Measuring Online Course Design: A Comparative Analysis

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This paper investigated the differences between students’ and QM peer reviewers’ perspectives of essential QM standards in three online courses. The results indicated that both peer reviewers and students share the same point of view in regard to evidencing the standards. However, they differed significantly regarding three of the essential standards. Factors that might cause the discrepancy are further discussed.

Keywords: Quality Matters, online course, design

Introduction

Online learning programs have grown tremendously over the last ten years. Best practices and standards for online programs and courses have been developed and implemented in higher education. To ensure the quality of online courses it is critical that online courses are designed according to a set of best practices or standards before they are delivered to students. Quality Matters is a faculty-driven, peer-review process that is collaborative, collegial, continuous, and centered in national standards of best practices and research findings in online and blended learning to promote student learning. It has been widely-adopted by higher education across the nation as a process and a rubric to continuously improve online course quality.

This study attempted to (1) validate the instrument design based on QM Standards to measure online course design; (2) investigate to what degree the selected courses meet QM standards from a student’s perspective, and (3) identify gaps between students’ perspectives and QM certified reviewers’ perspectives about QM essential standards.

The results of this study indicated that most of the items in the instrument were designed according to the Quality Matters standards work to measure the design perspective of online courses. The results also show there are three tiers (Tier I: to a great extent, Tier II: to a moderate extent, and Tier III: to little or some extent) in regard to meeting the standards in the three courses.

The results on most of the standards evaluated in this study provided by both reviewers and students are the same, indicating that both peer reviewers and students take the same point view in regard to evidencing the standards; however, they differed significantly with three of the essential standards regarding course objectives, unit learning objectives, and grading policy. One factor that might possible lead to this discrepancy is that reviewers look for solid evidencing aligned with measurable learning outcomes while students look for clearly articulated objectives.

A The University of Toledo
Literature Review

Student Perspectives

Several QM-related studies have been conducted with regard to student perspectives. These studies can be separated into two categories: a) student perceptions of the value of QM features in an online course, and b) student opinions about whether a course meets QM standards or not. Ralston-Berg and Nath (2008) stated that students value the same standards marked as essential “3” and very important “2” by QM, but value significantly less on standards marked as important “1” by QM. They further noted that students who claim to have high satisfaction in online courses also value all QM features over those who claim low satisfaction. Similarly, in Ralston’s (2011) study results by rank of importance to students for success correlated with QM standards. Knowles and Kalata (2010) as cited in Shattuck (2012) stated that there might be a discrepancy in expectations between students and experienced QM master reviewers. They further offered possible explanations about this possible discrepancy—that students simply completed the survey without thinking about the standards and the course content or many of the design aspects that were clarified by the instructors during the course were being taught via channels that are not available to the peer reviewers.

Quality Matters Standards and Review Process

Quality Matters (QM) is a process and a rubric to continuously improve online course quality (Shattuck, 2012). It is a faculty-driven, peer-review process that is collaborative, collegial, continuous, and centered in national standards of best practices and research findings in online and blended learning to promote student learning. Quality Matters is a leader in quality assurance for online education and has received national recognition for its peer-based approach and continuous improvement in online education and student learning. The research-based QM Rubric is designed to evaluate only course design—not course delivery or content. The QM Rubric consists of eight broad categories broken down into 41 individual standards. These 41 standards can be used in a variety of ways ranging from providing guidelines for course development to the evaluation and certification of courses through an internal or external review process.

The goal of the QM review process is to continuously improve online course quality. According to Shattuck (2007), the process begins with a mature course, meaning the course has been offered for at least 2 semesters and the course instructor has revised it based on previous experiences. A review team with three certified QM reviewers who have online teaching experiences will review the course and provide feedback to the course developer. When conducting formal reviews, one of the review team members must be a subject matter expert in the field of the course being reviewed and one member must be a master reviewer. In the event that a course does not meet the required 85% (81 of 96 points, including all 21 3-point essential specific standards) constructive recommendations will be sent to the instructor/course developer. The instructor/course developer can meet with instructional designers to revise the course according to the recommendations. All courses reviewed by the QM review team are expected to meet the standards after necessary design improvements.
Statement of Problem

