to which the administration is faithful to written policies” (para. 4). Based on extensive reading in the area of online learning in higher education, through conversations with colleagues that both design and teach online courses, and from personal experience designing and delivering online courses, this researcher believed that many faculty felt they had little influence over the foundational aspects of online learning curricula due to the structural inconsistency with design and delivery at the institutional level, but felt they bore the brunt of its weaknesses in preparing students for the 21st century workforce (Betts, 1998; Kelderman, 2011; Pollicino, 1996).

The rendition of the QMR used for this study is that for the period 2011-2013, and rounds out the measures described in this chapter. For the purposes of this study, this is where this researcher considered research into the quality of the design of online courses and resultant online learning effectiveness stood currently, and expanded upon their
application and relevance to this study in the Literature Review in Chapter II. Insofar as faculty satisfaction with instructional design and delivery of online courses is readily referenced and measured (in the opinion of this researcher), is the information obtained from faculty peer reviews and from students expressing their perceptions of their learning in end-of-semester course evaluations.

**Purpose of the Study**

Given the inconsistency in online course design as it is applied in higher education, and discussed previously in this chapter, the purpose of this study was to examine the difference between faculty’s self-reported levels of satisfaction between online courses designed using the QMR and those courses that were designed using methods other than the QMR. Moore (2008) discovered that “[f]aculty satisfaction with online teaching reflects institutional commitment to building and sustaining environments that are personally rewarding and professionally beneficial” (p. 115). The purpose, then, of this study was to use the data generated from the administration of the OFSS-R (Appendix D) from faculty at both public and private four-year institutions in the state of Ohio, to gain greater understanding of self-reported levels of faculty satisfaction with online courses regarding the various instructional design formats (including the QMR), providing a foundation for instructors when designing their future online courses to increase their own satisfaction with and within those online courses.

The significance of this study, then, is that the self-reported levels of faculty satisfaction with their online courses designed both applying the QMR and those designed without will create a basis for further research into effective course design, i.e.
design that increases faculty satisfaction with online courses, and toward increasing the attainment of student learning outcomes in these same courses. Additionally, such a comparison draws into sharp perspective whether the national push toward online course design standardization, as described previously in this chapter, should be explored further from a faculty satisfaction perspective before higher education settles on one method for doing so.

Although there still is no generally accepted measure for corroborating student learning, no matter the mode (Clawson, 2007; Puzziferro & Shelton, 2008, 2009; Shelton, 2011); what could be measured is whether self-reported levels of faculty satisfaction differ significantly in courses designed with the QMR when compared to the self-reported levels of satisfaction by faculty in other online courses not designed accordingly (Ahmed, 2010; Fan & Lê, 2011; Horspool & Lange, 2012; Kim & Lee, 2011; Lee, et al., 2011; Mariasingam & Hanna, 2006). The goal of this study was to provide those designing, teaching and researching in this field greater insight into the underlying factors increasing or decreasing faculty’s self-reported satisfaction in designing [and delivering] online courses, with a view toward improving their experiences with these courses so that resultant student experiences with these courses could be improved as well. Extant research shows that a large part of the variability in student perception of learning in online courses is due to the lack of consistency in online course design (Chen & Steber, 2012; Garrison & Vaughan, 2007, 2008; Hiltz & Goldman, 2005; Morrison & Anglin, 2006; Reigeluth, 1999; Reigeluth & Carr-Chellman, 2009), reiterating the significance of this study, and further evidenced by the following:
Based on the researcher’s personal experience and the experiences shared by his colleagues in the area of online learning, it is apparent that many students lose patience (Jonassen, 1997; Morrison & Anglin, 2006; Swan, 2010; Reeves, 2000; Young, 1993), and invariably withdraw at a higher rate than they do from traditional courses (Beck, 2000; Cook, 2011; McComis, in Kelderman, 2011), when each online course students attempt has different fundamentals and therefore requires them to first master the peculiarities of the design of online courses and the learning management system (LMS), taking away from their learning.

If higher education institutions are to make meaningful strides toward assessing learning (albeit through accomplishment of learning outcomes) in online courses, and compare successes and failures of online courses to one another, it makes sense that there should be consistency between how online courses and courses in other modes are designed. The QMR creates a foundation for stepping in that direction.

Just as program planning committees produce “designs” by way of course data sheets, preferring the QMR as a design methodology for online courses from the administrative level downward will approximate increased levels of faculty self-reported satisfaction, and ultimately, consistency with students’ reception of online courses across all online courses.

Understanding gained by this researcher via this study will contribute to a better understanding of the online instructional design protocols, including:
• Assessment of the QMR as a de facto design standard for online course design,

• Based on assessment after the analysis of the data, the creation of a more-tailored and thus more practical model for online course design that could become more readily adopted is an antecedent goal of this researcher, and

• If an analysis of the data reveals that the QMR is statistically worse or no different than other online course design methods, this has implications for further study in the area of assessing online course design, faculty satisfaction, and subsequent improved reception of their experience, from students’ perspectives.

Hartman, Dziuban, and Moskal (2000) conclude by stating that although faculty satisfaction’ impact on and student satisfaction may often be considered independently; “they are not independent but rather co-linear. In the absence of positive learning outcomes, teachers will encounter great difficulty succeeding, even with superior support and resources” (p. 477). Hartman et al. (2000), in longitudinal observations of how faculty satisfaction effects successful student outcomes, has them believing that faculty satisfaction is both “simultaneously, an independent and dependent variable, […] impacting student outcomes and being impacted by them (p. 477). They suggest “that the effect of the interaction between these two factors is greater than either one taken independently” (p. 477), and conclude, somewhat philosophically that “[l]ike the mystic no-significant-difference phenomenon, faculty satisfaction is nested within colleges, departments, and program areas yielding a complex pattern of interactions (p. 477). This
researcher still holds fast that the relationship that exists between faculty satisfaction, their teaching efficacy and ultimately student success, is a direct one, and a critical element in determining student retention. However, measuring the quality and efficacy of online learning must begin with consistency in instructional design of online courses and resultant increasing levels of faculty self-reported satisfaction. There are many other factors to consider, as has been discussed previously in this chapter, but once again, examining the impact of these factors, other than the ones stated above, are beyond the scope of this study.

In summary, this study investigated whether applying the QMR as a foundation for online course design increased faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR. The research hypotheses which framed this researcher’s study, and which are answered with the results of the study’s analysis in Chapter IV, are stated below.

**Research Hypotheses**

1. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course and who have designed at least one online course applying the QMR, but have not taught a course so designed, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR course).
2. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have NOT been trained in using the QMR to design an online course, but who have then designed an online course applying the QMR and have gone on to teach that course, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR course).

3. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course, who have not designed an online course applying the QMR, but who have taught a course designed by someone else using the QMR, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR course).

4. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained multiple times in using the QMR to design an online course, who have then designed online courses applying the QMR, and then have gone on to teach multiple courses, and those faculty who have only had one QMR training session and are teaching course designed using the QMR.
5. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have NOT been trained in using the QMR to design an online course, and those faculty who have had some other form of online course training.

Limitations, Delimitations and Design Controls, and Assumptions

Limitations

This quantitative study utilized data generated by the administration of the OFSS-R (Appendix D) to faculty contracted to instruct fully online courses offered during the following semesters; spring 2011, fall 2011, spring 2012, fall 2012, spring 2013 and fall 2013 (hereinafter referred to as the Period), at all four-year institutions, both public and private, in the state of Ohio. In an attempt to overcome the limitation that, notwithstanding the number of courses and sections rising by more than 300 percent over the Period (Research, Planning and Institutional Effectiveness, n.d.), no more than 30 percent of the contracted faculty have taught fully online courses over the Period (Research, Planning and Institutional Effectiveness, n.d.). Therefore, this study reached back through three academic years to amass sufficient data to constitute a reasonably representative population from which to draw representative samples. OFSS-R data was stratified according to the following combination scenarios:

- Same faculty, different online courses, different design strategies (some QM, some “other”),
• Same faculty, same online course/s, different design strategies (some QM, some “other”) – this was likely the most rare combination.

• Different faculty, different online courses, different design strategies (some QM, some “other”) - this is the most common but really does not allow for any meaningful comparison in view of where this researcher was steering the nuts and bolts of this study,

• Same faculty, same course/s, different environments (online v traditional) - this is the second most common but will be tabled for future research opportunities.

This researcher controlled for the above-mentioned scenarios in this study, augmenting with in-depth explanations about each combination, where necessary, but so as not to muddy the key objective of study, i.e. to investigate whether applying the QMR, as a foundation for online course design, increases faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR.

In this study, this researcher conducted a quantitative analysis and although it is known that there are other variables that influence faculty satisfaction and resultant student perceptions of learning, i.e. persistence to graduation, financial aid constraints, company tuition reimbursement and the like, these variables were not investigated or controlled for in this study. Indeed, the focus of this study remained on whether applying the QMR as a foundation for online course design increases faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s
self-reported levels of satisfaction with online courses that were not designed using the QMR. Relating back to this researcher’s professional experiences shared throughout this chapter, answering this question will become of paramount importance for higher education institutions seeking faculty buy-in on the standardization of online course design (the necessity of which was explored earlier in this chapter, and which shall be expounded upon in Chapter II).

The study also focused only on bachelor’s degree courses delivered fully online, given this researcher’s specific area of interest in and current teaching responsibilities restricted to undergraduate courses. The resultant analysis of the data gathered and concluding opinions rendered recommendations relevant to current and future practice. This researcher narrowed his focus to only undergraduates because to include graduate faculty self-reported levels of satisfaction with online learning at this point would have introduced extraneous variables into the study. Considering major differences in learning styles between undergraduate students and graduate students (i.e. notions of discipline, motivation, research abilities, etc.) is important when investigating self-reported levels of faculty satisfaction with online learning. Although understanding graduate faculty’s self-reported levels of satisfaction and graduate student perceptions of online learning is a viable area for future research, comparing the two very different student groups here was deemed beyond the scope of the research of this dissertation. Further, maintaining a focus on four-year institutions allowed this researcher to consider and compare the study improvements suggested or limitations imposed under the Strategic Plan for Higher Education 2008-2017: University System of Ohio [USO], as proposed by Ohio Board of
Regent’s Chancellor Eric Fingerhut and supported by State Governor Ted Strickland, in his future research efforts (Ohio Board of Regents, 2008). In so saying, the comparative four year public and private institutions were drawn from members of the Ohio Quality Matters Consortium [OQMC] (Ohio Quality Matters Consortium, n.d.), that included all four-year public and private institutions in the state of Ohio. Although the data collection focused on one geographic area only and thereby rendered the results generalizable only to undergraduate coursework (specifically online undergraduate coursework) in that geographic area, they nonetheless rendered this researcher more effectively able to deal with the research hypotheses for the study undertaken and described herein.

**Delimitations and Design Controls**

Participants in this study consisted of faculty, irrespective of sex, race, age, socio-economic status, college or program designation, physical or mental ability, who are contracted to design and/or deliver fully online courses in any one semester of the Period. The data collection phase of this study was conducted at the conclusion of the fall 2013, i.e. during the spring 2014 and summer 2014 semesters, and subsequent analysis of the data collected comprised a thorough quantitative analysis of all OFSS-R surveys completed by faculty contracted to design and/or deliver fully online courses during the Period.

**Assumptions**

This researcher assumed that although productive student learning is the stated goal of many higher education practitioners, that little evidence of such is provided beyond the quantitative results of the Student Surveys of Instruction [SSI’s] completed by
students in each course at the end of each semester at the four-year public institution where this study originated, in the reappointment, tenure, and/or promotion process for full-time tenure track faculty, and the review and renewal process for full-time non-tenure track faculty. This is perhaps due to, in the opinion of many scholars (and as has been referenced previously in this chapter), that there is no currently generally accepted measure to consistently assess actual learning in students, i.e. whether true transformative learning beyond exposure to the course material has taken place. Also, as there has been slim evidence to suggest that course design did have an impact on students’ ability to learn effectively, it was the researcher’s hope that this study might create a foundation for filling this gap in educational literature.

Some theorists, however, have commented on instructional course design’s connection to student learning outside of actual assessment. Krathwohl (1983) asked “[c]an we really claim to have a base for solidly designing instruction?” (in Reigeluth, 1983, p. xv), since learning theorists had not, up to that point, openly claimed they had anything substantial to share about the practice of instructional design. Reigeluth (1983) reinforced Krathwohl’s claim by stating, “[t]he purpose of any design activity is to devise optimal means to achieve desired ends. Therefore the discipline of instructional design is concerned primarily with prescribing optimal methods of instruction to bring about desired changes in student knowledge and skills” (p. 4). As has been stated previously, this researcher believed that ineffective online course design has the potential to significantly disrupt student learning, and that moving toward a standard method of instructional design for online courses, e.g. the QMR, is one way universities can begin to
remove barriers to student learning in this environment, and possibly increase student persistence in online learning, and in learning overall.

Adding to this researcher’s perspectives on this subject, Meyer (2006) considers instructional design to be invaluable for higher education institutions: “Instructional design appears to produce gold because it helps faculty and institutions to overcome the add-on uses of technology. Instead of using technology to add activities to an existing course or duplicate processes from the traditional course in the online course…instructional design pushes transformation” (p. 55). Continuing, Meyer (2006) further contends that “instructional design can ‘right-size’ learning for students, taking into consideration both student resources and constructivist learning” (p. 55). Many authors agree, believing particularly that online course design and learning should be more so concerned with the ‘how’ as opposed to the ‘what’ in terms of technology being applied. Terry, Lewer and Macy (2003) recognize that not all students can or want to submit to traditional courses but also do not find online courses to be their panacea. Students find the “general problem with campus courses for working professionals is the time constraint, while the most common complaint about online courses is the lack personal of interaction between students and professor that is often needed to facilitate the learning process, especially for advanced coursework” (Terry, Lewer & Macy, 2003, p. 3). Applying a consistent instructional design model can influence student’s learning styles, thereby enabling online learners to optimize their commitment to and maximize their return on their educational investment.

This can be achieved through:
• personalization (Bernard, Abrami, Borokhovski, Wade, Tamim, Surkes & Bethel, 2009; Garrison & Vaughan, 2008; Kathpalia, 2011; Lapadat, 2002; Swan, 2010),
• individualization (Coleman, 2005; Cronje, 2000; Heller, Mayer, Hockemeyer & Albert, 2005; Lewis, 2009; Swan, 2010),
• pace (Cohen & Nachmias, 2009; Kathpalia, 2011; University of Bedfordshire, 2010), and
• flexible accommodation (Clark, 2012; McLoughlin, 2001; Mupinga, Nora & Yaw 2006; Ramirez, 2012).

Parsad, Lewis and Tice (2008) claim that the “most common factors cited as affecting distance education decisions to a major extent were meeting student demand for flexible schedules (68 percent), providing access to college for students who would otherwise not have access (67 percent), making more courses available (46 percent), and seeking to increase student enrollment (45 percent)” (p. 3). However, with a profound lack of understanding from administrative levels regarding what it takes and how long it takes to design effective online courses, many faculty find themselves ill-equipped to replicate their face-to-face instruction online, and infuriate students by populating online courses with meaningless activities in an attempt to facilitate similar scenarios found in the classroom, proliferating online courses with “shovelware” (Rovai, Ponton & Baker, 2008, p. x). Adding to this conundrum, some faculty who are under no professional obligation to extend into the online environment, avoid it entirely, consequently leaving the bulk of online course offerings to faculty members not on the tenure track, who have
less control over their course designs (Crews & Curtis, 2011; Dommeyer, Baum, Hanna & Chapman, 2004; Shea, Picket & Li, 2005). And for those who do expend vast amounts of effort and energy in designing online classes that effectively mirror the same strategies found in their face-to-face classrooms, it is often the case that higher education institutions will then adopt these courses away from the designing faculty member, and give these courses to other faculty members to deliver, without input or guidance from the course’s original designer on actual course instruction to those who offer numerous iterations of the course (Dixon, 2009; Hiltz, Zhang & Turoff, 2002).

Administrative issues aside, the need to understand more about whether applying the QMR as a foundation for online course design increases faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with teaching online courses that were not designed using the QMR, is two-fold: 1) It builds a foundation for understanding what premises the increase in faculty’s self-reported levels of satisfaction with online courses, that might enable educators to understand more clearly which elements are providing them with the most trouble in terms of their experiences, and 2) It creates an understanding of the differences in faculty’s self-reported levels of satisfaction between online and face-to-face courses, thereby enabling educators to determine some of the root causes of upwardly increasing poor student perceptions of their learning and upwardly spiraling attrition rates of students from online learning courses. As has been discussed frequently throughout this chapter in relation to the literature on the subject (and which shall be discussed further in Chapter II), this researcher believes that understanding more about
the relationship between faculty satisfaction and methods of online course design is a necessary element of the ‘online course design standardization’ conversation at higher education institutions around the United States, particularly because of connections made to faculty satisfaction and student satisfaction in the literature referenced previously.

The terms used throughout this dissertation are defined in the next section.

**Definition of terms used in this study**

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<tr>
<th>Alternate student</th>
<th>Please see to the definition of the non-traditional student, below.</th>
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<tr>
<td>e-learning</td>
<td>1) such as coaching, classes, and mentoring; 2) e-learning classes, on-line help system, templates, decision support tools, and knowledge bases. Rossett and Sheldon, 2001, cited in Rastegarpour, 2011, p. 40</td>
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<tr>
<td>Faculty satisfaction</td>
<td>“The perception that teaching in the online environment is ‘effective and professionally beneficial.’” American Distance Education Consortium, n.d. para. 10.</td>
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<tr>
<td>Instructional Design</td>
<td>“A discipline of instructional design that is concerned with understanding and improving the one aspect of education: the process of instruction and therefore, is concerned primarily with prescribing optimal methods of instruction to bring about desired changes in student knowledge and skills.” Reigeluth, 1983, p. 4</td>
</tr>
<tr>
<td>Instructor</td>
<td>For the purposes of this dissertation, wherever the term ‘instructor’ is used in a quote from an external source, this research considers the author/s as referring to ‘faculty members.’</td>
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<td>Learning Modes:</td>
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<tr>
<td>Percent of Content delivered online</td>
<td>Category</td>
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<td>0%</td>
<td>Traditional/Face-to-Face [F-2-F] [please note that these terms are used interchangeably]</td>
</tr>
<tr>
<td>Percentage</td>
<td>Methodology</td>
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<tr>
<td>1-29%</td>
<td>Web Facilitated</td>
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| 30-79%     | Blended/Hybrid | “A course that integrates online and face-to-face modes of delivery. Although a substantial proportion of the content is delivered online, via recorded lectures, online discussions, assignments and assessments, etc., this mode typically has some face-to-face meetings spread intermittently throughout the duration of the course.  
1. Courses that integrate online with traditional face-to-face class activities in a planned, pedagogically valuable manner, and  
2. Where a portion (institutionally defined) of the face-to-face time is replaced by online activity (Adopted by participants at the 2005 Sloan-C Workshop).” Picciano & Dziuban, 2007, p. 9 |
|            | Flipped Classroom | [or Reverse Classroom] a learning model with two or more sessions on the same or similar topic, where the first session is the traditional lecture “attended” online as homework, and the second or ensuing sessions are face-to-face incorporating inquiry-based learning via discussions and practical |


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<tr>
<th>Learning Networks</th>
<th>“Groups of people who use computer networks (the Internet and World Wide Web) to communicate and collaborate in order to build and share knowledge.”</th>
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<td>Hiltz, Zhang, &amp; Turoff, 2002, p. 15</td>
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<tr>
<td>Massively Open Online Course (MOOC)</td>
<td>“a high-level course of study offered via the Internet in such a way that a large number of people can follow it. With thousands of students in any one class, the varied quality of student work is a barrier to widespread acceptance of MOOCs.”</td>
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<td>Park, 2013 para. 1</td>
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<tr>
<td>Non-Traditional Student</td>
<td>“Most often age (especially being over the age of 24) has been the defining characteristic for this population. Age acts as a surrogate variable that captures a large, heterogeneous population of adult students who often have family and work responsibilities as well as other life circumstances that can interfere with successful completion of educational objectives. Other variables typically used to characterize nontraditional students are associated with their background (race and gender), residence (i.e., not on campus), level of employment (especially working full time), and being enrolled in non-degree occupational programs.”</td>
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<td>Horn, 1996, p. 3</td>
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<td>“can be from any part of the country; from rural or urban settings; rich or poor; black, white, or Hispanic; 18 years old or older; not employed, working full- or part-time, or retired; male or female; with or without dependents; married, single, or</td>
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| **Online Faculty Satisfaction Survey [OFSS]** | “An instrument designed to assess levels of faculty satisfaction that includes those elements deemed to contribute to faculty satisfaction, i.e. student-related, instructor-related, and institution-related factors.”  
Bolliger & Wasilik, 2009, p. 108 |
| **Online Learning** | Post-Fordist distance education, that is primarily computer-mediated.  
Swan (2010) cited in Cleveland-Innes & Garrison, 2010 |
| | **Asynchronous** | Not time constrained and can occur without the faculty being present  
“may be considered to be one type of information system: a computer-based system designed to support the work of teachers and learners.”  
Hiltz, Zhang & Turoff, 2002, p. 15 |
| | **Synchronous** | Time constrained and can only occur with the faculty and students being present at the same time |
| **Online Learning Effectiveness** | “Learners who complete an online program receive education that represents the distinctive quality of the institution. The goal is that online learning is at least equivalent to learning through the institution’s other delivery modes, in particular through its traditional face-to-face, classroom-based instruction…. Interaction is key!”  
Swan, 2003, p. 13 |
| **Seamless learning** | A design methodology that recognizes the importance of ubiquitous pedagogy and makes the learning environment [either physical or virtual] inconsequential.  
Blundell, 2012 |
| **shovelware** | Content taken from any source and put on the Web as fast as possible with little regard for appearance and usability.  
Rouse, n.d.  
See also Morrison & Anglin, 2006, p. 64 |
| **Traditional Student** | “The commonly held definition of a traditional undergraduate student is one who enrolls in college immediately after graduation from high school, pursues college studies on a continuous full-time basis at least during the fall and spring semesters, and completes a bachelor’s degree program in four or five years at the young age of 22 or 23. Traditional students are divorced; and enrolled for vocational or avocational reasons in a single course or in a degree or certificate program.”  
Bean & Metzner, 1985, p. 488 |
also typically financially dependent on others, do not have children, consider their college career to be their primary responsibility, and are employed only on a part-time basis if at all during the academic year.”

A Fresh Look at Traditional and Nontraditional Undergraduates at KSU (2004)

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<th>zorch</th>
<th>“computer power as measured in your favorite unit.”</th>
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<td>Soloway, Guzdial, &amp; Hay, 1994, p. 37</td>
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Organization of the remainder of this dissertation

This dissertation continues in Chapter II in offering a pertinent and critical review of the relevant literature as it relates to instructional design, beginning with the instructional design of online courses and then walking the reader through the necessary aspects of the varying modes of instruction, i.e. traditional, blended, hybrid, flipped and fully online; levels of interaction, i.e. student-content, student-faculty and student-student; quality as considered pertinent to the higher education online learning environment including the understanding, interpretation and application of the QMR as an instructional design rubric; both teaching, faculty satisfaction and effectiveness in online courses, student learning as perceived by them in online courses and the limitations imposed on researchers in the absence of a generally accepted instrument to measure actual student learning in online courses; the implications imposed on higher education by accrediting bodies (governmental, institutional and professional), and culminating in the groundswell surrounding student competency as a distinct outcome of the undergraduate experience, among others.

Chapter III describes the research method applied, re-emphasizing the problem studied, provides an overview of the purposes of the study, identifies the methodology, re-emphasizes the research hypotheses, identifies the source of the population and sample
data that was employed in exploring faculty’s self-reported levels of satisfaction with different instructional design processes as measured via the administration of the OFSS-R, identifies the data collection and instrumentation processes, the tests for reliability and validity, and the process to tabulate and report the final results.

Chapter IV outlines and describes the data collected, its subsequent analysis, and preliminary results therefrom.

Chapter V fully and adequately explores the results found in Chapter IV, circles back to the literature presented in Chapter II to compare findings made via this research, to the existing body of literature with a view to describing and explaining any differences found, describes the conclusions from the research and an analysis of the findings from testing the research hypotheses, revisits the limitations exposed via the research, provides implications for future research and for practitioners, and concludes with this researcher’s stated objectives for his research agenda going forward.
CHAPTER II.

LITERATURE REVIEW

Introduction

Lister and Leaney (2003) contend that the “language of research is frequently the language of conflict and conquest where, in the form of a ‘paradigm shift,’ as expounded by the philosopher Thomas Kuhn [1970, p. viii] […], a superior theory replaces the orthodox theory” (p. 429). Moore and Anderson (2003), describe the literature review as being “widely regarded as a chore imposed by convention that has to be got through as quickly as possible before getting to the ‘real thing,’ which is to gather and report the results of a survey or experiment” (p. x). This researcher does not necessarily disagree. Nonetheless, this literature review will explore bodies of existing knowledge in an attempt to uncover appropriate subject matter so as to effectively delineate the landscape surrounding formative characteristics of what constitutes faculty’s self-perception of satisfaction with the differing instructional design methods in online courses designed both with the QMR and without.

This review of extant literature, in particular, begins with the instructional design of online courses and then guides the reader through the necessary aspects of instructional modes, i.e. traditional, blended, hybrid, flipped and fully online; levels of interaction, i.e. student-content, student-faculty and student-student; quality as considered pertinent to the higher education online learning environment; both teacher and teaching effectiveness in online courses, student learning as perceived by them in online courses and the limitations imposed on researchers in the absence of a generally accepted
instrument to measure actual student learning in online courses; the implications imposed on higher education by accrediting bodies (governmental, institutional and professional), and culminating in the groundswell surrounding student competency as a distinct outcome of the undergraduate experience, among others. Complimentarily, another much debated concept in U.S. higher education is fitness-for-purpose. Fitness-for-purpose tenets presuppose a viable premise in a rising economy is for vocational skills to be instilled at the higher education level such that students graduating with undergraduate degrees can purposefully and effectively enter the workforce as functioning units or be sufficiently efficacious in creating work for themselves. This concept is slowly emerging as a factor of utmost importance because of the increasing demands of the current global market economy, particularly in Science, Technology, Engineering and Mathematics (STEM). Indeed, many for-profit higher education institutions have experienced an increase in enrollment in the last five years, specifically because their “fitness-for-purpose” higher education model has seen graduates secure employment almost immediately after completing a program of study (Harvey & Green, 1993; Johnson, 2006; Klobas, 1995; Kubow & Fossum, 2003; Orenstein, 1990).

However, with such radically changing demands and career choices of the information age, U.S. higher education must continue to promote the transformative higher education paradigm that has allowed graduates to ‘transform’ as necessary and when appropriate through lifelong learning. Transformative higher education is not simply about giving graduates the skills to succeed in today’s workplace—it is about equipping graduates with the higher order ‘thinking and doing’ concerns that allow them
to continually learn and transform with the needs of society (Baumgartner, Lee, Birden & Flowers, 2003; Fain, 2012 Jun 8 & 2013 Jul 21; Garrison & Kanuka, 2004; Harvey & Green, 1993; Kubow & Fossum, 2003; Mezirow, 1997; “Speaking Personally—With John Seely Brown,” (2008); O’Donnell, 2010; Seely-Brown, 2000, 2002, 2008; Soares, 2012; Tam, 2000). Merisotis (2009) agrees that when comparing higher education to the news media, there are stark differences, but cautions to recognize the evident parallels; “Economic conditions, changing learning styles, technology...all of these things are transforming the way people acquire and generate knowledge” and reminds us that we would do well “to heed the lessons of the news media’s experience and get ahead of the curve, making the necessary changes to our business model before circumstances dictate those changes” (p. 23).

To this end, and as Hieronymi (2012) asserts, higher education is not simply the “transmission of information or ideas,” it is more so “the training needed to make use of information and ideas,” and inevitably, when “information breaks loose from bookstores and libraries and floods onto computers and mobile devices, that training becomes more important, not less” (para. 3). Via the online learning medium, educators can more conveniently provide asynchronous or synchronous individualized instruction tailored to a range of learning styles (Angelino, Williams & Natvig, 2007; Boling, Hough, Krinsky, Saleem, & Stevens, 2012; de Boer & Collis, 2009 (In A. Szücs, A. Tait, M. Vidal & U. Bernath (Eds.), 2009; Parsad, Lewis & Tice, 2008; Stansfield, McLennan & Connolly, 2004). Laurillard (2002) claims,
universities will need graduates capable of contributing to the more fluid kind of knowledge creation that is needed by the professional practitioner, who is not confined to the well-trodden paths of expert consensus knowledge of the traditional university curriculum. Students’ long-term cognitive needs go well beyond the acquisition of consensus knowledge (p. 139).

Online learning must advocate in students critical thought and reason as they attempt to integrate what is shared with their current knowledge, thereby creating a learning environment that empowers students to truly preserve both tangible and intangible knowledge and skill (Brinthaupt, Fisher, Gardner, Raffo & Woodard, 2011; Coleman, 2005; Edwards & Waters, 1982; Haverila & Barkhi, 2009; Lynch, 2004; Suskie, 2004; Wagner, 2012). Hieronymi (2012) goes on to suggest, “Just as coaching requires individual attention, education, at its core, requires one mind engaging with another, in real time: listening, understanding, correcting, modeling, suggesting, prodding, denying, affirming, and critiquing thoughts and their expression” (para. 5).

Bonk and Drennan (2003) shared that the results of a survey of college faculty cosponsored by JonesKnowledge.com and CourseShare.com, “identified those barriers to online-learning as being: ‘time to learn the technology, shortages of instructional development grants and stipends, limited recognition by departments and institutions in promotion and tenure decisions, and minimal instructional design support’” (p. 331). Bonk and Drennan (2003) abridged these findings in stating that “recognition, collaboration, technical support, online sharing of pedagogical practices, and instructional
design assistance” (p. 331) were a more appropriate set of factors that when focused upon, could accelerate the adoption of online learning technologies in the university setting and concluded that both lists of factors were “important to administrators struggling with how to jump-start faculty technology integration within their universities and departments” (p. 332). Miller (1993) suggested that “the key to long term success is being able to do certain things better than your competition” (p. 159), and then declared that these “certain things,” invariably your core competence, that you should craft into a sustainable competitive advantage, which results in a position far superior to what you could build or buy. Concluding his thought, Miller (1993) described the future strategically competitive landscape as no longer a collection of products, services and/or businesses, but a non-substitutable suite of evolving capabilities. As one now witnesses with online teaching, the realization of this prediction underscores the new differentiator in innovation and ultimately, global competitive advantage.

However, it is clear that teaching online is not an environment conducive for all instructors. Angelino, Williams and Natvig (2007) assert that for instructors to be able to truly engage online students, instructors must adequately familiarize themselves the contemporary techniques and strategies needed to effectively design online courses and then efficiently teach online. However, they caution that the key is, “[p]rior to designing their first online course, educators should consider what online teaching requires [and in a proactive way] [e]ducators may want to participate in a course design workshop and complete self-assessments tools to determine whether their teaching styles are compatible with online methods” (Angelino, Williams & Natvig, 2007, p. 11). For
example, providing QMR instruction to faculty may be one way to aid faculty in bridging the gap between classroom and online education environments. Meyer (2002), declares how irrelevant it is to consider the “effects of using the Web without understanding how it is entwined with instructional design and especially faculty choices about instructional design” (p. 19). Garrison and Cleveland-Innes (2005) claim that “[t]he purpose of an educational experience, whether it is online, face-to-face, or a blending of both, is to structure the educational experience to achieve defined learning outcomes. In this context, interaction must be more structured and systematic” (p. 134). One such contemporary systematic design structure is provided by the QMR (see Appendix A).

Hieronymi (2012), in contemplating the person-machine interface, provides some sage advice: “[t]echnology can make education better. It will do so, in part, by forcing us to reflect on what education is, identify what only a person can do, and devote educators’ time to that.” (para. 11).

There are assumptions made that characterize the current traditional course system in institutions of higher education, however Oblinger, Barone and Hawkins (2001) opine that they may not necessarily apply to online learning. Necessarily, of the assumptions detailed the following are deemed pertinent to online learning and are what this researcher considered throughout this study:

- completing the curriculum in each course is the measure of competency,
- traditional institutional models (e.g., for classroom instruction, administrative and faculty governance, and state and federal
funding and financing) are imminently transferrable and this will be successful in an online learning world,

- external providers of educational services (e.g., MOOC’s and their associated learning management providers) lack credibility and are inherently bad or of much lower quality than bricks-and-mortar higher educational institutions,
- high quality systems will drive out or at least mitigate the low quality ones,
- the market for higher education will continue to be able to support 3,700 serving institutions,
- online learning is an operational and financially viable option for all higher education institutions,
- faculty members and not students are the focal point of the learning process, and
- all higher education institutions must develop their own unique online learning systems and programs.

