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RESEARCH BRIEF

The Use of Standards for Peer Review of Online Nursing Courses: A Pilot Study

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ABSTRACT

This article describes a pilot study on the use of online course standards for peer review of Web-based nursing courses. A peer review team consisting of a nurse educator and an instructional designer piloted the use of two sets of online course standards in two RN-to-baccalaureate nursing courses. The College of Public Health Online Course Standards and the Quality Matters (QM) Peer Course Review Rubric were used to review the courses. The standards facilitated the peer review process and supplied important criteria for measuring the quality of the courses. Analysis of the rubric scores revealed trends in criteria not met in either course, indicating the need for educational program improvement and faculty training. The QM tool had more consistent results among peer reviewers and was perceived as easier to use. In addition, QM standards provided a useful mechanism for benchmarking against higher education courses throughout the United States.

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With an increasing number of higher education courses being offered online, educators are seeking improved methods of assuring quality in Web-based courses, and accrediting agencies are demanding them. Online course standards and collegial peer review offer tools for quality assurance processes. This pilot study examined the use of two sets of online course standards for peer review of Web-based nursing courses.

Institutions of higher education have acknowledged the critical need for developing standards that assure quality of their online courses. California State University, Chico (2003); Florida Gulf Coast University (2006); Maryland Online, Quality Matters (QM) (2006c); University of South Florida, College of Public Health (COPH) (2006); and Weber State University (2006a) are some of the schools that have acknowledged and met this challenge.

The standards developed by these institutions are used in four ways: as a foundation for designing new courses, as an instructor self-evaluation tool, as a rubric for peer review, and as the basis for awarding exemplary courses. For example, QM and the BlackBoard Greenhouse Exemplary Course Program recognize courses that model best practices in online education (BlackBoard, n.d.; QM, 2006a). Models and benchmarking for evaluating online nursing courses also have been proposed (Billings, 2000; Billings, Connors, & Skiba, 2001; O'Neil, Fisher, & Newbold, 2004; Seiler & Billings, 2004).

Many of these standards are used in faculty peer review processes to identify areas needing revision and to further clarify course goals (California State University, Chico, 2003; QM, 2006d; Weber, 2006b). In addition, the data may be aggregated to identify areas for educational program improvement and as evidence of quality teaching and course design for accrediting agencies (Cobb, Billings, Mays, & Canty-Mitchell, 2001).

Quality Matters (2004) uses a collegial review process consisting of three faculty members, including a content expert and a faculty member from another institution, who work together with the course instructor to assess the course, compile a report on its strengths, and make recommendations for improvement. Peer review at Weber State University (2006a) involves three levels: instructors complete a self-evaluation of their course (guided by standards); the department chair, program director, or another faculty member evaluates the course; and a panel (consisting of a technical support staff member and two faculty members experienced in teaching online courses) reviews the course.

Chao, Saj, and Tessier (2006) conducted a pilot quality review process for online courses. They focused on three of the six components of the Quality Framework for Web-Based Courses: instructional design, Web design, and course presentation. The review team consisted of an instructional designer, a Web or multimedia developer, and an editor. The review process took each reviewer approximately 3 hours, for a total of 9 hours devoted to each course. The authors reported the following:

> This strategy has the potential to improve course quality and consume fewer institutional resources over time, as courses will need less revision to correct weaknesses. (Chao et al., 2006, p. 38)

Little (2009) conducted a more extensive review of the literature related to quality assurance of online courses, conceptual frameworks, benchmarking, course standards, and peer review processes.

Method

This pilot study was designed to examine the use of online course standards for peer review of a small convenience sample of online courses in an RN-to-baccalaureate nursing (BSN) program. A review team consisting of a nurse educator and an instructional designer piloted the standards in two RN-to-BSN courses. The instructional designer (an education specialist with expertise in instructional strategies) had more than 6 years of experience in online education in private industry and higher education, and was a doctoral candidate in curriculum and instruction at the time. Institutional review board approval and instructor consent were obtained.

