Evaluation of Blended Courses Design for Quality Assurance and Continuous Improvement at Umm Al-Qura University

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During the last few years, Umm Al-Qura University (UQU) has been increasing the use of learning technologies for the courses delivery and quality.

Standards of courses design are significant to obtain a clear picture of state of E-learning at UQU. Accordingly, Deanship of E-Learning at UQU adopted Quality Matters Standards of course design.

Several studies indicated quality is the whole experience of the learner.
Quality Matters™ offers numerous tools to help instructors evaluate either online or blended courses and to develop high quality courses based on current research and best practices.

Quality Matters Rubric has become the most widely used a set of standards for the design of online and blended courses at higher education level.

While the Quality Matters™ rubric is challenged toward evaluating blended and online course design, it is also a masterly professional development tool.
The rubric consists of forty-one (41) specific review standards distributed across eight (8) general standards listed in figure (1) (Maryland Online, 2013b; Wagne, 2011; Shattuck, et al., 2014).
There are twenty-one (21) "Essential standards" equal three (3) points estimation, twelve (12) "Very Important standards" equal two (2) points estimation, and eight (8) "Important standards" equal one (1) point estimation.

To achieve quality, the course must earn a minimum of eighty-one (81) points of ninety-five (95) points. On the other hand, The course must include all of the essential standards.
Consequently, several QM standards are considered as foundation for the best educational practices such as writing measurable learning objectives aligned the course objectives to assignments, activities, and assessments.
The QM standards 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.
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The current research aims to:

- Apply the QM rubric on blended courses at UQU to improve the design process.
- Investigate the review process
- Identify "gaps" of blended courses design and strengths aspects
- Suggest promising areas that need to be re-designed and developed
- Assist to launch high quality e-courses.
Methodology: Sample

- Two (2) of ten (10) courses (20%) have been developed at the Deanship of e-Learning at UQU were selected.
- The first course is "Web Sites Development_332 (34/35)" whereas the second is "Surgery_3M (34/35)".
- Both courses were designed and developed in-house (Deanship).
- The review team consisted of (e-Learning expert, two instructional designers), and Instructor.
- The instructor was a "course representative" to help the review team with additional information about the course during the review process.
This research was designed to examine the use of the QM Standard to enhance the design of blended courses.

Research Instrument used is (QM Rubric) through an internal review record form to evaluate the quality of course design.

The Rubric consists of eight (8) major categories through forty-one (41) standards. The 2011-2013 version (Maryland Online, 2013b) were used in current research.

A questionnaire was presented to "production team" which measured satisfaction and familiarity with QM Rubric.
Methodology: Procedure

• The QM rubric focuses on course design that supports student learning, rather than on course delivery or academic content (QM, 2013b).

• Two approaches to using the QM program are identified as follow.

• First is the Formal (Official) review is carried out by a team of three reviewers.

• The other is Informal review can be done by one or more reviewers from the university.
The informal (non-official) review was carried out by the review team at the current paper.

The review team provided scores that reflect what extent a course met the standards.

Recommendations were assisted Instructors to update the course design for supporting student learning (Swan, K., et al., 2012; QM, 2013).
Process of e-courses review

1. Identify e-courses for review.
2. Revise the course worksheet.
3. Revise each standard annotation.
4. Look for evidence in the course.
5. Identify if the course meet each St. at an 85% or higher.
6. Write helpful recommendations.
7. Recommend re-designing the required components for enhancement.
In frame of review process description, Each reviewer in the review team took a decision about whether or not each course met the Specific Review Standard (e.g., either "Met", the course met the Specific Review Standard, or "Not Met", it did not yet meet the Specific Review Standard).
## Review Rubric Scoring

<table>
<thead>
<tr>
<th>Specific Standard (SRS)</th>
<th>Points</th>
<th>Peer Review Team (3 reviewers)</th>
<th>Points awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>&quot;Met&quot;s</td>
<td>Not &quot;Met&quot;s</td>
</tr>
<tr>
<td>St. 1.1</td>
<td>3 ps.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>St. 3.4</td>
<td>2 ps.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>St. 6.5</td>
<td>1 p.</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
Research Findings

- Results identified that Reviewers had positive perceptions to the rubric utilization.