Research indicates that there are many factors that can affect online course quality. Some of these factors include course design, course delivery, infrastructures, learning management systems, faculty readiness, student readiness, etc. Course design is one of the critical pieces in the quality control process as it affects course delivery and the overall success of online programs. Quality Matters (QM) is a process and a tool to continuously improve online course quality (Shattuck, 2012). The 2011-2013 edition of the QM Rubric standards for higher education includes eight general categories with 41 specific standards addressing different aspects of online course design. 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. A team of three certified QM peer reviewers review online courses according to QM annotated standards and provide constructive feedback to course developers. Although QM peer reviewers are asked to assume a student’s point of view when reviewing online courses there exists the potential for differing perspectives. Therefore, it is necessary to collect feedback from students about the course design.

This study attempts to achieve three objectives. First, it attempts to validate the instrument design based on QM Standards to measure online course design. Second, it attempts to analyze the data and understand to what degree the selected courses meet QM standards from a student’s perspective. Third, it attempts to identify existing gaps between a student’s perspective and QM certified reviewers’ perspectives about QM essential standards.

Method

Instrument

Based upon the QM standards, an instructional design team developed a questionnaire that included 27 Likert-items questions (to little or no extent 1-5 to a great extent) and three open-ended questions. Feedback was also obtained from a professor in the field of research and measurement. The instrument, simply referred to as the Online Course Design Evaluation Tool, specifically focuses on the design aspect of online courses.

Data Collection

Student Data

Since fall 2011, the Online Course Design Evaluation Tool has been used at the university to collect feedback from students about design aspects of online courses. The project team identified three online courses for this project. One course was offered in fall 2011 and 35 students completed the survey and two courses were offered in spring 2012 whereby 18 students completed the survey in the first course and 20 students in the second course.

Reviewer Data

Three QM certified reviewers who were trained to review online courses from a student’s point of view collected data and provided reports on each of the three courses; however, because this particular review was not an official review, none of the reviewers were subject matter experts in the field of study of these courses.
Data Coding and Analysis

To satisfy the first and second objectives of this study, data were collected from the three online courses and analyzed separately with Winsteps—a Windows-based software that assists with several Rasch model applications—particularly in the areas of educational testing, attitude surveys and rating scale analysis (Linacre, J. M., 2009).

To address the third objective of this project the resulting data were treated. Students’ results were converted into a measure that is comparable to the reviewers’ rating. Student responses of to a great extent “4” or to a very great extent “5” are used as at or above 85% level and coded as “1”. Student responses of to a moderate extent “3”, to some extent “2” and to little or no extent “1” are used as below 85% level and coded as “0”. According to the majority rule principle, if 2/3 of the students selects to a great extent “4” or to a very great extent “5” for an item in the survey then it is determined that the course meets that specific standard from a student’s perspective. See Tables 1, 2, and 3.

Three QM certified peer reviewers reviewed the three courses according to QM standards and input their scores into a spreadsheet. If a standard was met, “1” was recorded for the standard. If a standard was not met, “0” was recorded for the standard. If two (2/3) of the peer reviewers assigned a score to a specific standard, then it was determined that the course met the standard from a peer reviewer’s perspective. See Tables 1, 2, and 3.

The data were treated in a spreadsheet and analyzed with SPSS. A nonparametric Mann-Whitney U test (2 independent samples) was used to evaluate median differences between the two groups (students and peer reviewers). Although the peer reviewers were asked to take a student’s point of view, the two groups were independent.

Results

Course A

Thirty-five out of the 44 students completed the course design evaluation survey with a response rate of 79.55%. The person reliability was 0.83 and the item reliability was 0.48.

The item statistics indicate that Item 1 (MNSQ = 3.31) will need to be revised and Item 16 (MNSQ = 3.13) will need to be revised or dropped if the instrument is used in the future.

The Item Map (Fig. 1) indicates that there are three tiers regarding course quality from a student’s perspective. Tier I contains the items that students strongly agreed with, thus indicating the course met Standards 2.1 (Item 4), 3.1 (Item 14), 3.2 (Item 15), 6.1 (Item 20), 3.3 (Item 7) to a great extent. Tier II contains items that students agreed with, which indicates that course met those standards to a moderate extent. Tier III contains items that students agreed with to some extent, thus indicating that the course did not meet Standards 7.1 (Item 24), 5.1 (Item 13), and 8.1 (Item 25).

