Research Matters! What We're Learning from QM-Focused Research

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Kay Shattuck (shattuck@qualitymatters.org)

These presentation notepages are provided only as notes to accompany the PowerPoint presentation: Watch QM Website for upcoming written report which updates 2012 report

Slide 3: Research has been key part of QM since its inception. Independent educational research informed the development of the QM standards and continues to do. Even within the FIPSE grant period research was being encouraged and supported with small grants to provide evidence of the effectiveness of QM standards in improving course design and to provide actionable steps for the reflective instructor and program to improve their online learning courses.

Slide 6: Top things we've learned

Without documenting the before, it's impossible to make a valid conclusion about the after QM review; studying the issue over time allows for viewing impact. "QM" itself needs contextualized when talking research: QM is more than the set of standards listed on the website and explained in the annotations of the Rubric; it's a process with strong, validated processes and into many organizational/departmental cultures as exhibited by different level of QM implementation.

Inputs, such as learner profiles; faculty preparation and support; learner support; course design; institutional infrastructure; regulation. Outputs, such as learner satisfaction; grades; course completion; departmental/institutional retention of student; graduation rates; job placement. [for fuller discussion on inputs/outputs and shareholders, see] Adair, D., & Díaz, S., (2014). Stakeholders of quality in online education: Inputs and outputs. In K. Shattuck (Ed.), *Assuring quality in online education: Practices and processes at teaching, resource, and program levels* (pp. 3-17). Sterling, VA: Stylus Publishing, LLC

Need inter-institutional study to move productively forward. Small well-designed study for individual instructor still beneficial for the reflective practitioner, as is well-designed (controlled, n for significance, likely overtime) departmental/institutional level study. Since we cannot randomize learners in the big experiment of good course vs. bad course, we need to attempt to look at ways we can gather data across our QM community.

Slide 7: Applause

QM uses research to improve and to demonstrate effectiveness. We need to step back and applaud our efforts. Think of that whenever you catch yourself valuing an educational model or theory: Has it been validated lately? QM is not into the educational ethos yet ☺ , that is, a principle or model that is requires no evidence of validity (for example, traditional classroom education, or any number of "accepted" educational theories). QM continues to use research to improve the standards and the processes. Validity

- Providing evidence that the QM standards incorporated into the QM Rubric are measuring what is professed: Quality online course design.
- Providing evidence that the QM peer review processes are rigorously applied.
- Providing evidence that QM professional development improves course design and delivery.
- Providing evidence that the QM course review process is connected to other known components of a quality learning experience.

Slide 11: Potential Student Impact Growth: 200,000 to almost 7 million registered in QM subscribing institutions. This slide is an example of using existing data (educational analytics data mining) that can be pulled from your Institutional Research units. Use educational analytics (sometimes referred to as educational data mining) for the institutional, departmental level issues, and, learning analytics (learner produced data available from your LMS reports) to better understand at a course level.

Slide 13: Learner voice

Two early QM-funded exploratory studies focused on adding the student voice. Iyengar (2006) surveyed students in four blended courses about online course design items found in the 2005 QM rubric. She learned that students, even in blended courses, valued design elements identified in the Rubric. In a similar vein, Mott (2006) related missing design features, as reported by students in an online course, to the QM standards. The student voice was also sought in a small 2010 study QM-funded study with Dallas TeleCollege (Bowen & Bartoletti, 2009). Student input was gathered on course design issues relating to learner accessibility (QM standard 8). Even students who did not identify themselves as requiring specialized adaptive services noted the importance of a course being designed to meet needs of all learners, including those who might need assistive technologies. Student involvement at the institutional level in accessibility efforts was strongly suggested. In an ongoing study, Ralston-Berg (2011, 2014) has surveyed more than 3,000 online students from 31 institutions in 22 states about their perceptions of course design features that indicate quality. The results were ranked by importance to students for success and revealed that students' responses correlated with standards of quality identified in the QM Rubric. **The study laid groundwork for upcoming inter-institutional quantitative studies on learner-voice.**

Slide 15: Student Learning

Grade improvement is a frequently used measurement of student learning in educational research. Runyon (2006) led a QM-funded research project to determine the impact on grading of improving learning activities to meet QM standards. Specifically, content modules in a community college computer science course were enhanced with more interactive activities. Results were that students engaged more with the course content and grades improved. While the focus was on improved course design, Runyon noted that the quality of teaching was as important as the improved quality of the design.

