Assuring Quality in Large-Scale Online Course Development

Tina Parscal University of the Rockies <u>tina.parscal@rockies.edu</u>

Deborah Riemer Ashford University <u>deborah.riemer@ashford.edu</u>

Abstract

Student demand for online education requires colleges and universities to rapidly expand the number of courses and programs offered online while maintaining high quality. This paper outlines two universities respective processes to assure quality in large-scale online programs that integrate instructional design, eBook custom publishing, Quality MattersTM standards, faculty development, and internal quality assurance reviews and external peer-reviews.

Introduction

In the fall term of 2008, over 4.6 million students took at least one online course (Allen Seaman, 2010). The growing need for online education is coupled with the demand for accountability and transparency in higher education. In the era of such programs as *No Child Left Behind*, institutions are asked to publicly and systemically assess student learning and measure the effectiveness and quality of their educational offerings. Colleges and universities, particularly those that are experiencing marked increases in student enrollment and expansion of degree programs, are instituting policies and processes to assure academic quality, fidelity, and rigor in their online and campus-based programs.

Founded in 1918, Ashford University offers graduate and undergraduate degree programs online and at its Clinton, Iowa campus.University of the Rockies is a graduate school specializing in master's and doctorate degree programs in psychology. Classes are offered online and at the University's Colorado Springs, Colorado campus.Both institutions are accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools and are part of Bridgepoint Education.

Quality Matters[™]

Both Ashford University (Ashford) and the University of the Rockies (Rockies) subscribe to Quality MattersTM. The Quality MattersTM (QM) program is a faculty-centered peer course review quality assurance process for online courses. The goals of the program are to increase student retention, learning and satisfaction in online courses by implementing better course design. QM has been adopted by hundreds of higher education institutions across 35 states and Canada. The QM Rubric is based in national standards of best practice, the research literature, and sound instructional design principles. The QM standards involve the evaluation of course overview and introductions, learning outcomes, assessment and measurement, resources and materials, student interaction, course technology, learner support, accessibility, as well as the alignment among these elements within the course. These standards and best practices can be leveraged for an institutional approach to quality assurance through faculty development

and support; instructional design and course development; quality assurance; and assessment.

Faculty Development

Skilled faculty members and robust faculty development programs are key components of quality online learning (Rockwell, Schauer, Fritz, Marx, 2000; US Department of Education, 2006; North Central Association of Colleges and Schools, Higher Learning Commission, 2007). Faculty development for online educators must provide both training as well as continuous support (Willis, 1994). The focus on the quality of faculty members begins with screening and selection of faculty. At both Ashford and University of the Rockies, potential faculty are screened, interviewed, and vetted for both academic and professional qualifications. All potential online faculty participate in a three-week online interview and training course that assesses their skills in computer-mediated communication, adult learning and pedagogy, discussion facilitation, and providing formative and summative feedback to students. Additionally, seasoned faculty members are trainers at Ashford and University of Rockies are certified reviewers by Quality MattersTM and efforts are underway to train and certify many online faculty. On-going faculty development opportunities are provided by a partnership of academic affairs and learning and development departments.

Continuous support is another essential element of quality assurance for online learning. Both institutions utilize specially trained Instructional Specialists to provide instructional support to faculty members teaching online. Online Faculty Mentors and Lead Faculty also provide content area and pedagogical support to online faculty. Zygouris-Coe et al (2009) found that a well-structured quality-assurance strategy for monitoring online faculty was reported to be worthwhile and had a positive impact on the instructors performance in the online classroom.

Instructional Design and Course Development

High quality online courses are intentionally designed by skilled professionals and guided by best practices and current research in teaching and learning. In large scale course development projects, Course Developers are faculty and/or subject matter experts who bring their content knowledge and teaching experience to the development project. By pairing faculty members with instructional design and curriculum specialists in an environment that provides project management, process infrastructure, and tools and support systems, online courses can be developed on a large-scale while maintaining high quality. University of the Rockies and Ashford University have each developed a course development process that balances the need for rapid course development while maintaining the benchmarks for high quality. Since Ashford University and University of the Rockies have different missions, values, and administrative and governance structures, as well as serve different student populations, their respective course development processes and procedures reflect their unique mission and identities.

However, both institutions use course development templates that support course development teams and provide guidance regarding course quality standards and pedagogical philosophies. Course design templates are effective tools to establish and support the course design standards, style guidelines, and instructional expectations of the institution (Henry et al, 2008).