Course B

Eighteen out of the 38 students completed the course design evaluation survey with a response rate of 47.37%. The person reliability was 0.95 and the item reliability is 0.63.

The item statistics indicate that Item 14 (MNSQ = 2.29) needs to be revised if the instrument is used in the future.

The Item Map (Fig. 2) indicates that there are three tiers regarding course
Figure 1. Course A item map
quality from a student's perspective. Tier I contains the items that students strongly agreed with, which indicates the course met Standards 3.3 (Item 7), 3.2 (Item 15), 3.2 (Item 15) to a great extent. Tier II contains the items that students agreed with, thereby indicating that the course met these standards to a moderate extent. Tier III contains items that students agreed with to some extent, thus indicating that the course did not meet Standards 7.2 (Item 24) and 8.1 (Item 25).

**Course C**

Twenty out of the 22 students completed the course design evaluation survey with a response rate of 90.91%. The person reliability was 0.96 and the item reliability was 0.78.

The item statistics indicate that Item 10 (MNSQ = 2.83) will be dropped and Item 12 (MNSQ = 2.64) and Item 6 (MNSQ = 2.60) will need to be revised if the instrument is used in the future.

The Item Map (Fig. 3) indicates that there are three tiers regarding course quality from a student's perspective. Tier I contains the item that students strongly agreed with, indicating the course met Standard 2.2 (Item 5) to a great extent. Tier II contains the items that students agreed with, thus showing that the course met these standards to a moderate extent. Tier III contains the item that students agreed to some extent, demonstrating that the course did not meet Standard (Item 10), a non-essential standard.

To satisfy the third objective of this project the data were treated as follows:

- Students’ results were converted into a measure comparable to that of the reviewers’ rating. Student responses of *to a great extent “4”* or *to a very great extent “5”* were used as at or above 85% level and coded as “1”. Student responses of *to a moderate extent “3”, to some extent “2” and to little or no extent “1”* were used as below 85% level and coded as “0”. According to the majority rule principle if 2/3 of the students selects *to a great extent “4” or to a very great extent “5”* for an item in the survey then it was determined that the course met that particular standard from a student's perspective. See Tables 1, 2, and 3.

- Three QM certified peer reviewers reviewed the three courses according to QM standards and recorded their scores in a spreadsheet. If a standard was met, “1” was recorded for the standard. If a standard was not met, “0” was recorded for the standard. If two (2/3) of the peer reviewers assigned a score to a specific standard then the course met that standard from a peer reviewer’s perspective. See Tables 1, 2, and 3.

The data were treated in a spreadsheet and analyzed with SPSS. A non-parametric Mann-Whitney U test (2 independent samples) was used to evaluate a difference in medians between the two groups (students and peer reviewers). The two groups were different and independent of each other even though peer reviewers are asked to take a student’s view when completing course reviews.
Figure 2. Course B item map
Figure 3. Course C item map
Course A

Students reported that the course met all of the essential standards except Standards 7.1, 7.2, and 8.1 as measured by the instrument developed by the research team. The review results conducted by the three certified peer reviewers (none of the peer reviewers served as an SME on this review) also indicate that the course met most of the essential standards except Standards 2.1, 2.2, 2.4, 3.3, and 8.1.