In a continuing study originally funded by a QM research grant, Swan and colleagues (2010, 2011) at the University of Illinois/Springfield redesigned a graduate-level education course after an informal QM review. Improved scores were statistically significant on a major written assignment and in the final

exam, as well as in overall course grades. The interaction of course design, teaching, and learning was noted by the researchers, who posited "Arguably, student performance improved because the QM revision led instructors to focus on objectives and the mapping of objectives to outcomes, such focus translated into their activity in the course" (2011, p. 7). The study also attempted to find a relationship between QM- influenced course design improvements and measurement of Community of Inquiry (CoI)3. They concluded

The linking of online course design and implementation to learning outcomes is long overdue in online education. This online study is not only a first step in that direction but it employs what are probably the two most commonly used theoretical frameworks in online education in the process. Findings suggest that both can be linked to improved outcomes but unfortunately not to each other. However, they do suggest a trajectory-- QM review and revision of courses and incremental 'tweaking' of course implementation relative to deficiencies revealed by the CoI survey--for incremental improvement of online courses. (p. 11)

Hall (2010) took a different approach in a QM-funded project by using the CoI framework in attempts to connect QM-influenced course design improvements to student learning. She narrowly focused on CoI dimensions of teaching presence4 that include (1) design/organization and (2) directed facilitation. She equated QM-influenced course design improvement to the design and organization dimension, and instructor interaction during the course delivery with the directed facilitation dimension. She then coded all exchanges made on the discussion board of 14 sections (five pre-, nine post-QM reviews) and in instructor-student email interactions of an undergraduate sociology course taught by the researcher. She discovered that the improved design and organization increased teaching presence by reducing course management tasks, thereby allowing higher quality directed facilitation by the instructor. The improved design also improved students' self-management of their course activities by reducing time and effort previously expressed as a concern. Reported findings included a positive effect on students' higher-order cognition via higher teaching presence, resulting higher grades on discussion board activities, and a positive effect on student satisfaction

See for Harkness study Harkness, S. S. J. (2014, March 10). Program administration and implementation of an online learning initiative at a historically Black College University: A case study [Webinar]. *EDUCAUSE/Quality Matters Online and Blended Learning: Institutional Case Studies on Implementing a Quality Assurance Program and Designing Research on Effective Practice Webinar Series.* Retrieved from http://www.educause.edu/sites/default/files/library/presentations/ELI143/OL01/Harkness_Online%2BLearning%2BInitiative.pdf. Attend presentation today (Tues), 2:15 in Maryland Salon F

Slide 16: CoI https://coi.athabascau.ca/coi-model/ CoI survey https://coi.athabascau.ca/coi-model/coi-survey/

Bogle et al. (2009) related standards 2 (learning objectives), 5 (learner engagement), and 7 (learner support) with social presence; Standards 2, 3, 4, 5, 6 to teaching presence; Standards 1, 2, 3 with cognitive presence

Swan et al (2009, 2014) orthogonal relationship between QM & CoI (at right angles, statistically independent as statistical variables): QM measures course design features; CoI measures students' perceptions of connections

Simunich: Designing for Presence: QM and the Community of Inquiry (CoI) Framework as Guides

Slide 17: Persistence/Completion/Retention

Course retention is often associated in the literature with student satisfaction. Even in the earliest days of QM's existence, many practitioners expressed a gut feeling that improved course design would improve course completion rates. Loser and Trabandt at Northern Virginia Community College (2006) used a QM research grant to explore the impact of learning activities on online course completion. The authors hypothesized that by revising learning activities to be more engaging (one of the QM Rubric standards) more students would complete the course. They reported that there was no apparent difference in completion from a previous semester completion rate; however, they noted positive comments about the revised activities from students' end-of-semester evaluations.