Oblinger, Barone & Hawkins (2001)

**Instructional Design of Online Courses: Is it a Quality Matter in Higher Education?**

Dewey (1916) reminds one that although “all thinking results in knowledge, ultimately the value of knowledge is subordinate to its use in thinking” (pp. 177-178). He places this in the context of a constantly dynamic and evolving cultural and technological world and challenges society to regard knowledge as “value in the solidity,
security, and fertility it affords our dealings with the future” (Dewey, 1916, p. 178). Past experiences have given this researcher the opportunity to recognize the link between thinking and doing, but has not always had him witness the operational consequence of converting one into the other. The adage “discovery without action is a waste of discovery” is regularly attributed to Michael Porter, and is a limitation that proves detrimental to the planning process, time and again. Dewey (1916) sums it up neatly by stating when instructors “give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking, or the intentional noting of connections; learning naturally results” (p. 181).

Oblinger, Barone and Hawkins (2001) argue that a commonly misconceived assumption is that “[t]raditional institutional models (e.g., for classroom instruction, governance, and financing) will be successful in an e-learning world” (p. 3) and that “the web is seen by many as a transformative technology for learning (p. 5). Oblinger and Hawkins (2006) assert that when it comes to instructional design of online courses, “[w]hereas colleges and universities often focus on technology skills, it is actually information literacy that should be the concern” (para. 6). Schultz (2012) claims that “[t]he dominant business model for American higher education has collapsed, taking with it the financial integrity, academic quality, access, and independence that college and universities once enjoyed.” Schultz (2012) goes on to state that since the end of WWII, two business models have defined the operations of American higher education. The first was the Dewey model that lasted until the 1970s [and] [t]he second, a corporate model, flourished until
the economic crash in 2008. What the new business model for higher education will be is uncertain, but from the ashes of the status quo we see emerging one that returns to an era before World War II when only the affluent could afford college and access was limited to the privileged few (para. 2).

Addressing the issue of why instructional design matters and placing it in its historical and political context; it is important to immediately note that in his address to the American Psychological Association [APA] in 1899, John Dewey was already calling for the “development of a ‘linking science’ between learning theory and educational practice” (Reigeluth, 1983, p. 5). As mentioned above, Skinner (1954 & 1965), Bruner (1960 & 1966) and Ausubel (1968) are to be credited for the birth of instructional design as a discipline, particularly Skinner’s behavioral orientation to instructional design where he combined strategy principles and components to create the first real empirically tested model of interaction (Edgar, 2012; Reigeluth, 1983). On the other hand, Bruner’s and Ausubel’s cognitively-based orientation to instructional design can be traced to principles originally established by Dewey (Edgar, 2012). Bruner (1960) developed a model of instruction based on methods of discovery and subsequent stages of intellectual development and was principal in forming a suggested theory of instruction, back in 1966 (Edgar, 2012; Reigeluth, 1983). Ausubel (1968), via a theory of learning, and developed a model of instruction based on expository methods and cognitive structures (i.e. the way knowledge is organized within one’s own memory) (Edgar, 2012; Reigeluth, 1983).
Reigeluth (1983) claimed instructional design to be this ‘linking science,’ more so as a “body of knowledge that prescribes instructional actions to optimize desired instructional outcomes, such as achievement and affect” (p. 5). As mentioned in previous chapters, Dewey (1916), a prolific scholar and teacher, reminds one that “education as such has no aims [and] [o]nly persons, parents, and teachers, etc., have aims, not an abstract idea like education” (p. 125). Consequently, each stakeholder harbors a different aim as does every student from the one who teaches, and “differing with different children, changing as children grow and with the growth of experience on the part of the one who teaches” (p. 125). Dewey (1916) goes on to state:

(1) An educational aim must be founded upon the intrinsic activities and needs (including original instincts and acquired habits) of the given individual to be educated” [and] (2) A aim must be capable of consolation into a method of cooperating with the activities of those undergoing instruction, [and] (3) educators have to be on their guard against ends that are alleged to be general and ultimate (Dewey, 1916 pp. 126-127).

Dewey (1916) states “[e]very rigid aim just because it is rigidly given seems to render it unnecessary to give careful attention to concrete conditions. Since it must apply anyhow, what is the use of noting details which do not count?” (p. 127), and summarizes, “[t]oo really is the individual teacher so free from the dictation of authoritative supervisor, textbook on methods, prescribed course of study, etc., that he can let his mind come to close quarters with the pupil's mind and the subject matter” (Dewey, 1916, p. 127). This researcher concurs.
After all, this researcher asserts that there is no point in striving to standardize K-12 educational standards, if no comparable ‘bridge’ is made through to higher education. It is reasonable to assume that given the growing calls for more accountability with and evidence from higher education authorities regarding the competence of students completing diplomas and degrees at their institutions that the quality and efficacy of public education has deteriorated from its position of past prominence. A sentiment regularly echoed by Friedman and Mandelbaum (2011), “[s]tudents seem to be more turned off to learning than ever—precisely when learning is becoming increasingly important to cope in a rapidly changing technological society (Reigeluth, 1983, p. 5). Yes, productively efficient and effective instructional design matters, and it matters to faculty, students, administrators and a host of other stakeholders a great deal.

Based on the historical and political context presented above; it is fair to assume that instructional design, instruction, and both formative and summative assessment practices, must remain aligned with an entrenched belief that deep learning can only happen when the student “is central to, engaged in, and excited by learning” (“Instruction, assessment, and learning: From standardization to a focus on students,” 2009, p. 1). Scherer (2000) further suggests:

>[t]he high standards movement holds the promise of giving all students opportunities to attain the knowledge, skills, and concepts that they need to survive as lifelong learners. At the same time, the kids in our classrooms remind us that when it comes to instruction, students differ. Their past educational experiences, abilities and disabilities, readiness
levels, learning styles, and interests all play a role in what they learn every day (p. 5).

*Instruction, assessment, and learning: From standardization to a focus on students* (2009), concludes by stating that “[e]ducational policy and practice must shift away from standardization and return to focusing on student’s individual learning needs (p. 6). Scherer (2000), emphasizes this call, suggesting a strategy identified as ‘differentiated instruction,” [DI] and,

[Based on research describing how students learn, DI focuses on how students are both alike and different. [DI] requires that teachers study student differences in understanding, learning modalities, and interests and plan accordingly to allow for different learning rates and to structure tasks of varying complexity. It also requires that teachers are clear about the essential skills, key concepts, and principles that all students must master (p. 5).

This researcher asserts that there are specific conventional components in the current primary and secondary education system that can and should remain standardized, as evidenced by recent revisions and broad-scale initiatives at the national level to implement Common Core standards throughout the K-12 curriculum (“Common Core State Standards Initiative,” 2014). The renewed emphasis on rigor, linking across the curriculum, and higher order thinking skills revisits the call made by Oblinger, Barone and Hawkins (2001) more than a decade earlier.
Therefore, this researcher feels compelled to ask: Could this standardization of instructional outcomes and their emphases be crucial elements currently missing in higher education? This question is explored below, positioning instructional design within its current political context.

Minimal certification currently exists for some majors, i.e. nursing, education, and accounting, not to mention the plethora of subordinate accreditation agencies that dictate national and international standards in certain colleges—but this does not extend to all disciplines. The motivation for this call for standardization of key learning outcomes or learning competencies is based on the argument that it is important for all majors/programs to earn some form of externally recognized ‘certification’ (a) to make the candidate earning that major more confident of the extent and scope of their reach into industry and (b) make them more internationally marketable. This is reinforced, as mentioned above, by the constant call for increased evidence of learning from government and other crucial stakeholders, especially in an age of measuring learning and teaching effectiveness, assessment, and student competence both through and beyond earning their degree. Reflecting on the overwhelming stewardship lent to and placed on this researcher’s home institution’s College of Business Administration by the AACSB, graduates of this program can rest assured that their qualification/s can, in standard, be held up against their counterparts from the most prestigious colleges in the United States and abroad, that also operate under the auspices of the AACSB.

Dewey (1916), attributing Rousseau, claimed society receives education from three sources— nature, men, and things—“[a]nd only when these three kinds of
education are consonant and make for the same end, does a man tend towards his true
goal” (p. 131). Dewey (1916) reminds one that although intentions (aims) may appear to
be moral on the surface, they may not turn out to be so. The objective (aim) of higher
education, in the opinion of this researcher, is not to input a series of disconnected facts
into the brains of undergraduate and graduate students, but instead, that it should create
graduates who are articulately deconstructive problem solvers, collaboratively cohesive
and solution driven individuals, and who are given ‘space’ in a permissive and non-
punitive environment to exhibit their true talents to both instructors and the world of
work. As Dewey (1916) claimed almost a century ago, and was stated earlier in this
chapter, “[f]or how then can there be a society really worth serving unless it is constituted
of individuals of significant personal qualities?” (p. 142). This researcher gives over a
final word on this to Dewey (1916), “[a]n aim denotes the result of any natural process
brought to the consciousness and made a factor in determining present observation and
choices of ways of acting. It signifies that an activity has become intelligent” (p. 129).

Evolutions in the higher education system and its concomitant patterns of course
designs and learning modes have grown immensely since the days of Socrates, Aristotle,
and Plato. Rastegarpour (2011) asserts that “[i]nstructor led training has been the basic
process of education for ages” (p. 39), and despite some of the buzz, “[e]-learning
practice did not indicate the demise of a classroom” (p. 40). He notes, however, that “the
direction of learning has not shifted a great deal over the past several decades”
(Rastegarpour, 2011, p. 40). The practice of online education in the United States traces
back to the late 1800s, but the first scholarly journal on the subject did not appear until
Porter (2004) reminded instructors that in order to design effectively, a “curriculum must be well structured, innovative, filled with usable and appropriate course content, and interesting to a variety of people who take each course and work through a series of classes” (p. 75). Beaumont, Owens, Barrett-Baxendale and Norton (2008), citing Ramsden (2004) assert he “advocates a theory of teaching in universities which makes learning possible. He encourages a move towards student-centred approaches to learning to enable students to prepare for a complex and ever-changing world” (p. 46). Thormann, Zimmerman and Wiggins (2012), by describing the choice of a particular philosophy of education for teaching online, suggest that whatever philosophy is chosen, “it should be consistently and explicitly applied, and based on the instructor’s knowledge, beliefs, and experiences provides guidelines and boundaries for everyone,” (p. 9). Then within the chosen philosophical approach, designers (instructors) must account for the explicit and implicit learning skills they need students to master (Thormann, Zimmerman & Wiggins, 2012). Thormann, Zimmerman and Wiggins (2012) further suggest the best place to approach the design of a course from is in examining how the chosen philosophy similarly guides students in a traditional course and tailor it for the online course, given that “the online format does not afford immediate and constant visual and auditory feedback with students,” (p. 9), rendering the chosen philosophical framework even more critical in informing students through their assignments and activities. Thormann, Zimmerman and Wiggins (2012), close in suggesting that making students aware of the chosen philosophy, will permit them to deal expediently with any differences that they encounter between the traditional and the
online course. Meyers and Nulty (2009), in developing their 5 Principles of Curriculum Design, emphasize that in order to optimize the extent and enhance “the quality of student learning outcomes, we, as academics, need to develop courses in ways that provide students with teaching and learning materials, tasks and experiences which:

1. are authentic, real-world and relevant;
2. are constructive, sequential, and interlinked;
3. require students to use and engage with progressively higher order cognitive processes;
4. are all aligned with each other and the desired learning outcomes; and
5. provide challenge, interest, and motivation to learn.”

(p. 567)

The conception of instructional design is primarily attributed to John Dewey (1916), a cognitivist who contended that a model of instruction should be based on discovery methods and stages of intellectual development that impart learning. Reigeluth (1983) further defined instructional design as “a discipline that is concerned with understanding and improving the one aspect of education: the process of instruction” (p. 4). However, as a discipline, the birth of instructional design should be credited to Skinner (1954 & 1965), Bruner (1960 & 1966) and Ausubel (1968). Skinner’s orientation to instructional design was behavioral and he combined strategy principles and components to create the first real empirically tested model of interaction (Edgar, 2012; Reigeluth, 1983). Bruner’s and Ausubel’s orientation to instructional design was more cognitively based, and can be traced to principles established by Dewey (Edgar, 2012). Bruner (1960) developed a model of instruction based on discovery methods and
stages of intellectual development and in 1966 was first to suggest forming a theory of instruction (Edgar, 2012; Reigeluth, 1983). Ausubel (1968), via a theory of learning, developed a model of instruction based on expository methods and cognitive structures (i.e. the way knowledge is organized within one’s own memory) (Edgar, 2012; Reigeluth, 1983).

The types of knowledge and strategies required for both online course design and online teaching expertise includes “domain knowledge (subject matter specific concepts, facts, and procedures), heuristic strategies (techniques for accomplishing tasks), control strategies (general approaches for directing one’s solution process), and learning strategies (knowledge about how to learn new concepts, facts, and procedures)” (Collins, 2006, p. 50). Boling, Hough, Krinsky, Saleem and Stevens (2012), recognize that “content, or ‘domain knowledge,’ is necessary for learning; however, formats of lecture and text-reading alone are not sufficient for expert performance” (p. 120). Boling et al. (2012) claim further that said methods “do not give students adequate clues about how to solve problems and accomplish tasks in a domain,” since “traditional teaching styles of the industrial era stress the learning of facts, subject-oriented material, and knowledge over any other learning process” (p. 120).

In moving their review timeframe forward, Ellis and Goodyear (2010) claim that technology’s influence on contemporary higher education should be understood on two levels; (1) that it enables changes (sometime quite sweeping and far-reaching) to happen, (2) but that it also interferes with expectations about what is normal and possible. Rourke, Anderson, Garrison and Archer (1999) contend that in order to effect an
appropriate online learning environment and increase students’ perception of their learning, it remains important to “(a) to develop research methods that explore the nature of teaching and learning in these environments; (b) to apply these tools in authentic contexts; and (c) to use the results to develop instructional models that use this technology effectively” (p. 51). Siragusa, Dixon and Dixon (2007) cite Caplan (2004) and Davis (2004) describing “how, in an ideal world, educators, instructional designers, e-learning media developers and graphic designers all work together to create pedagogically effective learning environments that are grounded in sound learning theories” (p. 924). However, they claim that too often the faculty is left out of the team of the process, and reiterate how important it is that there are “aspects of the instructional design process that the lecturer needs to consider when creating pedagogically effective e-learning environments regardless of the available resources” (Siragusa, Dixon & Dixon, 2007, p. 924). Walwema (2012) considers that when “[i]nstructional designers can think in artistic, perhaps subjective based ways, to address the subject matter and its delivery” (p. 20), they tend to truly contemplate the needs of students in the “triumvirate of designer, materials, and learner” (p. 20). Further, Walwema (2012) contends that since “[a]ll possible information cannot be represented through simple forms,” (p. 21) and that, in practice, “standardized ways of doing things tend to be tuned to attaining singular objectives avoiding human error;” (p. 21), that “technologicalization of instruction” (p. 21) results, essentially defeating the object of instruction, subsequent learning, and hence the organizational ability to improve. This is supported by many authors who suggest that the instructional design of online courses should breach: authenticity (Herrington &
Oliver, 2000 & 2003), a constructivist mindset (Lebow, 1993), to help people learn better (van Merriënboer & Kirschner, 2001, 2007); and recognize and inculcate elements to support patterns of complex learning (Kirschner & van Merriënboer 2008 and van Merriënboer, Kirschner & Kester, 2003). To clarify the future evolution of instructional design of online courses, Soloway, Guzdial, and Hay (1994) recount Senge’s notion of the learning organization, established in 1990, as a “provocative and compelling idea in management these days,” (p. 39), recognizing how the true value of an organization “is directly related to how deeply its employees understand their business, and secondly, effectively competing in today’s marketplace requires that this understanding continues to grow and change” (p. 39). Soloway, Guzdial, and Hay (1994) reinforce this notion by claiming that, “the [Human Computer Interaction] HCI community must make another transition: we must move from ‘user-centered’ design to ‘learner-centered’ design” (p. 38). Edgar (2012) neatly summarizes: “[l]iteracy and Instructional design has been defined as ‘the systematic process of translating general principles of learning and instruction into plans for instructional materials and learning’ (p. 6).

**Why certification of online instructional design matters, despite its lack in traditional learning environments**

It is fair to ask the question, “Why do higher education administrators and certification bodies feel the need to ‘certify’ online instruction, but have no such certification for face-to-face (i.e. ‘traditional’) instruction?” To a certain extent, and as was mentioned in the previous section of this chapter, some majors do require certification for instructors designing courses for traditional delivery. At this researcher’s
home institution; all courses, irrespective of their medium of instruction, are required to conform to baseline criteria that are specified in its Basic Data Sheet [BDS] that has been approved by the institution’s Educational Planning Committee [EPC]. These BDSs, as with the QMR, do not dictate the ‘how’ of instructional design, but the ‘what,’ and template the extent to which the course must conform to and adequately assess stated learning objectives, while meeting the division ranking and complementary credit compliment for the particular course, as it is situated in the hierarchy of its particular program of study.

Although the concept of online learning has only really been with society since the advent of the demilitarized Internet, distance learning has been around for centuries. This researcher remembers participating in a distance learning program in the 1980s, where assignments were passed back and forth via the postal system, and where it sometimes took weeks to receive feedback and a grade. The integrity of these programs was upheld by the integrity of the institutions providing them, and the respective credibility of the programs were underscored by the number of successful graduates from such programs. Nowadays it is common to see programs throughout the world challenging one another to take advantage of a dwindling population of traditional higher education candidates, shifting their focus to offering courses that address select elements of programs [e.g. MOOCS], and/or targeting non-traditional student populations, a rapidly increasing group, given the decline in global economies and an cumulative shift away from industrial-age to information-age technologies, rendering this nontraditional population more and more redundant. Given the aforementioned, coupled to a sharper
focus on graduate competency, expanding strata of accreditation, and the absence of a broadly accepted peer-review process to endorse the efficacy of the instructional design of online courses; requiring a separate process of certification in online instructional design is crucial to maintaining a course, program, or institution’s competitive prowess, and the prime reason why online courses designed using a standard like the QMR, see these courses serving as the most appropriate substitute at this point in the evolution of instructional design of online courses.

Reigeluth (1983) claims that on its “most general level, the field of education can be viewed as being comprised of knowledge about curriculum, counseling, administration, and evaluation, as well as instruction” (p. 6), to which this researcher would suggest amounts to nothing credible without a most robust foundation laid applying an empirical instructional design model, e.g. the QMR, and one that is fast gaining traction in the online environment. The net measure of a well-designed and delivered series of courses that culminate in the completion of the desired program of study, must be the practical competency of the graduates from that program. Therefore, perhaps looking forward to certifying the efficacy of online programs, both in instructional design and delivery, starts with looking back, and examining how traditionally delivered courses and programs have been ‘certified’ over time.

As mentioned before, accountants cannot become chartered without undertaking a lengthy articled clerkship, and submitting to the qualifying exams from the appropriate statutory institute, as is the case also with lawyers, who do not achieve a license to practice law without enduring a similar process and passing the bar, or nurses and
physicians, before passing their final board exam. Assessing the final portfolio of each candidate, meticulously fashioned over time while they endured the rigors of traditionally delivered courses, proved invariably a much easier task for adjudicators in determining whether said candidates were ‘certified’ to proceed to candidacy for their professional vocation. Doing so with online courses and programs is significantly more challenging, made more so by the absence of a regular and broadly-accepted peer review process. Compounding this challenge is the regular insinuation that the majority of institutions providing online programs are nothing more than ‘diploma mills.’ Noble (2003), in reiterating Reid (1959), describes a typical diploma mill as having: (1) no classrooms, (2) faculty who are often untrained or patently nonexistent to students, and (3) academic offices who are unethical, self-seekers sporting qualifications that are equally as poor as the courses/programs their ‘institutions’ offer. Noble (2003; 2001; 1998) has been prolific in diverting focus to this phenomena, claiming that instructors are slowly but surely seeing their control over what, how, for what purpose, and why they teach being unwillingly relinquished to administrative authorities, who, by definition, are overtly motivated by producing competently educated graduates, but covertly motivated by financial profits—what Noble (1998) refers to as commodification in the “commercialization of higher education” (para. 5), or as Petrina (2005) terms, “corporate university” (p. 38). Noble (1998) claims, “[o]nce faculty put their course material online, moreover, the knowledge and course design skill embodied in that material is taken out of their possession, transferred to the machinery and placed in the hands of the administration” (para. 21), and “[o]nce faculty and courses go online, administrators gain
much greater direct control over faculty performance and course content than ever before and the potential for administrative scrutiny, supervision, regimentation, discipline and even censorship increase dramatically” (para. 20). Effectively, faculty are relegated to what Petrina (2005) terms “disenfranchised intellectual laborers,” (p. 54), scavenging to reestablish the “interconnections among academic freedom and oversight over [their] ‘work product’” (p. 46). Conley (1990) claims the “original author is one who brings to life an important new work” (p. 26), and this researcher firmly believes that once this link is severed, the original pedagogical intent will invariably be compromised.

In an effort to wrench control back from administrators, faculty have gone out on strike at a few higher education institutions around the country to showcase for stakeholders just what their institutions are doing in the name of effective education. Faculty at one select institution countered such administration propaganda with the truth about what was happening to higher education and eventually won the support of students, the media, and the public. Most important, they secured a new contract containing unique and unprecedented provisions which, if effectively enforced, give faculty members direct and unambiguous control over all decisions relating to the automation of instruction, including veto power (para. 26).

Ultimately resting control back where it should be, being “able to ensure that the new technology, if and when used, will contribute to a genuine enhancement rather than a degradation of the quality of education”, while at the same time preserving their positions,
their autonomy, and their academic freedom” (Noble, 1998 para. 26), and thereby reestablishing the student-instructor, student-course and student-student relationships, is a crucial factor in maintaining instructional satisfaction for faculty, as evidenced above. Noble (2003) states that in order to ensure this relationship is maintained, courses should not be ‘assembled’ and exchanged for-profits in the open markets, i.e. ones that determine the value of said courses and ultimately the programs that they accumulate toward, by “‘owners’ who may or may not have any relationship to the original creators and participants in the education process” (p. 46). Further, Noble (2003) believes that this exchange is transacted at the expense of the original integrity in the education process and the instructional designer, who had the skill and efficacy to produce not only a course worthy of ‘certification,’ but also to then deliver it with a passion and confidence only a creator can.

Noble (1998) continues on to assert that students should feel confident in receiving the education they pay so dearly for, and not one that constitutes “thinly–veiled field trials for product and market development,” (para. 26) or considered to be “cyber-counterfeit” (para. 26). Noble (2003) declares that the impetus driving higher-education’s momentum forward without much regard for the “deliberation of the pedagogical and economic costs at the risk of student and faculty alienation and opposition” (p. 34), may be “the fear of getting left behind,” (p. 34) and losing out on all the first mover advantages. This researcher concurs with Noble, having had the advantage of witnessing this fear, both in its embrace and reservation, firsthand.
Noble (2003) concludes somberly, “[i]n ten years, we will look upon the wired remains of our once great democratic higher education system and wonder how we let it happen. That is, unless we decide now not to let it happen” (p. 47). Despite this prediction ringing somewhat true today, this researcher firmly believes that the QMR and the continued efforts of the QM organization that made and continue to make decisions to take the necessary steps in creating a series of standards, encoded in the QMR, are partly responsible for this prediction not fully materializing.

Alternative modes of instructional design, and their comparison to QM

It is true that other instructional design models or rubrics exist for online course design, but the general consensus is that despite narrow differences in their specific application, there are droll similar. Shattuck (2007) roughs out the inception of QM during fall 2002 when “a small community of Maryland distance educators informally problem solved to assure quality in the online distance learning courses that they shared and to prepare for anticipated questions from future regional accreditation teams visits” (para. 2), and puts the QMR developments into perspective, claiming that the rubric: evolved over the next four years was a sophisticated, faculty-centered course review and improvement system that was embraced by MarylandOnline, funded by the U.S. Department Fund for the Improvement of Postsecondary Education (FIPSE) for further development, awakened and jelled distance education talents from around the state, evolved with unimaginable innovative twists, met with enthusiastic interest by colleges and universities inside and outside of
Maryland, and established as a nationally recognized subscription service under the auspice of MarylandOnline.

Instructional design, through the definition of many cited above, is necessarily messy and complex, and which oftentimes conforms to the distinctly peculiar pedagogical talents and experiences of the faculty member attempting to design a new online course, or repurpose one that had been previously presented in a traditional environment. Jones (2014) posed the question: “What is the biggest challenge most instructional designers face currently?,” to which Bean (in Jones, 2014) replied: “organizations […] feel like their culture is too stuffy and they’re not allowed to be more human in a way, if that makes any sense. So if you try to make the tone more conversational, there can often be resistance to that because people think, ‘well it’s not professional enough’” (para. 18). This prompted Jones (2014) to summarize: “as an instructional designer your job is to educate your internal client on why this is a better way and why a more human approach is actually going to have more impact in the long run” (para. 18). This researcher believes that this could be at the core of why some faculty may reject ‘external assistance’ that could aid them in designing more robust online courses, because they may feel that the abundance of instructional design models coupled with not one generally accepted instructional design standard, leaves them in a better position if they just go it alone.

Fauser, Henry, and Kent Norman (2006) compared alternative models of instructional design, e.g. the classroom-oriented model by Gerlach and Ely, the product oriented model by Bates, and the system-oriented model IPDM by Gentry. These models
all precede the development of the QMR, and were published between 1994 and 1995. Their interim summative claim was that “Instructional Designers cannot be effective if they are familiar with only one model. The designer must be able to fit the design to the situation and familiarity with various models will make that designer more successful” (Fauser, Henry, & Kent Norman, 2006 Model Comparison and Contrast, para. 4). Despite finding some subtle and some distinct differences, where steps were combined and sequenced in various ways, or exclusive jargon was applied to describe different stages of development, they concluded that each model analyzed “shared a fundamental principle of attempting to deliver effective learning or educational tools” (Fauser, Henry, & Kent Norman, 2006 Model Comparison and Contrast, para. 4).

Akbulut (2007), on the other hand, explored the implications of two well-known models used by instructional designers in online education, e.g. the Dick-Carey [D-C] Model, and the Morrison, Ross & Kemp [MRK] model. Akbulut (2007) identifies two types of instructional design models; [1] fixed models that prescribe the same approach and of method regardless of application and extant circumstances, whereas [2] adaptive models “prescribe different methods depending on conditions” (p. 3). Akbulut (2007) found that the MRK model had a classroom orientation, is adaptive and curvilinear “which communicates more interaction between the components of the model” (p. 3), is one that engage instructors “deciding appropriate content, strategies, media usage and evaluation, [and is] of interest primarily to teachers who looks [sic] for instructional solutions to learning problems” (p. 3), and is one that “looks more useful for large-scale instructional design processes involving several team members and multiple types of
resources” (p. 4). Akbulut (2007) promotes that “experienced designers might favor the MRK model since it allows more creativity and helps the designers to start the design process from any step the context requires” (p. 4). Alternately, the D-C model was identified as system-orientated that was fixed and rectilinear, i.e. one where the design process follows a lockstep approach. Akbulut (2007) asserts that rectilinear models invariably “fail to recognize complexities of the design process” (p. 3), and might be favored by novice designers but rejected by non-novices “since it is too rigid and prescriptive in terms of the order of the steps to be followed” (p. 4).

Gordon and Zemke (2000) highlight the arguments against using any of the plethora of instructional design models out there, declaring them too cumbersome, too pedestrian and too clumsy to meet the challenges in the modern technological age of education, and that strict adherence to a chosen model has not and could hardly mimic the required technology for creating ‘instruction. They believe using these models could in fact produce really badly designed courses, and incline designers to cling to a skewed perception of what an appropriate higher-education world view should be, in that these models;

- Are based on the assumption that learners are stupid and experts are smart,
- presuppose that the working world and the jobs in it are too complex for the average Joe to figure out on his own,
• Believe adult learners are [in]capable of figuring out what they need to know by themselves, or with a little help from their friends, the critics claim, and there is a lot of research to back up the claim.

• Are, as the critics say, […] based on the idea that jobs can be prefigured (clearly laid out for the performer), but in fact many jobs today are configured (need to be made up as the performer goes along) (para. 5).

Bearing this in mind, this researcher believes that these limitations can easily be overcome. Cammie Bean, in an interview with Bryan Jones from eLearning (2014), claimed instructional designers must “throw out some of that instructional design language and speak like a human being in conversation with another human being. Talk as if you’re sitting down at a table having coffee with someone, having a conversation about this content” (para. 8). To this researcher, this is what the QMR represents; sans jargon, highbrow expression and well-worn cliché, providing the confidence in its empirical foundation that what he will produce, following their lead in designing his online courses, will result in ones that are both well respected by his peers and which will be sought out regularly and perpetually by students as they successfully progress through their desired program of study.

*What Everybody Ought to Know About Instructional Design* (2008) identifies “the role of the instructional designer is to help the learners make sense of the new information they get,” (para. 5), and continues to assert that a formal, well-designed course is a “manufactured learning experience” that truly engages learners and “intrudes
on the learner’s natural learning path [and that this] intrusion is neither good nor bad.

Essentially, we’re just circumventing the natural learning process by not waiting for the learner to stumble upon what we need them to know or do” (para. 5). Carliner (in Fauser, Henry, & Kent Norman, 2006) reminds practitioners that instructional design is merely a system of values, that with the necessary and constant re-tooling, and when applied appropriately, may only produce new and effective learning mediums as significant improvements on the instructional design models that were first proposed more than six decades ago.

Akbulut (2007) concludes his comparison by suggesting that, in and around the current dialogue regarding appropriate instructional design models, online instructional designers would be well-served in selecting specific models for each of their unique contexts and relative pedagogical strengths, and that maybe

[f]urther analyses could focus on educated ways to apply either model in an eclectic way to provide instructional practices and materials of high quality among a variety of instructional settings. Among these settings, distance learning carries utmost importance, since it seems to be the trend of forthcoming decades (p. 5).

For this researcher, the regular evolutions of the QMR have him confident in creating instructional practices and producing materials of high quality, that remain pertinent to his unique and consequential focus on graduate competency, thereby ensuring not only the credibility and integrity of his courses, but continuity for his home institution well into the future. Despite the vignette with which he opened this
dissertation regarding his most recent experience with student response to his QM-designed course, this researcher still believes that use of the QMR provides a more rigorous and solid foundation for online course design than other instructional models currently available, and will continue to investigate means of making the course design more amenable to future students of this course, within the QMR’s design confines.

*How QM became a popularly accepted standard for online course design*

Shattuck (2012) reports that faculty using the QMR instructional design standards to create their online courses invariably produced a significantly more balanced quality product. This was echoed by “faculty, course designers, administrators, and students, primarily through faculty professional development and exposure to instructional design principles” (p. 13). Further, Shattuck (2012) reports that the QMR “could be effectively used by instructional designers, faculty with subject-matter expertise, peer faculty with no subject-matter expertise, and administrators,” (p. 13), “could capture the conspicuously absent faculty voice in the online course quality debate, and that the influences in the development of the QMR could be traced back to “the seminal work of Chickering and Gamson (1987)” (p. 13). It is important to note Shattuck’s (2012) caution that increasing calls for meta-analysis of online education research at that juncture were “premature for [QM] because of the relatively few QM-focused studies [which had been] completed to date” (p. 17), and that rather calls should come for an amplified focus on learning analytics methodologies that more appropriately “fit the direction in which QM-focused research must continue” (p. 17). Nonetheless, Hoffman (2012) identifies that the four underlying principles in the QM philosophy; (1) continuity, (2) centeredness, (3)
collegiality, and (4) collaboration, both individually and collectively provide instructors designing online courses with the guidance and flexibility not offered by other instructional design models he considered.

After performing a search for a rubric or measure founded in research that allowed for the assessment of quality in online education programs, Shelton (2011) determined that no effective measure existed, and moved to create her own—the Quality Scorecard [QS], formulated to assess the administration of online programs in higher education. This QS “defines 70 elements of quality that may be quantified to assess an online program [and] produces a numeric score sheet that quantifies quality” (Shelton, 2011, p. 7). It is Shelton’s (2011) hope that the QS become an important resource for higher education administrators to assist with the identification and evaluation of the various components designated as crucial to maintaining the outward quality perceptions and inward student perceptions of value in exchange, both currently and also provide suggestions for future improvements. Puzziferro and Shelton (2009) originally claimed that the QMR is an “excellent guide for creating a design standard, or an evaluation system, and can be customized and adapted as needed” (p. 125), adapting it to “convey the online course design elements to support Active Mastery Learning, and the specific quality criteria within each element” (p. 125). To reiterate the full weight and consequence of the QM process, Puzziferro and Shelton (2009) later agreed that a further excellent strategy that would elevate the “online learning culture toward more collaboration is to build a culture around peer review” (p. 6). The QM peer-review process involves QM-certified faculty reviewing online courses designed and developed
by other faculty from across disciplines applying the QMR, and in so doing, all participants “talk about what they are learning, write about it, relate it to past experiences and apply it to their daily lives” (Puzziferro & Shelton, 2009, p. 7).