Ashford University has separate, but overlapping, processes for the development of new courses and the revisions of existing ones. New course development is preceded by meticulous research and a resulting program proposal prepared by the Program Director which is submitted through an approval process governed by the faculty of the university. Once approval has been granted, the course development process begins.

For both new courses and existing courses scoped for revision, the Program Director screens and selects a subject matter expert or a team of experts to develop (or revise) the course (or program). In the case of a teaming (sometimes this is preferred for new programs), the course development team convenes to brainstorm, collaborate, strategize, and to set the direction for course development. The course development team consists of some or all of the following: Course Developer (subject matter expert), Instructional Designer, Curriculum Coordinator, Technology Specialist, and Assessment Specialist. For both course development scenarios (new and existing) the Course Developers are sent a Course Developer

Kit. The kit contains the course developers template, course specific information (such as program and course outcomes, course description, and other relevant items) including guidelines prepared by the Instructional Designer or the Program Director, a link to the course developers blog, and the text (if already chosen).

The Course Developer submits course content to the Instructional Designer for review and formative feedback. This is an iterative process with the Instructional Designer and Course Developer working collaboratively with the templates and learning resources. Together they select the appropriate instructional strategy, ensure proper sequencing, and integrate instructional media solutions per established guidelines. The Instructional Designer works closely with the Instructional Technology Specialists to develop the multimedia solutions.

For courses identified for custom publishing, textbooks are specially written and tailored to align with and support course learning outcomes, Ashford's course delivery model, and most importantly, the Ashford University learner. Program Directors work directly with Bridgepoint Educations publishing group to develop the texts. They are offered to students and faculty as eBooks or hard copies. Additionally, Ashford is working with the major publishers to offer students the eBooks alternative for all texts.

The final draft of the course content is then reviewed by the Program Director and, once approved, submitted to the Dean for approval. Concurrently, a Curriculum Coordinator creates or updates a master course in the learning management system and creates or updates the Waypoint OutcomesTM rubric. Waypoint OutcomesTM is an assessment software tool that collects assessment data and provides formative and summative feedback to students related to the assessment. Further, for revised courses, the Curriculum Coordinator initiates communications with teaching faculty and academic advising regardin

Once courses have been completed, the academic quality administrator, who is also the co-QM Institution Representative, performs an informal internal QM review and works with the Instructional Designer to make changes to the courses is necessary.

The University of the Rockies uses a similar workflow for course development. New courses and programs ideas are researched for feasibility, fit with the mission and identity of the University and potential student needs. A curriculum and assessment plan is developed and the program or course is submitted through the faculty governance structure for approval. Courses are generally scheduled for revision by a Faculty Content Area Coordinator (a lead faculty for that specific content area) or Program Director. The course is then assigned to a Curriculum Coordinator who selects and contracts a Course Developer who has been approved by the Dean. The Curriculum Coordinator provides the Course Developer with the Course Development Guide, Course Development Guide Template, and project schedule.

The Course Development Guide provides Course Developers with information about the Universitys values, mission, and instructional philosophy; the institutional and programmatic learning outcomes, current research and best practices for such tasks as selecting learning resources; writing strong learning outcomes, discussion questions that foster retention and student engagement; aligning assessment with outcomes, and employing active learning strategies in asynchronous learning environments.

The Course Development Template is a document template that Course Developers complete for each essential element of the online course (e.g. instructional strategies, sequencing of content, weekly learning outcome, learning resources, discussion questions, and assessments). Like Ashford University, the University of Rockies template was designed to support Quality MattersTM standards and provides the Course Developer with suggestions, checklists, and issues to consider to aid in the development of the online course content.

With the support of the Curriculum Coordinator, the Course Developer writes the first draft of the course including the high level course outline and learning outcome and topic map, the summative (final) assessment, and Week 1 of the content. This draft and course outline is reviewed and approved by the Instructional Designer and Lead Developer. The Lead Developer is a faculty member who provides curriculum oversight to a degree program or specialization area and serves as the lead subject matter

expert. Concurrently, the Curriculum Coordinator and Course Developer review and select books, learning resources, and media enhancements which are approved by the Dean.

Once the first deliverable is approved by the Curriculum Coordinator and Lead Developer (if applicable), the Course Developer develops the rest of the course content, which is iteratively reviewed and approved by the Curriculum Coordinator and Lead Developer or Program Director. Once the Course Template is complete and approved, the course is then reviewed by the Instructional Designer.