Two later studies have attempted to determine if there is a relationship between a course meeting QM standards and student completion of the course. While Aman (2009) found students expressed their satisfaction with courses that met QM standards (described above), he could find no relationship with retention. He pointed out that the literature supported the complexity of studying student course retention, especially because of the myriad of influences and expectations that students bring into a course. (A separately funded MarylandOnline project provides additional information on why 3,352 students reported they withdrew from online courses. See Hilke, 2010). The Aman study was also challenged by lack of access to student records, requiring reliance on reports from surveyed instructors to gather course completion data. In an earlier, more focused study, Dietz-Uhler, Fisher, and Han (2007) noted that the challenge of studying student retention in online education begins with a lack of common definition of retention. However, they found that course completion in two courses, a psychology and a statistics course, that met QM standards of quality and were taught by the same instructors was consistently higher (95.5 and 95 percent) in an 11- and a six- semester timeframe than the average course completion rate for online courses.

Slide 18: Persistence & Completion

In attempting to explore the impact of QM course recognition on student course retention, a QM research grant was provided to Cleveland State University. The study (Rutland & Diomede, 2011) narrowly focused on implementation of a QM review as part of institutional systems to positively impact attrition in distance education (other attributes identified by Diaz and Carnal in 2006 were identified as student situations, student dispositions, and course content). By categorizing improved course design as the institutional systems factor, the Cleveland State team hoped to determine if course retention increased in a QM-improved course. Statistical significance was not found. However, the study revealed much to consider for future research attempts. Unlike the Dietz-Uhler, Fisher, and Han study, which described course completion rates in QM certified courses over a six- and 11-semester timeframe with the same instructors, the Cleveland State University team had hoped to find immediate (next

semester) improvement in course retention without cross-referencing other dimensions of attrition. Rutland and Diomede (2011) posited the following:

Although this study as completed in a short two-semester "turn-around" did not find statistically significant evidence either supporting or refuting QM's effect on withdrawal rates, there are ways to expand upon the research to tell a greater piece of the story of attrition.
One important factor in future research would be to control for the delivery variable--meaning instructor level of interaction with students. According to our survey, instructor presence seems to have a direct effect on students' perceptions about their online learning experience. This likely impacts decisions that students (even in QM-reviewed courses) are making when deciding to persist or withdraw from a course. Therefore, to further understand the effects of QM recognition on attrition, a more accurate control for variables is necessary. (p. 11) One, of many examples in which a study was carried out by reviewing course, making undocumented improvements or not if standard met) in one semester, then delivery of course, often by another instructor (no data on instructor experience) in the following to another group of students (an expected issue in education) (no data on either student group online experience) and attempting to attribute course completion to the QM review. However, we still learned gems of information for further study! Survey indicated impact of instructor presence, even in courses that meet QM standards.

Slide 19: Students' motivation & self-efficacy

Does Findability Matter?: Findability, Student Motivation and Self-efficacy in Online Courses: Bethany Simunich, Principal Investigator, Kent State University

- Findability, the ease in which a student can discover or locate needed information within the online design, will be explored in this study. RQ1: Do QM-recognized courses have higher findability than non-QM courses? RQ2: Does higher cognitive load, as indicated by sudden increased pupil size, correlate with lower findability?, and RQ3: Is findability positively correlated with feelings of motivation and self-efficacy in online courses? At least 40 students in at least four online courses (two QM recognized and at least two others in which specific standards associated with findability are not met) will participate.
  Findings: https://www.qualitymatters.org/files/webform/Quality%20Matters%202012%20Findability.pdf

- Project Title: Effect of Student Readiness on Student Success in Online Courses; College of Southern Maryland; Leah A. Geiger