**Quality Matters™**

The Quality Matters™ [QM] organization has endeavored to be the foremost developer of a “continuous improvement model for assessing and assuring the quality of online courses” (Shattuck, 2007, p. 7). Originally established in 2002 by a group of distance educators at the University of Maryland, the goal of the project was “to assure quality in the online distance learning courses that they shared and to prepare for anticipated questions from future regional accreditation teams visits” (Shattuck, 2007, p. 1). Pursuant to securing a three-year grant from 2003 to 2006 from the Fund for the Improvement of Postsecondary Education [FIPSE], MarylandOnline, a consortium for distance learning, that Tornwall (2008) likens to being a similar organization to Ohio’s Learning Network (OLN), developed and has articulated continuously the QMR through several cycles, culminating in the latest version: 2011-2013. This latest rubric consists of 41 specific measures (originally 40, according to Legon & Runyon, 2007) grouped into eight categories, each assigned a point value, ranging from 1 through 3 (where 3 is mission critical, 2 is very important, and 1 important), totaling 91 points. The respective categories are; 1. Course Overview and Introduction, 2. Learning Objectives (Competencies), 3. Assessment and Measurement, 4. Instructional Materials, 5. Learner Interaction and Engagement, 6. Course Technology, 7. Learner Support, and 8. Accessibility (p. 2). Peer reviewers, credentialed by QM, are charged with reviewing any
online course submitted to QM for compliance assessment, with reviewers operating along strict guidelines during this procedure, and who have undergone specific training and certification in order to be able to assess and certify courses as QM compliant. In order for an online course to meet the QM standards and become a certified course, it has to, in the peer reviewers’ adjudicated opinions; score an overall grade of 85 percent or better, i.e. 81 from 95 points, in meeting the measures within each category, from a design perspective (Legon & Runyon, 2007).

According to Tornwall (2008), in 2008, Ohio had the largest statewide QM consortium [OQMC] with 43 institutional members and had ranged the rubric “from a need for a formal quality assurance process to a set of guidelines that inform the online course development and review process to a desire to conduct professional development training.” At last count, Ohio still enjoys first place in terms of size with 64 current member institutions. Currently, there are only seven U.S. states not represented with any QM-member institutions, and QM boasts a total worldwide membership of 862 institutions.

From the outset, the QM organization never intended their sole claim to educational fame as being a rubric. Rather, Shattuck (2007) states the rubric was to be “a framework to facilitate inter-institutional cooperation and training for peer review of online courses” (p. 6). Subsequent to the first rubric being developed by the Tool Committee and then disseminated throughout its member institutions, the QM organization charged the Process and Training Committees to begin working on the development of a “replicable system of peer review for the improvement of online
courses” (Shattuck, 2007, p. 1). QM developers caution practitioners that the tenets of QM design methodology are a) not about the faculty, but specifically the design of the online course; b) neither are they about faculty evaluation, but rather the quality of the online course by virtue of its design; and c) it is definitely not a win/lose or pass/fail assessment.

Legon (2006) shares, in Table 2 below, best practices endorsed by the Council of Higher Education Accreditation (CHEA) (2000), and its eight regional accrediting agencies. The report “begins with a statement of the essential elements of responsible higher education programs that should apply to distance learning no less than to campus-based education” (p. 3).

Table 2. 
*Best Practices for Electronically Offered Degree and Certificate Programs*

<table>
<thead>
<tr>
<th>Education is best experienced within a community of learning where competent professionals are actively and cooperatively involved with creating, providing, and improving the instructional program</th>
<th>Peer review process involving faculty, instructional designers and other support staff in a cooperative effort to continuously improve online instruction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning is dynamic and interactive, regardless of the setting in which it occurs</td>
<td>Treats interactivity and active learning a critical component of every online course.</td>
</tr>
<tr>
<td>Instructional programs leading to degrees having integrity are organized around substantive and coherent curricula which define expected learning outcomes</td>
<td>Treats the alignment of expected learning outcomes with the contents, activities and assessments as a critical element in every online course.</td>
</tr>
<tr>
<td>Institutions accept the obligation to address student needs related to, and to provide the resources necessary for, their academic success</td>
<td>Expects every online course to address student access to the academic, technical, and student support services essential to student success.</td>
</tr>
<tr>
<td>Institutions are responsible for the education provided in their name</td>
<td>Adoption of these standards reflects institutional commitment to online instructional quality, wherever an institution has endorsed the rubric</td>
</tr>
</tbody>
</table>
Noting the similarities and differences, Legon (2006) provides a more comprehensive analysis of corresponding principles between the Best Practices document and the QM project which has been further validated in that these specific best practices, as endorsed by the respective accrediting bodies, were compared to specific standards in the QM Rubric. Legon (2006) points out, however, “that some of the Best Practices standards are entirely institution-based and cannot be measured at the course level” (p. 4), and summarizes by stating that there is no conflict between the standards established by the best practices and those included in the QMR. Notwithstanding the limitation identified; i.e. that select best practices remain entirely institution-based and therefore cannot be measured at the individual course level, there are “several areas where an expanded QM Rubric might address issues raised in the Best Practices standards” (p. 8). Legon (2006) provides an extended comparison (see Appendix B) that exhibits how educators could integrate the Best Practices standards into future iterations of the QM rubric, and declares that the QMR is “fully consistent with published accreditation standards for online education” (p. 9). Further, and to the extent that institutional and programmatic standards are inherently reflected in individual online courses at that institution, the QMR “can verify adherence to these standards” (p. 9), Legon (2006) asserts, and states that QM reviews of online programs “can serve as a major element of the quality assurance process for online education that accreditation requires” (p. 9).

According to Vobornik (2012), “[s]tudent satisfaction is very multi-faceted and directly influences recruitment and retention efforts,” (p. 83) and that students in her study overwhelmingly “indicated that Quality Matters™ Standards were very important
to a high quality online course” (p. 83). Vobornik (2012), continues by reiterating that her findings are consistent with those in many studies she reviewed, particularly that undertaken by “Penny Ralston-Berg that resulted in the Online Student Bill of Rights” (p. 83). In summarizing those what factors students claimed influenced the quality and their satisfaction in an online course, Vobornik (2012), found;

- “a strong correlation between courses that were QM™ reviewed and student satisfaction,”
- “the presence or absence of Quality Matters™ Standards could be used as an indicator of student satisfaction in an online administrative professional Program courses,” and
- a positive correlation between the presence of the standards in the course and the students’ overall satisfaction in the course” (pp. 83-84).

The QM methodology both in design (as a boilerplate template) and in the review process (as a stepwise benchmark), functions as a diagnostic tool that premises and enables continuous improvement of online course design (Overview and Introduction Presentation, 2011). Shattuck (2007) identifies the following three directions for future research; “(1) student learning, (2) professional development, and (3) validation of the rubric standards” (p. 9). Her view is supported by other scholars, particularly Talbert and Meira (2011) with their conceptual teaching and learning environment they term “Viral Education,” where the “process of education can be symmetrical or asymmetrical in the teaching and learning process as well as multi-task oriented in both product and idea development” (p. 269).
Quality in Higher Education

Puzziferro and Shelton (2008) claim that “[a]t the very core of ‘quality’ is the principle that pedagogy must be the driver of the production process, not technology” (p. 122) and that technological advancements are no replacement for sound and academically rigorous pedagogy. They are in one voice in claiming that “[v]irtually all educators agree that [Chickering & Gamson’s] Seven Principles of Good Practice represent an excellent starting framework for developing a vision of quality” (p. 122) for any institution of higher education. The ultimate objective, from this solid starting point, must be in creating online courses that make authentic learning possible (Herrington & Oliver, 2000; Herrington, Oliver & Reeves, 2003; Meyers & Nulty, 2009; Naidoo, 2012). In confirming that learning, at least for now, is about human edification and not machines, Merisotis (2009), sharing a policy proposal that the Lumina Foundation strongly supports, stated “Let’s make the development of human capital a cornerstone of U.S. economic policy, and let’s position postsecondary education as the nation’s workforce-development system” (p. 20). This researcher is not suggesting that an isolated measure of quality in higher education should be the growth of the nations’ workforce. It is worth mentioning that almost a century ago, when contemplating situations outside of school, i.e. ordinary life, and when in the process of learning, students necessarily drew down on these experiences in making sense of what they were exposed to in the classroom (Dewey, 1916). These experiences, Dewey (1916) said, “give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking, or the intentional noting of connections; learning naturally results.” Concluding, Merisotis
(2009), stated that “Student success can be a transformative idea. With strong and committed leadership, a college can reorient itself and make student success—not merely enrollment—an institution’s central priority” (p. 21).

There are five QMR standards, (1) learning objectives, (2) assessment and measurement, (3) instructional materials, (4) learner interaction and engagement, and (5) course technology (Quality Matters, n.d.). Hoffman (2012) asserts that these “five standards should work together to ensure that students achieve desired learning outcomes” (p. 160) in order that the course designed using the QMR “must be aligned to pass the peer-review process” (p. 160). This QM peer-review process involves a team of at least three faculty members from other higher education institutions in the next leadership. Each faculty member has successfully completed the preliminary QM training process, has received specialized QM reviewer training, and evaluates the course designed using the QMR, working collegially with the original faculty designer to bring it sharply in line with the required standards. Hoffman (2012) asserts, and this researcher agrees, that this external peer-review process is that crucial element provided by the QM process that establishes the credibility and integrity of online course design and aids in the certifying of each online course, designed and reviewed under QM auspices.

The QMR helped Hoffman (2012) to develop an organized, easily-navigable and well-structured learning environment, complete with the necessary redundancies that keep students enthusiastically “engaged in the course and on track with the assignments” (p. 164). The QMR also provided Hoffman (2012) with a clearer focus and emphasis on the learning outcomes and associated instruments of assessment, without impinging on
his unique style or any attempt to ‘certify’ his course content, ‘replacing’ him in the
process, while constantly reminding him that his students are ultimately responsible for
their own learning.

To regard QM and the QMR as the current national standard in online course
design is quite feasible. QM is the only body that benchmarks online course design
standards for “community and technical colleges, colleges and universities, K-12 schools
and systems, government agencies, corporations, and other education-related
organizations” (Quality Matters, n.d. para. 3). Current higher education QM subscribers
number 862, with 832 institutions located in 50 of the United States and its territories (64
just in the state of Ohio, and representing every one of the public four year institutions),
and 30 international institutions located in five countries (“Subscriber Institutions by
Country - Higher Education” n.d.). Current K-12 education subscribers number 61
institutions, with 57 institutions located in 21 of the United States, and 4 international
institutions located in Canada (3) and Greece (1) (“Subscriber Institutions by Country -
K-12,” n.d.). QM has trained more than 8,000 faculty and instructional design staff, and
is recognized professionally by having been awarded the Sloan C Excellence in Online
Teaching and Learning Award, and the 2008 United States Distance Learning
Association Award for Outstanding Leadership in the field of Distance Learning (Adair,
2011).

Pondering whether QM could be a bad idea, it is appropriate to reflect on what
Shattuck (2012) mentions, that the current focus on QM-research is somewhat off-point
insofar as it identifies its efficacy, as well as the QMR being in its infancy compared to
other traditional instructional design models (cited previously in this chapter). However, the overwhelming empirical evidence generated by faculty peers over the past decade regarding the use of the QMR to design online courses, albeit that their studies were sometimes narrowly focused on the instructional design and delivery of a single online course and/or a single semester’s experience; indicates that students are learning more deeply and are experiencing increased satisfaction with their progress through the course (Legon & Runyon, 2007), that persistence levels and course completion rates are increasing (Shattuck, 2007; 2012), and that the QMR has been adopted as a quality benchmark for online and blended courses (Sener, 2005), and has improved student outcomes particularly with their ability to construct a scholarly research proposal (Swan, Matthews, Bogle, Boles & Day, 2010). Future research regarding the ongoing efficacy of the QMR, as Shattuck (2012) recommends, would be “[c]onducting longitudinal studies of the impact of QM on a specific course, program, or even institution are needed [since] quick, one-shot descriptions and anecdotal evidence should be seen as exploratory and used in future and continually refined study of the effectiveness of QM” (p. 19).

Specifically, as he describes most eloquently, the QMR helped Hoffman (2012) to develop an organized, easily navigable, and well-structured learning environment, complete with the necessary redundancies that keep students enthusiastically “engaged in the course and on track with the assignments” (p. 164). As was stated earlier in this chapter, Hoffman (2012) believes the QMR provided him with a clearer focus and emphasis on the learning outcomes and associated instruments of assessment, without compromising his pedagogical/academic freedom, or making any attempt to ‘certify”\his
course content and thereby circumventing his role in the online course design process, all
the while constantly reminding him that his students are ultimately responsible for their
own learning.

In their admission, the current QM Rubric Committee responsible for delivering
the 2014 QMR, was confident that this iteration will, as the 2011-2013 fourth edition did
of its predecessor, “resolve a number of ambiguities in the 2011-2013 Edition and
provide additional help to Peer Reviewers, instructors, and instructional designers as they
work with the Quality Matters Standards” (Overall Changes, 2014 para. 1). According to
Bolliger and Wasilik (2009), the majority of their respondents (77.4%) felt that they
needed to be more creative in both the design and delivery of their online courses. This
researcher reiterates how important institution-related issues are to faculty who design
and teach online courses, as they can influence satisfaction and motivation (such as
pedagogical and administrative support for designing online courses, etc.). However,
none of the four subscale questions that pertain to workload, compensation, preparation,
and course evaluations yielded a mean score above 3.0. The item with the lowest mean
score (M = 2.15) in the Institution subscale related to faculty not associating a higher
workload with online courses than compared to traditional courses. Please refer to
Appendix I for a side-by-side comparison of the evolution of the QMR through the third

As Hoffman (2012) observed, the QMR could not “ensure that students have a
good online course experience” (p. 176), and based on what was found in this study,
neither does the distinction of online course design methods. Reiterating what Bolliger
and Wasilik (2009) had found, in order of influence in increasing faculty satisfaction; student interaction was most important, followed by institutional interaction, then creativity in online course design, then workload in terms of creating online course design, and finally, balancing additional teaching commitments. According to Bolliger and Wasilik (2009), when considering faculty satisfaction, “[q]uestions that yielded the highest mean scores pertained to using reliable technology and experiencing difficulties with technology” (p. 113). It is interesting to note the “instructor’s creativity with providing resources in online courses” (Bolliger & Wasilik, 2009, p. 113) was the item with the lowest overall mean value.

Hoffman (2012) observed further that an exceptionally well-designed course could not replace the “quality content or the instructor, but it supports them and creates a good learning environment” (p. 171) and concluded that although a well-designed course may create the ideal conditions for learning; students would always remain directly responsible for successfully completing all the requirements for that course, and consequentially, their own learning.

What is interesting to note from the evolution of the QMR (See Appendix H) is that the Course Technology Standard has declined in overall weight from a total of 14 points (or a weight of 16.5% in 2008-2010) through 12 points (or a weight of 12.6% in 2011-2013) to the present total of 10 points (or a weight of 10.1% in 2014). This represents an overall decline of 38.7% from the third to the fifth edition of the QMR. In the overview statement of the revision made to this Standard in the current iteration, i.e. the fifth edition (General Standard 6: Course Technology, 2014), the author identifies
that this Standard now more appropriately “support learners' achievement of course objectives or competencies;” that “technology enabling the various course components facilitates rather than impedes the learning process;” and that the revised sections in this category were “adjusted to better reflect the use of course technologies” (para. 1).

In discussion with Kay Shattuck from QM (personal communication, December 22, 2014), Brenda Boyd, one of the QMR Revision Committee co-chairs for the Fifth Edition of the QMR in 2014, had claimed to her that although Standard 6 did lose one point from the 2008-10 Edition of the QMR to the 2011-13 Edition of the QMR, it did so due to the elimination of sub-standard 6.6, which was absorbed into the Annotations for 6.4 of the 2011-13 Edition of the QMR. The loss of three points under Standard 6 in the Fifth Edition of the QMR in 2014 was due to the movement of SRS 6.3 to SRS 8.1 under the no resultant net loss of points, more so repurposing the sub-standard under a different General Standard. A new 1-point sub-standard was also added to Standard 6 to address student privacy. The change in point values is easily explained—all editions of the QMR have included “competencies” with Learning Objectives—it is only in the Fifth Edition of the QMR in 2014 that competency-based courses are now specifically mentioned due to the good work of the current Working Group. This researcher considers this realignment to be congruent with the ongoing evolution of the QMR Standards and sub-standards to more closely address the functional pedagogical elements in the effective design of online courses.

In contemplating whether the QMR should continue to be regarded as the standard model/methodology for the appropriate design of online courses, or whether a
reasonable alternative be sought, Hoffman (2012) put it best after exploring whether the QMR could help the development of his online course, he found;

- It helped him to develop an “Organized and Structured Learning Environment,” (p. 163),
- It emphasized “Student Learning Outcomes and Assessment,” (p. 164), and
- It served as a peer-review process – the factor he found most beneficial.

Hoffman (2012) also noted specific supplemental benefits he drew from this process as being the peer-review team, which “consisted of three experienced online faculty outside of my university” (p. 166), who were “knowledgeable, rigorous, and had excellent suggestions” (p. 166), and solution oriented, and who “wanted me to pass the review, so they gave me opportunities to improve the course before I went through the final review” (p. 166). Hoffman (2012) also found this aspect uniquely beneficial, in contrast to peer reviews conducted in traditional courses (and overwhelmingly in the face of summative student evaluations currently being used as the only ‘true’ measure of online teaching efficacy) because in this case, the peer-review team considered each and every part [Standard] of his course and provided him with the most comprehensive and balanced assessment, resulting in him developing both an efficient and effective online course.

According Shattuck (2012), QM is an empirical process that has been developed over a series of iterations, and believes that the QMR now serves as granular tool for both a self-assessment and for peer-review, by continuously improving both the quality and
efficacy of online course design quality, and thereby instructional and student learning
efficacy. “Each of the standards is supported by rigorous independent online/distance
research and designed by a team of experts in the field of online and blended learning”
(You, et al., 2014, p. 37). As indicated in Appendix I, the recent iterations of the QMR
(see redirected emphasis to established Standards and Sub standards) address aspects
thereof that more closely associate with stated continuous improvement objectives. It is
worth noting at this time that the 2011-2013 QMR was revised in 2014 to include a
number of additional elements that are focused primarily on the language surrounding
online learning. In particular, those terms which previously reflected institutionalized
thinking (e.g. objectives, etc.) are now more reminiscent of current terminology in K-12
education which promote the Common Core State Standards Initiative (2014), a national
educational agenda (e.g. competencies, etc.). In an attempt to explode the myth that
Common Core standards tell teachers what to teach, the Common Core State Standards
Initiative (2014) states the following: “Teachers know best about what works in the
classroom. That is why these standards establish what students need to learn but do not
dictate how teachers should teach. Instead, schools and teachers will decide how best to
help students reach the standards” (Myths about Implementation, para. 1).

Although there have been noteworthy changes made related to design elements as
well, the most striking change for this researcher is this assumed shift in thinking about
online course design and its role in continuing education. Quality Matters™ (Overall
Changes, 2014), in explaining the revised focus on competency in the fifth edition (2014)
of the QMR, are clear that;
“Student” was changed to “learner” throughout the Rubric to encompass both traditional students and competency-based learners.

“Objective” is followed by “or competency” throughout the Rubric to include competency-based courses.

Additional annotations were added for the review of competency-based courses (para. 1).

In earlier conversations with Kay Shattuck, Director of Research at QM (personal communication, October, 29 2013); Shattuck believed that there will always be a need to systematize online course design and that, at present, the QMR was the best online course design rubric available. However, and as You, et al. (2014) observed, if faculty focus on course objectives, unit learning objectives and grading policy to the detriment of students’ focus on learning outcomes; a QMR-design focus on measuring learning outcomes could distract faculty from placing equal importance on course objectives in online course design.

To the best of this researcher’s knowledge, no other body exists with the reach, prominence, and benchmarking credentials that QM enjoys in the area of instructional design of online courses, either here in the United States or abroad. So yes, QM and the succession of QMR [as revised and augmented over the past few years] have rightfully earned their place as the de-facto standard in the design of online courses and the pedagogical philosophy that higher education faculty, looking to improve the efficacy and ultimately their satisfaction when designing their online courses, should actively seek out and follow.
**Modes of Online Instruction and Levels of Interaction**

Defined modes of instruction in the higher education environment occur in two distinct learning spaces: synchronous and asynchronous. Recent developments introduced a blend of the two, a hybrid if you will, that has made for a meeting of the best of both worlds for students. The synchronous mode encompasses, almost exclusively, the traditional face-to-face method in a classroom, or as evidenced in the 21st century, by virtual or face-to-face instruction using any internet-connected medium in real time. Asynchronous approaches stretch on a continuum from courses that are offered fully online through blended/hybrid/flipped methods to other forms of partially online methods with specific meeting times/ mediums/etc. For the purposes of this study, any of the abovementioned methods, either synchronous or asynchronous, are considered as online learning if the students and faculty are not in the same physical space at the same time.

Terry, Lewer and Macy (2003) acknowledge that at the time of their research; the fundamental characteristics of the range of instructional modes were not universally agreed upon but that they recognized that, notwithstanding this lack of consensus, offered “somewhat generic descriptions of each format in order to facilitate [their] research process” (p. 2). Theirs are not that dissimilar to the mode characteristics defined and adopted by participants at the 2005 Sloan-C Workshop (Picciano & Dziuban, 2007, p. 67), as detailed in the Definitions (see Chapter 1). There is, however, a consensus among academics that in an educational setting, it is not an “either or” scenario of online versus face-to-face learning but a more balanced approach where a combination of the two approaches provides the best learning outcome (Laurillard, 2002). Terry et al. (2003) add
that “[i]n recent years, the efficacy of online instruction has been debated in the literature as the mode has become ubiquitous” (p. 1). When describing the dimensions that constitute any learning environment, Boling et al. (2012) recount Collins’ (2006) explanation of “how teaching methods that emphasize apprenticeship give students the opportunity to observe, engage in, and invent or discover expert strategies in context” (p. 120). A compounding fundamental component of instructional design process, irrespective of mode, is in defining and articulating learning outcomes for courses. Thormann, Zimmerman and Wiggins (2012) claim that learning “[o]utcomes are statements of behavior desired at the end of the learning process (p. 12). They go on to declare that when defining either the goals, objectives, and/or outcomes for a particular course, the designer (faculty) must be clearly attentive to and cognizant of the following: “1. What students know coming into the course, 2. The observable and measurable actions students will be able to engage in during the course, and 3. The degree of content and skill mastery during and at the end of the course” (Thormann, Zimmerman & Wiggins, 2012, p. 12). Thormann, Zimmerman and Wiggins (2012) in describing the choice of a particular philosophy of education for teaching online suggest that whatever philosophy is chosen, “it should be consistently and explicitly applied, and based on the faculty's knowledge, beliefs, and experiences provides guidelines and boundaries for everyone,” (p. 9). Then within the chosen philosophical approach, designers (instructors) must account for the explicit and implicit learning skills they need students to master (Thormann, Zimmerman & Wiggins, 2012).
Moore (1989) identified transactional distance in online courses as consisting of dialogue (i.e., interaction) and structure (i.e., design), and clarified the scope of “dialogue” defining the three core types of interaction being learner–teacher, learner–content, and learner–learner, which for this study was modified to read: student-faculty, student-content, and student-student. Garrison et al. (2005) state: “Dialogue or interaction was recognized as a crucial variable in a distance education environment, which was not necessarily the case with an industrial design approach. Moore’s work precipitated growing interest in issues around interaction in a distance or online learning context” (… “To capitalize on the potential of online learning for educational purposes, a qualitative shift in the nature of the interaction must be considered” (Garrison & Cleveland-Innes, 2005, p. 134). However, and although an “interactive community of learners is generally considered the sine qua non of higher education” (Garrison & Cleveland-Innes, 2005, p. 135), that students are actively participating in this process does not dispense the guarantee students are “cognitively engaged in an educationally meaningful manner” (Garrison & Cleveland-Innes, 2005, p. 135). Applying the QMR to designing one’s online course improves chance that the resultant structure of the course promotes a meaningful educational environment for delivery. Rovai (2002) found a “positive significant relationship between a sense of community and cognitive learning” (p. 328). Shank (2004) provides the following table (Table 3), adapted, with permission, from Singh and Reed (2001) in defining dimensions that “can best enhance teaching and learning in a given instructional situation” (para. 8).
Shank (2004) began by “considering the pragmatic and pedagogical affordances of each of these dimensions” and declared, as indicated in tables 4 and 5 below, “[a]n open dialog with those who design instruction of all types would, no doubt, provide additional insights” (para. 9).

Table 3.

Prospective Blending Dimensions

<table>
<thead>
<tr>
<th>Physical space/face-to-face</th>
<th>Virtual space/distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synchronous/live</td>
<td>Asynchronous/not live</td>
</tr>
<tr>
<td>Self-paced/content interactions</td>
<td>Collaborative (people interactions)</td>
</tr>
<tr>
<td>Structured/formal</td>
<td>Unstructured/informal</td>
</tr>
<tr>
<td>Fixed time</td>
<td>Open ended</td>
</tr>
<tr>
<td>Instruction</td>
<td>Performance Support</td>
</tr>
<tr>
<td>Off-the-shelf (generic content)</td>
<td>Proprietary (internal processes)</td>
</tr>
<tr>
<td>Learning</td>
<td>Work</td>
</tr>
<tr>
<td>Content authored in advance</td>
<td>Content built by learners</td>
</tr>
<tr>
<td>Directed</td>
<td>Exploratory</td>
</tr>
</tbody>
</table>

Table 4.

Affordances of Informal, Classroom, and Online Learning

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Informal</th>
<th>Classroom</th>
<th>Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally real activities, completed in context</td>
<td>• Learner has time to make connections</td>
<td>• Immediate feedback and support</td>
<td>• Easily scalable</td>
</tr>
<tr>
<td>Learner has time to make connections</td>
<td>• Mentoring or coaching over time is possible</td>
<td>• Social aspects easily accessible</td>
<td>• Possible to customize</td>
</tr>
<tr>
<td>Mentoring or coaching over time is possible</td>
<td></td>
<td>• Easy to see performance</td>
<td>• Easier tracking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Instructional materials are generally easy to use</td>
<td>• Potential for increased participation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Incremental cost is lowered when spread over wide audience</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Access to experts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Mentoring or coaching over time is possible</td>
</tr>
</tbody>
</table>
Challenges  
- May not be structured enough  
- May be frustrating for learner  
- Needed resources may not be available  
- Not easily tracked  
- Usually linear, more time-bound  
- Participation is limited by available time  
- Customization is limited by group pacing  
- Travel greatly increases cost  
- Not easily scalable  
- Tools are often challenging for learners  
- Delayed feedback and support  
- Instructional materials may be challenging to use  

Table 5.

**Affordances of Asynchronous and Synchronous Online Learning**

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Synchronous</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Convenience</td>
<td>- Time set aside</td>
</tr>
<tr>
<td>- Access at work/home</td>
<td>- Real-time benefits</td>
</tr>
<tr>
<td>- Time to reflect</td>
<td>- Immediate feedback</td>
</tr>
<tr>
<td>- Standardization of content</td>
<td>- Visual cues (gauge emotions, understanding)</td>
</tr>
<tr>
<td>- Lack of visual cues (privacy)</td>
<td>- Better for poor reading and writing skills</td>
</tr>
<tr>
<td>- Review materials as needed</td>
<td>- Instructor direction</td>
</tr>
<tr>
<td>- Self-direction</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Challenges</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Lack of immediacy</td>
<td>- Inconvenience and logistics - time zones</td>
</tr>
<tr>
<td>- Lack of visual cues (potential for misunderstanding)</td>
<td>- No time to reflect</td>
</tr>
<tr>
<td>- Frustration when needing help</td>
<td>- Event oriented</td>
</tr>
<tr>
<td>- Easier to avoid</td>
<td>- Instructor control</td>
</tr>
</tbody>
</table>

(Shank, 2004, para. 11)

Shank (2004) concludes declaring “[a]lthough the initial promises for online learning were widely exaggerated, more rational and considered use of technologies to support teaching and learning seems to be occurring” (para. 11). In her opinion, it is encouraging to see that all stakeholders to the efficacy with the instructional design of online courses “are beginning to consider affordances that various technologies, tools, ...
and strategies have that can enhance teaching and learning,” adding that a “dialog about the affordances made possible within and among these dimensions can provide additional insights for the considered uses of technology to meet individual, organizational, and societal needs” (para. 11).

**Levels of Interaction**

Vrasidas (2000), citing Dewey (1938) and Vygotsky (1978), asserts that student “[i]nteraction is one of the most important components of any learning experience and it has been identified as one of the major constructs in distance education research.” Friesen and Kuskis (2012) assert that “[m]any of the pedagogical benefits of student-teacher interaction, especially those related to motivation [Wlodkowski, 1985] and feedback [Laurillard, 1997, 2000] can be seen as equally relevant in classroom-based and distance education contexts” (p. 353). Finally, Puzziferro and Shelton (2009) declare that “[g]ood learning, like good work, is collaborative and social, not competitive and isolated” (p. 5). They opine that when instructors are developing online courses, they do so in “a very instructivist hierarchy where an esteemed ‘content’ expert develops the course, instructional designers assemble the course into a series of learning experiences intended to ‘teach’ students the specific content, and teachers—many times adjuncts—dispense the course to students as prescribed” (Puzziferro & Shelton, 2009, p. 6). Although the term ‘student interaction’ has been in use for more than a 160 years, more and perhaps most significantly, “it has played an important role in the writing of John Dewey early in the 20th century” (Friesen, n.d. p 2). Dewey’s experientially oriented philosophy motivated him to understand and appreciate “interaction in terms of the reciprocal and dialectical
interaction of objective and subjective conditions in experience” in a learning environment he “referred to as a ‘situation’” (Friesen, n.d. p 2). Swan (2001) suggests that defining situational characteristics of online learning are inherent in the three primary levels of interactivity that could and should affect learning in online courses. Originally identified by Moore (1989) as learner-content, learner-instructor and learner-learner, this study defined these interactions within this dissertation as student-content, student-faculty and student-student. Friesen (n.d.) asserts “the application of the term ‘interaction’ to educational technology--and its relevance to technology-enabled lifelong learning—seems much more strongly and explicitly influenced by scientific and technological developments occurring around the Second World War” (p. 2). Swan (2001) continues by emphasizing that, in practice, these three levels of interaction do not function independently of each other, although “provide useful lenses for thinking about interaction online” (p. 307). Swan suggests that these perceptions can be reinforced by considering the “community of inquiry” [CoI] framework of online learning (see Appendix E), developed by Rourke, Anderson, Garrison and Archer (1999) and expanded upon by Garrison, Anderson and Archer (2000), where if “one equates cognitive presence in this model with interaction with content, teaching presence with interaction with instructors, and social presence with interaction among students, it gives a good representation of how all three work together to support learning online.” Describing the CoI framework, Garrison and Anderson (2003, in Kathpalia 2011) claim there are “three overlapping and recursive elements of cognitive presence, social presence, and teaching presence” (para. 6). More specifically, “[t]eaching presence is the glue that holds the
other two elements together by facilitating and directing the communication to achieve learning outcomes and educational goals” (Kathpalia, 2011, para. 6).

Friesen and Kuskis (2012) sharing what Clark (1994) claimed, that “[a]s with related studies of the effects of educational media, the impact of the instructional designs associated with the use of this media seems to have far greater impact on student achievement than the use of any given medium per se” (pp. 353-4). In identifying aspects of isolation and decreased engagement in online courses, Hart (2012) shares what Bunn (2004) cited as two limiting interactions in online courses: student-faculty and student-student (p. 36). In an effort to ameliorate this concern, particularly during the planning and pre-design stages of online courses, Friesen (n.d.) suggests that instructors remain cognizant that “it can indeed be useful to consider how students can benefit from a mixture or variety of educational interactions or experiences, including group discussion or conferencing, textbook readings, and also direct contact with the instructor” (p. 7), reiterating the importance of the faculty’s effect during the delivery of the course, making it their regular imperative “to be as responsive as possible to student requests” (p. 7). Thornburg suggests that as we move into the second decade of the 21st Century, instructors designing online courses need not fuss over the level of ‘tech-savviness’ needed to transform their teaching, but instead create Col’s that foster “thriving, connected, learning communities,” (p. 81) and necessarily, “rethink their roles as educators in a world where information is available on-demand and communication is instantaneous” (p. 81). In describing the interaction between students and instructors, Boling et.al. (2012) found that students “defined a ‘good’ instructor as someone who is
‘accessible,’ ‘flexible,’ and provides individualized feedback” (p. 121). Further, insofar as online students revealed, the “ability to access an instructor largely depended on the overall design of the program, meaning the opportunities and avenues that were provided for students to communicate” (p. 121). In describing the student-student interaction, Boling et al. (2012) claim that “[b]ased on participants' experiences, creating a cohesive online community is a vital component of all online programs. Building a community of learners where students cooperate and learn together can become a powerful motivator and a powerful mechanism for extending learning” (p. 121) and that some students in their study identified that “belonging to a community was important to them” (p. 121). However, Boling et.al. (2012) revealed that online learning communities “frequently did not result in building cohesive communities and did not encourage academic growth. Instead, students described increased feelings of isolation and disconnection among each other” (p. 121).