Table 1 Student and Peer Reviewer Results on the Essential Standards

<table>
<thead>
<tr>
<th>Essential Standards</th>
<th>Student Results</th>
<th>Peer Reviewer Results</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>YES</td>
<td>YES</td>
<td>2</td>
</tr>
<tr>
<td>1.2</td>
<td>YES</td>
<td>YES</td>
<td>1</td>
</tr>
<tr>
<td>2.1</td>
<td>YES</td>
<td>NO</td>
<td>4</td>
</tr>
<tr>
<td>2.2</td>
<td>YES</td>
<td>NO</td>
<td>5</td>
</tr>
<tr>
<td>2.4</td>
<td>YES</td>
<td>NO</td>
<td>6</td>
</tr>
<tr>
<td>3.1</td>
<td>YES</td>
<td>YES</td>
<td>14</td>
</tr>
<tr>
<td>3.2</td>
<td>YES</td>
<td>YES</td>
<td>15</td>
</tr>
<tr>
<td>3.3</td>
<td>YES/YES</td>
<td>NO</td>
<td>7, 16</td>
</tr>
<tr>
<td>4.1</td>
<td>YES</td>
<td>YES</td>
<td>8</td>
</tr>
<tr>
<td>5.1</td>
<td>YES</td>
<td>YES</td>
<td>13</td>
</tr>
<tr>
<td>5.2</td>
<td>YES</td>
<td>YES</td>
<td>12</td>
</tr>
<tr>
<td>6.1</td>
<td>YES</td>
<td>YES</td>
<td>20</td>
</tr>
<tr>
<td>6.3</td>
<td>YES</td>
<td>YES</td>
<td>21</td>
</tr>
<tr>
<td>7.1</td>
<td>NO</td>
<td>YES</td>
<td>22</td>
</tr>
<tr>
<td>7.2</td>
<td>NO</td>
<td>YES</td>
<td>24</td>
</tr>
<tr>
<td>8.1</td>
<td>NO</td>
<td>NO</td>
<td>25</td>
</tr>
</tbody>
</table>

No statistical differences were detected regarding the standards, with the exception of Standards 2.1, 2.4, and 3.3. The two groups differed significantly regarding Standard 2.1 \( U = 1.000, Z = -5.192, p = .000 \), Standard 2.4 \( U = 7.500, Z = -3.393, p = .001 \), and Standard 3.3 (Item 7) \( U = 22.000, Z = -2.819, p = .005 \). See Fig. 4 below.

Figure 4. Mann-Whitney U test statistics
Course B

Students reported that the course met all of the essential standards except Standards 7.1, 7.2 and 8.1 as measured by the Online Course Evaluation Tool; however, the review results conducted by the three certified peer reviewers (none of the peer reviewers served as an SME on this review) indicated that at least five course essential Standards 1.1, 1.2, 2.2, 2.4 and 3.2 did not meet the standards. Similarly, the peer reviewers’ results indicated that the course did not meet Standards 7.1, 7.2, and 8.1, however, interestingly, the students disagreed with that decision.

Table 2 Student and Peer Reviewer Results on the Essential Standards

<table>
<thead>
<tr>
<th>Essential Standards</th>
<th>Student Results</th>
<th>Peer Reviewer Results</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>YES</td>
<td>NO</td>
<td>2</td>
</tr>
<tr>
<td>1.2</td>
<td>YES</td>
<td>NO</td>
<td>1</td>
</tr>
<tr>
<td>2.1</td>
<td>YES</td>
<td>YES</td>
<td>4</td>
</tr>
<tr>
<td>2.2</td>
<td>YES</td>
<td>NO</td>
<td>5</td>
</tr>
<tr>
<td>2.4</td>
<td>YES</td>
<td>NO</td>
<td>6</td>
</tr>
<tr>
<td>3.1</td>
<td>YES</td>
<td>YES</td>
<td>14</td>
</tr>
<tr>
<td>3.2</td>
<td>YES</td>
<td>NO</td>
<td>15</td>
</tr>
<tr>
<td>3.3</td>
<td>YES/YES</td>
<td>YES</td>
<td>7, 16</td>
</tr>
<tr>
<td>4.1</td>
<td>YES</td>
<td>YES</td>
<td>8</td>
</tr>
<tr>
<td>5.1</td>
<td>YES</td>
<td>YES</td>
<td>13</td>
</tr>
<tr>
<td>5.2</td>
<td>YES</td>
<td>YES</td>
<td>12</td>
</tr>
<tr>
<td>6.1</td>
<td>YES</td>
<td>YES</td>
<td>20</td>
</tr>
<tr>
<td>6.3</td>
<td>YES</td>
<td>YES</td>
<td>21</td>
</tr>
<tr>
<td>7.1</td>
<td>NO</td>
<td>YES</td>
<td>22</td>
</tr>
<tr>
<td>7.2</td>
<td>NO</td>
<td>YES</td>
<td>24</td>
</tr>
<tr>
<td>8.1</td>
<td>NO</td>
<td>YES</td>
<td>25</td>
</tr>
</tbody>
</table>