Sample

Two of the 10 courses (20%) in the RN-to-BSN program were selected. Both were required courses for the program; the courses were offered in the fall of 2006 and taught by the current faculty member more than once. One course was taken by students at the beginning of the program, and the second course was taken by students at the end of the program.

The Educational Transitions for RNs course introduces RNs to professional nursing and the essential skills for success in nursing education. The Leadership and Management in Professional Nursing Practice course focuses on the principles of leadership and management, with an emphasis on decision making, priority setting, delegating, and managing nursing care in interdisciplinary settings. Neither course had been designed by the current instructor. However, both instructors had made modifications to the courses.

Instruments

The University of South Florida College of Public Health (COPH) Online Course Standards (2006) and the QM Peer Course Review Rubric (FY05/06) (2005a) were used to review the courses. The COPH and 2005-2006 version of QM are in the public domain.

The COPH Online Course Standards. The COPH standards were developed by the University of South Florida (n.d.), Innovations in Technology and Teaching (ITT) project. Three instructional designers created standards to guide the design, development, and delivery of new courses, as well as to assure quality and consistency in all online courses. The standards were based on research from the literature, instructional design principles, Web design principles, standards from other universities, and surveys and interviews conducted by the ITT project (L. Plescia, personal communication, March 7, 2007).

The COPH Online Course Standards include three major categories (University of South Florida, 2006):

- Communication: instructor to student.
- Course delivery, organization, and design.
- Instructional elements.

These categories include a total of 53 standards with criteria for scoring at the minimum and exceeds levels.

The QM Peer Course Review Rubric. The QM rubric was developed by Maryland Online, a statewide consortium of 19 Maryland community colleges and higher education institutions. This rubric focuses on course design that supports student learning, rather than on course delivery or academic content (QM, 2006b). The QM rubric (2005a) includes 40 standards within eight categories:

- Course overview and introduction.
- Learning objectives (competencies).
- Assessment and measurement.
- Resources and materials.
- Learner interaction.
- Course technology.
- Learner support.
- Americans with Disabilities Act (ADA) compliance.

Each category includes specific standards with annotations on how to score, and each standard is assigned a different point value (3, 2, or 1) depending on its relative importance.

To receive QM recognition, the course must meet all 3-point standards and receive a score of 68 of 80 possible points. The QM rubric is substantiated with supporting references in the research literature and commonly accepted standards for online courses (QM, 2005b). The standards have also been correlated with higher education accreditation standards (Legon, 2006). Partnership with the Sloan Consortium, a consortium of institutions and organizations committed to quality online education, has strengthened QM's national recognition.

Procedure

Instructors for the two selected courses added the author and the instructional designer to their online course for the Fall 2006 semester. The author provided the instructional designer with written and verbal directions for reviewing the courses, and both independently reviewed each of the two courses and scored the COPH and QM rubrics. Detailed comments and recommendations were made for redesigning the course to meet the standards. The team then compared and discussed their results. When scores were not the same, standards were reexamined and courses assessed for supporting evidence that standards were met. Reviewers then came to agreement on final scores.

Results

Results of the independent reviews were analyzed. The level of agreement between reviewers was higher with QM standards (60% to 75%) than COPH standards (53% to 79%), with a point spread of 15 for QM and 26 for COPH.

The percent agreement also varied by course. There was a higher level of reviewer agreement on the Leader-