Friesen and Kuskis (2012) assert that the literature pertinent to the states of interaction in higher education online courses has focused on that between student-student and student-faculty, “[h]owever, the mediated context of distance education has compelled distance educators to consider more seriously interactions between students and diverse educational media (in Moore’s (1995) words ‘the content’)” (p. 353). Student-content interaction is at the base of the QMR, and alongside student-faculty interaction, forms the basis for this study.
Teaching, Faculty Satisfaction, and Faculty Effectiveness

Hagedorn (2000) claims that “[t]o the casual observer, faculty satisfaction is at best a trivial concern easily superseded by the more urgent concerns of student outcomes such as academic achievement and financial efficiency” (p. 5). Moore (2008), in answering the question: “How can schools prepare faculty to teach online more effectively?” claims that “[f]aculty preparation for teaching online measurably improves learning effectiveness and satisfaction…because learning effectiveness also focuses on faculty” (p. 116). Hagedorn (2000) goes on to proclaim that “[a]s we enter the twenty-first century, criticizing college professors looms like a contemporary sport without shortage of participants or spectators. Television, radio, and newspapers cast college professors as content, lazy, and arrogant” (p. 6) and [ignorantly] those teaching in higher education are invariably “depicted as low-pressured, complete with short working hours, high salaries, and lifetime job security” (p. 6).

However, faculty satisfaction has been “instrumental in the success of distance education programs, levels of faculty satisfaction are one measure for the assessment of program effectiveness,” (Bolliger & Wasilik, 2009, p. 105), and more specifically “[f]aculty satisfaction is positively influenced when faculty believe that they can promote positive student outcomes,” (Bolliger & Wasilik, 2009, p. 106). Considering that Gibson, Bishop, Swan, Trollip and Wisher (2003) have identified that faculty satisfaction is a common denominator in establishing benchmarks and milestones for measuring quality, in sentiment shared across the opinions from The Sloan Consortium (Sloan-C), through The Pew Foundation, The American Council on Education [ACE], the Western Interstate
Commission for Higher Education [WICHE], The American Distance Education Consortium [ADEC] and the Distance Education and Training Council [DETC], it became quite clear to this researcher that faculty dissatisfied with the quality of the design of their online courses invariably transfer that dissatisfaction through delivery of the online course, possibly resulting in less than desired student learning outcomes and/or unnecessarily increasing attrition rates from those online courses, thereby reducing their overall effectiveness in creating an environment within which students are able to learn.

Back in 1997, then president of Sloan-C, Frank Mayadas “affirmed that any learner who engages in online education should have, at a minimum, an education that represents the quality of the provider's overall institutional quality” (Quality Framework narrative, the 5 pillars, n.d. para. 1). Mayadas (Quality Framework narrative, the 5 pillars, n.d.), maintained that any institution of higher education necessarily “demonstrates its quality in five inter-related areas - learning effectiveness, access, scale (capacity enrollment achieved through cost-effectiveness and institutional commitment), faculty satisfaction, and student satisfaction,” (para. 1), the original five principles of quality that they termed *The 5 Pillars of Quality Framework* (5PQF). Sloan-C, in conjunction with the successive participants who have attended their summer workshops over the past decade, have been party to tweaking the scope and extent of each of the 5PQF, and have been slightly reordered to where they stand today as; (1) Learning Effectiveness, (2) Scale (Cost Effectiveness and Commitment), (3) Access, (4) Faculty Satisfaction and (5) Student Satisfaction (The 5 Pillars Sloan-C Quality Framework,” n.d.).
Table 6.

*Faculty Satisfaction: A comparison of perspectives*

<table>
<thead>
<tr>
<th>Process/Practice</th>
<th>Sample Metric</th>
<th>Progress Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moore (2005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Processes ensure faculty participation and support in online education (e.g. governance, intellectual property, royalty sharing, training, preparation, rewards, incentives and so on)</td>
<td>● Repeat teaching of online courses by individual faculty indicates approval</td>
<td>● Data from post-course surveys show continuous improvement</td>
</tr>
<tr>
<td>● Processes ensure faculty participation and support in online education (e.g. governance, intellectual property, royalty sharing, training, preparation, rewards, incentives and so on)</td>
<td>● Addition of new faculty shows growing endorsement</td>
<td>● At least 90% of faculty believe the overall online teaching/learning experience is positive</td>
</tr>
<tr>
<td>Sloan-C (Current as at July 17, 2013)</td>
<td>The addition of...</td>
<td>No changes made</td>
</tr>
<tr>
<td>● Processes ensure adequate support for faculty in course preparation and course delivery</td>
<td>● No changes made</td>
<td>No changes made</td>
</tr>
</tbody>
</table>

Source: Moore, (2005), and “The 5 Pillars: Sloan-C Quality Framework,” (n.d.).

In 2005, Moore, while sketching the interrelatedness of the 5 Pillars, and in answering the question, “How to improve learning without increasing faculty workload?,” (p. 7) suggested that with the Learning Effectiveness pillar it was crucial to focus on “Course design, and Continuous assessment,” (p. 7) while simultaneously focusing on “Training, Peer review, and Best practices,” (p. 7) in the Faculty Satisfaction Pillar. In 2005, Moore was declarative in stating that “[b]ecause ALN is a truly new and disruptive technology, Sloan-C emphasizes principles and metrics that can help establish benchmarks and standards for quality based on continuous quality improvement (CQI)”
CQI, as a process of “identifying goals and benchmarks, measuring progress
towards goals, refining methods, and continuously improving outcomes,” (Moore, 2005,
p. 2), reinforced the foundation on which Sloan-C had derived their original five
principles of quality, and added in 2008 that “[t]echnology enables rapid distribution,
integration, and feedback of information that can lighten faculty workload” (p. 117).

Sloan-C (in Moore, 2005) further identifies that the goal of faculty satisfaction is
to get where

“[f]aculty are pleased with teaching online, citing appreciation and
happiness [via processes and practices that] ensure faculty participation in
matters particular to online education (e.g. governance, intellectual
property, and royalty sharing) [and that they] ensure adequate support for
faculty in course preparation and course delivery [with applied sample
metrics of] [f]aculty perception surveys or sampled interviews compare
learning effectiveness in delivery modes, and [l]earner/graduate/employer
focus groups or interviews measure learning gains, [and progress indices
where] [f]aculty report online learning is equivalent or better, and [d]irect
assessment of student learning is equivalent or better” (p. 4).

Moore (2005) clarified that in order for faculty/employee satisfaction to occur, it
would require “[n]ew populations of students and colleagues, [to derive] greater
satisfaction with teaching and learning” and for employee satisfaction, “[c]ompetition,
competitive intelligence, understanding” (p. 2) to be the essential consequences. In 2005,
Moore explained that “[m]easures of quality begin with vision and mission” (p. 5) and
highlighted the following, in the faculty satisfaction pillar, that, if present, would “describe an ideal environment,” (p. 5), where “Faculty achieve success with teaching online, citing appreciation and happiness” (p. 5):

- Faculty satisfaction metrics show improvement over time,
- Faculty contribute to, and benefit from online teaching,
- Faculty are rewarded for teaching online and for conducting research about improving teaching online,
- Sharing of faculty experiences, practices and knowledge about online learning is part of the institutional knowledge sharing structure,
- There is a parity in workload between classroom and online teaching, and
- Significant technical support and training are provided by the institution (pp. 5-6).

In 2008, Moore proclaimed that “[f]aculty satisfaction with online teaching reflects institutional commitment to building and sustaining environments that are personally rewarding and professionally beneficial” (p. 115), and in listing the following practices, similar to the ones listed above, to include “resources and strategies for ensuring faculty success” (p. 115) had only revised the fourth bullet, to read:

- Faculty experiences, practices and knowledge about online learning is part of the institutional knowledge sharing structure (p. 115).

Reinforcing the disruptive intent of modern pedagogical interventions, i.e. the Internet, mobile devices, learning management platforms, etc., Garrison et al. (2010) claim:
[i]t has become more than evident that approaches to teaching and learning in higher education are being transformed in response to information and communications technology. What is not so clear is the impact of teaching and technological developments in distance education institutions (p. 248).

Quinn (in Meyer, 2009, p. 101) opines that “[i]n the virtual world, classes can be seen. Interaction measured. Quality can be better measured. Consistent content can be used. Faculty become more of a facilitator” (p. 101). Alwi and McKay (2011) contend “[i]t is reasonably well known that the teaching style will influence a learner’s experience and level of engagement with their subject content,” [and that to] “ensure that online-learning promotes enhanced learning experiences, instructional strategies are needed to differentiate between the ‘approach’ or ‘view’ of the online-activities and the supporting instructional architecture” (p. 12). Meyer (2009) asserts that “[r]esearch into faculty satisfaction indicates that it is tied to 2 things: choice and preparedness. Faculty who are required, rather than choose, to teach online are more reluctant to redesign courses” (p. 101), and goes on to suggest that “faculty are hired to be content experts and are not taught how to teach, and teaching in a virtual environment requires more planning and preparation” (p. 102), than when both designing and delivering a traditional course. In a traditional course, the teaching component was a construct of both the instructional materials made available and their subsequent delivery to the student. “The exclusive goal of this approach was to provide access at a minimal cost. Serious pedagogical compromises were necessary to reach this goal of greatly expanded access” (Garrison et
In view of this radical change, the focus on the nature and quality of the higher educational transaction has suffered: “Interaction and independence are no longer a zero-sum game, [and] [a]ccess is no longer tied to low-cost independent study approaches” (Garrison et al., 2010, p. 248).

Gosper (2011) is somewhat concerned with the less than strategic approach taken by some institutions of higher education, declaring “[w]here technologies have been adopted because of fashion and without a defensible educational rationale, there is the risk they will quickly reach a ‘use-by’ date and not be effective in supporting learning (p. 24). As a caution, Gosper (2011) counsels those moving in this direction to optimize their choice by cogently avoiding the ‘shiny low hanging fruit’ and aligning strategic objective/s with an available best fit solution through a “deeper understanding of how and why technologies can support learning” (p. 24). The process is further complicated when introducing era-bridging technologies, and when one introduces any newer technology into an established learning environment, it has reaching “implications for the relationship between all the elements of the curriculum” (Gosper, 2011, p. 24)

If it is conceivable to accept that computers can and are being successfully applied in doing one’s job, there must be support for and a “clear opportunity to use those same computers supporting learning as one is engaged in ‘doing’” (Soloway, Guzdial, & Hay, 1994, p. 40). Soloway et al. (1994) go on to ask the question, “Why devote computer ‘zorch’ to the interface to support learning and learners?” (p. 40) and answer, there is a clear need to support students and professionals in developing their expertise. And, there is a clear opportunity for
success; the way in which computers are being used in the workplace provides precisely the right conditions under which learning should take place, namely, learning in the context of doing (p. 40).

Gosper (2011) contends that with the proliferation of educational technology choice, both in terms of application specificity and sophistication of supporting both the teaching and learning process, that “making decisions about which technologies are most appropriate for supporting teaching and learning in different contexts can pose significant challenges for academic staff, particularly those with little to no formal knowledge of cognition and learning” (p. 24). Siragusa et al (2007) recognize the need for online students to “feel that they are part of a group of learners,” and for those who are intrinsically motivated, i.e. those with a “desire to develop a deeper understanding of the subject matter content which fosters deeper understanding of the subject and relates to real-life and employment situations” (p. 925), should be actively encouraged and constantly engaged through the capability of both the appropriate instructional design elements and associated curricula content included for the particular course.

Commenting on the evaluation of online courses, more particularly the content of SSI’s, researchers reinforce the importance of instructors’ commitment to the continuing development of their instructional design competence and resultant ‘classroom’ pedagogy, by genuinely reflecting on student responses and comments (perceptions) regarding their learning and other experiences throughout each course (Siragusa et al., 2007). Azizah, Shahrir, Azian, Thomas, Wan, Wan, Narimah, Sity, Juhana & Chan
(2011) researched Course Teaching Evaluation System (CTES) at the Universiti Kebangsaan Malaysia (UKM). As expected, the CTES regularly “evaluates the quality of course teaching based on the perspective of students” (p. 24), and constitutes only one of the UKM’s “official user feedback systems used to evaluate the efficiency and effectiveness of the Quality Management System (QMS) of MS ISO 9001:2008 for Undergraduate and Postgraduate Studies” (pp. 24-5). Azizah et al. (2011) applied two types of questionnaires: a Pre-Analysis Questionnaire on the Course Teaching Evaluation System and a Post-Analysis Questionnaire on the Course Teaching Evaluation System [CTES], and found that “the reliability of student feedback is at a satisfactory level” (p. 31). Although Azizah et al. (2011) claimed “[t]he research on usability which was developed in this study is based on three CTES usability constructs which are effectiveness, efficiency and satisfaction” (p. 31), they were clear that however, each construct “was found to have two usability problems” (p. 31).

**Academic Accreditation and Student Competency**

Because of the intrinsic involvement of accrediting bodies (see Appendix F) with the future of online learning in higher education, this researcher felt it would be remiss to conclude the literature review without a section discussing the nature of these bodies, how they came to be involved with online learning, and the potential impact such bodies’ involvement has on the future of online learning in higher education.

Accrediting bodies reared their heads in the early part of the twentieth century and have figuratively elbowed their way into prominence on the higher education landscape. Smith (2011) reminds us to also think “back to the mid-20th century, when accreditation
first became the gatekeeper for students' eligibility for government grants and credit” (p. B26) effectively “hard-wiring” (and inextricably) linking higher education institutions’ ‘accreditation status’ to their potential to generate future revenue streams. Ehlers (2009) citing Garrison (2004) emphasizes how online learning demands a ‘total system’ approach which includes the “economic questions of sustainability and business models, pedagogical and technological questions, as well as organizational and cultural questions” (p. 199). Smith (2011) asserts “online learning has a fundamentally different economic structure” (p. B26) and that because online courses are ‘mobile’ students essentially needn’t have to be. Smith (2011) contends that governments intervene in higher education markets to protect consumers, encourage market-making, and promote the view that “fostering an informed citizenry are relevant to education” (p. B27), and if they are reluctant to or fail at what they do, maybe they should step aside and leave the market to a financial and quality assurance model that could drive costs and necessarily prices down. Burke and Butler (2012) claim that educator-entrepreneurs are making inroads in resolving the spiraling costs of higher education by “using new business models and new ways of learning, such as online courses, to slash the cost of a college-level education” (p. 1). They claim that these and similar “innovations” could “offer the prospect of a fundamental restructuring of higher education with a sharp reduction in costs—a revolution that would be a boon to students seeking to acquire the skills they need in today’s economy ” (p. 1). It is quite clear that accrediting organizations, whether national, regional, discipline-specific, or otherwise centered exert a significant degree of influence on U.S. higher education institutions. Burke and Butler (2012) assert that in
limiting government reason to intervene in higher education and accreditation, it “will provide opportunities for the business community to establish metrics, standards, and, ultimately, credentials for the coursework students take at various institutions, as well as other “real world” or internship experience” (p. 3).

Ikenberry (in Provezis, 2010) admits that “[a]ccreditation in American higher education is at once ubiquitous and shrouded in ambiguity” (p. 4). He offers the possibility that accreditation is the driving force behind the assessment of learning outcomes in U.S. higher education, but concludes by asking these questions; “Where is it [accreditation] taking us? What are the standards? What is the variation among regions? And how are regional accrediting groups guiding and helping institutions meet these rising expectations for outcome evidence?” (Ikenberry, in Provezis, 2010, p. 5). The Council for Higher Education Accreditation [CHEA] (2002), is the accrediting body overarching, as defined on its website, “3,000 degree-granting colleges and universities and recognizes 60 institutional and programmatic accrediting organizations” in the United States. The institutions that the CHEA holds sway over are grouped into seven regional accreditation organizations (see Appendix F). The national accreditation body for higher education institutions offering online courses is the Distance Education and Training Council [DETC], as per the About page on their website, is a registered 501(c)(6) non-profit organization that was founded in 1926 “to promote sound educational standards and ethical business practices within the correspondence field” (para. 2). In 1955, the independent nine-member Accrediting Commission of the DETC was established and approved by the U.S. Department of Education as the "nationally
recognized accrediting agency” (para. 2) under terms of extant law. Incidentally, the “CHEA also recognizes the Accrediting Commission” (para. 2.).

Provezis (2010) found that the “seven regional accreditation organizations appear to share similar expectations for student learning outcomes assessment” (p. 7). Assessment like “[e]valuation is the broadest level of description, review, and appraisal. The concept of evaluation subsumes the more restricted topics of assessment, testing, and measurement in [higher] education” (Shaftel & Shaftel, 2007, p. 216). Provezis’ (2010) further findings revealed the various ways these organizations, that span the geography across the United States are shaping institutional assessment activity. Specifically, the study found that none of the regional accreditors “prescribe specific assessment practices or tools […] [although] several provide structured guidance with regard to ways to assess student learning,” or “expect learning outcomes to be defined, articulated, assessed, and used to guide institutional improvement,” but they all “appear to agree that public disclosure of learning outcomes assessment information is an issue of institutional integrity” (p. 7). From an instructional design perspective, Provezis (2010) found that, with only one in seven excepting [Southern], “regional accreditation standards urge that faculty be involved with learning outcomes assessment, particularly with respect to the creation of learning goals and of plans linking assessment to improvement” (p. 7), and “all but one of the regional accreditors [Northwest] provide institutions with direct assistance (in the form of materials, programs, and other means) to improve their capacity to assess student learning outcomes” (p. 7). Ewell (2001), describes the prescription of outcomes dimension as the “extent to which an accrediting organization actively specifies
the particular learning outcomes that should result from an educational program, or leaves the choice of learning goals entirely up to individual institutions or programs” (p. 9). He asserts that “most regional and institutional accreditors, for example, see their primary responsibility as ensuring that the institution takes responsibility for assessing and achieving the unique set of learning outcomes that it establishes for itself” (Ewell, 2001, p. 9). Jones (2011) asserts that “assessment changes online teaching from an art to a science” (p. B28), and in order to make “adaptive learning effective, teams of faculty and instructional designers must come together, on the basis of their collective experience, to anticipate where students may need additional help or greater challenge, and to develop the content to support the watch-it, hear-it, read-it, and explore-it choices” (p. B29). “The Department of Education’s directive to include distance education institutions within the scope of recognition of accrediting agencies, accreditors face the essential task of establishing a system that measures how well these institutions meet traditional quality standards (Guendoo, 2007, p. 38). Alexander, Perreault, Zhao and Waldman (2009) endeavored to “examine and compare business student and faculty perceptions relating to online learning experiences at [Association to Advance Collegiate Schools of Business] AACSB-accredited institutions,” (p. 2) and found that “[s]tudents in 2006 perceived ‘cost efficiency’, ‘flexibility of time and place’, ‘more learning opportunities’, and ‘student-centered learning’ as significantly more of a motivating factor for taking online learning courses, when compared to faculty” (p. 17) and “[s]tudents and faculty members agreed that the factor that is most motivational is the flexibility of time and place. They also agreed that the next two most highly rated
motivational factors are faculty members as facilitators and more learning opportunities (p. 18). However, as Guendoo (2007) discovered, “[e]ven when accredited, however, the public and some higher education faculties remain concerned about the credibility of programs offered online” (p. 38).

A 2000 NEA poll of instructors of online courses found further that they “believed web-based courses do a better job of giving students access to information, helping them master the subject, and addressing a variety of learning styles [but] they believed traditional courses do a better job of strengthening group problem solving skills, verbal skills, and oral presentation abilities” (Oblinger, Baron & Hawkins, 2001, p. 20). Oblinger, Barone and Hawkins (2001) recognize that quality assurance has traditionally been in the domain coveted by regional accreditation agencies, yet their guidelines and resultant “definitions of quality are based on an environment in which institutions have a physical presence and geographic service areas minimize competition” (p. 19). For the purposes of this study, more specifically, this researcher attempted to discover whether applying the QMR to online course design approaches and/or meet their goals for faculty satisfaction, namely where “[f]aculty are pleased with teaching online, citing appreciation and happiness.” (Moore, 2005, p. 4), and that satisfaction emanates throughout their delivery in creating that desired environment where student learning is conducive and can thrive.

The literature discussed herein posits that a study such as the one undertaken by this researcher is a necessary component. This is because it adds to the gap in the literature that currently exists regarding potential links between faculty satisfaction and
the impact (either positive or negative) of same on the online learning environment, with or without consistent online course design.
CHAPTER III.
RESEARCH METHODOLOGY

Introduction

In order to measure the variation in faculty self-perceptions of satisfaction with online course design and teaching, this researcher analyzed these faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR as detailed under Limitations, Delimitations and Design Controls, and Assumptions in Chapter 1 [the population]. This researcher considered faculty’s self-reported levels of satisfaction with a variety of online learning course design structures, including the QMR, to ascertain whether applying the QMR for online course design yields the highest self-reported levels of satisfaction from faculty members, particularly in the areas of student-related issues, faculty-related issues, and institutional-related issues.

As reported in the scholarly literature (reviewed in Chapter II, above), many factors are linked to increasing faculty’s self-reported levels of satisfaction with online course design and delivery, therefore understanding what type of course design most satisfies faculty is pivotal for higher education institutions going forward so they may know how best to capitalize upon the increasing enrolment in online learning, and obviate student attrition and dissatisfaction and to mitigate speculation that online learning is substandard to traditional learning.
In this endeavor, this researcher reiterates his research hypotheses:

1. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course and who have designed at least one online course applying the QMR, but have not taught a course so designed, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR course).

2. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have NOT been trained in using the QMR to design an online course, but who have then designed an online course applying the QMR and have gone on to teach that course, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR course).

3. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course, who have not designed an online course applying the QMR, but who have taught a course designed by someone else using the QMR, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR course).
4. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained multiple times in using the QMR to design an online course, who have then designed online courses applying the QMR, and then have gone on to teach multiple courses, and those faculty who have only had one QMR training session and are teaching course designed using the QMR.

5. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have NOT been trained in using the QMR to design an online course, and those faculty who have had some other form of online course training.

**Research Design**

The research design of this study is a quantitative, non-experimental, comparative design, utilizing survey research to gather the data required. Wiersma and Jurs (2005), in describing survey research, suggest that there are many reasons to administer surveys, e.g., “[c]olleges and universities conduct surveys of their graduates to obtain perceptions of the college experience and the value of the completed program,” and/or “[e]ducation professionals may be surveyed about their opinions about educational issues” (p. 163), and conclude that there are “many educational research situations for which survey research is the appropriate methodology” (p. 163). Reinforcing the rationale for using a survey design for this study is Creswell (2009), stated survey research “provides a
quantitative or numeric description of trends, attitudes or opinions of a population by
studying a sample of that population” (p. 145).

This researcher administered the revised (with permission) Online Faculty
Satisfaction Survey [OFSS] instrument (OFSS-R, Appendix D), originally developed,
and adequately statistically validated (p. 111-112) and deemed reliable (p. 113) by
Bolliger and Wasilik (2009). The OFSS-R was revised to include specifically selected
independent variables in order to exact control over these variables, to invariably abstract
a sample of all faculty with a status of Tenured, Tenure-Track [TT], Non-Tenure Track
[NTT], and Adjunct who have taught fully online courses at four-year institutions in the
state of Ohio for the Period.

From the results of the OFSS-R survey being administered to the identified
population, this researcher “[generalized] claims about the population” (Creswell, 2009,
p. 145). Wiersma and Jurs (2005) suggest that there is less control when using non-
experimental methods, “therefore, interpretation of nonexperimental results may be less
straightforward and more susceptible to ambiguity” (p. 155), but that notwithstanding the
research being “conducted in a natural setting, with numerous variables operating
simultaneously,” (p. 155), “[n]on-experimental research can be carefully designed to
enhance not only completion of the research but also the interpretation of results” (p.
155), reiterating that “[i]t is the research problem and the conditions of the research that
determine the appropriate methodology” (Wiersma and Jurs, 2005, p. 155). Creswell
(2009) claims that “[b]eing objective is an essential aspect of competent inquiry, and for
this reason researchers must examine methods and conclusions for bias. For example,
standards of validity and reliability are important in quantitative research” (p. 8). When administering any research instrument, which in this study is a survey questionnaire, it is pertinent for the researcher to not only establish standards but also confirm both the validity and reliability of that instrument prior to its administration (Bolliger & Wasilik, 2009; Creswell, 2003, 2009; Howard, Conway & Maxwell, 1985; Marsh & Roche, 1997; Rourke & Anderson, 2004; Scanlan, 2003; Wiersma & Jurs, 2005).

**Problem and Purposes Overview**

Based upon the empirical evidence presented in Chapter II, this researcher believed it appropriate to administer the OFSS-R to all faculty who were contracted to teach fully online courses, at a four-year institutions, both public and private, in the state of Ohio for the Period, in view of reaching a series of results that was conducive to responding to the research hypotheses established in Chapter 1. The methods section for this study outlined the case further.

**Methods**

**Research Hypotheses**

This researcher investigated whether applying the QMR as a foundation for online course design increases faculty’s self-reported levels of satisfaction with online courses that were designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR, applying the research hypotheses as detailed above.
**Population and Sample**

The population consisted of all faculty members contracted to instruct fully online courses, for the Period: spring 2011 through fall 2013 (excluding summer semesters) teaching at four-year, public and private higher education institutions in the state of Ohio. This yielded a total of 40 institutions; 13 public and 27 private, being included in this research. It was hoped that the scope of the institutions and the range of chosen semesters would yield a rich enough population from which to draw a reasonably representative sample.

Because the literature indicated that responses to online surveys are typically lower than those of paper-based surveys, Nulty (2008) recommended targeting all members of a population as potential survey respondents to yield the highest response rate possible. To that end, this researcher did not select a random sample of the population to survey (as may be the case with paper-based surveys, such as in Caldwell, 2010), but rather viewed ‘population’ as ‘sample’ and therefore targeted each faculty member in the population in disseminating the survey. The OFSS-R was formulated for online dissemination using the Qualtrics® survey software, and the software-generated survey link to the amended OFSS-R was disseminated via email on Thursday, February 13, 2014 with responses administrated through the Qualtrics® Reporting system. Follow up reminder emails were sent on Friday March 3, 2014 and a final reminder email was sent on Tuesday, March 18, 2014 (in accordance with recommendations on maximizing online survey response rates suggested in Nulty, 2008). The survey was closed in Qualtrics® on Tuesday, April 1, 2014.
Instrumentation

Considering that the most common factor choice is the five-point Likert Scale, i.e. ranging from strongly agree, through agree, neutral, disagree, to strongly disagree (Dawes, 2008; Malhotra & Peterson 2006; Matell & Jacoby, 1971 &1972; Sclove, 2001), this researcher was interested to discover why, in the original OFSS (Appendix C), Bolliger and Wasilik (2009) had proffered “a total of 36 questions including 28 questions with a 4-point Likert scale, ranging from 1 strongly disagree to 4 strongly agree” (p. 107). To understand the rationale for this scale range, Professor Bolliger was contacted to establish why she had chosen to use the four-point scale and her response was, “Cronbach prefers the use of a 4-point scale because you ‘force’ a response instead of having the audience check ‘neutral’” (D. Bolliger, personal communication, October 24, 2013). The questions in the original OFSS were created from their review of the literature, “which included articles pertaining to challenges of and barriers to faculty teaching online and faculty satisfaction” and as each were constructed, fair consideration was taken from “issues that directly impact teaching in the online environment” (Bolliger & Wasilik, 2009, p. 107). In order to spread their focus across impacting factors of faculty satisfaction, Bolliger & Wasilik (2009) developed questions “for each of the three subscales: (a) student-related issues, (b) faculty-related issues, and (c) institutional-related issues” (p. 107). This researcher added questions including demographic and subject specific where appropriate (see the OFSS-R, Appendix D).

Bolliger and Wasilik (2009), beyond administering the original OFSS, confirmed both its validity and reliability, stating “construct validity was examined using a
confirmatory analysis with orthogonal rotation,” (p. 111), and “[i]n order to determine the instrument’s internal consistency reliability, Cronbach’s alpha coefficient was calculated. The total scale includes 28 items and its reliability was high (0.85)” (pp. 111-12).

Further, Bolliger and Wasilik (2009) provided the array of reliability statistics for each subscale measured by the original OFSS in Table 4 (p. 113). Concluding, Bolliger and Wasilik (2009) state “[t]he scale’s reliability is considered high and acceptable; hence results of the analysis show that the [original] OFSS is a valid and reliable instrument for measuring perceived faculty satisfaction in the online environment” (p. 113), and suggest that research in the future should “include an institution with a larger population of online faculty” (p. 114), prompting this researcher to follow their advice.

For this study, this researcher constructed the OFSS-R using Qualtrics® software, with sufficiently included redirect responses, and distributed it to all members of the population of all full-time instructors tasked with delivering fully online courses for the Period via a personal email, through their respective institution’s coordinators as members of the OQMC, and then administered each survey’s completion through the Qualtrics® website. Appropriate statistical analysis to determine statistical significance was applied to establish whether applying the QMR as a foundation for online course design increases faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR.
Data Collection

Given the limitations and delimitations detailed in Chapter 1, this researcher did control for the following factors: public/private institution; faculty status; faculty rank; sex, age-range; race/ethnicity; native/first language; number of years teaching; technological proficiency; number of years teaching online courses; total number of online courses taught throughout their institutions’ system; attendance frequency of online education training sessions offered at home institution; familiarity with the 2011-13 QMR; having undergone [if yes, types of] Quality Matters™ Training [QMT]; whether used or been guided to use the 2011-13 QMR to design online courses; whether having taught a course designed using/guided by the QMR; whether having designed online course using/guided by the QMR, but have not taught that course; whether having taught an online course that was designed by someone else using/guided by the QMR; whether having participated in any other online education training outside of the respondents’ institution [and if yes, name of training and other institution]. From a descriptive statistical basis and from the findings of the administration of the OFSS-R instrument, this researcher then made statistical inferences about the population surveyed.

No e-mail addresses of potential respondents in this study had been obtained through the institution’s member contacts in the OQMC, and no information on primary respondents was collected either. Respondents were forwarded the email through institution’s member contacts in the OQMC. Data was collected for the Period from full-time faculty that the institution had identified as designing and teaching fully online courses using varying methods to guide their course design, and from other faculty
members who applied the QMR to guide their design of those same online courses in the future.

**Analytic Procedures**

As variables in the survey fall primarily into discrete categories, appropriate t-tests were the primary statistical analysis tests applied. Continuous variables, created by grouping certain specific items in the survey, were subjected to the ANOVA statistical test.

The independent variables in this study were drawn from the first 21 questions of the OFSS-R and the dependent variables in this study were drawn primarily from the questions categorized into the three aspects: student-related subscale, instructor-related subscale, and institution-related subscale. Additionally, individual items within the OFSS-R were analyzed by item or as part of a group of items when descriptive statistics indicated further analysis was necessary. Despite a smaller amount of rich data available for specifically QMR-designed online courses, some inferences worthy of Chapter V consideration have been made separately from responding to the hypotheses.

The research objective for this study was to accumulate sufficient knowledge regarding faculty self-perceptions of satisfaction with different types of online learning course design (QMR and non-QMR), from which the researcher could provide recommendations for informing and improving instructional course design practices in the future. It is hoped that these recommendations may lead to improvement in online course delivery practices in four-year higher education institutions as a whole.
CHAPTER IV

AN ANALYSIS OF THE DATA AND FINDINGS THEREFROM

Introduction

The primary intent of this research was to determine whether applying the QMR, as a foundation for online course design, increased faculty’s self-reported levels of satisfaction with online courses designed using the QMR, in comparison to faculty’s self-reported levels of satisfaction with online courses that were not designed using the QMR. The survey instrument used as the basis for gathering the data originated from the Online Faculty Satisfaction Survey [OFSS] designed, validated and declared reliable by Bolliger and Wasilik (2009). The revised OFSS, the OFSS-R, is attached as Appendix D. To reiterate a summation of their findings, Bolliger and Wasilik (2009), declared faculty satisfaction has been,

- “instrumental in the success of distance education programs, levels of faculty satisfaction are one measure for the assessment of program effectiveness,” (p. 105),
- “[f]aculty satisfaction is positively influenced when faculty believe that they can promote positive student outcomes,” (p. 106).

Although beyond the scope of this study, this researcher believes a future investigation examining the transmission of faculty dissatisfaction into the actual delivery of the online course, based on faculty-related factors such as “self-gratification, […] intellectual challenge, and an interest in using technology” (Bolliger & Wasilik, 2009, p.
106), will significantly add to the literature that examines factors which promote increasing attrition rates from those online courses.

**Description of Data collected**

**Institutions**

This researcher was directed to website for the OQMC (n.d.) and a register of their members, representing all four-year institutions of higher education in the state of Ohio was made available. A total of 40 higher education institutions in the state of Ohio [Appendix G], were formally approached to distribute the OFSS-R among their faculty body, with ten institutions agreeing to participate.

The OFSS-R was formulated for online dissemination using the Qualtrics® survey software, and the software-generated survey link to the amended OFSS-R was disseminated via email on Thursday, February 13, 2014 with responses administrated through the Qualtrics® Reporting system. Follow up reminder emails were sent on Friday March 3, 2014 and a final reminder email was sent on Tuesday, March 18, 2014 (in accordance with recommendations on maximizing online survey response rates suggested in Nulty, 2008). The survey closed in Qualtrics® on Tuesday, April 1, 2014.