No statistical differences were detected regarding the standards with the exception of Standards 2.2, and 3.2. The two groups differed significantly regarding Standard 2.2 $U = 4.500$, $Z = -2.887$, $p = .004$, and Standard 3.2 $U = 3.000$, $Z = -3.266$, $p = .001$. See Fig. 5 below.
### Figure 5. Mann-Whitney test statistics

<table>
<thead>
<tr>
<th>Test Statistics</th>
<th>S1.2</th>
<th>S5.2</th>
<th>S5.1</th>
<th>S3.1</th>
<th>S3.2</th>
<th>S3.3B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>12.00</td>
<td>21.00</td>
<td>19.50</td>
<td>25.50</td>
<td>3.000</td>
<td>22.500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>18.00</td>
<td>192.00</td>
<td>172.50</td>
<td>31.500</td>
<td>9.000</td>
<td>193.500</td>
</tr>
<tr>
<td>Z</td>
<td>-2.214</td>
<td>-868</td>
<td>-916</td>
<td>-1.92</td>
<td>-3.266</td>
<td>-745</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.027</td>
<td>.375</td>
<td>.360</td>
<td>.847</td>
<td>.001</td>
<td>.456</td>
</tr>
<tr>
<td>Exact Sig. [2*(1-tailed Sig.)]</td>
<td><strong>.153</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.600</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.546</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.887</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.011</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.669</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

*a. Not corrected for ties.*

*b. Grouping Variable: Role*

### Figure 6. Mann-Whitney test statistics

<table>
<thead>
<tr>
<th>Test Statistics</th>
<th>S2.1</th>
<th>S2.2</th>
<th>S2.4</th>
<th>S3.3A</th>
<th>S4.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>24.00</td>
<td>4.500</td>
<td>16.500</td>
<td>24.000</td>
<td>19.500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>195.00</td>
<td>10.500</td>
<td>22.500</td>
<td>195.000</td>
<td>190.500</td>
</tr>
<tr>
<td>Z</td>
<td>-.592</td>
<td>-2.887</td>
<td>-1.291</td>
<td>-.592</td>
<td>-1.021</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.554</td>
<td>.004</td>
<td>.197</td>
<td>.554</td>
<td>.307</td>
</tr>
<tr>
<td>Exact Sig. [2*(1-tailed Sig.)]</td>
<td><strong>.814</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.017</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.307</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.814</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td><strong>.471</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

*a. Not corrected for ties.*

*b. Grouping Variable: Role*
Course C

Students reported that the course met only a few essential standards 1.2, 2.1, 2.2, 2.4, 3.2, 4.1, and 5.2. However, the review results conducted by the three certified peer reviewers (none of the peer reviewers served as an SME on this review) indicated that only three of the essential standards were not met, standards 2.2, 7.2 and 8.1. The peer reviewers’ results for standards 7.2 and 8.1 are in conformity with the students’ results that the course does not meet these standards.

Table 3 Student and Peer Reviewer Results for the Essential Standards

<table>
<thead>
<tr>
<th>Essential Standards</th>
<th>Student Results</th>
<th>Peer Reviewer Results</th>
<th>Items (see the instrument for questions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>NO</td>
<td>YES</td>
<td>2</td>
</tr>
<tr>
<td>1.2</td>
<td>YES</td>
<td>YES</td>
<td>1</td>
</tr>
<tr>
<td>2.1</td>
<td>YES</td>
<td>YES</td>
<td>4</td>
</tr>
<tr>
<td>2.2</td>
<td>YES</td>
<td>NO</td>
<td>5</td>
</tr>
<tr>
<td>2.4</td>
<td>YES</td>
<td>YES</td>
<td>6</td>
</tr>
<tr>
<td>3.1</td>
<td>NO</td>
<td>YES</td>
<td>14</td>
</tr>
<tr>
<td>3.2</td>
<td>YES</td>
<td>YES</td>
<td>15</td>
</tr>
<tr>
<td>3.3</td>
<td>NO/YES</td>
<td>YES</td>
<td>7, 16</td>
</tr>
<tr>
<td>4.1</td>
<td>YES</td>
<td>YES</td>
<td>8</td>
</tr>
<tr>
<td>5.1</td>
<td>NO</td>
<td>YES</td>
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</tr>
<tr>
<td>5.2</td>
<td>YES</td>
<td>YES</td>
<td>12</td>
</tr>
<tr>
<td>6.1</td>
<td>NO</td>
<td>YES</td>
<td>20</td>
</tr>
<tr>
<td>6.3</td>
<td>NO</td>
<td>YES</td>
<td>21</td>
</tr>
<tr>
<td>7.1</td>
<td>NO</td>
<td>YES</td>
<td>22</td>
</tr>
<tr>
<td>7.2</td>
<td>NO</td>
<td>NO</td>
<td>24</td>
</tr>
<tr>
<td>8.1</td>
<td>NO</td>
<td>NO</td>
<td>25</td>
</tr>
</tbody>
</table>