- Course design included several components such as: structure of the course, learning objectives, organization of content and instructional strategies. Each component was taken into account during the instructional design process of course.

- Applying the rubric scores revealed the criteria were not met in each course and specified the required improvements.
Results of the independent reviews were analyzed, the level of agreement between reviewers was higher with QM standards (75% to 85%).

After reviewing both courses carefully, Several examples presented below- of how did decision the review team made for specific review standards.
Standard 1.1 (3pts.):

- With regard to, "Web Sites Development" course, students were told how to begin the course by accessing the “Begin Here” button.

- An overview of the course was given and how to use D2L including a screenshot of the instructor’s D2L page was added.

- The links to learner materials in the Unit Folders were included in the Course Content and due dates and deadlines were provided.

- Greater attention was given to instructions and details in significant areas such as assignments and using discussion.
Accordingly, The review team gave the course a grade of "Met" for this Standard.

Whereas "Surgery" course, instructions in “the Welcome message” that pointed students to that link were missed.

The navigation bar in the "Begin Here page" was small and hard to read.

Accordingly, The review team gave the course a grade of "Not Met" for this Standard.
Research Findings

- **Standard 8.2 (2pts.)**
  - With regard to, "Web Sites Development" course, A variety of alternative media and materials were included in the course to support accessibility and usability to meet the needs of all learners including: PowerPoints PDFs, simulation.
  - These alternatives supported standard 8.2 in order to ensure that all students can easily access the information.
  - Accordingly, The review team gave the course a grade of "Met" for this Standard
  - Whereas "Surgery" course, accessibility to all of various
instructional resources was not clear.

- Multimedia, pictures, and audio files were lacked.
- Accordingly, The review team gave the course a grade of "Not Met" for this Standard.
- With regard to reviewers recommendations, the instructor and developers team should add helpful multimedia and audio to represent examples for surgery modules.
- Consequently, Standard 8.2 required that the course should provide alternative means of accessing course materials to accommodate diverse learner demands.
Courses Re-Design

- Analysis of rubric scores detected the criteria that were not met in either course, indicating the need for course design improvement.
- A specific recommendation included clear information to help the instructor set where the course did not yet meet the standard and how to improve the course so that it met.
- A measurable recommendation described how the instructor can improve the course in observable terms.
- The course developers team performed necessary improvements with assistance of the instructor in each course.
The findings confirmed the conclusions by Kirkpatrick (2005) and Ehlers (2004) that needs-based learner services were essential for improving a quality of e-course, and by Dolog et al. (2004) that "learner support" has become more important with the development of courses.
Conclusion

- QM Standards were investigated as perceptive tools for course design to certify effective delivery of quality blended courses.
- The blended courses refered to merge online with traditional face-to-face classroom activities in a planned, pedagogically valuable manner where 25 -50% of instruction executed online.
- The standards were used as guidelines for new course development and revision processes.
- The acceptance of the QM tool at higher education level is recommended due to its ease of use content validity, and international estimation.
The results can be investigated in the frame of limited conditions of educational settings especially instructional design supported to faculty.

The goal for implementing QM was to improve blended course design quality.

The contribution was to provide instructional designers and instructors with suggestions to adjust the design process for improving the quality of the course design.
The current research had some limitations.

- First, the research included a small relevance sample of only two courses at the university.
- Second, it was not official (non-formal) reviewed and it was carried out internally in the deanship of eLearning at UQU.
More research on effective quality assurance and measuring instructional effectiveness of online and blended courses is needed (Legon, 2007; Little, 2009; QM, 2013b; Sowan & Jenkins, 2013).

This paper provided an outline for launching high quality e-courses based on QM standards that will be have interest to decision makers of e-Learning deanships at Saudi universities.
Further research is recommended related to design empirical studies to evaluate the effectiveness of the QM on students motivation and engagement.

Another area for future research is to study potential embedding of QM rubric within the LMS to support the assessment process from both student and instructor perspectives.
Thanks for your attention!

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