**Demographic Profiles of Respondents**

A total of 538 responses were received of which 111 respondents declined to participate, and the remaining 427 responses, as represented below in Table 7, were determined as valid responses; comprising 200 respondents from Kent State University and 227 respondents from the nine other institutions that participated.
Table 7.

*By Type of Institution – Survey Question 44*

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>394</td>
</tr>
<tr>
<td>Private</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 8 represents the distribution of faculty members by their claimed level of computer proficiency, where 47.31% considered themselves to be at the intermediate level \((n = 202)\), and 52.46% considered themselves to be at the advanced level \((n = 224)\). There was only one respondent who claimed them self to be at the basic level, therefore their response was deemed insignificant to affect the results.

Table 8.

*Computer proficiency - Survey Question 1*

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>1</td>
<td>0.23%</td>
</tr>
<tr>
<td>Intermediate</td>
<td>202</td>
<td>47.31%</td>
</tr>
<tr>
<td>Advanced</td>
<td>224</td>
<td>52.46%</td>
</tr>
</tbody>
</table>

Table 9 represents the distribution of faculty members by their claimed number of years teaching, where 27.63% claimed to have taught from 0-5 years \((n = 118)\), 24.82% considered themselves to have taught from 6-10 years \((n = 106)\), 15.46% claimed to have taught from 11-15 years \((n = 66)\), 10.30% claimed to have taught from 16-20 years \((n = 44)\), and 21.78% claimed to have taught for more than 20 years \((n = 93)\).
Table 9.

*Number of years teaching - Survey Question 2*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>118</td>
<td>27.63%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>106</td>
<td>24.82%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>66</td>
<td>15.46%</td>
</tr>
<tr>
<td>16-20 years</td>
<td>44</td>
<td>10.30%</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>93</td>
<td>21.78%</td>
</tr>
</tbody>
</table>

Table 10 represents the distribution of faculty members by their claimed number of years teaching online courses, where 15.46% claimed to have taught from 0-5 years (n = 66), 62.53% claimed to have taught from 6-10 years (n = 267), 16.86% claimed to have taught from 11-15 years (n = 72), 5.15% claimed to have taught from 16-20 years (n = 44), and no respondent claimed to have taught for more than 20 years, given that online learning, as defined in this dissertation, has only been in play since the advent of the internet.

Table 10.

*Number of years teaching online - Survey Question 3*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>66</td>
<td>15.46%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>267</td>
<td>62.53%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>72</td>
<td>16.86%</td>
</tr>
<tr>
<td>16-20 years</td>
<td>22</td>
<td>5.15%</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 11 represents the distribution of faculty members by their claimed number of online courses taught, where 37.70% claimed to have taught from 0-5 courses (n = 161), 26.46% claimed to have taught from 6-10 courses (n = 113), 17.10% claimed to
have taught from 11-15 courses \((n = 73)\), 18.74\% claimed to have taught from 16-20 courses \((n = 80)\), and again no respondent claimed to have taught more than 20 courses, given that online learning, as defined in this dissertation, has only been in play since the advent of the internet.

Table 11.

*Total number of online courses taught - Survey Question 4*

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>161</td>
</tr>
<tr>
<td>6-10</td>
<td>113</td>
</tr>
<tr>
<td>11-15</td>
<td>73</td>
</tr>
<tr>
<td>16-20</td>
<td>80</td>
</tr>
<tr>
<td>More than 20</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 12 represents the distribution of faculty members by their claimed approximate proportion of their normal teaching load that is dedicated to fully online teaching per academic year, where 33.96\% claimed between 0-20\% of their normal teaching load is dedicated to fully online teaching per academic year \((n = 145)\), 19.44\% claimed between 21-40\% of their normal teaching load is dedicated to fully online teaching per academic year \((n = 83)\), 12.88\% claimed between 41-60\% of their normal teaching load is dedicated to fully online teaching per academic year \((n = 55)\), 7.49\% claimed between 61-80\% of their normal teaching load is dedicated to fully online teaching per academic year \((n = 80)\), and 26.23\% claimed that above 80\% of their normal teaching load is dedicated to fully online teaching per academic year \((n = 112)\).
**Table 12.**

*Approximate proportion of a faculty’s normal teaching load that is dedicated to fully online teaching per academic year - Survey Question 5*

<table>
<thead>
<tr>
<th>Range</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-20%</td>
<td>145</td>
<td>33.96%</td>
</tr>
<tr>
<td>21-40%</td>
<td>83</td>
<td>19.44%</td>
</tr>
<tr>
<td>41-60%</td>
<td>55</td>
<td>12.88%</td>
</tr>
<tr>
<td>61-80%</td>
<td>32</td>
<td>7.49%</td>
</tr>
<tr>
<td>Above 80%</td>
<td>112</td>
<td>26.23%</td>
</tr>
</tbody>
</table>

Table 13 represents the distribution of faculty members by their claimed attendance, on average per year, of online education training sessions offered at their institutions, where only 0.94% claimed to have *always* attended (*n* = 4), 11.24% claimed to have *often* attended (*n* = 48), 30.44% to have *sometimes* attended (*n* = 130), 29.51% to have *rarely* attended (*n* = 126), and 27.87% to have *never* attended (*n* = 119).

**Table 13.**

*Attendance, on average per year, of online education training sessions offered at respondents’ institutions - Survey Question 6*

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>4</td>
</tr>
<tr>
<td>Often</td>
<td>48</td>
</tr>
<tr>
<td>Sometimes</td>
<td>130</td>
</tr>
<tr>
<td>Rarely</td>
<td>126</td>
</tr>
<tr>
<td>Never</td>
<td>119</td>
</tr>
</tbody>
</table>

Table 14 represents the distribution of faculty members by their claimed familiarity with the 2011-13 QMR, where 22.48% claimed to be *very familiar* with the 2011-13 QMR (*n* = 96), 27.17% claimed to be *somewhat familiar* with the 2011-13 QMR
(n = 116), 12.18% claimed to be *not very familiar* with the 2011-13 QMR (n = 52), and 38.17% claimed to be *not at all familiar* with the 2011-13 QMR (n = 163).

Table 14.

*Familiarity with the QMR - Survey Question 7*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very familiar</td>
<td>96</td>
<td>22.48%</td>
</tr>
<tr>
<td>Somewhat familiar</td>
<td>116</td>
<td>27.17%</td>
</tr>
<tr>
<td>Not very familiar</td>
<td>52</td>
<td>12.18%</td>
</tr>
<tr>
<td>Not at all familiar</td>
<td>163</td>
<td>38.17%</td>
</tr>
</tbody>
</table>

Table 15 represents the distribution of faculty members by faculty type, where 29.98% were part-time faculty (n = 128), constituting the largest proportion of respondents, followed closely by tenured faculty at 27.87% (n = 119), then full-time NTT at 21.08% (n = 90); and 7.73% other faculty (n = 33). A breakout of *other* faculty is provided in Table 16.

Table 15.

*By Faculty Type – Survey Question 45*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenured</td>
<td>119</td>
<td>27.87%</td>
</tr>
<tr>
<td>Tenure Track</td>
<td>57</td>
<td>13.35%</td>
</tr>
<tr>
<td>Full Time NTT</td>
<td>90</td>
<td>21.08%</td>
</tr>
<tr>
<td>Part-Time</td>
<td>128</td>
<td>29.98%</td>
</tr>
<tr>
<td>Other [see Table 10*]</td>
<td>33</td>
<td>7.73%</td>
</tr>
</tbody>
</table>
Table 16.

*By Faculty Type by those who responded as Other – Survey Question 45*

<table>
<thead>
<tr>
<th>Faculty Type</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td>6</td>
</tr>
<tr>
<td>Administrator teaching a class</td>
<td>2</td>
</tr>
<tr>
<td>Emeritus</td>
<td>2</td>
</tr>
<tr>
<td>Graduate Assistant</td>
<td>8</td>
</tr>
<tr>
<td>Graduate Assistant PhD Level</td>
<td>2</td>
</tr>
<tr>
<td>Graduate Student [1 ABD Other]</td>
<td>3</td>
</tr>
<tr>
<td>Graduate Student Teaching Assistant</td>
<td>4</td>
</tr>
<tr>
<td>PhD Fellow</td>
<td>1</td>
</tr>
<tr>
<td>Retired</td>
<td>1</td>
</tr>
<tr>
<td>Teaching Assistant</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 17 represents the distribution of faculty members by faculty rank, where 26.93% were instructors (n = 115) constituting the largest proportion of respondents, followed by assistant professor at 24.36% (n = 104), associate professor at 24.12% (n = 103, professor at 12.41% (n = 53) and then lecturer at 12.18% (n = 52).

Table 17.

*By Faculty Rank – Survey Question 46*

<table>
<thead>
<tr>
<th>Faculty Rank</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>53</td>
<td>12.41%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>103</td>
<td>24.12%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>104</td>
<td>24.36%</td>
</tr>
<tr>
<td>Lecturer</td>
<td>52</td>
<td>12.18%</td>
</tr>
<tr>
<td>Instructor</td>
<td>115</td>
<td>26.93%</td>
</tr>
</tbody>
</table>

Table 18 represents the distribution of respondents by sex with females outnumbering males by a factor of 65 percent. The date showed females at 59.72% (n = 255) and males at 36.07% (n = 154). Eighteen respondents, 4.22%, chose not to answer.
Table 18.

By Sex – Survey Question 47

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>154</td>
<td>36.07%</td>
</tr>
<tr>
<td>Female</td>
<td>255</td>
<td>59.72%</td>
</tr>
<tr>
<td>Choose not to answer</td>
<td>18</td>
<td>4.22%</td>
</tr>
</tbody>
</table>

Table 19 represents the distribution of respondents by age range with 26.42% being in the 45-54 group (n = 113), followed very closely by the 55-64 at 24.82% (n = 106), then 35-44 at 23.19% (n = 99), and then 25-34 at 12.88% (n = 55).

Table 19.

Age Ranges – Survey Question 48

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 25</td>
<td>7</td>
<td>1.64%</td>
</tr>
<tr>
<td>25-34</td>
<td>55</td>
<td>12.88%</td>
</tr>
<tr>
<td>35-44</td>
<td>99</td>
<td>23.19%</td>
</tr>
<tr>
<td>45-54</td>
<td>113</td>
<td>26.46%</td>
</tr>
<tr>
<td>55-64</td>
<td>106</td>
<td>24.82%</td>
</tr>
<tr>
<td>Over 65</td>
<td>25</td>
<td>5.85%</td>
</tr>
<tr>
<td>Choose not to answer</td>
<td>22</td>
<td>5.15%</td>
</tr>
</tbody>
</table>

Table 20 represents the distribution of respondents by race/ethnicity with whites constituting the majority of respondents at 80.09% (n = 342), followed by 8.90% who chose not to answer (n = 38), and then Asians at 5.15% (n = 22).
Table 20.

*By Race/Ethnicity – Survey Question 49*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino</td>
<td>8</td>
<td>1.87%</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>1</td>
<td>0.23%</td>
</tr>
<tr>
<td>Asian</td>
<td>22</td>
<td>5.15%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>9</td>
<td>2.11%</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>White</td>
<td>342</td>
<td>80.09%</td>
</tr>
<tr>
<td>Bi-Racial</td>
<td>7</td>
<td>1.64%</td>
</tr>
<tr>
<td>Choose not to answer</td>
<td>38</td>
<td>8.90%</td>
</tr>
</tbody>
</table>

In response to Survey Question 50, the distribution of respondents by native/first language revealed English as being dominant among respondents at 92.97% (*n* = 342), followed by 1.17% who chose not to answer (*n* = 5), followed equally by Spanish and Tamil at 0.70% respectively (*n* = 3; 3).

**Hypotheses**

The following research hypotheses apply:

1. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course and who have designed at least one online course applying the QMR, but have not taught a course so designed, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR-designed course).
2. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have NOT been trained in using the QMR to design an online course, but who have then designed an online course applying the QMR and have gone on to teach that course, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR-designed course).

3. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course, who have not designed an online course applying the QMR, but who have taught a course designed by someone else using the QMR, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR-designed course).

4. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained multiple times in using the QMR to design an online course, who have then designed online courses applying the QMR, and then have gone on to teach multiple courses, and those faculty who have only had one QMR training session and are teaching course designed using the QMR.
5. There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have NOT been trained in using the QMR to design an online course, and those faculty who had some other form of online course training.

**Research Findings and Results**

The research objective for this study was to accumulate sufficient knowledge regarding faculty self-perceptions of satisfaction with different types of online learning course design (QMR and non-QMR), from which recommendations for informing and improving instructional course design practices in the future could be made [Please see Chapter V., below]. It is important to note that this researcher subjected the responses given to the select items of the OFSS, as identified and developed by Bolliger and Wasilik (2009) that constitute their Instructor Subscale, to the constructs of the abovementioned hypotheses.

These items, as indicated in Table 21 below, constitute what Bolliger and Wasilik (2009) deemed appropriate to determine the relative satisfaction of faculty, being positively influenced “when faculty believe that they can promote positive student outcomes,” (p. 106). Further, faculty are afforded the opportunity to achieve self-gratification when they are challenged intellectually and harbor more than a passing interest in using technology to augment their teaching. In the opinion of Bolliger and Wasilik (2009), the online environment provides faculty with increased opportunities for professional development, research and collaboration (Bolliger and Wasilik, 2009).
“Faculty members are satisfied when they are recognized for the work that they are doing,” (p. 106), but also “expect reliable infrastructure and technology” (p. 106). One factor identified as being instrumental in decreasing faculty satisfaction is when they experience difficulty with or have inadequate access to the appropriate instructional technology and associated tools and resources (Bolliger and Wasilik, 2009).

Table 21.

**Instructor Satisfaction Subscale**

<table>
<thead>
<tr>
<th>OFSS Item #</th>
<th>OFSS-R Item #</th>
<th>Survey Question</th>
<th>Rotated factor loadings</th>
<th>Recoded Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>19</td>
<td>I incorporate fewer resources when teaching an online course as compared to traditional teaching.</td>
<td>0.41</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
<td>The technology I use for online teaching is reliable.</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>23</td>
<td>I do not have any problems controlling my students in the online environment.</td>
<td>0.58</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>28</td>
<td>I have to be more creative in terms of the resources used for the online course.</td>
<td>0.52</td>
<td>Y</td>
</tr>
<tr>
<td>14</td>
<td>29</td>
<td>Online teaching is often frustrating because of technical problems.</td>
<td>0.53</td>
<td>Y</td>
</tr>
<tr>
<td>22</td>
<td>37</td>
<td>My students use a wider range of resources in the online setting than in the traditional one.</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>38</td>
<td>Technical problems do not discourage me from teaching online.</td>
<td>0.55</td>
<td></td>
</tr>
</tbody>
</table>

Further, Bolliger and Wasilik (2009) calculated reliability statistics for the seven instructor subscale items (identified in Table 16). Cronbach’s α was determined at 0.55, and at the 95% confidence interval, their lower and upper limits were 0.40 and 0.68,
respectively. The inter-item correlations were found to have a mean of 0.15 and a standard deviation of 0.20 (Bolliger and Wasilik, 2009, p. 113).

Table 22 and 23 are introduced purely to make a comparison data sets and resultant means and standard deviation of scores from the seven instructor subscale items that Bolliger and Wasilik (2009) found, and what this researcher found. The difference in our populations could be one reason why there are differences in the means and standard deviations. The sample in the study Bolliger and Wasilik (2009) conducted “consisted of the entire population of online instructors (122 individuals) who taught a course during fall 2007 or spring 2008 at a public research university,” (p. 107), of which “102 (82%) individuals […] responded,” (p. 107), whereas this researcher’s study canvassed opinion from all (2,951 individuals), of which 574 (19.35%) responded and 427 (14.47%) were deemed valid. Valid responses were from instructors who had or have taught online courses during spring 2011, fall 2011, spring 2012, fall 2012, spring 2013 and fall 2013, instructors from ten four-year institutions in the state of Ohio. More specifically,

Table 22.

Comparison of the two data sets.

<table>
<thead>
<tr>
<th>Item</th>
<th>Bolliger &amp; Wasilik, 2009</th>
<th>Current Research Blundell 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>122</td>
<td>427</td>
</tr>
<tr>
<td>Female</td>
<td>59.8%</td>
<td>59.7%</td>
</tr>
<tr>
<td>Native English speakers</td>
<td>94.1%</td>
<td>92.97%</td>
</tr>
<tr>
<td>Age Range (years)</td>
<td>24-69 (M=50)</td>
<td>&lt;25-&gt;65 (M=45-54)</td>
</tr>
<tr>
<td>Online Teaching Experience (years)</td>
<td>0-20 (M=4.67)</td>
<td>&lt;25-&gt;65 (M=3-5)</td>
</tr>
</tbody>
</table>
However, no further research will be conducted in this dissertation to determine the magnitude of the difference since it is asserted that it played no part in the outcome of this dissertation.

Table 23.

*Means and Standard Deviation of Instructor Subscale Item Scores.*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 4/19 [Recoded Scale]</td>
<td>M 3.10 SD 0.81</td>
<td>M 1.88 SD 0.72</td>
</tr>
<tr>
<td>Item 5/20</td>
<td>M 3.32 SD 0.60</td>
<td>M 1.99 SD 0.66</td>
</tr>
<tr>
<td>Item 8/23</td>
<td>M 2.81 SD 1.01</td>
<td>M 2.00 SD 0.68</td>
</tr>
<tr>
<td>Item 13/28 [Recoded Scale]</td>
<td>M 2.07 SD 0.66</td>
<td>M 3.08 SD 0.73</td>
</tr>
<tr>
<td>Item 14/29 [Recoded Scale]</td>
<td>M 3.04 SD 0.70</td>
<td>M 2.52 SD 0.77</td>
</tr>
<tr>
<td>Item 22/37</td>
<td>M 2.72 SD 0.72</td>
<td>M 2.29 SD 0.72</td>
</tr>
<tr>
<td>Item 23/38</td>
<td>M 3.19 SD 0.76</td>
<td>M 1.85 SD 0.70</td>
</tr>
</tbody>
</table>

**Findings**

**Research Hypothesis 1**

There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course and who have designed at least one online course applying the QMR, but have not taught a course so designed, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR-designed course).

Question 8 in the revised Online Faculty Satisfaction Survey [OFSS-R], asked respondents: Have you undergone any Quality Matters™ Training, and they were to
respond either Yes or No—32.55% responded Yes \((n = 139)\), and 67.45% responded \((n = 288)\). Those responding Yes to Question 8 were skipped to Question 9, and those responding No to Question 8 were skipped to Question 11.

Question 9 asked respondents to please choose all the Quality Matters\textsuperscript{TM} Training courses that you have undergone by selecting from a listing range of 11 training choices, numbered 9.1 through 9.11. Once respondents were complete with Question 9 they were taken to Question 10 where respondents were asked: Have you used, either independently or with assistance, the 2011-13 Quality Matters\textsuperscript{TM} Rubric to design any of your online courses BUT have not gone on to teach any courses you designed with the 2011-13 Quality Matters\textsuperscript{TM} Rubric. Those responding Yes to Question 10 were sent to Question 11, and those responding No to Question 10 were skipped to Question 12.

Question 11 asked respondents: Not having been trained to use the 2011-13 Quality Matters\textsuperscript{TM} Rubric, did you nonetheless go on to design an online course [or courses] either independently or with assistance, using the 2011-13 Quality Matters\textsuperscript{TM} Rubric and then go on to teach that/those online course/s you designed. Those responding Yes to Question 11 were sent to Question 12 and then Question 13, and those responding No to Question 11 were skipped to Question 14.

Question 12 asked respondents: Having been trained to use the 2011-13 Quality Matters\textsuperscript{TM} Rubric, but not having designed an online course using the 2011-13 Quality Matters\textsuperscript{TM} Rubric, have you then taught an online course [or courses] that was/were designed by someone else that applied the QMR to design that/those course/s. Those responding Yes or No to Question 12 were sent to Question 13.
Question 13 asked respondents: Have you used, either independently or with assistance, the 2011-13 Quality Matters™ Rubric to design any of your online courses AND have then gone on to teach a course [or courses] you designed with the 2011-13 Quality Matters™ Rubric. Those responding Yes or No to Question 13 were sent to Question 14.

Question 14 asked respondents: Have you participated in any other online education training outside of your institution. Those responding Yes to Question 14 were sent to Question 15, and those responding No to Question 14 were skipped to Question 16.

Question 15 asked respondents to: Please provide the name/s of the other training for online education that you attended, and the name/s of the institution that provided the training. Respondents were then required to make choices from the following four items; (1) If they had taken other course, (2) The name of other training course, (3) If that course was at another institution, and (4) The name of other institution. This group of items were repeated four times. Once respondents were complete with Question 15 they were taken to Question 16 which was the first in the series of Online Faculty Satisfaction Questions, which the questions relevant to determining the Instructor Satisfaction Subscale, please see Table 21, above for those questions.

This hypothesis was included to determine if self-reported faculty satisfaction is in fact influenced by their exposure to training in the QMR, and then to design an online course, as opposed to those not exposed to QMR training prior to designing and teaching
an online course. Table 24 displays the results of the Group Statistics between the three subgroups of respondents.

Table 24.

*Group Statistics between the three subgroups of respondents*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained and Taught</td>
<td>27</td>
<td>15.481*</td>
<td>2.276</td>
<td>0.438</td>
</tr>
<tr>
<td>Trained not Taught</td>
<td>112</td>
<td>15.366*</td>
<td>2.328</td>
<td>0.220</td>
</tr>
<tr>
<td>Not Trained Not Taught</td>
<td>288</td>
<td>15.774*</td>
<td>2.390</td>
<td>0.140</td>
</tr>
<tr>
<td>Total</td>
<td>427</td>
<td>15.648*</td>
<td>2.369</td>
<td>0.114</td>
</tr>
</tbody>
</table>

SPSS Output: Independent Variable: Faculty who have been trained in using the QMR to design an online course and who have designed at least one online course applying the QMR, but have not taught a course so designed; Dependent Variable: Instructor Satisfaction Subscale.

*Reported means represent the aggregate from all instructor satisfaction subscale items, as reflected in Table 14, above.

The statistical assumption of homogeneity of variance was tested using Levene’s Test of Homogeneity of Variance and results indicated there was no significant difference between or within groups found for the dependent variable (Instructor Satisfaction Subscale) for the three subgroups $F(2, 424) = 1.270, p > .05$, therefore the null hypotheses fails to be rejected.

**Research Hypothesis 2**

There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have NOT been trained in using the QMR to design an online course, but who have then designed an online course applying the QMR and have gone on to teach that course, and those faculty
who have no experience with QMR (either training, designing, or teaching a QMR-designed course). Table 25 displays the Group Statistics of the two responses, to Question 11.

Table 25.

<table>
<thead>
<tr>
<th>Instructor Satisfaction Scale</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>79</td>
<td>15.911*</td>
<td>2.402</td>
<td>0.270</td>
</tr>
<tr>
<td>No</td>
<td>209</td>
<td>15.722*</td>
<td>2.389</td>
<td>0.165</td>
</tr>
</tbody>
</table>

SPSS Output: Independent Variable: Faculty who have not been trained in using the QMR to design an online course, but who have then designed an online course applying the QMR and have gone on to teach that course; Dependent Variable: Instructor Satisfaction Subscale.

*Reported means represent the aggregate from all instructor satisfaction subscale items, as reflected in Table 14, above.

The results of the t-test showed that there was no significant difference between groups ($t = 0.598$, $df = 286$, $p > 0.05$). Based upon these results, the null hypotheses fails to be rejected, since the difference between those faculty teaching fully online courses in higher education between those who have NOT been trained in using the QMR to design an online course, but who have then designed an online course applying the QMR and have gone on to teach that course, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR course), is not significant.

**Research Hypothesis 3**

There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course, but who have not designed an
online course applying the QMR, and who have taught a course designed by someone else using the QMR, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR-designed course). Table 26 displays the Group Statistics of the two responses, to Question 12.

Table 26.

<table>
<thead>
<tr>
<th>Instructor Satisfaction Scale</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>27</td>
<td>15.819*</td>
<td>2.552</td>
<td>0.491</td>
</tr>
<tr>
<td>No</td>
<td>100</td>
<td>15.420*</td>
<td>2.239</td>
<td>0.223</td>
</tr>
</tbody>
</table>

SPSS Output: Independent Variable: Faculty who have been trained in using the QMR to design an online course and who have not designed an online course applying the QMR, but who have taught a course designed by someone else using the QMR; Dependent Variable: Instructor Satisfaction Subscale.

*Reported means represent the aggregate from all instructor satisfaction subscale items, as reflected in Table 14, above.

The results of the t-test showed that there was no significant difference between groups ($t = 0.863$, $df = 125$, $p > 0.05$). Based upon these results, the null hypotheses fails to be rejected, since the difference between those faculty who have been trained in using the QMR to design an online course and who have designed at least one online course applying the QMR, but have not taught a course so designed, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR course), is not significant.

Research Hypothesis 4

There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been
trained multiple times in using the QMR to design an online course, who have then
designed online courses applying the QMR, and then have gone on to teach multiple
courses, and those faculty who have only had one QMR training session and are teaching
course designed using the QMR. Table 27 displays the Group Statistics of the two
responses, to Question 9.

Table 27.

**Group Statistics of the two responses to Question 9**

<table>
<thead>
<tr>
<th>Instructor Satisfaction Scale</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>43</td>
<td>15.627*</td>
<td>2.725</td>
<td>0.415</td>
</tr>
<tr>
<td>No</td>
<td>384</td>
<td>15.651*</td>
<td>2.329</td>
<td>0.118</td>
</tr>
</tbody>
</table>

*Reported means represent the aggregate from all instructor satisfaction subscale items,
as reflected in Table 14, above.

The results of the t-test show no significant difference between groups ($t = -0.061,$
$df = 425, p > 0.05$). Based upon the results, the null hypotheses fails to be rejected, since
the difference between those faculty teaching fully online courses in higher education
between those who have been trained multiple times in using the QMR to design an
online course, who have then designed online courses applying the QMR, and then have
gone on to teach multiple courses, and those faculty who have only had one QMR
training session and are teaching course designed using the QMR, is not significant.
Research Hypotheses 5

There is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have not been trained in using the QMR to design an online course, and those faculty who have had some other form of online course training. Table 28 displays the Group Statistics of the two responses, to Question 15.

Table 28.

*Group Statistics of the two responses to Question 15*

<table>
<thead>
<tr>
<th>Instructor Satisfaction Scale</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>65</td>
<td>15.600*</td>
<td>2.103</td>
<td>0.298</td>
</tr>
<tr>
<td>No</td>
<td>223</td>
<td>15.825*</td>
<td>2.390</td>
<td>0.160</td>
</tr>
</tbody>
</table>

SPSS Output: Independent Variable: Faculty who have not been trained multiple times in using the QMR to design an online course; Dependent Variable: Instructor Satisfaction Subscale.

*Reported means represent the aggregate from all instructor satisfaction subscale items, as reflected in Table 14, above.

The results of the t-test showed that there was no significant difference between groups \((t = 0.667, df = 286, p > 0.05)\). Based upon these results, the null hypotheses fails to be rejected, since the difference between those faculty teaching fully online courses in higher education between those who have not been trained in using the QMR to design an online course, and those faculty who have no experience with QMR but have had some other form of online course training, is not significant.
CHAPTER V
SUMMARY, CONCLUSIONS & RECOMMENDATIONS

Introduction

Efficient and effective instructional design must be the consequence of both deep thinking and conscious doing, the analysis and determination of which is unfortunately measured summatively, particularly at this researcher’s home institution, a four-year public university in Ohio. John Dewey (1916) knew this, claiming that a “well-trained mind is one that has a maximum of resources behind it, so to speak, and that is accustomed to go over its past experiences to see what they yield” (p. 185.). This researcher has no doubt that many instructors designing online courses, irrespective of whether they use the QMR or not, fully subscribe to these conditions, but are they satisfied when carrying out their responsibilities?

It is important at this juncture to reiterate that it is common practice in higher education to seldom offer any additional reward, be it compensatory or other, to instructors who design and/or teach online courses (e.g., Allen & Seaman (2013), Bolliger & Wasilik (2009), Fredericksen, Pickett, Pelz, Swan & Shea (2000), Hartman, Dziuban & Moskal (2002), Swan (2010), Swan, Matthews, Bogle, Boles & Day (2012), and Wendt & Wendt (2012)). This researcher was inclined to consider why an instructor would take on the challenge of designing and/or teaching online courses, especially if they were not drawing down any level of satisfaction from doing so, leading to the study described herein.
This researcher believes fundamentally that anyone in the teaching profession, whether it be in grade school or in higher education, has chosen this vocation because the rewards are more intrinsic than they are extrinsic. The philosophy of quality in business and industry has been expounded on for more than 75 years, and gained momentum through the latter part of the 20th century due to the pioneering efforts of the likes of W. Edwards Deming, Walter A. Shewhart, Joseph M Juran, Armand Feigenbaum and Philip B. Crosby. It was Crosby (1989), particularly, who highlighted the concept of the ‘what’s in it for me [WIIFM] principle’ and declared it as being the intrinsic motivator for those involved in fundamental change, to enable them to recognize the benefits of enduring both the resistance to and the pain of change. Therefore, although faculty satisfaction for no reward is a reality, it remains critical in getting faculty to recognize the vital role that they play in creating a society, one which Dewey (1916) questions by asking, “[is a society] really worth serving unless it is constituted of individuals of significant personal qualities?” (p. 142). As quality in online course design has been the foundation for this study; this researcher speculates that faculty members, both those who responded to this study and those who did not, would constantly measure themselves against this principle, and when asked to account, would answer like this researcher would, “we’re in it for the genuine student learning that results, and my faculty satisfaction is a bonus!”

It is also important to consider the concepts of necessary versus sufficient conditions. Schwartz (1997), claims “condition A is said to be necessary for a condition B, if (and only if) the falsity (/nonexistence /non-occurrence) [as the case may be] of A
guarantees (or brings about) the falsity (/nonexistence /non-occurrence) of B” (para. 3), and “condition A is said to be sufficient for a condition B, if (and only if) the truth (/existence /occurrence) [as the case may be] of A guarantees (or brings about) the truth (/existence /occurrence) of B” (para. 8). In applying this theory to the use of the QMR in online course design; this researcher opines that as a design rubric, the QMR constitutes a sufficient condition, having personally experienced a reduction in frustration when applying it to his own online course design. Consequently, this ‘sufficient’ condition has also increased this researcher’s sense of satisfaction with his online courses, overall. However, based on the results discussed in Chapter IV, it appears that respondents did not necessarily agree or disagree that the QMR was a sufficient condition to their own sense of satisfaction in online course design. Therefore, although it could be stated that the QMR is a sufficient condition for some in online course design, the results of this study indicate that currently, at least for the faculty members surveyed, it is not a necessary condition to increase their satisfaction with online course design, overall.

This final chapter revisits and provides a supplementary narrative which extends the conversation regarding the results presented in Chapter IV, highlighting the relevant literature reviewed in Chapter II and connecting the findings of this study to the existing body of literature. This process is followed with potential explanations for differences found between study findings and what exists in the literature, and then describes the conclusions from the research and consequent analysis of the findings from testing the research hypotheses. Additionally, this researcher revisits the limitations exposed via the research, provides implications of study findings for future research and for practitioners,
and concludes with this researcher’s stated objectives for his research agenda going forward.

**Conclusions—Demographic Data**

Before discussing the conclusions of the study findings themselves; this researcher deemed it appropriate to explore conclusions related to the demographic data collected from study respondents, in order to create richer statements regarding his conclusions in this and the next section.

In exploring the demographic data, this researcher found it interesting that the majority of respondents who had designed and taught online courses were experienced, white, English-speaking, female, part-time faculty members between the ages of 45-54. As shared in Chapter II; part-time faculty members face different challenges and benefits when designing and instructing online courses (most notably, as reported in the literature, many are sometimes removed from the design portion altogether, instead teaching pre-designed courses). Therefore, it is reasonable to assume that other factors may have impacted their self-reported levels of satisfaction, other than course design. It was coincidental that this researcher collected a ‘super sample’ of Kent State faculty respondents, which prevented direct sample comparisons between Kent State faculty and faculty from other OQMC institutions due to the sample size discrepancy. However, this researcher believes that such comparison may be possible in future study, and will investigate this option after the Ph.D. process is complete.

In revisiting the demographic profile of respondents shared above, this researcher also speculates that because the overwhelming majority of respondents were native
English speakers, that non-native English-speaking faculty may experience additional challenges or benefits which were unexplored, being outside the scope and intent explored within this study. Both unexplored challenges and benefits of non-native English speakers may impact the self-reported levels of faculty satisfaction in online course design and teaching, and therefore this is another avenue for potential exploration by this researcher, after this dissertation is finalized.