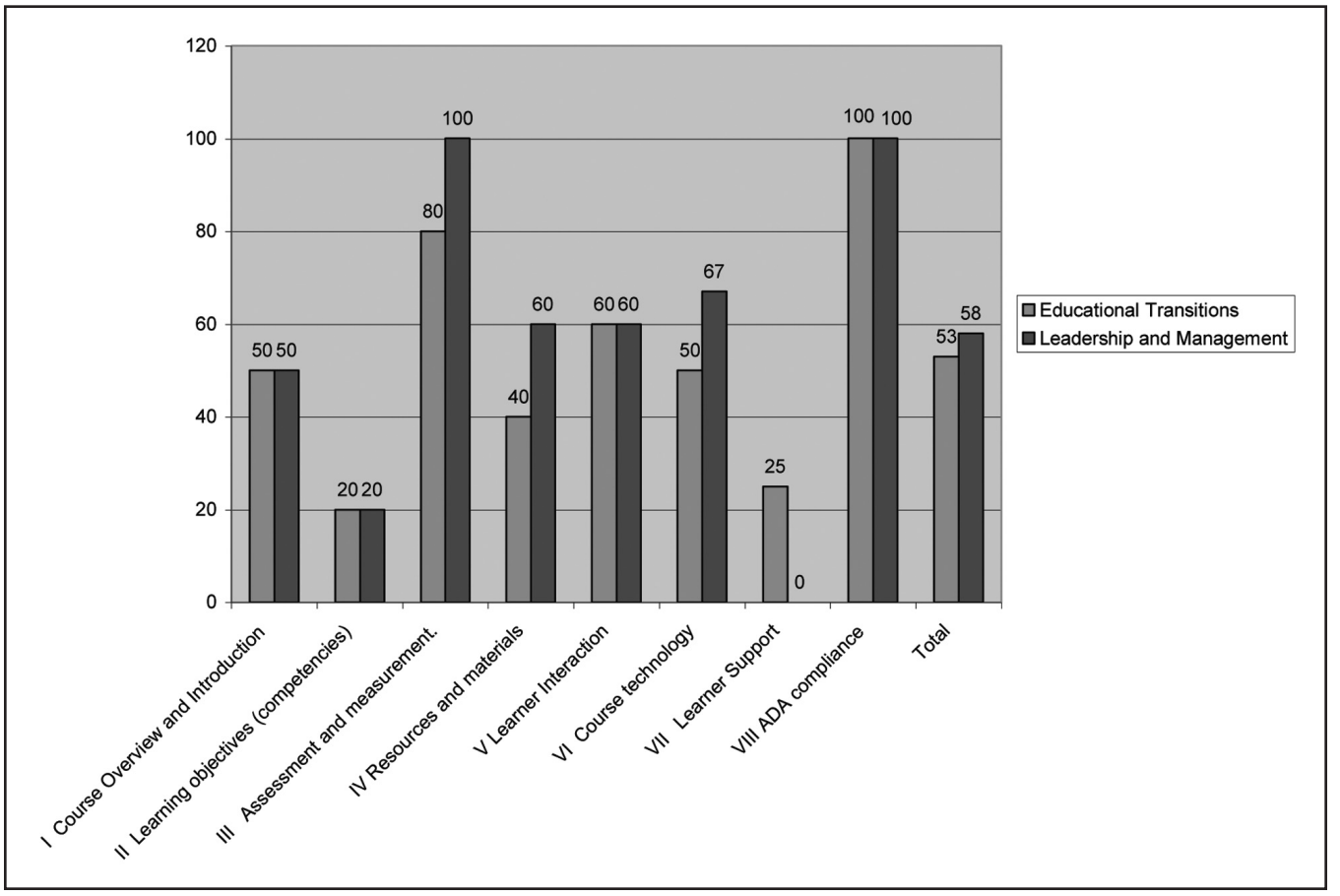

Figure 1. Percentage of each Quality Matters standard met for both courses.
Note. ADA = Americans with Disabilities Act.

ship and Management course (75% to 79%) than on the Educational Transitions course (53% to 60%).

Using the QM rubric, the Educational Transitions course earned a final joint score of 42 points (53%), whereas the Leadership and Management course earned a final joint score of 49 points (58%). Neither course earned the 68 points (85%) required for QM recognition.

Figure 1 shows the percentage of standards met and illustrates the strengths and weaknesses of each course. An analysis of each standard revealed both courses met 80% to 100% of ADA compliance and assessment and measurement categories. Both courses also met 50% to 67% of standards in the course overview and introduction, learner interaction, and course technology categories. The lowest scores were in learning objectives (competencies) and learner support, with each course scoring less than 25%.

Reviewers provided detailed comments with supporting evidence from the course and provided recommendations for each standard. Comments reflected areas of strength and areas for improvement.