No statistical differences were detected regarding the standards except Standard 2.2. The two groups differed significantly regarding Standard 2.2 \( U = 11.500, Z = -2.892, p = .004 \). See

![Table 3 Student and Peer Reviewer Results for the Essential Standards](image)

Figure 7. Mann-Whitney U test statistics
Discussion

We investigated the differences between students and peer reviewers regarding the essential standards in three online courses. When the courses were approved for design the faculty course developers were provided a copy of the Quality Matters Rubrics in the beginning of the course development process. Instructional designers, who were certified QM peer reviewers, were available for individual consultations during the design and development process. The faculty course developers were very familiar with the standards and agreed that it was essential to incorporate the standards into online course design processes.

As reported in the results section, in course A the results reported by students and peer reviewers differed significantly in regards to Standard 2.1 (The course learning objectives describe outcomes that are measurable) and Standard 2.4 (Instructions to students on how to meet the learning objectives are adequate and stated clearly). For Standard 2.1, the students were asked to report whether course objectives were clearly presented in the course syllabus. For Standard 2.4, both reviewers and students were asked to report whether clear instructions on how students should meet the learning objectives are articulated in the course. Students reported that the instructions were available. However, reviewers do not agree as one stated:

Standard 2.4 calls for clear instructions on how students should meet the learning objectives. The course design does a good job in providing students with a brief introduction to each Chapter topic; however, it is somewhat difficult to understand which learning activities, resources, assignments, and assessments support the learning objectives for each unit week. It is important to help students connect the dots between chapter level objectives and the assigned activities and assessment for the week.

Apparently peer reviewers are looking for above average at approximately 85%. Students might think the brief introduction to each chapter provides instructions on how to achieve the learning objectives. The overall satisfaction of the course might also affect students’ rating on the standards as the majority rated the course as excellent. A third factor that might contribute to the difference is the student satisfaction of the teacher. The responses to the open-ended questions indicated that the professor was excellent and cares about student learning, as one student stated:

The professor always leads a very informative, fun, and creative class and this one was not an exception. I learned a plethora of new things from the reading, assignments, and independent studies throughout the semester.

In course B the results reported by students and peer reviewers differed significantly regarding Standard 2.2 (The module/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives) and Standard 3.2 (The course grading policy is stated clearly). For Standard 2.2, the students were asked to report whether module/unit objectives were clearly stated in each unit. For Standard 3.2, both reviewers and students were asked to report whether grading policy was clearly articulated in the course. Students reported that the grading policy was available, however, the majority of the reviewers thought that the policy was not clear enough. One reviewer stated:

Standard 3.2 asks for a clear, written description on how student’s grades will be calculated, for instance, the total points for each assignment, the percentages or weights for each component of the course
grade. It would be helpful to provide an overall list of assignments, points, percentages or weights in the syllabus so that students are acknowledged upfront on how they will be evaluated without digging deeper in the Unit content pages.

As mentioned previously, the overall satisfaction of the course and the instructor might also affect students’ rating on the standards as students stated:

Overall, this course has given me a lot of valuable information that I can use in the classroom.

I appreciate all the help given to me throughout the years. This was not an easy thing to accomplish, but I have and I will always remember all those that have helped me succeed.