**Conclusions—Research Hypotheses**

Next, the results of the study, initially presented in Chapter IV, will be discussed in greater detail and context. As such, it is worth reiterating here why faculty satisfaction within the frame of online course design was investigated. As put forth by the literature presented in Chapter II; faculty satisfaction increases the possibility of student satisfaction, and students that are more satisfied invariably learn deeper and with more conviction (Bolliger & Martindale, 2004; Bolliger & Wasilik, 2009; Kroncke, 2006; Lee, Srinivasan, Trail, Lewis & Lopez, 2011; Shattuck, 2012; Vobornik, 2012). Therefore, this researcher believes that understanding indicators of faculty satisfaction in the area of online course design specifically, may allow higher education administrators to make more informed decisions about the future direction of online learning programs, toward increasing the satisfaction of both faculty members and students as a whole.

As indicated by Creswell (2009; 2003) and Wiersma & Jurs (2005), in responding to and more completely explaining the results of this study in measure of the stated hypotheses; it is pertinent to engage in prima facie observation via recognition of the mean difference scores for each statistical test applied. This prior research informed this
researcher in providing a supplementary narrative below that more broadly rationalizes the results discussed in Chapter IV. Additionally, such observation and consequent discussion was useful in identifying potential avenues for further research that could provide value for practitioners and their institutions. The results of these observations and the complementary narratives are stated below, each under the appropriate Hypothesis’ heading.

**Research Hypothesis 1: Summary**

Table 29.

<table>
<thead>
<tr>
<th>Research Hypothesis 1: Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Courses</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Has been trained in using the QMR to design</td>
</tr>
<tr>
<td>Has used the QMR to design</td>
</tr>
<tr>
<td>Has taught a course designed using the QMR</td>
</tr>
</tbody>
</table>

What is noteworthy when comparing the results of the study with what this hypothesis put forth, is that for faculty teaching fully online courses in higher education; there is no significant difference in overall self-reported satisfaction levels between those who have been trained in using the QMR, then subsequently designed at least one online course applying the QMR, but did not end up teaching a QMR-designed course to those faculty who have no experience at all with QMR (either training, designing, or teaching a QMR-designed course). While this was not anticipated, the demographic response profile provides some insight into why this might have resulted, and identifies a somewhat rational explanation for the finding. As noted in the description of demographics for this study; seasoned faculty constituted almost 60% of the respondents
in this study. As discussed by Eby, Durley, Evans, and Ragins (2006); Gentry, Weber, and Sadri (2008); and Parise and Forret (2008); faculty members who serve as faculty mentors for ‘less seasoned’ colleagues often view the experience as rewarding and, for some, find that it improves their own job performance (Eby et al., 2006). Therefore, it is plausible that this sense of pride may ‘balance’ any feelings of dissatisfaction that faculty respondents to this study may have experienced when other colleagues get to teach the online course/s they designed.

Further exploration of the survey respondent demographics provides additional insight into these results, as most respondents indicated having a high level of experience in teaching overall, and also with online instruction, specifically. The majority of respondents reported having instructed for more than six years (72.37%, n = 309). More specifically, 24.82% of the survey respondents reported they have instructed between six and 10 years (n = 106), 15.46% (n = 66) between 11 and 15 years, 10.30% (n = 44) between 16 and 20 years, and 21.78% (n = 93) for more than 20 years. Further, the majority of respondents reported having instructed online courses for more than six years (84.54%, n = 361). More specifically, 62.53% of the survey respondents reported having instructed online courses for between six and 10 years (n = 267), 16.86% (n = 72) for between 11 and 15 years, 5.15% (n = 22) for between 16 and 20 years, and no respondents reported having instructed online courses for more than 20 years. These data indicates the majority of faculty respondents could be considered to be somewhat seasoned instructors, who are competent in online course design and delivery.

Furthermore, this researcher speculates that their self-reported satisfaction levels with
designing and teaching online courses may have been influenced by any mentorship they provided in the area of online design and teaching.

After prima facie observation of the mean difference of ANOVA test results, they revealed a positive mean difference, and despite a lack of statistical significance for the data analyzed in pursuit of responding to this hypotheses, the results indicate that respondents leaned toward positive (i.e. strongly agree and agree) responses. Although this researcher believes the explanation of findings provided is rational, its investigation is beyond the parameters of this study. However, understanding whether faculty mentorship in the area of online teaching and course design impacts self-reported satisfaction levels in some way is worthy of consideration for future research, because of its implications for improving faculty relations and satisfaction, with the design and teaching with online pedagogy as a whole.

**Research Hypothesis 2: Summary**

Table 30.

*Research Hypothesis 2: Summary*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has been trained in using the QMR to design</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Has used the QMR to design</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Has taught a course designed using the QMR</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 2 put forth that there was no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have not been trained in using the QMR to design an online course, but who have then designed an online course applying the QMR and have gone on to
teach that course, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR-designed course). Examining the results of this hypothesis, leads this researcher to conclude that QMR training does not necessarily influence faculty satisfaction when those respondents went on to use the QMR to design their online course/s without appreciating the full measure and application of the QMR, and then to subsequently proceed and teach their online courses designed using the QMR.

It is interesting to note that nearly all of the survey respondents claimed themselves to be computer proficient at either the intermediate level (47.31%, \( n = 202 \)), or at the advanced level (52.46%, \( n = 224 \)). As stated previously in this dissertation, this researcher posits that because faculty survey respondents are seasoned and competent in online course design and delivery; any impact the QMR may have had on these respondents’ overall self-reported levels of satisfaction, could have been muted. After prima facie observation of the mean difference of the t-test conducted in response to this hypothesis; it should be noted that while statistical significance is not found, there is a positive mean difference of 0.189 in the results indicating that respondents leaned toward positive (i.e. strongly agree and agree) responses. Further research could explore the impact of other forms of online course design as augmented by the QMR training for both full- and part-time faculty, and whether a lower reported level of computer proficiency (e.g. responses selected from categories below intermediate level) would have elicited different results regarding overall satisfaction levels.
Research Hypothesis 3: Summary

Table 3.1.

Research Hypothesis 3: Summary

<table>
<thead>
<tr>
<th>Online Courses</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has been trained in using the QMR to design</td>
<td>Yes</td>
</tr>
<tr>
<td>Has used the QMR to design</td>
<td>Yes</td>
</tr>
<tr>
<td>Has taught a course designed using the QMR</td>
<td>Designed by someone else</td>
</tr>
</tbody>
</table>

Hypothesis 3 put forth that there is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained in using the QMR to design an online course, who have not designed an online course applying the QMR, but who have taught a course designed by someone else using the QMR, and those faculty who have no experience with QMR (either training, designing, or teaching a QMR-designed course).

This researcher speculates that this consideration may be more complex than initially believed and that the reported difference may have been different had the conditions for the third factor analyzed in this hypothesis been taken into consideration, i.e. the instruction of a non-QMR designed course from another faculty member. More specifically, in future studies using the OFSS-R, an additional question could be included asking whether a faculty member who had been trained in using the QMR and then taught a course that was designed by somebody else who had not used the QMR to design their course, would reveal that their overall self-reported satisfaction levels may have differed significantly from the levels reported above (Angelino, Williams & Natvig, 2007; Fredericksen, et al., 2000; Meyer, 2009). In this researcher’s own experience, and
based on specific instances to which he can personally attest; it is significantly more challenging to teach an online course that has been designed by someone else, particularly if the instructor is unfamiliar with the course context. To teach that course in a completely unfamiliar context (i.e. if the faculty member in question had been trained in and had used the QMR for online course design previously) might cause dissatisfaction for the non-designer. In this study, as speculated above, seasoned instructors would tend to undertake this challenge with more aplomb.

After prima facie observation of the mean difference of the t-test, results revealed a positive mean difference of 0.432. Therefore, despite a lack of statistical significance for the data analyzed in pursuit of responding to this hypotheses, results indicate that respondents again leaned toward positive (i.e. strongly agree and agree) responses. To that end, the researcher could investigate the impact of more faculty designing courses applying the QMR and then teaching the courses, so designed, in future study.

**Research Hypothesis 4: Summary**

Table 32.

*Research Hypothesis 4: Summary*

<table>
<thead>
<tr>
<th>Online Courses</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has been trained in using the QMR to design</td>
<td>Yes - multiple times</td>
</tr>
<tr>
<td>Has used the QMR to design</td>
<td>Yes</td>
</tr>
<tr>
<td>Has taught a course designed using the QMR</td>
<td>Yes - multiple times</td>
</tr>
</tbody>
</table>

Hypothesis 4 put forth that there is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have been trained multiple times in using the QMR to design an
online course, who have then designed online courses applying the QMR, and then have
gone on to teach multiple courses, and those faculty who have only had one QMR
training session and are teaching course designed using the QMR. After prima facie
observation of the mean difference of the t-test, results revealed a negative mean
difference of -0.023 in the results. Therefore, even with a lack of statistical significance
for the data analyzed in pursuit of responding to this hypotheses, results indicate that
respondents leaned toward negative (i.e. strongly disagree and disagree) responses. To
that end, the researcher could explore the impact on faculty, seasoned in both online
course design and teaching, to determine what the optimal number of training courses in
instructional design might be, in future study.

Another future potential area of research, is the implementation of a ‘train the
trainers’ approach to online course design. Indeed, that only 43 out of 427 respondents
indicated they had been trained multiple times in and used the QMR to design an online
course, and then had taught multiple online courses so designed; it appears that the
academic field is in dire need of such instructional camaraderie. Collaborative endeavors
of this ilk could assist those faculty members just beginning the online course design
journey, to orient themselves more efficiently, particularly for those new to the concept
of using a rubric like the QMR to design an online course. This could lead to less
experienced instructors becoming more well-versed, more swiftly, than what it would
typically take when left on their own and the result could yield more effective online
course designers and instructors, and strengthen the ‘quality’ of online learning across the
board. This also raises the possibility of ‘social pedagogy’, a concept that is further discussed in Chapter V.
Research Hypothesis 5: Summary

Table 3

<table>
<thead>
<tr>
<th>Online Courses</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has been trained in using the QMR to design</td>
<td>No [Trained in other method]</td>
</tr>
<tr>
<td>Has used the QMR to design</td>
<td>No [Used other method]</td>
</tr>
<tr>
<td>Has taught a course designed using the QMR</td>
<td>No</td>
</tr>
</tbody>
</table>

Hypothesis 5 put forth that there is no significant difference in overall self-reported satisfaction levels with faculty teaching fully online courses in higher education between those who have not been trained in using the QMR to design an online course, and those faculty who have no experience with QMR but have had some other form of online course training. After prima facie observation of the mean difference of the t-test, results revealed a positive mean difference of 0.225. Therefore, even with a lack of statistical significance for the data analyzed in pursuit of responding to this hypotheses, results indicate that respondents leaned toward positive (i.e. strongly agree and agree) responses.

Considering the findings of no statistical significance in the hypotheses investigated, it raises the question—what, then, for faculty involved in online course design in some capacity, makes a difference in terms of self-reported levels of satisfaction? Recall that 15% of this study’s respondents had not been trained in the QMR, had not designed an online course using the QMR, and had not taught an online course designed using the QMR. This researcher then posits that this subsample of respondents could serve almost as a ‘control’ in future the studies. As with the other
areas, the prima facie observation indicates that although there was no statistical
significant difference observed, the mean results tended to lean toward the positive end of
the satisfaction spectrum, suggesting that other variables not included in this study may
have had an impact on this particular subsample’s overall self-reported levels of
satisfaction in the online course design domain. To that end, this researcher could
explore what variables these may be in future study. For example: Is there a difference
for this subsample within different instructional conditions across different types of
institutions of higher education (i.e. instructors in a professional school vs. a liberal arts
institution vs. a community college)? Also, are there non-course design related variables
that may nonetheless have an impact on this subsample’s overall self-reported levels of
satisfaction with online course design (such as tenure vs. non-tenure, part-time vs. full-
time, years teaching, etc.)?

General Conclusions from and Identified limitations with the Study

Reiterating the declaration and subsequent supporting evidence provided in
Chapter II above, QM as a design philosophy, in addition to the QMR, comprises the
critical concept of alignment of critical course components—specifically those five QMR
standards, i.e. learning objectives, assessment and measurement, instructional materials,
learner interaction and engagement, and course technology (Quality Matters, n.d.).

In response to student demand for more online availability for upper-level
business courses at this researcher’s home institution, a four year public university in the
state of Ohio; he created an online component of the business management capstone
course “M&IS 44285: Integrated Business Policy and Strategy,” (hereinafter referred to
as “M&IS capstone”). This was offered under his instruction for the first time in fall, 2014. Developing this course over the spring and summer months of 2014, he adhered rigorously to the 2011-2013 Quality Matters™ Rubric (hereinafter referred to as the QMR - see Appendix A) to design said course. He had attended the foundational QM online course design training sessions in the recent past, and had used the QMR to design other online courses within his discipline for his home institution (with overwhelmingly positive responses from his students regarding their experiences in these courses). Therefore, he felt confident that using the QMR to design the M&IS capstone would elicit similar positive responses from students in the course. Additionally, as this researcher had experienced a high level of satisfaction in his usage of the QMR to design previous online courses, he believed that he would experience comparable levels of satisfaction using the QMR to design the M&IS capstone.

Although the latter sentiment held fast for this researcher, the former positive responses from students dissipated for this course regarding their experience. Indeed, students voiced their dissatisfaction primarily with the structure of the course, believing it impeded their ability to fully explore the issues discussed within the M&IS capstone, and resultantly, this researcher’s satisfaction decreased. Although this researcher has been investigating relationships between faculty satisfaction and the use of the QMR vs. other online course design methods over the course of this dissertation; this most recent experience made him question more succinctly the impact that online course design can have on faculty satisfaction, particularly in light of his range of student responses to same. This question is at the heart of this researcher’s dissertation research, and it was
this question was explored throughout this dissertation, and answered for a specific subsection of this researcher’s randomly selected population.

**General Conclusions from the study and this researcher’s contemplations on its findings**

Based on the conclusions presented in complement to the hypotheses findings tested above, this researcher must ask the question: When it comes to faculty satisfaction, does online course design, particularly applying the QMR, really make a difference?

As confirmed in Chapter II (Meyers & Nulty, 2009; Noble, 2003; Reigeluth, 1983; Rourke, Anderson, Garrison & Archer, 1999; Shattuck, 2007, 2012), this researcher posits that the 2011-2013 QMR is an acceptable standard for online course design as outlined in Chapter II above. What was pointed out by fellow colleagues is that this researcher may well be in the minority, since the pedagogical culture of faculty is invariably indifferent to any particular online course design methodology/model. It was pointed out to this researcher that faculty tend to choose one, or a combination of other methodologies/models, that most appropriately and conveniently provide them with the least painful path to designing a satisficing online course. This researcher must add a caution: to interpret the previous statement as suggesting that faculty do not care, is inappropriate, since this researcher is of the firm opinion that faculty get done what needs getting done in the most efficient and effective manner and that choosing a specific online course design methodology/model is not necessarily their pedagogical priority.

Again, as indicated above, the incidence of seasoned faculty in the data has revealed no significance in the effect that the QMR has had on their satisfaction. To
confirm or refute this notion, in future research this researcher could purposely target the population of faculty that are less-seasoned to determine whether the QMR does in fact have an impact on their self-reported faculty satisfaction beyond designing and teaching online courses using the QMR. Based on the evidence presented following the analysis of data collected for this study, coupled to the speculation that seasoned instructors were evident in the sample, this researcher then concludes for this sample, his answer is no. However, this researcher also believes that the results from this study are not an anomaly and until further research has been conducted, he is not confident the QMR, even in its present iteration (i.e. the fifth edition, 2014), is the singular tool that will elevate faculty satisfaction with designing their online courses.

Throughout the course of this dissertation and back into this researcher’s history of teaching and research, the QMR appeared on its face to be a promising development in the design of online courses given its empirical foundation, and one that could have led to improved faculty satisfaction. From this study, the impact that the QMR had on those seasoned faculty, is muted at best. To reiterate, future research could be targeted towards “rookie” instructors because if it does not have an impact on them, then it would not be expected to have an impact at all. The QMR could well have a significant impact on new faculty but as mentioned in other places in this dissertation, this is an issue that will be held over for future research. Therefore, notwithstanding this researcher’s personal beliefs regarding the QMR’s efficacy in the online course design realm, this researcher believes that future investigations, possibly qualitative in nature, should be conducted to establish a) why this could be the case (based on the responses of those in his study), and
b) if the QMR is worth the ‘hubbub’ that has been created about it in the United States and abroad, within a broader context.

**Identified limitations with the Study**

This study targeted faculty who had designed and/or taught online courses at public and private four-year higher education institutions in the state in Ohio, up to an including the fall 2013 semester. The survey drew respondents that self-reported to be relatively experienced, both as designers and instructors of online courses, and therefore had less need for the insight and guidance that the QMR offers. It is also possible that the expectation of these respondents, relative to QMR training and application, did not differ too much from their tried and tested methods already being deployed. Future research may well be able to flesh out the nuances of these issues.

In summary, it was always the intention of this researcher in this study, to establish if the QMR had an impact on the self-reported levels of faculty satisfaction designing and teaching online courses. As instigated by Bolliger and Wasilik (2009), the study conducted in this dissertation followed their lead and ultimately concluded that a significant impact could not be detected. It may simply be too early to tell whether the QMR has had enough effect on the self-reported levels of satisfaction of faculty insofar as it affects the delivery of those courses designed with the QMR. Further, and now that the QMR has been redesigned and a new rubric for 2014-2015 has recently been launched, it may well be appropriate to repeat this research in the future (a) possibly with a larger sample size, (b) possibly one that reaches into just more than one state in the
United States, and (c) as mentioned above, one that targets a population of faculty that are less seasoned.

**Survey Instrument Questions Not Reported**

It is the intention of this researcher to orient his future research agenda toward understanding student learning to a point where he can create an instrument, with the required validity and reliability that can assess genuine student learning in online courses in both the specific and in the general context. The OFFS-R that formed the basis for gathering the data in this study, consisted of three foci, as identified by Bolliger and Wasilik (2009), i.e. “(a) student-related issues, (b) faculty-related issues, and (c) institutional-related issues” (p. 107). These issues were later separately identified as student, instructor and institution subscales. Given that this study was focused purely on self-reported levels of faculty satisfaction, this researcher only investigated and analyzed the data drawn from the questions in the OFSS-R that were identified as comprising the instructor subscale. It is fair to assume that given the richness of the data collected from the other two remaining subscales, i.e. student, and institution, these results will be explored, by this researcher, in future research.

**Implications/Recommendations for Future Research**

The objective of this study was to establish whether or not the QMR had an impact on faculty’s self-reported levels of satisfaction in designing and teaching online courses. The OFSS-R was crafted to measure the impact that the QMR had on these self-reported levels of faculty satisfaction and this researcher believes, as detailed above, the significance of the impact, either positive or negative, could not be established under
current circumstances. Specifically, that there was relatively low levels of ‘buy in’ from
the 40 OQMC-identified institutions in terms of participation in this researcher’s study,
left a majority of QMR-instructing faculty in the other 29 OQMC-identified institutions,
unsurveyed. Expanding the survey nationally in the future avails itself to hundreds or
thousands of institutions that might lead to the larger sample, one necessary to detect
changing levels of impact across the range of faculty experience and design protocols.
Ongoing QM-focused research, and the evolving augmentation of future iterations of the
QMR, as Shattuck (2012) asserts, can continuously contribute to the improvement of both
the design and delivery of online education. Therefore, this researcher speculates that
should this study or derivatives of it be repeated, one of the necessary conditions would
have to be the support of the larger QM ‘family,’ and more specifically, that they be
drawn into the study in terms of reaching out to and beyond potential participant
institutions.

Although scientific ethics require that researchers do not coerce responses from
potential respondents, as Shattuck (2012) stated above, there is a need to continuously
assess the state of online education if improvements are to be made to both the QMR and
to online course design as a whole. A more extensive participation of institutions might
be achieved by a representation of QM-participating faculty members, both seasoned and
novices, in collected data, and indeed, those who have a compelling interest in best
practices in the online course design environment should participate in such research so
that their voices can also be heard.
That researchers in the higher education field have been studying online course design for more than 30 years, and are still no closer to finding observable differences in terms of faculty satisfaction within online course design and teaching, causes this researcher to ponder: What is not being studied that should be? In terms of further study with the instrument used within this dissertation; this researcher advances that future iterations of the OFSS-R could be crafted to include questions that assess how the QMR could be positioned to more significantly influence the self-reported levels of faculty satisfaction with online course design and teaching. Consequently, more illuminating results may be revealed in terms of self-reported levels of faculty satisfaction regarding online course design methods and how these augmentations could influence student satisfaction and learning. The results of this new research may well inform future iterations of the QMR by its hosts, and indeed, how online course design methodology is studied as a whole.

At a point in the future this researcher will further pursue the strong correlation between faculty satisfaction and student learning found by Hartman, Dziuban, and Moskal (2000), or as suggested by Shattuck (2012) who recommends that future research in the instructional design of online course harness variants of learning analytics methodologies “that can cross-tabulate or at least segregate other known factors, such as the impact of teaching, learner readiness, or student support services […], factors can cloud an understanding of the impact of course design” (p. 19). Studies of this nature would be undertaken to determine whether this correlation is positively or negatively impacted by faculty using the QMR to design their online courses. In 2005, Moore,
while sketching the interrelatedness of the 5 Pillars of Quality, and in answering the question, “[h]ow to improve learning without increasing faculty workload?,” (p. 7) suggested that with the Learning Effectiveness pillar, it was crucial to focus on “Course design, and Continuous assessment,” (p. 7) while simultaneously focusing on “Training, Peer review, and Best practices,” (p. 7) in the Faculty Satisfaction Pillar.

Faculty satisfaction, defined as the perception that teaching in the online environment is “effective and professionally beneficial” (American Distance Education Consortium, n.d. para. 10), has been “instrumental in the success of distance education programs, levels of faculty satisfaction are one measure for the assessment of program effectiveness,” (Bolliger & Wasilik, 2009, p. 105). Sloan-C (in Moore, 2005) further identifies that the goal of faculty satisfaction is to get where faculty are encouraged, recognized and rewarded through determined processes and procedures that increase faculty involvement in the pedagogical aspects of online education, e.g. university governance, the development and protection of intellectual property, and concomitant compensation for the deployment of such intellectual property. Sloan-C (in Moore, 2005) reiterated that it was vital to the ongoing success of online education for institutions to provide appropriate and “adequate support for faculty in course preparation and course delivery” (p. 4).

In 2008, Moore (2008) proclaimed that “[f]aculty satisfaction with online teaching reflects institutional commitment to building and sustaining environments that are personally rewarding and professionally beneficial” (p. 115), and reiterating that “[f]aculty experiences, practices and knowledge about online learning is part of the
institutional knowledge sharing structure” (p. 115). Gibson, Bishop, Swan, Trollip and Wisher (2003) further identified that faculty satisfaction is a common denominator in establishing both benchmarks and milestones for measuring and adjudicating quality, i.e. in sentiment, shared across the opinions of notable institutions like The Sloan Consortium (Sloan-C), through The Pew Foundation, The American Council on Education [ACE], the Western Interstate Commission for Higher Education [WICHE], The American Distance Education Consortium [ADEC] and the Distance Education and Training Council [DETC]. It was Hagedorn (2000) who claimed that “[t]o the casual observer, faculty satisfaction is at best a trivial concern easily superseded by the more urgent concerns of student outcomes” (p. 5).

Making a stronger connection between faculty satisfaction and student outcomes, Moore (2008), in answering the question: “[h]ow can schools prepare faculty to teach online more effectively?” claims that “[f]aculty preparation for teaching online measurably improves learning effectiveness and satisfaction…because learning effectiveness also focuses on faculty” (p. 116). Bolliger & Wasilik (2009), claim further “[i]f positive student outcomes are highly correlated with faculty satisfaction […], then administrators will need to pay close attention to levels of faculty satisfaction, because there may be an interaction effect” (p. 114). More pertinently “[f]aculty satisfaction is positively influenced when faculty believe that they can promote positive student outcomes,” (Bolliger & Wasilik, 2009, p. 106). Further, when Fredericksen, et al. (2000), analyzed responses from faculty respondents who were asked what they thought created resistance in some mainstream teaching online, found that faculty were not only afraid of
the technology, but were also unsure of the pedagogy, and questioned the authenticity of
the delivery mode. And when these same respondents were asked what they believed the
institution could do to minimize, eliminate or obviate this resistance, a reply was to
provide examples of what was considered effective pedagogy, support the mode with
testimonials from their respected colleagues, and abate their fear of technology and shore
up their confidence in the pedagogy by convening roundtable discussions with
experienced practitioners deemed efficient in developing, designing and teaching online
courses.

The data already collected using the OFSS-R in this research offers potential new
areas of investigation, however, due to the specific scope outlined for this study, some of
the data collected, as outlined in Survey Instrument Questions Not Reported section
above, was therefore not analyzed. Another line of inquiry for this researcher may well
be in exploring the claim made by Wasilik and Bolliger (2009) that “[p]rofessional
development support in online instruction and design has a positive impact on faculty
satisfaction” (p. 174). From this researcher’s own experience and that of his close
colleagues, a measure of frustration tends to overshadow the excitement we feel in
delivering an online course, when either the professional development or institutional
accommodation and recognition for such professional development, is evident.

As Wasilik and Bolliger (2009) found, when analyzing the Institution-related
factors in their original study (please see Tables 33 and 34 below), was that;

- faculty tend to and do expend more time and efforts developing, designing
  and teaching online courses then they do with traditional courses,
• faculty tend to be more satisfied when their institution recognizes that online coursework is onerous and then offers up course release time for them to develop, design and teach online courses,

• faculty tend to be less satisfied when they are not adequately compensated for developing, designing and teaching online courses,

• faculty are noticeably concerned when there is an absence of intellectual property policies, or the intellectual property policies in place are poorly designed, so as not to offer equitable legal protection to those faculty who have developed and designed online courseware, and

• faculty tend to be reasonably unsatisfied when their efforts to develop, design and teach online courses is not equitably recognized and rewarded in the renewal/reappointment, tenure, and promotion systems.

Table 3.4

Institution Subscale

<table>
<thead>
<tr>
<th>OFSS Item #</th>
<th>OFSS-R Item #</th>
<th>Survey Question</th>
<th>Rotated factor loadings</th>
<th>Recoded Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>21</td>
<td>I have a higher workload when teaching an online course as compared to the traditional one.</td>
<td>0.59</td>
<td>Y</td>
</tr>
<tr>
<td>15</td>
<td>30</td>
<td>It takes me longer to prepare for an online course on a weekly basis than for a face-to-face course.</td>
<td>0.78</td>
<td>Y</td>
</tr>
<tr>
<td>24</td>
<td>39</td>
<td>I receive fair compensation for online teaching.</td>
<td>0.43</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>41</td>
<td>I am concerned about receiving lower course evaluations in the online course as compared to the traditional one.</td>
<td>0.54</td>
<td>Y</td>
</tr>
</tbody>
</table>
Table 35.

Means and Standard Deviation of Institution Subscale Item Scores

<table>
<thead>
<tr>
<th>Item Number OFSS/OFFS-R</th>
<th>Institution Subscale</th>
<th>Bolliger &amp; Wasilik, 2009, p. 110</th>
<th>Future Research Blundell</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Item 6/21 [Recoded Scale]</td>
<td>2.15</td>
<td>0.77</td>
<td>2.98</td>
</tr>
<tr>
<td>Item 15/30</td>
<td>2.54</td>
<td>0.74</td>
<td>2.81</td>
</tr>
<tr>
<td>Item 24/39 [Recoded Scale]</td>
<td>2.81</td>
<td>0.69</td>
<td>2.38</td>
</tr>
<tr>
<td>Item 26/41 [Recoded Scale]</td>
<td>2.79</td>
<td>0.75</td>
<td>2.46</td>
</tr>
</tbody>
</table>

However, and this is of particular relevance to future research by this researcher, faculty express significant concern about the perceived quality of online courses “because the perception is that student satisfaction as expressed in course evaluations tends to be lower than that in traditional courses” (p. 107). At a point in the future this researcher will further pursue the strong correlation between faculty satisfaction and student learning found by Hartman, Dziuban, and Moskal (2000) and if this correlation is positively or negatively impacted by faculty using the QMR to design their online courses. This researcher posits it is reasonable to assume that inconsistent online course design and delivery may be a factor that negatively impacts faculty satisfaction with online courses, in general, and student learning specifically. Further, Bolliger and Wasilik (2009), the NEA (2000), Wasilik and Bolliger (2009), and Wendt and Wendt (2012), all found a strong correlation to exist between the level of faculty satisfaction with the structure and effectiveness of online course design and resultant student satisfaction in those courses. Future research regarding the ongoing efficacy of the QMR, again as Shattuck (2012) recommends, would be to encourage more inter-
institutional collaboration, where “sharing among colleagues in the QM community would promote the underlying principles of QM: collegiality, collaboration, and continuous improvement to promote student learning” (p. 20). However, that the primary determinant in adjudicating the efficacy of online courses, both in terms of instructor efficacy and student satisfaction, will always be the actual delivery of those online courses, as assessed either during or at the end of the semester, it compels this researcher to more deeply explore this phenomena with a view to developing an instrument that can, in fact, measure student learning in a comprehensible and broadly accepted manner.

Implications/Recommendations for Practitioners

Social Pedagogy and Omni-contribution

Throughout this study, one thing that has come through consistently and clearly regarding online course design and instruction was the advantage this environment has in terms of social connection and communication. As discussed previously, students register a high rate of satisfaction in courses where interaction is tangible, and ‘social presence’ is created to the nth degree. To that end, this researcher purports that an exciting and relatively underexplored direction for online learning education from the design/instruction perspective should be one of social pedagogy – facilitated via a collaborative learning community of online instructors, sharing and building upon best practices in the online environment for the benefit of all those involved in this endeavor.

Social pedagogy is not intended to limit or, indeed, delimit instructional and/or intellectual freedom – rather, it is meant to enhance communication across “the Community of Inquiry” specifically for the online environment, encouraging online
instructors to both collaborate and share teaching techniques and modules with which they have found success in the online environment. Furthermore, as the online environment is tailor-made for omni-contribution; salient content collected from prominent practitioners and other interested parties, and recognized higher education institutions/think tanks (e.g. QM, The Sloan Consortium, EDUCAUSE, etc.), could make way for special interest groups [SIGs] and/or the creation and maintenance of a clearinghouse of omni-contributed content. This content could then be utilized to enhance novice through veteran instructor’s pedagogy in the online environment, to both benefit them and elevate student experience in terms of interaction, the creation of social presence, and connectedness to instructor, classmates, and course material.

One way to create a SIG with a complementary clearinghouse would be to utilize an online learning management system like Blackboard, or a proprietary website where members of the SIG could offer up teaching briefs and other similar vignettes as well as take advantage of content posted by other SIG members. The permanent and evolving nature of such a suite of resources would not only continually reinforce progress and evolution in the online learning community, but it would also provide a sense of social support and COI reinforcement that some instructors, in the literature expressed throughout this dissertation, said they feel is sorely lacking from the administrative structures within their institutions. Therefore, rather than waiting for the administrative branches of higher education to ‘catch up’ to the needs of faculty tasked with teaching online, these faculty can do what they have always done best – turn to each other as a support system to grow their pedagogy, and foster continued innovation as the online
learning environment continues to change and expand to suit the needs of the 21st century information age economy.

**Substantive Peer Review of Online Instructors**

Quality Matters™ has a substantive peer evaluation process that validates online courses designed using the QMR. According to *Higher Ed Program>Course Reviews* (n.d.), online course reviews consider and are comprised of the following criteria:

- Have utilized current QM Standards,
- There must be a three-person peer review team,
- All reviewers on the team are eligible QM-certified peer reviewers,
- At least one reviewer on the team must be external to the institution submitting the course,
- At least one reviewer on the team is designated as subject matter expert in the discipline for online course, and
- The team chair is a QM master reviewer.

When a freshman instructor teaches a traditional course in the classroom, peer reviews are periodically and typically conducted by ‘professorial veterans’ who offer feedback and constructive criticism toward improving that freshman instructor's approach and pedagogical method of delivering the course. Primarily, this is done to increase the freshman instructor’s pedagogical efficacy and guide her/him in tried and tested ways to enhance student learning, while promoting collegiality and fostering pedagogical development and mentorship between new and experienced educators. However it is pertinent to mention that the ‘professorial veterans’ conducting the peer review need to
themselves exhibit a stellar track record of exceptional teaching and have more than a passing interest in the overall scholarly and teaching success of the reviewee, (i.e. be their mentor or a super-mentor, if not from the same discipline).

So, where is this process in the online teaching environment? Based on institutional visions and missions, higher education institutions should develop a set of criteria for pedagogical support and assessment for online teaching and learning, that could be developed in tandem with online ‘master instructors,’ and folded into the online COI supporting social pedagogy described previously in this section. An online teaching "rubric" to improve pedagogical quality in online learning is needed because thus far the only measure that exists is summative, e.g. the Student Surveys of Instruction [SSI] completed by students in each course, but only at the end of each semester at the four-year public institution in Ohio where this study originated.