Using the COPH rubric, both courses met 70% of the standards. **Figure 2** shows the percentage of standards met in each category. The courses met 100% of course evaluation methods, and 65% to 77% of standards in course delivery, organization and design, and instructional elements categories. The lowest scores were in the category of communication: instructor to student. The Educational Transitions course met 57% of the standards, whereas the Leadership and Management course met 43% of the standards. Reviewers provided supporting evidence and recommendations in the written comments.

Although both tools measured similar elements important to quality online courses, reviewers reported the COPH and QM standards had strengths and areas for improvement. The reviewers also reported the COPH rubric was more time consuming and difficult to use. In addition, use of instructional design jargon was perceived as potentially more difficult for faculty reviewers. Standard 1.2d, "use of grading criteria," was a useful item not included in the QM rubric. Thus, although reviewers reported the QM tool was easier to use and the documented references and correlation with accreditation standards were strengths, perceived weaknesses included the lack of criteria on grading rubrics and copyright information. In addition, some standards overlapped.

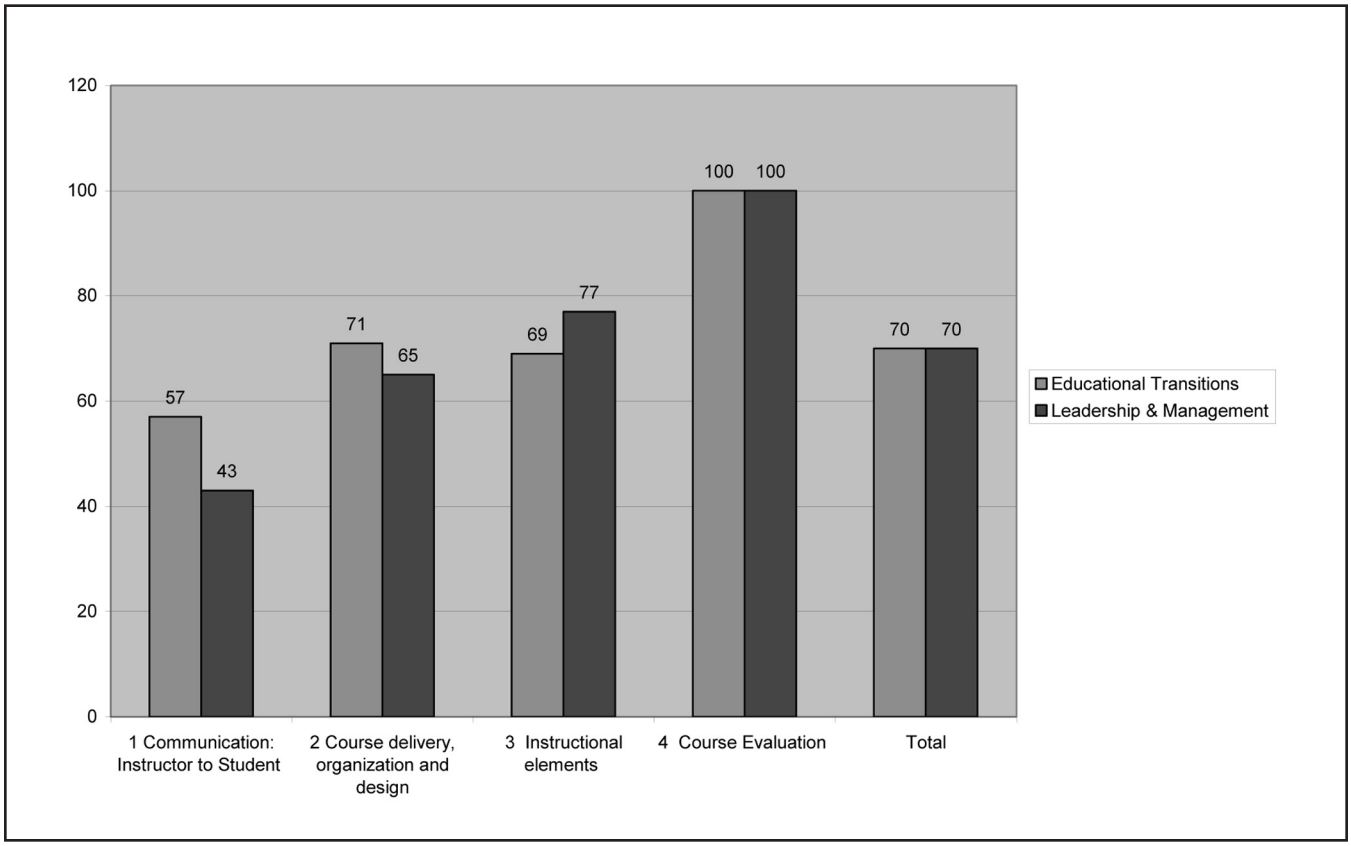

Figure 2. Percentage of each College of Public Health standard met for both courses.

Discussion

The standards for online courses facilitated the peer review process and supplied important criteria for measuring the courses' quality. The QM standards also provided a mechanism for benchmarking against higher education courses throughout the United States.

Using a team that consisted of a faculty member experienced in online education and an instructional designer brought different perspectives and expertise to the peer review process. Lower levels of agreement between reviewers on independent reviews may have been caused by a lack of formal training on the scales, indicating the need for training on standards and the peer review process. Higher agreement on the QM tool also may indicate the tool was easier for reviewers to understand and score. Similarly, courses that meet more of the standards may be easier to review and result in higher agreement among reviewers.

The standards served as benchmarks for high-quality online courses. Although neither course met the required 85% of criteria for QM recognition, this was not unexpected as 50% of courses do not meet this requirement on the first review (QM, 2006b). In addition, standards for Web-based courses have not been instituted in the targeted college, and the level of expertise in Web-based course design varies among individual faculty members.