    - Geiger, L. A. (2013, September 25). The effect of student readiness on student success in online courses. 2013 QM research grant presentation at the 5th Annual Quality Matters Conference, Nashville, TN. Retrieved from https://www.qualitymatters.org/effect-student-readiness-student-success-online-courses

    - Geiger, L. A., Morris, D., Suboez, S. L., Shattuck, K., & Viterito, A. (2014). Effect of student readiness on student success in online courses. *Internet Learning, 3*(1), 72-84. Retrieved

from http://www.ipsonet.org/images/Westphalia_Press/Internet_Learning_Journal_2-2/3-1/6.%20Geiger%20ILJ%203-1.pdf

- Project Summary: This research focuses on student readiness, investigating which student-readiness factors correlate most closely to student success. Factors that play a role in student success - most notably the course design, the learning management system, and the level of faculty-readiness engagement are controlled in order to focus on student readiness.
- https://www.qualitymatters.org/effect-student-readiness-student-success-online-courses

"Effect of Student Readiness on Student Success in Online Courses", Leah A. Geiger, Daphne Morris, Susan L. Subocz, Kay Shattuck, Arthur Viterito
"The research team hypothesized that student success in well-designed courses (those that meet the Quality Matters Standards) and that are taught by experienced, engaged faculty is most influenced by student readiness factors, including individual attributes (such as motivation), life factors, comprehension, general knowledge, reading rate and recall, and typing speed and accuracy. A goal of the study was to determine which of these factors correlated most closely to student success. Results of this study indicated that, when course design, instruction, and LMS are held constant, only typing speed/accuracy and reading rate/recall were statistically significant as measured by the SmarterMeasure instrument and correlated to student course retention and course grade. Recommendations for further research are made.

These findings challenge work of retention expert, Tinto (1993) who reports student background and cultures have heavy impact. Recommended institutions promote effective teaching practices.

These findings also contradict those found by Hilke (2010) in the "W" study which revealed students who dropped courses had heavy intervening life issues.

Slide 20: less than 85% good apples compared to +85% good apples (courses)

When comparing before/after QM review/certification, how will the before be documented? We know from some of the previous studies that like differences show in courses designed using the QM standards and those which have undergone informal reviews. We need to also document what has been improved as result of a QM review to show impact. How do we know that the course wouldn't already meet QM standards before a review!

Miner (2014) likely run into this when she compared student satisfaction, grades, and course completion in 12 different online courses, each taught by same instructor before/after QM certification of meeting standards. A QM culture at FIU likely impacted the results; for example, 11 of the 12 courses met QM standards during first review. That would indicate little difference was likely found in the pre-post course design.

[From QM Research Toolkit: Since your study will focus on a narrow question about the impact of QM, you'll need to take on, to some degree, the role of a QM content expert to develop a study that can provide meaningful information. An example: Setting up a study in which student final course grades

from a course semester prior to a QM formal course review will be compared to final course grades in the following semester is of little value without detail on exactly what was updated in the course as a result of the QM review. Without that there is no information that the course didn't meet QM Standards before the course review and little or nothing was revised in the design of the course; hence any difference in grades would likely be the result of different students in the course or a different instructor.]

Slide 22: UDC longitudinal study

Harkness, S. S. J. (2014, March 10). Program administration and implementation of an online learning initiative at a historically Black College University: A case study [Webinar]. *EDUCAUSE/Quality Matters Online and Blended Learning: Institutional Case Studies on Implementing a Quality Assurance Program and Designing Research on Effective Practice Webinar Series.* Retrieved from http://www.educause.edu/sites/default/files/library/presentations/ELI143/OL01/Harkness_Online%2BLearning%2BInitiative.pdf

Harkness, S. S. J. (2014). Program administration and implementation of an online learning initiative at a historically Black College University. In M. Orleans (Ed.), *Cases on Critical and Qualitative Perspectives in Online Higher Education* (pp. 44-60). Hershey, PA: Information Science Reference. doi:10.4018/978-1-4666-5051-0.ch003

Slide 23: CSM readiness study also raised question about instructor impact, as did the Diomede retention study.