Much has been written about the limited usefulness of the end of semester student evaluations to accurately ascertain whether or not teaching has been effective, and similarly, whether these summative evaluations can provide a reasonable representation of an instructor’s ability to influence the learning that higher education institutions wish to measure/assess. Rodin & Rodin (1972) determined that there were two ways to judge teaching effectiveness using students as the medium, (1) objectively, “based on what students have learned from the teacher” (p. 1164), and (2) subjectively, “based on student evaluations of teacher effectiveness” (p. 1164). Subjectively, Rodin & Rodin (1972) declared that “[s]tudents rate most highly instructors from whom they learn least” (p. 1164). Their sentiment is not lost on Shuman (2014) when she stated “professors get
good evaluations by teaching to the test and being entertaining” (para. 3), or on Rojstaczer (2012), who reiterated “[s]tudent evaluations are a poor indicator of professor performance. The good news is that college students often reward instructors who teach well. The bad news is that students often conflate good instruction with pleasant ambience and low expectations” (para. 1). This prompted Shuman (2014) to exclaim “[a]sking students to evaluate their professors anonymously is like Trader Joe’s soliciting Yelp reviews from a shoplifter” (para. 5).

This researcher believes that subjectivity on the student’s part further complicates the assessment in online courses. Shuman (2014) reasoning students in online courses, shared “the ‘online disinhibition effect’ both enables and encourages unethical, rash behavior, and today’s digital native students see no difference between evaluations and the abusive nonsense they read (and perhaps create) every day” (para. 18). Additionally, as this researcher has experienced firsthand, when students anonymously provide both quantitative and qualitative responses on SSIs, the quantitative responses that are accompanied by no concomitant qualitative responses do not constructively guide the faculty member in improving their pedagogical methods and/or teaching philosophy. Given that these end of semester evaluation are sometimes used as a ‘catch-all’ end of term assessment for institutions, they can include questions soliciting responses to factors that are outside of the instructor’s control, such as classroom structure/comfort, institutional environment, and access to institutional technology. Despite an instructor’s lack of control over these elements for students, their negative responses to these questions nonetheless may impact the instructor’s overall teaching assessment
adjudicated through responses in evaluation—a perilous comparison for numerous reasons.

Rodin & Rodin (1972), concluded,

present data indicate that students are less than perfect judges of teaching effectiveness if the latter is measured by how much they have learned. If how much students learn is considered to be a major component of good teaching, it must be concluded that good teaching is not validly measured by student evaluations in their current form (p. 1166).

In summary, Shuman (2014) agrees that being able to measure “good teaching” will remain “a touchy, complicated subject, and all solutions involve both massive compromises in pedagogical autonomy and substantial amounts of “service work”—two of professors’ very favorite things,” (para. 12) until such time as “good learning” is incorporated as both an intrinsic and innate factor in the adjudication process.

This researcher believes firmly that the lack of statistical significance revealed through analysis of his study’s responses regarding a relationship between faculty’s self-reported levels of satisfaction and their mode/method of online course design adds strong empirical evidence to the body of literature on this topic. Particularly, as is evidenced by the demographic data collected by the study (see detailed results itemized in Chapters 4 and 5, above), the relationship between faculty rank (e.g. part-time, full-time, tenured vs. non-tenured, etc.), and administrative/institutional support for online course design in terms of self-reported levels of satisfaction are two areas that are worthy of further,
broad-scale investigation as the push for online course design innovation and variety continues throughout the U.S. higher education system.

Additionally, this researcher’s revision of the OFSS has opened the door to future studies in this area, particularly studies which bring the fore innovative and most recent best practices being explored in online course design. As was stated previously—perhaps in the long term, QM will not be the ‘lightbulb’ solution to solve all of the educational woes encountered in online course design by its various stakeholders. However, as has been fully expounded upon throughout this dissertation; at present, QM is the most in-depth and comprehensively researched instructional design resource on the topic of online course design. For this reason particularly and for the many others explored throughout the context of this dissertation, it is worthy of further applications in online course design across educational levels and institutions until such time as evidence and/or application produces a worthwhile alternative.
APPENDIX A

THE 2011-2013 EDITION OF THE QUALITY MATTERS™ RUBRIC
Appendix A: The 2011-2013 edition of the Quality Matters™ Rubric

The reprint of this QM Standards document does not imply the endorsement or support of this research by Quality Matters.

Permission granted for use in this dissertation – Please see Appendix O, below.
APPENDIX B

ANALYSIS OF THE CORRESPONDING ELEMENTS OF THE BEST PRACTICES DOCUMENT AND THE QMR
Appendix B: Analysis of the corresponding elements of the Best Practices document and the QMR.

- Left Column: each of the Best Practices standards that can be measured using the Quality Matters Rubric.
- Middle Column: the corresponding language of the QM Rubric
- Right Column: Comments on the relationship between the Best Practices standards and the QM Rubric.

<table>
<thead>
<tr>
<th>Best Practices</th>
<th>Quality Matters Rubric</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1e. The internal organizational structure which enables the development, coordination, support, and oversight of electronically offered programs will vary from institution to institution. Ordinarily, however, this will include the capability to:</td>
<td>The QM Rubric as a whole.</td>
<td>Adoption of the QM Rubric and its application to specific courses provides indirect evidence that the institution is addressing the issues or organizational structure and resources listed in 1e. Other commitments listed in 1e, such as marketing, academic oversight, and planning for future programs may not be inferred from the implementation of the QM Rubric.</td>
</tr>
</tbody>
</table>
  - Facilitate the associated instructional and technical support relationships.  
  - Provide (or draw upon) the required information technologies and related support services.  
  - Provide training and support to participating instructors and students.  
  - Assure compliance with copyright law.  
  - Contract for products and outsourced services. |
<p>| 1h. The institution provides students with reasonable technical support for each educational technology, hardware, software, and delivery system required in a program. | VI.5 Instructions on how to access resources at a distance are sufficient and easy to understand. <strong>General Review Standard VII:</strong> Courses are effectively supported for students through fully accessible modes of delivery, resources and student support. <strong>VII.1</strong> The course instructions articulate or link to a clear description of the technical support offered. | The QM Rubric verifies whether the institution is providing appropriate technical support and whether the instructor is directing students to these resources appropriately. |
| 1i. The selection of technologies is based on appropriateness for the students and the curriculum. It is recognized that availability, cost, and other issues are often involved, but program documentation should include specific consideration of the match between technology and program. | VI.1 The tools and media support the learning objectives of the course and are integrated with texts and lesson assignments. <strong>VI.3</strong> Technologies required for this course are either provided or easily downloadable. <strong>VI.6</strong> Course technologies take advantage of existing economies and efficiencies of delivery. | The QM Rubric directly addresses the appropriateness, efficiency of the technology used to deliver online courses. Comments by peer reviewers may suggest to the instructor more efficient and cost-effective solutions. |
| 1j. The institution seeks to understand the legal and regulatory requirements of the jurisdictions in which it operates, e.g., requirements for service to those with disabilities, copyright law, state and national requirements for institutions offering educational programs, | IV.5 All resources and materials used in the online course are appropriately cited. <strong>VIII.1</strong> The course acknowledges the importance of ADA requirements <strong>VIII.2</strong> Web pages provide equivalent alternatives to auditory and visual content. | The QM Rubric addresses disabilities and copyright issues directly. It does not address issues of institutional jurisdiction and compliance with state and federal regulation. |</p>
<table>
<thead>
<tr>
<th>VIII.3</th>
<th>Web pages have links that are self-describing and meaningful.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV.2</td>
<td>Instructional materials are presented in a format appropriate to the online environment, and are easily accessible to and usable by the student.</td>
</tr>
<tr>
<td>V.2</td>
<td>Learning activities foster instructor-student, content-student, and if appropriate to this course, student-student interaction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>192</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>international restrictions such as export of sensitive information or technologies, etc.</td>
<td></td>
</tr>
<tr>
<td>• Does institutional documentation indicate an awareness of these requirements and that it has made an appropriate response to them?</td>
<td></td>
</tr>
<tr>
<td>2a. As with all curriculum development and review, the institution assures that each program of study results in collegiate level learning outcomes appropriate to the rigor and breadth of the degree or certificate awarded by the institution….</td>
<td></td>
</tr>
<tr>
<td>• Are related instructional materials appropriate and readily accessible to students?</td>
<td></td>
</tr>
<tr>
<td>2e. The importance of appropriate interaction (synchronous or asynchronous) between instructor and students and among students is reflected in the design of the program and its courses, and in the technical facilities and services provided.</td>
<td></td>
</tr>
<tr>
<td>• Is instructor response to student assignments timely? Does it appear to be appropriately responsive?</td>
<td></td>
</tr>
<tr>
<td>General Review Standard V: The effective design of instructor-student interaction, meaningful student cooperation and student-content interaction is essential to student motivation, intellectual commitment and personal development.</td>
<td></td>
</tr>
<tr>
<td>The QM Rubric directly addresses this issue at the course level.</td>
<td></td>
</tr>
<tr>
<td>The general principle espoused in 2e are fundamental concerns of the QM Rubric at the course level.</td>
<td></td>
</tr>
</tbody>
</table>
|   | VI.3 Clear standards are set for instructor response and availability (turn-around time for email, grade posting, etc.)  
VI.4 The requirements for course interaction are clearly articulated. |
|---|---|
|   | VI.5 The course design prompts the instructor to be present, active, and engaged with the students.  
VI.2 The tools and media enhance student interactivity and guide the student to become a more active learner. |
| 3b. | The institution provides an ongoing program of appropriate technical, design, and production support for participating faculty members.  
The QM Rubric as a whole.  
Institutional commitment to provide faculty with tools, training and support for the design of online courses is indicated by an institutional/programmatic commitment to Quality Matters review and the continuous improvement philosophy that underpins it. Many institutions are now using the rubric standards as a basis for faculty training, course development and course enhancement. |
| 3c. | The institution provides to those responsible for program development the orientation and training to help them become proficient in the uses of the  
The QM Rubric as a whole.  
See previous comment. Since institutions may and typically do include instructional support staff in their implementation of the Quality |
program’s technologies, including potential changes in course design and management.

- What orientation and training programs are available? Are there opportunities for ongoing professional development?
- Is adequate attention paid to pedagogical changes made possible and desirable when information technologies are employed?

| 3d. The institution provides to those responsible for working directly with students the orientation and training to help them become proficient in the uses of the technologies for these purposes, including strategies for effective interaction. |
| VII.2 Course instructions articulate or link to an explanation of how the institution’s academic support system can assist the student in effectively using the resources provided. |
| Matters Rubric, the institutional commitment to training these staff to support online instruction is indicated. |

| 4b. Informing the student: |
| I.6 Minimum technology requirements, minimum student skills, and, if applicable, prerequisite knowledge in the discipline, are clearly stated. |
| The QM Rubric verifies whether the instructor is directing students to these resources appropriately. However, there is no way to directly verify through the rubric that staff members are properly trained for this responsibility. |

<p>| 4b. Informing the student: |
| I.2 A statement introduces the student to the course and to the structure of the student learning. |
| The Best Practices document recommends that students receive this information before enrolling. The QM Rubric can only verify that this information is provided in and through the course. |</p>
<table>
<thead>
<tr>
<th>4d. Sense of community:</th>
<th>See 2e, above, for specific items measured by the QM Rubric.</th>
<th>Adoption of the QM Rubric at the program or institutional level is clear evidence of the intent to involve distant students in the academic community. However, the rubric cannot measure distant students’ involvement in extra-curricular activities or the general life of the institution.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What strategies and practices are implemented by this institution to involve distant students as part of an academic community? By their statements and actions, do administrators and participating faculty members communicate a belief that a sense of academic community is important?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5a. Documented assessment of student achievement is conducted in each course:</td>
<td><strong>General Review Standard III:</strong> Assessment strategies use established ways to measure effective learning, assess student progress by reference to stated learning objectives, and are designed as essential to the learning process. <strong>Annotation on Standard III:</strong> Assessments, learning objectives, and learning activities align in a clear and direct way. The assessment formats provide a reasonable way to measure the stated learning objectives.</td>
<td>The QM rubric can determine whether assessment instruments are appropriately aligned with the objectives of a course, which may, in turn, reflect institutional objectives. However, the rubric cannot directly measure assessment instruments against institutional priorities and objectives.</td>
</tr>
<tr>
<td>• How does the institution review the effectiveness of its distance education programs to assure alignment with institutional priorities and educational objectives?</td>
<td><strong>III.4</strong> The types of assessments selected and the methods used for submitting assessments are The concern to provide students with clear information about how they are to be assessed and evaluated, as indicated in 5a are fundamental.</td>
<td></td>
</tr>
<tr>
<td>5d. Overall program effectiveness is determined by such measures as:</td>
<td>5d. Overall program effectiveness • Measures of the extent to which library and learning resources are used appropriately by the program’s students.</td>
<td>5d. Overall program effectiveness • Measures of the extent to which library and learning resources are used appropriately by the program’s students.</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>The extent to which student learning matches intended outcomes, including for degree programs both the goals of general education and the objectives of the major.</td>
<td>The extent to which student learning matches intended outcomes, including for degree programs both the goals of general education and the objectives of the major.</td>
<td>The extent to which student learning matches intended outcomes, including for degree programs both the goals of general education and the objectives of the major.</td>
</tr>
<tr>
<td>The QM Rubric focuses on the alignment of assessment measures with course objectives, including content mastery, critical thinking skills, and core learning skills at the course level. However, it cannot directly measure correspondence with institutional or programmatic objectives.</td>
<td>The QM Rubric focuses on the alignment of assessment measures with course objectives, including content mastery, critical thinking skills, and core learning skills at the course level. However, it cannot directly measure correspondence with institutional or programmatic objectives.</td>
<td>The QM Rubric focuses on the alignment of assessment measures with course objectives, including content mastery, critical thinking skills, and core learning skills at the course level. However, it cannot directly measure correspondence with institutional or programmatic objectives.</td>
</tr>
<tr>
<td><strong>III.1</strong> The types of assessments selected measure the stated learning objectives and are consistent with course activities and resources.</td>
<td><strong>III.1</strong> The types of assessments selected measure the stated learning objectives and are consistent with course activities and resources.</td>
<td><strong>III.1</strong> The types of assessments selected measure the stated learning objectives and are consistent with course activities and resources.</td>
</tr>
<tr>
<td><strong>III.2</strong> The grading policy is transparent &amp; easy to understand.</td>
<td><strong>III.2</strong> The grading policy is transparent &amp; easy to understand.</td>
<td><strong>III.2</strong> The grading policy is transparent &amp; easy to understand.</td>
</tr>
<tr>
<td><strong>III.3</strong> Assessment and measurement strategies provide feedback to the student.</td>
<td><strong>III.3</strong> Assessment and measurement strategies provide feedback to the student.</td>
<td><strong>III.3</strong> Assessment and measurement strategies provide feedback to the student.</td>
</tr>
<tr>
<td><strong>Annotation on VII.2:</strong> For the purposes of review, academic support includes access to library resources, readiness assessment, testing services, tutoring, a writing</td>
<td><strong>Annotation on VII.2:</strong> For the purposes of review, academic support includes access to library resources, readiness assessment, testing services, tutoring, a writing</td>
<td><strong>Annotation on VII.2:</strong> For the purposes of review, academic support includes access to library resources, readiness assessment, testing services, tutoring, a writing</td>
</tr>
</tbody>
</table>
center, a math center, supplemental instruction programs, and teaching assistants.

**VII.4** Course instructions articulate or link to tutorials and resources that answer basic questions related to research, writing, technology etc.

<table>
<thead>
<tr>
<th>5d. Overall program effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures of student competence in fundamental skills such as communication, comprehension, and analysis.</td>
</tr>
</tbody>
</table>

| II.2 The learning objectives address content mastery, critical thinking skills, and core learning skills. |
|**General Review Standard IV:** Instructional materials are sufficiently comprehensive to achieve announced objectives and learning outcomes and are prepared by qualified persons competent in their fields. |
| The QM Rubric verifies that critical thinking and core learning skills, including communication, comprehension and analysis, are incorporated into course objectives, fostered through the resources and materials of the course and measured through course assessments |

Legon, 2006 pp. 4-7
APPENDIX C

ORIGINAL ONLINE FACULTY SATISFACTION SURVEY INSTRUMENT
Appendix C: Original Online Faculty Satisfaction Survey instrument.

1. The level of my interactions with students in the online course is higher than in a traditional face-to-face class.
2. The flexibility provided by the online environment is important to me.
3. My online students are actively involved in their learning.
4. I incorporate fewer resources when teaching an online course as compared to traditional teaching.*
5. The technology I use for online teaching is reliable.
6. I have a higher workload when teaching an online course as compared to the traditional one.*
7. I miss face-to-face contact with students when teaching online.*
8. I do not have any problems controlling my students in the online environment.
9. I look forward to teaching my next online course.
10. My students are very active in communicating with me regarding online course matters.
11. I appreciate that I can access my online course any time at my convenience.
12. My online students are more enthusiastic about their learning than their traditional counterparts.
13. I have to be more creative in terms of the resources used for the online course.*
14. Online teaching is often frustrating because of technical problems.*
15. It takes me longer to prepare for an online course on a weekly basis than for a face-to-face course.*
16. I am satisfied with the use of communication tools in the online environment (e.g., chat rooms, threaded discussions, etc.).
17. I am able to provide better feedback to my online students on their performance in the course.
18. I am more satisfied with teaching online as compared to other delivery methods.
19. My online students are somewhat passive when it comes to contacting the faculty regarding course related matters.*
20. It is valuable to me that my students can access my online course from any place in the world.
21. The participation level of my students in the class discussions in the online setting is lower than in the traditional one.*
22. My students use a wider range of resources in the online setting than in the traditional one.
23. Technical problems do not discourage me from teaching online.
24. I receive fair compensation for online teaching.
25. Not meeting my online students face-to-face prevents me from knowing them as well as my on-site students.*
26. I am concerned about receiving lower course evaluations in the online course as compared to the traditional one.*
27. Online teaching is gratifying because it provides me with an opportunity to reach students who otherwise would not be able to take courses.
28. It is more difficult for me to motivate my students in the online environment than in the traditional setting.*

*Recoded scale item.

(Bolliger & Wasilik, 2009, p. 108)
APPENDIX D

RESEARCHER ADJUSTED OFSS [OFSS-R] INSTRUMENT FOR THIS STUDY
Appendix D: Researcher Adjusted OFSS [OFSS-R] instrument for this study.

INTRODUCTORY QUESTIONS


2. Number of years teaching at the university level [0-5; 6-10; 11-15; 16-20; more than 20]

3. Number of years teaching online courses at the university level [0-5; 6-10; 11-15; 16-20; more than 20]

4. Total number of online courses taught at the university level [0-5; 6-10; 11-15; 16-20; more than 20]

5. Per academic year, approximately what proportion of normal teaching load is dedicated to fully online teaching? [1-20%; 21-40%; 41-60%; 61-80%; >80%]

6. On average per year, how often attend online education training sessions offered at home institution? [*Always; Often; Sometimes; Rarely; Never*]

7. How familiar are you with the 2011-13 Quality Matters™ Rubric? [*Very familiar, Somewhat familiar, Not very familiar, Not at all familiar*]

8. Have you undergone any Quality Matters™ Training? [Yes/No] [If NO, branch to 11]

9. Please choose all the Quality Matters™ Training sessions that you have undergone [Multiple Answer]

10. Have you used, either independently or with assistance, the 2011-13 Quality Matters™ Rubric to design any of your online courses BUT have not gone on to teach any courses you designed with the 2011-13 Quality Matters™ Rubric? [Yes/No] [If NO branch to 12].

11. Not having being trained to use the 2011-13 Quality Matters™ Rubric, did you nonetheless go on to design an online course [or courses] either independently or with assistance, using the 2011-13 Quality Matters™ Rubric and then go on to teach that/those online course/s you designed? [Yes/No] [If NO branch to 14].

12. Having been trained to use the 2011-13 Quality Matters™ Rubric, but not having designed an online course using the 2011-13 Quality Matters™ Rubric, have you then taught an online course [or courses] that was/were designed by someone else that applied the QMR to design that/those course/s? [Yes/No]

13. Have you used, either independently or with assistance, the 2011-13 Quality Matters™ Rubric to design any of your online courses AND have then gone on to teach a course [or courses] you designed with the 2011-13 Quality Matters™ Rubric? [Yes/No]

14. Have you participated in any other online education training outside of your institution? [Yes/No] [If NO branch to 16]
15. Please give the name of the other training for online education that you attended and the name of the institution that provided the training. [Text input]

OFSS QUESTIONS

The responses forward are 4-point Likert Scale (1-strongly agree, 2-agree, 3-disagree and 4-strongly disagree)

Note: * Due to the obverse wording of these questions, concomitant responses will be recoded to maintain statistical integrity.

16. The level of my interactions with students in an online course is higher than in a traditional face-to-face class.
17. The flexibility provided by the online environment is important to me.
18. My online students are actively involved in their learning.
19. I incorporate fewer resources when teaching an online course as compared to traditional teaching.*
20. The technology I use for online teaching is reliable.
21. I have a higher workload when teaching an online course as compared to the traditional one.*
22. I miss face-to-face contact with students when teaching online.*
23. I do not have any problems controlling my students in the online environment.
24. I look forward to teaching my next online course.
25. My students are very active in communicating with me regarding online course matters.
26. I appreciate that I can access my online course any time at my convenience.
27. My online students are more enthusiastic about their learning than their traditional counterparts.
28. I have to be more creative in terms of the resources used for the online course.*
29. Online teaching is often frustrating because of technical problems.*
30. It takes me longer to prepare for an online course on a weekly basis than for a face-to-face course.*
31. I am satisfied with the use of communication tools in the online environment (e.g., chat rooms, threaded discussions, etc.).
32. I am able to provide better feedback to my online students on their performance in the course.
33. I am more satisfied with teaching online as compared to other delivery methods.
34. My online students are somewhat passive when it comes to contacting the faculty regarding course related matters.*

35. It is valuable to me that my students can access my online course from any place in the world.

36. The participation level of my students in the class discussions in the online setting is lower than in the traditional one.*

37. My students use a wider range of resources in the online setting than in the traditional one.

38. Technical problems do not discourage me from teaching online.

39. I receive fair compensation for online teaching.

40. Not meeting my online students face-to-face prevents me from knowing them as well as my on-site students.*

41. I am concerned about receiving lower course evaluations in the online course as compared to the traditional one.*

42. Online teaching is gratifying because it provides me with an opportunity to reach students who otherwise would not be able to take courses.

43. It is more difficult for me to motivate my students in the online environment than in the traditional setting.*

DEMOGRAPHIC QUESTIONS

44. Please indicate whether your institution is public or private [Check one]

45. Faculty Type: Tenured, Tenure Track, Non-Tenure Track, Adjunct, Other [Please explain] [Choose One]

46. Faculty Rank: [choices Professor, Associate Professor, Assistant Professor, Lecturer, Instructor] [Choose One].

47. Sex [Female, Male, Choose not to answer]

48. Age-range [Under 25; 25-34; 35-44; 45-54; 55-64; Over 65; Choose not to answer]

49. Race/Ethnicity? [Hispanic or Latino; American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or Other Pacific Islander; White; Biracial; Choose not to answer]

50. Native or first language [Drop Down, Choose not to answer]
APPENDIX E

VARIABLES WITH ASSOCIATED EXPLANATIONS AND DESCRIPTIONS
Appendix E: Variables with associated explanations and descriptions

<table>
<thead>
<tr>
<th>#</th>
<th>Actual Q No.</th>
<th>Var_Name</th>
<th>Title of Question</th>
<th>Available Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RESP_ID</td>
<td>RESP_IDNO</td>
<td>Response Identification Autonumber</td>
<td>Number sequence 1-427</td>
</tr>
<tr>
<td>2</td>
<td>RESP_LOC</td>
<td>RESP_LOCN</td>
<td>Respondent Location</td>
<td>O=Other; K=Kent</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>INTRODUCTORY QUESTIONS</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Q1</td>
<td>COMP_PROF</td>
<td>1. Please indicate your computer proficiency</td>
<td>Beginner [1]; Intermediate [2]; Advanced [3]</td>
</tr>
<tr>
<td>4</td>
<td>Q2</td>
<td>YRTC_UNIV</td>
<td>2. Please indicate the number range of years you have been teaching at the university level</td>
<td>0-5 [1]; 6-10 [2]; 11-15 [3]; 16-20 [4]; &gt;20 [5]</td>
</tr>
<tr>
<td>5</td>
<td>Q3</td>
<td>YTTC_UNOL</td>
<td>3. Please indicate the number range of years you have been teaching online courses at the university level</td>
<td>&lt;1 [1]; 1-5 [2]; 6-10 [3]; &gt;10 [4]</td>
</tr>
<tr>
<td>6</td>
<td>Q4</td>
<td>YTTC_FOLC</td>
<td>4. Please indicate the number range of how many fully online courses* you have taught at the university level [*According to Picciano &amp; Dziuban (2007), a fully online course is defined as one where more than 80% of the course interaction is online]</td>
<td>1-2[1]; 3-5 [2]; 5-10 [3]; &gt;10 [4]</td>
</tr>
<tr>
<td>7</td>
<td>Q5</td>
<td>YTTC_LOAD</td>
<td>5. Per academic year, approximately what proportion of your normal teaching load is dedicated to fully online teaching?</td>
<td>1-20% [1]; 21-40% [2]; 41-60% [3]; 61-80% [4]; &gt;80% [5]</td>
</tr>
<tr>
<td>8</td>
<td>Q6</td>
<td>TRAI_YEAR</td>
<td>6. Per year, how often do you attend the online education training sessions offered at your institution?</td>
<td>Always [1]; Often [2]; Sometimes [3]; Rarely [4]; Never [5]</td>
</tr>
<tr>
<td>10</td>
<td>Q8</td>
<td>QMRR_TRAI</td>
<td>8. Have you undergone any Quality MattersTM Training?</td>
<td>Yes [1]; No [2]</td>
</tr>
</tbody>
</table>

**SKIP LOGIC: ANSWER YES [1] - Go to Q9 and then Q10; ANSWER NO [2] - Go to Q11**
| Q9 | Q9_1 | QMR1_TR01 | 9.1 Applying the QM Rubric (APPQMR) | Yes [1]; No [Blank] |
| Q9_2 | QMR1_TR02 | 9.2 Designing Your Online Course (DYOC) | Yes [1]; No [Blank] |
| Q9_3 | QMR1_TR03 | 9.3 Designing Your Blended Course (DYBC) | Yes [1]; No [Blank] |
| Q9_4 | QMR1_TR04 | 9.4 Improving Your Online Course (IYOC) | Yes [1]; No [Blank] |
| Q9_5 | QMR1_TR05 | 9.5 Teaching Online-An Introduction to Online Delivery (TOL) | Yes [1]; No [Blank] |
| Q9_6 | QMR1_TR06 | 9.6 Design That Welcomes Your Students (ST1/7) | Yes [1]; No [Blank] |
| Q9_7 | QMR1_TR07 | 9.7 Creating a Foundation with Learning Objectives (ST2) | Yes [1]; No [Blank] |
| Q9_8 | QMR1_TR08 | 9.8 Connecting Learning Objectives and Assessments (ST2/3) | Yes [1]; No [Blank] |
| Q9_9 | QMR1_TR09 | 9.9 Linking Instructional Materials and Learner Engagement (ST4/5) | Yes [1]; No [Blank] |
| Q9_10 | QMR1_TR10 | 9.10 Choosing and Using Media Effectively (ST6) | Yes [1]; No [Blank] |
| Q9_11 | QMR1_TR11 | 9.11 Addressing Accessibility (ST8) | Yes [1]; No [Blank] |
| Q10 | HYPO_001A | 10. Have you used, either independently or with assistance, the 2011-13 Quality Matters™ Rubric to design any of your online courses BUT have not gone on to teach any courses you designed with the 2011-13 Quality Matters™ Rubric? | Yes [1]; No [2] |

**SKIP LOGIC:** ANSWER YES [1] - Go to Q11; ANSWER NO [2] - Go to Q12

<p>| Q11 | HYPO_001B | 11. Not having being trained to use the 2011-13 Quality Matters™ Rubric, did you nonetheless go on to design an online course [or courses] either independently or with assistance, using the 2011-13 Quality Matters™ Rubric and then go on to teach that/those online course/s you designed? | Yes [1]; No [2] |</p>
<table>
<thead>
<tr>
<th>Question Number</th>
<th>Question Text</th>
<th>Answer Options</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q12</td>
<td>12. Having been trained to use the 2011-13 Quality Matters Rubric, but not having designed an online course using the 2011-13 Quality Matters Rubric, have you then taught an online course [or courses] that was/were designed by someone else that applied the QMR to design that/those course/s?</td>
<td>Yes 1; No 2</td>
<td></td>
</tr>
<tr>
<td>Q15_5_TEX</td>
<td>OTER_TR3B</td>
<td>Name of other training course</td>
<td>Course Name</td>
</tr>
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<td>-----------</td>
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<td>-------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Q15_6</td>
<td>OTER_TR3C</td>
<td>Have taken at other institution</td>
<td>Yes [1]; No [Blank]</td>
</tr>
<tr>
<td>Q15_6_TEX</td>
<td>OTER_TR3D</td>
<td>Name of other institution name</td>
<td>Institution Name</td>
</tr>
<tr>
<td>Q15_7</td>
<td>OTER_TR4A</td>
<td>Have taken other course</td>
<td>Yes [1]; No [Blank]</td>
</tr>
<tr>
<td>Q15_7_TEX</td>
<td>OTER_TR4B</td>
<td>Name of other training course</td>
<td>Course Name</td>
</tr>
<tr>
<td>Q15_8</td>
<td>OTER_TR4C</td>
<td>Have taken at other institution</td>
<td>Yes [1]; No [Blank]</td>
</tr>
<tr>
<td>Q15_8_TEX</td>
<td>OTER_TR4D</td>
<td>Name of other institution name</td>
<td>Institution Name</td>
</tr>
</tbody>
</table>

**ONLINE FACULTY SATISFACTION QUESTIONS**

<table>
<thead>
<tr>
<th>Q16</th>
<th>1STU_0001</th>
<th>16. The level of my interactions with students in the fully online course is higher than in a traditional face-to-face class.</th>
<th>Strongly Agree [1]; Agree [2]; Disagree [3]; Strongly Disagree [4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q17</td>
<td>1STU_0002</td>
<td>17. The flexibility provided by the fully online environment is important to me.</td>
<td>Strongly Agree [1]; Agree [2]; Disagree [3]; Strongly Disagree [4]</td>
</tr>
<tr>
<td>Q18</td>
<td>1STU_0003</td>
<td>18. My fully online students are actively involved in their learning.</td>
<td>Strongly Agree [1]; Agree [2]; Disagree [3]; Strongly Disagree [4]</td>
</tr>
<tr>
<td>Q19*</td>
<td>2INS_0001</td>
<td>19. I incorporate fewer resources when teaching a fully online course as compared to traditional teaching.</td>
<td>Strongly Disagree [1]; Disagree [2]; Agree [3]; Strongly Agree [4]</td>
</tr>
<tr>
<td>Q20</td>
<td>2INS_0002</td>
<td>20. The technology I use for fully online teaching is reliable.</td>
<td>Strongly Agree [1]; Agree [2]; Disagree [3]; Strongly Disagree [4]</td>
</tr>
<tr>
<td>Q21*</td>
<td>3KSU_0001</td>
<td>21. I have a higher workload when teaching a fully online course as compared to the traditional one.</td>
<td>Strongly Disagree [1]; Disagree [2]; Agree [3]; Strongly Agree [4]</td>
</tr>
<tr>
<td>Q22*</td>
<td>1STU_0004</td>
<td>22. I miss face-to-face contact with students when teaching fully online.</td>
<td>Strongly Disagree [1]; Disagree [2]; Agree [3]; Strongly Agree [4]</td>
</tr>
<tr>
<td>Q23</td>
<td>2INS_0003</td>
<td>23. I do not have any problems controlling my students in the fully online environment.</td>
<td>Strongly Agree [1]; Agree [2]; Disagree [3]; Strongly Disagree [4]</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>51</td>
<td>Q24</td>
<td>1NIL_0001</td>
<td>24. I look forward to teaching my next fully online course.</td>
</tr>
<tr>
<td>52</td>
<td>Q25</td>
<td>1STU_0005</td>
<td>25. My students are very active in communicating with me regarding fully online course matters.</td>
</tr>
<tr>
<td>53</td>
<td>Q26</td>
<td>1STU_0006</td>
<td>26. I appreciate that I can access my fully online course any time, and at my convenience.</td>
</tr>
<tr>
<td>54</td>
<td>Q27</td>
<td>1STU_0007</td>
<td>27. My fully online students are more enthusiastic about their learning than their traditional counterparts.</td>
</tr>
<tr>
<td>55</td>
<td>Q28*</td>
<td>2INS_0004</td>
<td>28. I have to be more creative in terms of the resources used for the fully online course.</td>
</tr>
<tr>
<td>56</td>
<td>Q29*</td>
<td>2INS_0005</td>
<td>29. Fully online teaching is often frustrating because of technical problems.</td>
</tr>
<tr>
<td>57</td>
<td>Q30*</td>
<td>3KSU_0002</td>
<td>30. It takes me longer to prepare for an online course on a weekly basis than for a face-to-face course.</td>
</tr>
<tr>
<td>58</td>
<td>Q31</td>
<td>1STU_0008</td>
<td>31. I am satisfied with the use of communication tools in the fully online environment (e.g., chat rooms, threaded discussions, etc.).</td>
</tr>
<tr>
<td>59</td>
<td>Q32</td>
<td>1STU_0009</td>
<td>32. I am able to provide better feedback to my fully online students on their performance in the course.</td>
</tr>
<tr>
<td>60</td>
<td>Q33</td>
<td>1NIL_0002</td>
<td>33. I am more satisfied with teaching fully online as compared to other course delivery methods.</td>
</tr>
<tr>
<td>61</td>
<td>Q34*</td>
<td>1STU_0019</td>
<td>34. My fully online students are somewhat passive when it comes to contacting the faculty regarding course related matters.</td>
</tr>
<tr>
<td>62</td>
<td>Q35</td>
<td>1STU_0020</td>
<td>35. It is valuable to me that my students can access my fully online course from any place in the world.</td>
</tr>
<tr>
<td>63</td>
<td>Q36*</td>
<td>1STU_0012</td>
<td>36. The participation level of my students in the class discussions in the fully online setting is lower than in the traditional one.</td>
</tr>
<tr>
<td></td>
<td>Q</td>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>-----</td>
<td>-----------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>64</td>
<td>Q37</td>
<td>2INS_0006</td>
<td>37. My students use a wider range of resources in the fully online setting than in the traditional one.</td>
</tr>
<tr>
<td>65</td>
<td>Q38</td>
<td>2INS_0007</td>
<td>38. Technical problems do not discourage me from teaching fully online.</td>
</tr>
<tr>
<td>67</td>
<td>Q40*</td>
<td>1STU_0013</td>
<td>40. Not meeting with my fully online students face-to-face prevents me from knowing them as well as my on-site students.</td>
</tr>
<tr>
<td>68</td>
<td>Q41</td>
<td>3KSU_0004</td>
<td>41. I am concerned about receiving lower course evaluations in the fully online course as compared to the traditional one.</td>
</tr>
<tr>
<td>69</td>
<td>Q42</td>
<td>1STU_0014</td>
<td>42. Fully online teaching is gratifying because it provides me with an opportunity to reach students who otherwise would not be able to take courses.</td>
</tr>
<tr>
<td>70</td>
<td>Q43*</td>
<td>1STU_0015</td>
<td>43. It is more difficult for me to motivate my students in the fully online environment than in the traditional setting.</td>
</tr>
</tbody>
</table>

*Reverse Coded*
**DEMOGRAPHIC QUESTIONS**

<table>
<thead>
<tr>
<th>Q44</th>
<th>DEMO_PUPR</th>
<th>44. Please indicate whether your institution is public or private</th>
<th>Public [1]; Private [2]</th>
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<tbody>
<tr>
<td>Q45</td>
<td>DEMO_FTYP</td>
<td>45. Please indicate your faculty type</td>
<td>Tenured [1]; Tenure Track [2]; Full Time NTT [3]; Part-Time [4]; Other [Please Identify] [5]</td>
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<tr>
<td>Q45_TEXT</td>
<td>DEMO_FAOT</td>
<td>45. Please indicate your faculty type-TEXT</td>
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<td>Q46</td>
<td>DEMO_FRNK</td>
<td>46. Please indicate your faculty rank</td>
<td>Professor [1]; Associate Professor [2]; Assistant Professor [3]; Lecturer [4]; Instructor [5]</td>
</tr>
<tr>
<td>Q47</td>
<td>DEMO_MAFE</td>
<td>47. Please indicate your sex</td>
<td>Male [1]; Female [2]; Choose not to answer [3]</td>
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<tr>
<td>Q48</td>
<td>DEMO_AGER</td>
<td>48. Please indicate your age-range</td>
<td>&lt;25 [1]; 25-34 [2]; 35-44 [3]; 45-54 [4]; 55-64 [5]; &gt;65 [6]; Choose not to answer [7]</td>
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<td>49. Please indicate your race/ethnicity</td>
<td>Hispanic or Latino [1]; American Indian or Alaska Native [2]; Asian [3]; Black or African American [4]; Native Hawaiian or Other Pacific Islander [5]; White [6]; Bi-Racial [7]; Choose not to answer [8];</td>
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<td>50. Please indicate your native or first language-Please choose 1</td>
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APPENDIX F

THE COMMUNITY OF INQUIRY MODEL
Appendix F: The Community of Inquiry Model

http://communitiesofinquiry.com/model

APPENDIX G

ORGANIZATION STRUCTURE OF THE COUNCIL FOR HIGHER EDUCATION ACCREDITATION [CHEA]
Appendix G: Organization structure of The Council for Higher Education Accreditation [CHEA]

- New England Association of Schools and Colleges (NEASC)
  - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Europe, Africa, Asia and the Middle East.