Analysis of rubric scores revealed trends in criteria that were not met in either course, indicating the need for educational program improvement and faculty training. For example, QM criteria for navigational instructions, faculty self-introduction, course and module learning objectives, purpose of the course materials, maximization of technology, and learner support were not met in either course. Similarly, the COPH criteria for syllabus elements, components of lessons and modules, consistent use of terminology, lesson objectives, and effective use of media were not met in either course.

Reviewer comments provided recommendations and specific examples of how the course met or did not meet the standards. For example, reviewers noted there was "no type of online introduction or directions for students to get started" for either course. Recommendations provide the faculty and instructional designers with suggestions for improving the quality of the course. The consistency of comments suggested both instruments could be used for accurate evaluation of courses; therefore, other criteria, such as ease of use and support, should be considered in selecting which tool to use.

Although reviewers liked aspects of both tools, they reported several advantages of QM. The QM tool was perceived as easier to use, and a focus on standards for course design, rather than course delivery, facilitated the review process. Supporting literature

and commonly accepted standards for online courses provided additional resources for faculty and instructional designers (QM, 2005b). In addition, courses with QM recognition are comparable on a national level.

This pilot project had several limitations. First, the project included a small convenience sample of only two classes in one university. The courses were archived, and reviewers were not active participants in the courses; thus, instructors' facilitation of learning processes was not assessed. Although both reviewers had extensive education in instructional design of Web-based courses, they did not receive formal training in the specific standards used in the two rubrics. Lack of training may have lowered the percentage of agreement on independent reviews. However, reviewers were able to reach agreement on the final scoring for the joint review by comparing and discussing their results.

Conclusion

Standards and peer review are critical tools for ensuring effective delivery of quality online courses and should be used as guidelines for new course development and revision processes. Peer reviewers in this study recommended the adoption of the QM tool for their college because of its ease of use, content validity, and national recognition. Peer review results should be analyzed as a whole to identify educational program improvement and faculty training needs.

Documentation of an institute's commitment to a quality assurance process for online courses and success in meeting predefined standards for course design is provided by using online course standards. More research on effective quality assurance and measuring instructional effectiveness in online courses is needed (Little, 2009; QM, 2006b).

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