Slide 24: Positive impact of rubric

As early as 2006 the positive impact on members of a design team was noted when using the QM Rubric as a guide for revising a course (McMahon, Tipperman, & Paugh) and later as an easy-to-use self-assessment tool for developing an online course (Pollaci & McCallister, 2009; Pollacia, Russell, & Russell, 2009; Effken, McEwen, Vincent, Shea, Garcia-Smith, & Kang, 2009; Little, 2009; Bento & White, 2010). Greenberg's 2010 dissertation study found that the use of QM design standards led to "development of a quality product, as defined by faculty, course designers, administrators, and students, primarily through faculty professional development and exposure to instructional design principles" (p. 214). Monroe (2011) found that the QM Rubric could be effectively used by instructional designers, faculty with subject-matter expertise, peer faculty with no subject-matter expertise, and administrators. Ashbaugh (2011) used a modified version of the publicly available 2010 QM Rubric as she identified instructional designers' leadership competencies. Trying to capture the "conspicuously absent faculty voice in the online course quality debate," Reif (2009, p. 52) traced the development of the QM Rubric (Shattuck, 2007) as influenced by the seminal work of Chickering and Gamson (1987). Reif used the publicly available (2005) QM Rubric to represent best online learning practices and concluded that the QM Rubric "provided a useful checklist for evaluating online coursework but it cannot tell the complete story [and] cannot be used as the sole measure of an online class because it lacks the ability to measure the instruction itself" (p. 126). This conclusion refers to the original and continuing emphasis of QM on

the course design features of quality online learning as one component in an institution's quality assurance program.

A small study by Wright (2010) asked this question: Can training on the QM framework positively increase faculty perceptions of their ability to design, develop, and deliver online courses? Utilizing the Online Technologies Self-Efficacy Scale (OTSES), Wright found a significant increase in self-efficacy after QM training. It was pointed out that participants in this study might have been early adopters of technology. Taking a somewhat related approach, Ward (2011) hypothesized that the use of the Quality Matters process would help new online instructors develop complex knowledge that would enable them to discuss, develop, and implement more effective online learning. Under a QM research grant, she and colleagues at the University of Akron used TPACK (Technological, Pedagogical, and Content Knowledge) as the conceptual framework. They found that participation in the QM training and the related course improvement process helped instructors understand the interaction among technology, online learning principles, and subject content (dimensions of the TPACK framework). They concluded

The data analysis results from this study suggest a developmental model that depicts a few key transitional points in order to become effective online instructors, and how QM training can effectively consider these transitional points to deliver the training more efficiently to enhance the quality of online courses with more explicit guidelines to not only course design, but permeate to the other aspects of online teaching and learning. (p. 10)

Technological affordances (Bose, 2012, p. 192)

- Media Affordance – The type of input and output forms, such as reading, writing, viewing, drawing listening, watching or producing.
- Spatial Affordance – The ability to resize elements within an interface, move and place elements within an interface.
- Temporal Affordance – Access anytime anywhere, ability to be recorded and played back, synchronous versus asynchronous.
- Navigation Affordance – Capacity to browse to other sections of a resource and move back/forward, capacity to link to other resources, search, sort, and sequence.
- Emphasis Affordance – Capacity to highlight aspects of a resource, explicitly directing attention to particular components.
- Synthesis Affordance – Capacity to combine multiple tools together to create a mixed media learning environment, the extent to which the functions of tools and the content of resources can be integrated.
- Access-control Affordance – Capacity to allow or deny who can read, edit, upload, download, broadcast, view, administer, capacity to support one–one, one–many, many–many contributions and collaborations.
- Technical Affordance – Capacity to be used on various platform platforms with minimal/ubiquitous underlying technologies, ability to adapt to bandwidth of connection, speed & efficiency of tool/s.
- Usability Affordance –Intuitiveness of tool, ease with which user can manipulate tool to execute its various functions, relates to efficiency.