- Middle States Association of Schools and Colleges (MSA)

- Southern Association of Schools and Colleges (SACS)
  - Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North/South Carolina, Tennessee, Texas, Virginia and Latin America.

- Western Association of Schools and Colleges (WASC)
  - California, Hawaii, Guam, American Samoa, Palau, Micronesia, Northern Marianas, Marshall Islands & Australasian locations.

- North Central Association of Colleges and Schools (NCA)
  - Arkansas, Arizona, Colorado, Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, Oklahoma, New Mexico, South Dakota, Wisconsin, West Virginia & Wyoming.

- Northwest Association of Schools and Colleges (NWCCU)

Higher Learning Commission (HLC)
- An independent corporation—oversees higher education accreditation, providing institution-level accreditation of degree-granting colleges and universities.
- Kent State University - approved under HLC policy to offer up to 5% of its total degree programs through distance education.
APPENDIX H

PUBLIC AND PRIVATE FOUR-YEAR HIGHER EDUCATION INSTITUTIONS IN
THE STATE OF OHIO
Appendix H: Public/Private Four-year Higher Education Institutions in Ohio

<table>
<thead>
<tr>
<th>PRIVATE</th>
<th>Level of Participation</th>
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<tbody>
<tr>
<td>1  Ashland University</td>
<td>Declined to participate</td>
</tr>
<tr>
<td>2  Capital University</td>
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</tr>
<tr>
<td>3  Capital University</td>
<td>Declined to participate</td>
</tr>
<tr>
<td>4  Cedarville University</td>
<td>Declined to participate</td>
</tr>
<tr>
<td>5  Cincinnati Christian University</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>6  Franciscan University of Steubenville</td>
<td>Full Participation</td>
</tr>
<tr>
<td>7  Hiram College</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>8  Kettering College of Medical Arts</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>9  Lourdes College</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>10  Malone University</td>
<td>Full Participation</td>
</tr>
<tr>
<td>11  Mercy College of Northwest Ohio</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>12  Mount Carmel College of Nursing</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>13  North Central State College</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>14  Notre Dame College</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>15  Ohio Northern University</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>16  The Christ College of Nursing &amp; Health Sciences</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>17  Otterbein University</td>
<td>Full Participation</td>
</tr>
<tr>
<td>18  Tiffin University</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>19  Union Institute and University</td>
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</tr>
<tr>
<td>20  University of Dayton</td>
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</tr>
<tr>
<td>21  University of Findlay</td>
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<tr>
<td>22  University of Mount Union</td>
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</tr>
<tr>
<td>23  University of Northwestern Ohio</td>
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</tr>
<tr>
<td>24  University of Rio Grande</td>
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</tr>
<tr>
<td>25  Ursuline College</td>
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</tr>
<tr>
<td>26  Walsh University</td>
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</tr>
<tr>
<td>27  Xavier University</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PUBLIC</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1  Bowling Green State University</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>2  Central State University</td>
<td>Declined to participate</td>
</tr>
<tr>
<td>3  Cleveland State University</td>
<td>Full Participation</td>
</tr>
<tr>
<td>4  Kent State University System</td>
<td>Full Participation</td>
</tr>
<tr>
<td>5  Miami University</td>
<td>No response to Survey request</td>
</tr>
<tr>
<td>6  Ohio University</td>
<td>Declined to participate</td>
</tr>
<tr>
<td>7  Shawnee State University</td>
<td>Full Participation</td>
</tr>
<tr>
<td>8  The Ohio State University</td>
<td>Declined to participate</td>
</tr>
<tr>
<td>9  University of Akron</td>
<td>Full Participation</td>
</tr>
<tr>
<td>10  University of Cincinnati Main Campus</td>
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</tr>
<tr>
<td>11  University of Toledo</td>
<td>Declined to participate</td>
</tr>
<tr>
<td>12  Wright State University</td>
<td>Originally agreed, however no response to Survey request</td>
</tr>
<tr>
<td>13  Youngstown State University</td>
<td>Full Participation</td>
</tr>
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</table>
APPENDIX I

Appendix I: Comparison of the evolution of the QMR – third (2008-2010); fourth (2011-2013) and fifth (2014) editions

The reprint of this QM Standards document does not imply the endorsement or support of this research by Quality Matters.

Permission granted for use in this dissertation – Please see Appendix O, below.

Column Legend: 1: Sub-standard; 2: Description; 3: Point Value

| 2008-10 | 1.1 Instructions make clear how to get started and where to find various course components. | 3 | 2011-13 | 1.1 Instructions make clear how to get started and where to find various course components. | 3 | 2014 | 1.1 Instructions make clear how to get started and where to find various course components. | 3 |
| 1.2 A statement introduces the student to the purpose of the course and its components; in the case of a hybrid course, the statement clarifies the relationship between the face-to-face and online components. | 3 | 1.2 Students are introduced to the purpose and structure of the course. | 3 | 1.2 Learners are introduced to the purpose and structure of the course. | 3 |
| 1.3 Etiquette expectations (sometimes called “netiquette”) for online discussions, email, and other forms of communication are stated clearly. | 1 | 1.3 Etiquette expectations (sometimes called “netiquette”) for online discussions, email, and other forms of communication are stated clearly. | 2 | 1.3 Etiquette expectations (sometimes called “netiquette”) for online discussions, email, and other forms of communication are clearly stated. | 2 |
| Course Overview and Introduction | 1.4 The self-introduction by the instructor is appropriate and available online. | 1 | 1.4 Course and/or institutional policies with which the student is expected to comply are clearly stated, or a link to current policies is provided. | 2 | 1.4 Course and/or institutional policies with which the learner is expected to comply are clearly stated, or a link to current policies is provided. | 2 |
| 1.5 Students are asked to introduce themselves to the class. | 1 | 1.5 Prerequisite knowledge in the discipline and/or any required competencies are clearly stated. | 1 | 1.5 Minimum technology requirements are clearly stated and instructions for use provided. | 2 |
| 1.6 Minimum student preparation, and, if applicable, prerequisite knowledge in the discipline are clearly stated. | 1 | 1.6 Minimum technical skills expected of the student are clearly stated. | 1 | 1.6 Prerequisite knowledge in the discipline and/or any required competencies are clearly stated. | 1 |
| 1.7 Minimum technical skills expected of the student are clearly stated. | 1 | 1.7 The self-introduction by the instructor is appropriate and available online. | 1 | 1.7 Minimum technical skills expected of the learner are clearly stated. | 1 |
| 1.8 Students are asked to introduce themselves to the class. | 1 | | | 1.8 The self-introduction by the instructor is appropriate and is available online. | 1 |
| | | | | 1.9 Learners are asked to introduce themselves to the class. | 1 |

Standard Total 11  Standard Total 14  Standard Total 16
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<tr>
<th>Learning Objectives</th>
<th>2008-10</th>
<th>2011-13</th>
<th>2014</th>
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<tr>
<td>2.1 The course learning objectives describe outcomes that are measurable.</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.2 The module/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives.</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.3 All learning objectives are stated clearly and written from the students’ perspective.</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.4 Instructions to students on how to meet the learning objectives are adequate and stated clearly.</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.5 The learning objectives are appropriately designed for the level of the course.</td>
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<td>2</td>
<td>3</td>
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<table>
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<th>2011-13</th>
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<tr>
<td>2.1 The course learning objectives describe outcomes that are measurable.</td>
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<td>2.3 All learning objectives are stated clearly and written from the students’ perspective.</td>
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<td>2.4 Instructions to students on how to meet the learning objectives are adequate and stated clearly.</td>
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</tr>
<tr>
<td>2.5 The learning objectives are appropriately designed for the level of the course.</td>
<td>2</td>
<td>2</td>
<td>3</td>
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</table>

### Standard Total

- **Assessment and Measurement**
  - 3.1 The types of assessments selected measure the stated learning objectives and are consistent with course activities and resources. | 3 |
  - 3.2 The course grading policy is stated clearly. | 3 |
  - 3.3 Specific and descriptive criteria are provided for the evaluation of students’ work and participation. | 3 |
  - 3.4 The assessment instruments selected are sequenced, varied, and appropriate to the content being assessed. | 2 |
  - 3.5 “Self-check” or practice assignments are provided, with timely feedback to students. | 2 |
  - **Total**: 14

- **Learning Objectives**
  - 2.1 The course learning objectives describe outcomes that are measurable. | 3 |
  - 2.2 The module/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives. | 3 |
  - 2.3 All learning objectives are stated clearly and written from the students’ perspective. | 3 |
  - 2.4 Instructions to students on how to meet the learning objectives are adequate and stated clearly. | 3 |
  - 2.5 The learning objectives are appropriately designed for the level of the course. | 2 |
  - **Total**: 15

- **Learning Objectives (Competencies)**
  - 2.1 The course learning objectives describe outcomes that are measurable. | 3 |
  - 2.2 The module/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives. | 3 |
  - 2.3 All learning objectives are stated clearly and written from the students’ perspective. | 3 |
  - 2.4 Instructions to students on how to meet the learning objectives are adequate and stated clearly. | 3 |
  - 2.5 The learning objectives are appropriately designed for the level of the course. | 2 |
  - **Total**: 15

### Standard Total

- **Assessment and Measurement**
  - 3.1 The types of assessments selected measure the stated learning objectives or competencies. | 3 |
  - 3.2 The course grading policy is stated clearly. | 3 |
  - 3.3 Specific and descriptive criteria are provided for the evaluation of learners’ work and are tied to the course grading policy. | 3 |
  - 3.4 The assessment instruments selected are sequenced, varied, and suited to the learner work being assessed. | 2 |
  - 3.5 The course provides learners with multiple opportunities to track their learning progress. | 2 |
  - **Total**: 13

- **Learning Objectives**
  - 2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable. | 3 |
  - 2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies. | 3 |
  - 2.3 All learning objectives or competencies are stated clearly and written from the learner’s perspective. | 3 |
  - 2.4 The relationship between learning objectives or competencies and course activities is clearly stated. | 3 |
  - 2.5 The learning objectives or competencies are suited to the level of the course. | 3 |
  - **Total**: 13

- **Learning Objectives (Competencies)**
  - 2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable. | 3 |
  - 2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies. | 3 |
  - 2.3 All learning objectives or competencies are stated clearly and written from the learner’s perspective. | 3 |
  - 2.4 The relationship between learning objectives or competencies and course activities is clearly stated. | 3 |
  - 2.5 The learning objectives or competencies are suited to the level of the course. | 3 |
  - **Total**: 13
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## Learner Interaction and Engagement

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## Course Activities and Learner Interaction

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<td>5.2</td>
<td>3</td>
</tr>
<tr>
<td>5.3</td>
<td>3</td>
</tr>
<tr>
<td>5.4</td>
<td>2</td>
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<tr>
<td><strong>Standard Total</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

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<table>
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<tr>
<td>2008-10</td>
<td>1</td>
</tr>
<tr>
<td>2011-13</td>
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</tr>
<tr>
<td>2014</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Course Technology</td>
<td>6.1 The tools and media support the learning objectives, and are appropriately chosen to deliver the content of the course.</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>6.2 The tools and media support student engagement and guide the student to become an active learner.</td>
</tr>
<tr>
<td></td>
<td>6.3 Navigation throughout the online components of the course is logical, consistent, and efficient.</td>
</tr>
<tr>
<td></td>
<td>6.4 Students have ready access to the technologies required in the course.</td>
</tr>
<tr>
<td></td>
<td>6.5 The course components are compatible with current standards for delivery modes.</td>
</tr>
<tr>
<td></td>
<td>6.6 Instructions on how to access resources at a distance are sufficient and easy to understand.</td>
</tr>
<tr>
<td></td>
<td>6.7 The course design takes full advantage of available tools and media.</td>
</tr>
</tbody>
</table>

| Standard Total                         | 14 |

| 6.1 The tools and media support the course learning objectives. | 3 |
| 6.2 Course tools and media support student engagement and guide the student to become an active learner. | 3 |
| 6.3 Navigation throughout the online components of the course is logical, consistent, and efficient. | 3 |
| 6.4 Students can readily access the technologies required in the course. | 2 |
| 6.5 The course technologies are current. | 1 |

| Standard Total | 12 |

| 6.1 The tools used in the course support the learning objectives and competencies. | 3 |
| 6.2 Course tools promote learner engagement and active learning. | 3 |
| 6.3 Technologies required in the course are readily obtainable. | 2 |
| 6.4 The course technologies are current. | 1 |
| 6.5 Links are provided to privacy policies for all external tools required in the course. | 1 |

<p>| Standard Total | 10 |</p>
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<th>Standard</th>
<th>Total</th>
<th>Standard</th>
<th>Total</th>
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<tr>
<td>Learner Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>The course instructions articulate or link to a clear description of the technical support offered.</td>
<td>2</td>
<td>7.1</td>
<td>The course instructions articulate or link to a clear description of the technical support offered and how to access it.</td>
<td>3</td>
</tr>
<tr>
<td>7.2</td>
<td>Course instructions articulate or link to an explanation of how the institution’s academic support system can assist the student in effectively using the resources provided.</td>
<td>2</td>
<td>7.2</td>
<td>Course instructions articulate or link to the institution’s accessibility policies and services.</td>
<td>3</td>
</tr>
<tr>
<td>7.3</td>
<td>Course instructions articulate or link to an explanation of how the institution’s student support services can help students reach their educational goals.</td>
<td>1</td>
<td>7.3</td>
<td>Course instructions articulate or link to an explanation of how the institution’s academic support services and resources can help students succeed in the course and how students can access the services.</td>
<td>2</td>
</tr>
<tr>
<td>7.4</td>
<td>Course instructions answer basic questions related to research, writing, technology, etc., or link to tutorials or other resources that provide the information.</td>
<td>1</td>
<td>7.4</td>
<td>Course instructions articulate or link to an explanation of how the institution’s student support services can help students succeed and how students can access the services.</td>
<td>1</td>
</tr>
<tr>
<td>Standard Total</td>
<td>6</td>
<td>Standard Total</td>
<td>9</td>
<td>Standard Total</td>
<td>9</td>
</tr>
<tr>
<td>Accessibility</td>
<td></td>
<td></td>
<td></td>
<td>Accessibility and Usability</td>
<td></td>
</tr>
<tr>
<td>8.1</td>
<td>The course incorporates ADA standards and reflect conformance with institutional policy regarding accessibility in online and hybrid courses.</td>
<td>3</td>
<td>8.1</td>
<td>Course navigation facilitates ease of use.</td>
<td>3</td>
</tr>
<tr>
<td>8.2</td>
<td>Course pages and course materials provide equivalent alternatives to auditory and visual content.</td>
<td>2</td>
<td>8.2</td>
<td>The course contains equivalent alternatives to auditory and visual content.</td>
<td>2</td>
</tr>
<tr>
<td>8.3</td>
<td>Course pages have links that are self-describing and meaningful.</td>
<td>2</td>
<td>8.3</td>
<td>The course design facilitates readability and minimizes distractions.</td>
<td>2</td>
</tr>
<tr>
<td>8.4</td>
<td>The course ensures screen readability.</td>
<td>1</td>
<td>8.4</td>
<td>The course design accommodates the use of assistive technologies.</td>
<td>2</td>
</tr>
<tr>
<td>8.5</td>
<td>Course multimedia facilitate ease of use.</td>
<td>2</td>
<td>8.5</td>
<td>Course multimedia facilitate ease of use.</td>
<td>2</td>
</tr>
<tr>
<td>Standard Total</td>
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<td>Standard Total</td>
<td>9</td>
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<td>GRAND TOTAL</td>
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<td>GRAND TOTAL</td>
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APPENDIX J

MOST SUBSTANTIVE CONSIDERATIONS ADDRESSED BY THE COMMITTEE
FOR EACH OF THE STANDARDS IN THE FIFTH EDITION 2014 OF THE QMR
Appendix J: Most substantive considerations addressed by the committee for each of the Standards in the Fifth Edition 2014 of the QMR

1. Two General Standards had name changes.
   - Standard 5 is now "Course Activities and Learner Interaction.
   - Standard 8 is now "Accessibility and Usability."

2. Two new standards were added to the Rubric.
   - One standard addresses technologies required for the course,
   - and the other addresses third party privacy policies.

3. Standard 4.5 received a point value increase.

4. Annotations were streamlined to include information about the Standard, examples, and instructions to reviewers followed by special situations like blended courses and competency-based courses.

5. Alignment sections of the six alignment standard Annotations now begin each of those Annotations.

6. "Student" was changed to "learner" throughout the Rubric to encompass both traditional students and competency-based learners.

7. "Objective" is followed by "or competency" throughout the Rubric to include competency-based courses.

8. Additional annotations were added for the review of competency-based courses.

9. Standard 8 was completely overhauled with many applicable examples.

10. Standard 6.3 addressing navigation was moved to Standard 8.

11. Standard 8.4 was removed and replaced with "The course multimedia facilitates ease of use." The numbering was changed due to the movement of Standard 6.3 so this standard is now Standard 8.5.

12. The name of the Instructor Worksheet (a.k.a. Faculty Developer Worksheet) has been changed to "Course Worksheet."

The Rubric Committee believes the new edition will resolve a number of ambiguities in the 2011-2013 Edition and provide additional help to Peer Reviewers, instructors, and instructional designers as they work with the Quality Matters Standards.

Source: https://softchalkcloud.com/lesson/serve/qmtDwJUvo3SWP7/html
APPENDIX K

ONLINE PARTICIPANT CONSENT DECLARATION
Appendix K: Online Participant Consent Declaration

The OFSS was originally designed by Doris Bolliger and Oksana Wasilik and published in their article entitled Factors influencing faculty satisfaction with online teaching and learning in higher education. Their research was an attempt “to identify and confirm factors affecting the satisfaction of online faculty at a small research university, and to develop and validate an instrument that can be used to measure perceived faculty satisfaction in the context of the online learning environment” (p. 103). This researcher has augmented the OFSS [OFSS-R] to include independent variables pertinent to his research.

Before taking part in this research, please may this researcher request of you to read the consent form below and click on the "I Agree" button at the bottom of the page if you understand the statements and freely consent to participate in this research.

Consent Form

This research involves the OFSS, designed as a web-based survey instrument to gather data to understand whether self-reported levels of faculty satisfaction are significantly higher with faculty designing their online courses applying the Quality MattersTM Rubric [QMR] compared to those that do not use the QMR.

The doctoral-level research is being conducted by Professor Greg Blundell of Kent State University, and it has been approved by the Kent State University Institutional Review Board. No deception is involved, and the research involves relatively no risk to participants (i.e., less than that encountered in daily life).

Participation in the research typically takes 50 minutes and is strictly anonymous. Participants begin by answering a series of questions about themselves and their experience with online course design and teaching, after which they will respond to the questions that comprise the original OFSS designed by Bolliger and Wasilik.

All responses are treated as strictly confidential, and in no case will any attempt be made to identify responses from individual participants. Rather, all data will be pooled and published in aggregate form only. Participants should be aware, however, that the research is being conducted via the Kent portal with Qualtrics, who promise, in their Security Statement “to protect your data and adhere to industry standards.” While every precaution to protect the integrity of all data collected will be insisted upon, there is nonetheless always the ultra-slim possibility that responses could be viewed by unauthorized third parties (e.g., computer hackers, etc.).

Many individuals find participation in the administration of the OFSS enjoyable, and no adverse reactions have been reported thus far. The focus of this research will be directed at four-year institutions in the state of Ohio, more particularly at faculty who are contracted to design and/or teach fully online courses. Fully online courses are as defined by Picciano & Dziuban (2007, p. 67) as a course where more than 80% of the content is delivered online.
Participation is voluntary, refusal to take part in the research involves no penalty whatsoever, and participants may withdraw from the research at any time, also without penalty or loss of benefits to which they are otherwise entitled.

If participants have further questions about this research or their rights, or if they wish to lodge a complaint or concern, they may contact the principal investigator, Dr. Mark Kretovics at (330) 123-4567; or the Kent State University Institutional Review Board, at (330) 672-2704.

If you understand the statements above, and freely consent to participate in the research, please click on the "I Agree" button below to begin the survey.

Please may I take this opportunity to thank you most sincerely for participating in my doctoral research.
APPENDIX L

WEB-BASED SURVEY INVITATION COVER LETTER
Appendix L: Web-Based Survey Invitation Cover Letter

Good day colleague

At the outset, I would like to offer my appreciation to you for your willingness to assist me in my doctoral research.

My name is Greg Blundell—I am a doctoral student [and faculty member] at the Stark campus of Kent State University in Ohio and am in the dissertation phase of collecting data for analysis.

My dissertation proposes to determine whether faculty’s self-reported levels of satisfaction with fully online courses that have been created applying the Quality Matters™ Rubric, are significantly different to the self-reported levels of satisfaction of those faculty who created their fully online courses using some other course design method.

The baseline instrument I am using is the original Online Faculty Satisfaction Survey developed in 2009 by Doris Bolliger and Oksana Wasilik [Please see page 108 in their article].

I have added questions proprietary to my research, to precede and follow their questions, which will serve as control variables in my study – The total time to take the survey is less than 10 minutes.

I have obtained the necessary Institutional Review Board approval from Kent State University—their reference number is 14-031.

I have created the amended instrument in the survey tool, Qualtrics™ and am administering it through their secure website. I have also confirmed their integrity in maintaining all responses in a secure and relatively impermeable repository.

Here is the Qualtrics™ link to the survey: https://kent.qualtrics.com/SE/?SID=SV_3myRJNI4FAKUAId

As a matter of research integrity and to maintain your anonymity, I have removed myself from any association with your contact info, including your name, email address, etc. and have provided this letter of introduction to a designated representative from your institution, to distribute to you.

Again, please allow me to reiterate my sincere thanks to you for your willing participation.

Kindest regards

Greg Blundell

Lecturer and Ph.D. Candidate
Department of Management & Information Systems
Room 150P Fine Arts Building, Kent State University at Stark
6000 Frank Avenue NW North Canton OHIO 44720 USA
Phone: 330.244.5177
APPENDIX M

HUMAN SUBJECTS REVIEW APPROVAL LETTER
Appendix M: Human Subjects Review Approval Letter

From: Washko, Paulette  
Sent: Wednesday, February 12, 2014 12:23 PM  
To: KRETOVICS, MARK  
Cc: BLUNDELL, GREGORY  
Subject: IRB Level I, category 2 approval for Protocol application #14-031 - please retain this email for your records  
Importance: High  

RE: Protocol #14-031 - entitled “A disruption of online learning course design: Comparing self-reported levels of faculty satisfaction with online courses created applying the Quality Matters™ Rubric to those online courses created without”

The Kent State University Institutional Review Board has reviewed and approved your Application for Approval to Use Human Research Participants as Level I/Exempt from Annual review research. Your research project involves minimal risk to human subjects and meets the criteria for the following category of exemption under federal regulations:

- Exemption Category 2: Educational Tests, Surveys, Interviews and Observation of Public Behavior

***Submission of annual review reports is not required for Level 1/Exempt projects.

If any modifications are made in research design, methodology, or procedures that increase the risks to subjects or includes activities that do not fall within the approved exemption category, those modifications must be submitted to and approved by the IRB before implementation.

Please contact an IRB discipline specific reviewer or the Office of Research Compliance to discuss the changes and whether a new application must be submitted.  
http://www.kent.edu/research/researchsafetyandcompliance/irb/index.cfm

Kent State University has a Federal Wide Assurance on file with the Office for Human Research Protections (OHRP); FWA Number 00001853.

If you have any questions or concerns, please contact us at Researchcompliance@kent.edu or by phone at 330-672-2704 or 330.672.8058.

Respectfully,

Paulette Washko, CIP  
Kent State University  
Manager, Research Compliance | 224 Cartwright Hall | 330.672.2704 | Pwashko@kent.edu
APPENDIX N

INSTRUCTOR-GENERATED COMPONENTS FOR TEACHING IN AN ONLINE ENVIRONMENT
Appendix N: Instructor-generated components for teaching in an online environment.

<table>
<thead>
<tr>
<th>Positives</th>
<th>Negatives</th>
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</thead>
<tbody>
<tr>
<td>● Student and teacher interaction is enhanced.</td>
<td>● Time demands are very severe.</td>
</tr>
<tr>
<td>● The teaching and learning environment is much more flexible.</td>
<td>● Technology problems will occur.</td>
</tr>
<tr>
<td>● The environment forces continuous improvement.</td>
<td>● There is decreased face-to-face student contact.</td>
</tr>
<tr>
<td>● The teacher’s role changes to that of a facilitator.</td>
<td>● Faculty control is lost.</td>
</tr>
<tr>
<td>● Students are more actively and responsibly involved in their learning.</td>
<td>● Students can be overwhelmed with a bottomless pit of information, the</td>
</tr>
<tr>
<td>● Courses are expanded and more far reaching because of increasing</td>
<td>quality of which is unknown.</td>
</tr>
<tr>
<td>resources.</td>
<td>● Testing and assessment is a problem—particularly the honesty issue.</td>
</tr>
<tr>
<td>● The teacher is able to use time more effectively and efficiently.</td>
<td>● Students’ evaluations of teachers are perceived to be lower.</td>
</tr>
<tr>
<td>● The teacher is able to incorporate instructional resources created by</td>
<td>● Faculty feel an uneasiness about how this fits into the University</td>
</tr>
<tr>
<td>others.</td>
<td>culture of teaching, research, and service.</td>
</tr>
<tr>
<td>● Instructional design and theorizing are enhanced.</td>
<td>● Faculty are not sure they have departmental support</td>
</tr>
<tr>
<td>● The teacher is forced to be less ambiguous and more organized.</td>
<td></td>
</tr>
</tbody>
</table>

(Adapted from Hartman Dziuban & Moskal, 2000 pp. 168-169)
APPENDIX O

QUALITY MATTERS™ - REQUEST FOR TECHNICAL ASSISTANCE APPROVAL LETTER
Appendix O: Quality Matters - Request For Technical Assistance Approval Letter

From: bburch@qualitymatters.org [mailto:bburch@qualitymatters.org]
Sent: Tuesday, January 06, 2015 9:50 AM
To: BLUNDELL, GREGORY

Subject: Quality Matters - Request For Technical Assistance #28355 - Ticket Closed

A request for technical assistance ticket has been closed. Please reply to this email for further support. Details are listed below:

Ticket Creator: Gregory Blundell - gblundel@kent.edu
Assigned Institution: Kent State University System (OH)
Description: Requesting permission to publish the QM Rubric in my doctoral dissertation
Page URL: Click Here
Assigned To: Barbra Burch - bburch@qualitymatters.org
Date Opened: 2014-12-22
Status: Closed
Resolution: Kay Shattuck responded to Gregory 1/5/15 with the language from our Use of QM Materials document that addresses incorporating and referencing the QM Rubric Standards-with-Point-Values document. (His dissertation defense is scheduled for 1/9/15.)
Date Closed: 2015-01-06
Closed By: bburch@qualitymatters.org
Last Updated: 2015-01-06
Updated By: bburch@qualitymatters.org
Hi Greg -

I'm now able to provide you with the statement from the latest DRAFT of the "use of Quality Matters Materials". I'm not sending the whole document, just the section that will apply to your reprint of the [https://www.qualitymatters.org/node/2305/download/QM%20Standards%20with%20Point%20Values%20Fifth%20Edition.pdf](https://www.qualitymatters.org/node/2305/download/QM%20Standards%20with%20Point%20Values%20Fifth%20Edition.pdf) page.

I've bolded the statements that must be included:

- May, after notifying QM of intent to reprint, include one of the QM Standards documents as a reference, if relevant and necessary, with the inclusion of the statement: “The reprint of this QM Standards document does not imply the endorsement or support of this research by Quality Matters” as long as the research publication meets the other conditions listed in the bullets below.
  - Must appropriately cite the source of any QM information along with the appropriate copyright information. For example: [to be added]
  - Must include the following statement about the intended and supported use of the QM Rubrics: “The QM Rubrics have been developed and regularly updated through a rigorous process that examines relevant research, data, and practitioner perspectives. They consist of Standards supported by detailed Annotations explaining the application of the Standards and are intended to support the continuous improvement of courses with constructive feedback provided by trained and certified Peer Reviewers using a specific review protocol.”

Best wishes in your defense!

~Kay

Kay Shattuck, D.Ed.
Director of Research
Quality Matters ([www.qualitymatters.org/](http://www.qualitymatters.org/))
shattuck@qualitymatters.org
REFERENCES
REFERENCES


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