Once the course has been approved by the Curriculum Coordinator, Lead Developer, and Instructional Designer, it is submitted to the Director of Academic Quality to be reviewed by Quality Assurance Reviewers. The QA Reviewers are Quality Matters[™] certified reviewers who hold at least a masters degree (most hold terminal degrees) in instructional design. The QA Reviewers use the Quality Matters Rubric to review each course. Once the course is approved by the QA Reviewer, the Curriculum Coordinator creates the course master into the learning management system.

Quality Assurance

Within the Quality MattersTM program, courses are reviewed by a team of three peer reviewers using the QM Rubric. Ashford University and University of the Rockies both perform informal internal and formal external reviews of all online courses. The formal external review is performed through Quality MattersTM and utilizes at least one external reviewer, one master reviewer, and one faculty or course developer who are familiar with the course. Both institutions are formally submitting all courses through a formal QM review.

Measuring Effectiveness

Student end-of-course surveys. Student feedback in the form of end of course surveys provide institutions with information students educational experiences. Both Ashford University and University of the Rockies survey all students at the end of the each online course. Five of the student end-of-course surveys (SEOSC)questions directly address academic quality:

- The quality of my educational experience has met my expectations.
- How would you rate the quality of your instructor?
- How would you rate the quality of this course?
- How would you rate the quality of the course material?

The data from these surveys are used to gauge the quality of the holistic student experience, instructor, course, and course materials. Further, there is a feedback mechanism for online faculty to provide feedback about course design or issues with courses (e.g. dead links) to the curriculum team. Instructional specialists and other members of academic affairs work with faculty members who may need assistance or guidance based on the SEOSC data.

Course developers experience. University of the Rockies surveyed the course developers who participated in a large-scale course development project using the Quality MattersTM tools and templates. The unpublished results were presented at a conference in 2009 (Kirkpatrick, Parscal, Steed, 2009).

Of the 33 course developers who responded to the survey, 73% reported being experienced with online course development, but only 21% reported that their prior experience with online course development was with University of the Rockies. When asked to rate their level of experience with online course development after the course development project, the majority of developers reported that they were experienced or highly experienced.

Table 1. Experience of course developers

Level	Number	Percentage
Highly experienced	5	15.2%
Experienced	15	45.5
Developing	9	27.3
Beginning	9	27.3
Inexperienced	0	0

The majority of developers found the Course Developers Guide provided useful information about the Universitys standards for online courses.

Table 2. Question: The Course Developer's Guide provided me with useful information about the University of the Rockies standards.

Response	Number	Percentage
Strongly agree	11	33.0%
Agree	20	60.6%
Neutral	1	3.0%
Disagree	1	3.0%
Strongly disagree	0	0

Table 3. Question: The Course Developer's Guide provided me with useful information about designing a high quality online course.

Response	Number	Percentage
Strongly agree	11	33.0%
Agree	20	60.6%
Neutral	2	6.0%
Disagree	0	0
Strongly disagree	0	0

Most course developers reported that the template helped the developer be more effective (Table 4) and produce a high quality course (Table 5).

Table 4: Question: The Course Developer's Template helped me to be more effective as a Course Developer.

Response	Number	Percentage
Strongly agree	8	24.2%
Agree	19	57.6%
Neutral	4	12.1%
Disagree	1	3.0%
Strongly disagree	1	3.0%

Table 5. Question: The Course Developer's Template helped me to develop what I consider to be a high quality course.

Response	Number	Percentage
Strongly agree	11	33%
Agree	18	54.5%
Neutral	3	9.1%
Disagree	1	3.0%
Strongly disagree	0	0

Future Studies

Research is underway that surveys both Ashford University and University of the Rockies course developers about their experience developing courses using the processes and tools. Further, research is occurring that examines the quality of course design from the student perspective.

Conclusion

Institutions that offer online education can leverage the use of tools such as templates and quality assurance rubrics such as Quality Matters TM to set expectations and internal standards for academic quality and rigor. The use of templates enable Course Developers to focus on the course content and pedagogy by scaffolding the alignment, navigation, and formatting. By having an Instructional Designer review the Course Developer&s first submission which is essentially a proof-of-concept and high level design document, provides the Course Developer and Lead Faculty with formative feedback to inform the revision of the first deliverable and the creation of the remaining content for the course. Further, two levels of quality assurance reviews using a valid and reliable rubric, provides the institution with confidence that the courses are of high quality.

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