- Aesthetics Affordance – Appeal of design, appearance of interface, relates to user satisfaction and ability to hold attention.
- Reliability Affordance –Robustness of platform; the system performs as intended whenever require.

Slide 25: Strong QM processes

See "Continuous Improvement of the QM Rubric and Review Processes: Scholarship of Integration and Application", Kay I. Shattuck, Whitney Alicia Zimmerman, Deborah Adair
"The QM Rubric and processes are dynamically interpretive of evolving research and best practices. The plan to conduct a complete review of the QM Higher Education Rubric and peer review process was established during the grant period, and reviews have become more thorough over the past decade."

Two avenues of professional growth are emerging from analysis of the QM-focused research. The first comes directly from online instructors participating in formal QM course reviews. Data captured in the course review exit survey focuses on procedurally consistent application of the QM process, as well as on the experience for the individual peer reviewer. Analysis of open-ended comments provided anecdotal evidence of the impact of participation in a QM peer review (Sener, 2011). Emerging themes were identified: (1) Peer reviewers learn about improving online learning through the collegial interaction with others on the team during the review process. (2) Review team chairs gain valuable leadership experience. (3) Peer reviewers make changes in their own courses by idea shopping and by doing a parallel review on their own courses while participating in a formal review of a peer's course. Follow-up to this study to be done in 2015.

Slide 26: Establishing baselines

Dowden, L. (2014, March 10). Beyond the "applying the Quality Matters Rubric" workshop. [Webinar]. *EDUCAUSE/Quality Matters Online and Blended Learning: Institutional Case Studies on Implementing a Quality Assurance Program and Designing Research on Effective Practice Webinar Series.* Retrieved from http://www.educause.edu/sites/default/files/library/presentations/ELI143/OL01/Dowden_Beyond%2Bthe%2B%25E2%2580%259CApplying%2Bthe%2BQM%2BRubric%25E2%2580%259D%2BWorkshop.pdf

Surveying faculty (*N*=154) about which training & how used (Engelmann, McMahon, Coyle, 2014); *Learn More: Quality Matters Research Initiative in MN, today (Tues), 2:15 PM; Maryland Salon D*

Slide 27: Faculty culture

Project Title: Analyzing Predictors of Faculty Behavior to Engage in Peer Review; Texas A&M University - Central Texas; Barbara W. Altman

- This research investigates the attitudes, norms, and perceived behavioral controls and intentions that influence faculty engagement in the QM peer process, as well as the efficacy of "self-review" prior to initiation of peer review.

- https://www.qualitymatters.org/sites/default/files/presentations/QM%202013%20-%20Altman%20et%20al.%20presentation%20Final.pdf

- https://www.qualitymatters.org/sites/default/files/presentations/QM%202013%20-%20Altman%20et%20al.%20Presentation%20Handout.pdf

- "Beliefs Regarding Faculty Participation in Peer Reviews of Online Courses", Andria F. Schwegler, Barbara W. Altman, Lisa M. Bunkowski
  "Our objective examination of faculty beliefs, instead of reliance on hearsay and a vocal minority, was useful in identifying genuine faculty concerns that could be directly addressed. Our data provided directions to guide administrative changes in our process to increase participation in internal peer reviews with the goal of improving the online course design quality."

- "Though differences between participants' and nonparticipants' belief endorsement could not be tested statistically due to unexpected small sample size, a qualitative examination of the endorsement of the model belief statements provides some useful information about faculty members' percepts of completing the peer review" (p. 105).

From discussion section: "Though differences between participants' and nonparticipants' belief endorsement could not be tested statistically due to unexpected small sample size, a qualitative examination of the endorsement of the model belief statements provides some useful information about faculty members' percepts of completing the peer review" (p. 105).

Both groups:

- expressed positive attitudes toward completing peer review
- believed that completion of the peer review would allow them to improve their courses, learn new techniques, and gain a better understanding of quality
- moderately positive beliefs that completion of the peer review would be useful in their promotion and tenure packets
- initial concerns regarding faculty not getting along and infringement on academic freedom were not highly endorsed by either group. Both agreed that outcome would be bad, but not very likely.
- Neither held strong beliefs that the peer review process would be confusing or require changes that they did not want to make in their course.