In course C the results reported by students and peer reviewers differed significantly in regards to Standard 2.2 (The module/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives). The students were asked to report whether module/unit objectives were clearly stated in each unit. While the reviewers look for solid evidencing of measurable learning objectives. One reviewer stated:

Standard 2.2 requires that the module/unit learning objectives describe outcomes that are measurable and consistent with the course level objectives. Many of the module level learning objectives are overlapping. It is suggested that you develop unique learning objectives for each module based on Bloom’s taxonomy.

The peer reviewers had expected the course to meet this standard at or above 85% level and used this opportunity to make modification to the course toward meeting the standards.

### Conclusion

Most of the items in the Online Course Evaluation Tool were designed according to the Quality Matters standards and integrate very well toward measuring the design aspect of online courses. However, the misfit items will be dropped (Item 10) or revised (Items 1, 6, 14, and 16) according to the analysis results. The results from students indicated that Tier I: to a great extent, Tier II: to a moderate extent, and Tier III: to little or some extent, met the standards in the three courses.

The results on most of the standards evaluated in this study provided by both reviewers and students were the same, thus indicating that both peer reviewers and students take the same point of view in terms of evidencing standards; however, they differed significantly regarding three of the essential standards. One factor possibly contributing to this discrepancy could be that reviewers looked for solid evidencing of measurable learning outcomes while students looked for clearly articulated objectives. The second factor might be that instructors clarified unclear design aspects via email while the course was delivered and not available to the reviewers. The third factor might be that the reviewers looked for above average approximately 85%, while students looked for the basic elements regarding the standards. The reviewers also perceived that the overall satisfaction of the course and the instructor might also affect students’ rating regarding the essential standards. Further study, however is needed to investigate the causes of discrepancy.
Measuring Online Course Design

References


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Online Course Design Evaluation Tool

The course evaluation focuses on the design of this online course, NOT the performance of your instructor. Please use the scale from 1 (To little or no extent) to 5 (To a very great extent) to make your evaluation. If an item is not applicable, leave the response blank. Thanks.

1. The purpose and structure of the course were introduced to the students.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

2. The introductions of the course made clear how to get started and where find course components.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

3. The communication policy and preferred form of communication were clearly stated.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

4. Course objectives were clearly presented in the course syllabus.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

5. Learning objectives were clearly stated for each unit or module.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

6. Instructions were clearly given as to how students would meet learning objectives.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

7. Instructions were clearly given as to how students would be assessed such as a detailed grading rubric for assignments.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

8. The course materials were helpful for me to achieve the learning objectives.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

9. The visual presentations of this course were helpful for me to achieve the learning objectives.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent
10. The audio or video clips in this course were helpful for me to achieve the learning objectives.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

11. The resources provided in this course were relevant and useful.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

12. Opportunities for engagement, including group discussions, collaboration projects, online meet-ups, virtual office hours or other use of collaboration tools were used in this course.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

13. The interactive activities in the course were helpful for me to achieve the learning objectives.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

14. The course quizzes/exams/assignments were consistent with the course objectives.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

15. The course grading policy (e.g. how the grades were computed) was clearly stated.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

16. A description of criteria used to evaluate students’ work and participation in the course was clearly stated.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

17. The course provided multiple opportunities for students to measure their own learning progress.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

18. The tools selected for this course were easy to use.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

19. Instructions were provided regarding how technology tools were used to achieve learning objectives.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent
20. The tools selected for this course support student learning.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

21. Navigation throughout the online components of the courses was intuitive and consistent.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

22. The course instruction articulated or linked to tech support.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

23. The course instructions articulated or linked to other academic support services and resources.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

24. The course provided information and guidance on how to access disabilities support services.
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

25. The course was accessible to assistive technologies such as screen readers (PDF, graphics available to screen readers, videos with captions etc.).
   a. To little or no extent
   b. To some extent
   c. To a moderate extent
   d. To a great extent
   e. To a very great extent

26. The course was well-organized.
   a. Poor
   b. Fair
   c. Good
   d. Excellent

27. Overall, how would you rate this course?
   a. Poor
   b. Fair
   c. Good
   d. Excellent

28. What parts of this course were most useful to you?

29. What parts of this course need improvement?

30. Please provide additional comments.