Nonparticipants were more likely to believe that the peer review would be effortful and time consuming (p. 108).

Implications: revising delivery of process in attempt to increase participation in internal peer review.

Slide 28: Organizational Impact

As described above, the Quality Matters program expanded training opportunities to meet subscriber requests. Another unanticipated development from the 2003-2006 federally-funded FIPSE grant to MarylandOnline (MOL) came at the conclusion of the grant when requests for participation from higher

education institutions challenged the capacity of a centrally-managed QM process. At that time, requests for reviews and training nearly overwhelmed the primarily volunteer staff. MOL established the subscription-based, not-for-profit Quality Matters Program and devised a framework for dissemination of the program through institutional subscriptions. Subscribing institutions could choose to either contract with QM to conduct course reviews or conduct their own course reviews after appropriate QM-facilitated training. The model allowed subscribers to adapt the QM institutional needs while MOL/QM maintains rigorous control over the QM Rubric, the QM flagship training courses, and the official review process.

Over the past few years, information has emerged on the impact participation in the QM program has beyond improving the design of a single course. This impact was first suggested in the Aman (2009) dissertation (described above in the Learner Satisfaction section) when he noted that there may be a carryover effect to non-reviewed courses when an institution is actively participating in the QM peer review process. Statistical analyses revealed that students in both QM- reviewed and non-reviewed courses were more satisfied than those at non-QM participating institutions.[5]

Following that lead, and in an attempt to determine how QM was disseminated across a large educational system, a 2010 QM research grant was provided to Strickland and Alarcon at the Maricopa Community College system, which encompasses 10 colleges, 4,000 faculty, and 250,000 students. Through a survey and a series of focus groups it was learned that the informal sharing among faculty and administrators at departmental meetings and among colleagues was the most prevalent method of dissemination, followed by sharing during college-wide meetings.

As noted previously, while initially planning to study student and faculty satisfaction rates in pre- and post-QM recognized courses, Parscal, Frey, and Lucas (2011) found that their project was challenging because most of the online courses at the University of the Rockies initially met QM standards during an official QM Review. Further analysis called attention to the fact that the university had established an extensive six- to- eight week system of using the QM Rubric and a team approach to approval in developing courses. Therefore, most courses easily met QM standards when reviewed officially. It was posited that measurement of students' satisfaction by using the simple, pre- and post-test did not reveal any significant change in satisfaction rates, but revealed the unanticipated positive consequences of QM adoption at the organizational level.

Accessibility Policy and Guidelines for Online Programs: Barbara Frey, Principal Investigator, University of Pittsburgh

Research methodologies were used in development of a generic accessibility policy that was made available to QM subscribers. This study compared and analyzed components of accessibility policies in a sampling of higher education institutions. A Delphi communication process was used among experts to develop a generic policy that QM-subscribing institutions might adapt for their own use. This study builds on previous work done by Frey and King (2010) in which they discovered that 87% of responding QM institutions indicated they did not have an accessibility policy for online programs. Request a copy of the accessibility policy template for online education programs.

Findings: https://www.qualitymatters.org/files/webform/QMAccessibilityPolicy_Frey-Kearns.pdf

Slide 29: Current issues and realities

Too late to ignore possible QM influence in the "before" courses. Must detail the before for evidence of after.

Sample size: just getting participants, and then getting them to participate: dealing with unforeseen issues, such as low student enrollments

Expanding theoretical frameworks from instructional design/technology → Neuro-learning sciences & Organizational learning, etc.

Slide 30: Do you have

- At least 5 Takeaways
- Twitter questions sent to #qmAskUs
- Resources
    - Research library
    - Provided reference list with hot links
    - "How to design a QM-focused research study" modules introduced during 1:40 p.m. session today
- Ask us! Stop by the "ask us anything about QM research" table during breaks