Best Practices in Assessment: A Story of Online Course Design and Evaluation

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Learning Outcomes

• Attendees will gain a working knowledge of online course assessment
• Attendees will be able to identify best practices in online assessment for their own courses
Agenda

• Introduction
• Online Course Design
• Online Course Assessment Methods (Pros and Cons)
• Best Practices in Online Assessment
• Conclusions
Motivation

• *How can we successfully assess online courses?*
Online Course

Lack of Prompt Feedback
Lack of Physical Environment
Lack of Peer Interaction
Lack of face-to-face relationship
Online Course Design

Course Policies
- Syllabus
- Weekly Schedule

Course Material
- Video Lectures
- Outside Sources
- Assessment Tools

Blackboard (BB)
- Organize
- Upload material
- Asses student work
- Give feedback
Blackboard (BB):
Organize, Upload, Assess, Give Feedback

- Visual look and feel
- Weekly Modules
- Feedback via BB

**Week 1: [Introduction]**

**Introduction**
Enabled: Statistics Tracking
This week's lecture will introduce you to this course and discuss basics and policies.

**Learning Objectives & Activities**
Enabled: Statistics Tracking
Students will be able to understand the course schedule, topics that will be covered throughout the semester, and how they can communicate with the Professor.

**Lectures: Video(s) and Notes**
Enabled: Statistics Tracking
Attached Files:
- Course Introduction.pdf (179.398 KB)
- Introduction to BIM.pdf (1,211 MB)
- Introduction to Revit.pdf (787.016 KB)

**Discussion Board (Example: Introductions)**
A great first step for building an online course community is to include a place where students can introduce themselves. An "introductions" discussion gives you an opportunity to use your favorite "icebreaker."

**Sample Assignment Format**
Attached Files:
- Ch2-Small Office.pdf (14.9 KB)
Online Course Assessment

• What tools/methods can be used specifically for online learning assessment?
Online Course Assessment

Assessment Methods

Formative
- Start-of-semester, mid-semester, and end-of-semester surveys
- Polls
- Discussion Boards
- Quizzes

Summative
- Assignments
- Exams
- Final Projects
- Final Presentations
Surveys and Polls

**Pros**

- Reveals:
  - Perceptions on class content
  - Knowledge before and after the class
  - Students’ experience throughout the semester
  - Effects of course innovations

**Cons**

- Low response rate if optional
- Not as effective as having it in class
- Indirect data collection
Discussion Boards

**Pros**
- Easy access
- Flexibility
- Easy moderating
- Allows multiple citations
- All posts are recorded

**Cons**
- Requires clear directions (timeline how many posts, etc.)
- Requires an online grading rubric
Discussion Boards

Discussion Participation Rubric

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Unsatisfactory</th>
<th>Satisfactory</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantity and Timeliness</strong></td>
<td>Does not submit at least one initial response early in the session and/or</td>
<td>Submits at least one initial response early in the session, and at least</td>
<td>Submits one initial response early in the session, and one or more</td>
</tr>
<tr>
<td></td>
<td>does not submit at least one peer responses closer to the end of the session.</td>
<td>one or more thoughtful peer responses closer to the end of the session.</td>
<td>thoughtful peer responses early in the session, and more than one peer</td>
</tr>
<tr>
<td></td>
<td>3 points</td>
<td>3.75 points</td>
<td>response closer to the end of the session.</td>
</tr>
<tr>
<td><strong>Spelling and mechanics</strong></td>
<td>Does not submit posts that are in complete sentences. Or two or more of the</td>
<td>Submits posts that have one or more grammatically incorrect sentences and</td>
<td>Submits posts that contain grammatically correct sentences without any</td>
</tr>
<tr>
<td></td>
<td>complete sentences are grammatically incorrect and have greater than 2 spelling</td>
<td>two spelling errors.</td>
<td>spelling errors.</td>
</tr>
<tr>
<td></td>
<td>errors.</td>
<td>3 points</td>
<td></td>
</tr>
<tr>
<td><strong>Demonstrates knowledge and</strong></td>
<td>Post(s) and responses show little evidence of knowledge and understanding of</td>
<td>Post(s) and responses show evidence of knowledge and understanding of course</td>
<td>Post(s) and responses show evidence of knowledge and understanding of</td>
</tr>
<tr>
<td><strong>understanding of course</strong></td>
<td>course content and applicability to professional practice. No or improper</td>
<td>content and applicability to professional practice. One or more somewhat</td>
<td>course content and applicability to professional practice, and include</td>
</tr>
<tr>
<td><strong>content and applicability to</strong></td>
<td>citations from resources.</td>
<td>somewhat related citations.</td>
<td>other resources that extend the learning of the community. Related</td>
</tr>
<tr>
<td><strong>professional practice</strong></td>
<td>3 points</td>
<td>3.75 points</td>
<td>citations with links or attachments of the resource.</td>
</tr>
<tr>
<td><strong>Generates learning</strong></td>
<td>Posts do not attempt to elicit responses and reflections from other learners</td>
<td>Posts attempt to elicit responses and reflections from other learners and</td>
<td>Posts elicit responses and reflections from other learners and responses</td>
</tr>
<tr>
<td><strong>within the community</strong></td>
<td>and/or responses do not build upon the ideas of other learners to take the</td>
<td>responses build upon the ideas of other learners to take the discussion</td>
<td>build upon and integrate multiple views from other learners to take the</td>
</tr>
<tr>
<td></td>
<td>discussion deeper.</td>
<td>deeper.</td>
<td>discussion deeper.</td>
</tr>
<tr>
<td><strong>Introductions</strong></td>
<td>3 points</td>
<td>3.75 points</td>
<td>5 points</td>
</tr>
</tbody>
</table>

*Total Possible Points: 20 points (i.e. possible to earn 12, 14, or 20 out of 20 points)*
Quizzes/Exams

**Pros**
- Ability to create a pool of questions
- Quizzes can be added to Powerpoint video lectures

**Cons**
- Very time consuming to create
- Fix-answer questions
## Final Projects

<table>
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<th><strong>Pros</strong></th>
<th><strong>Cons</strong></th>
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</table>
| - Boosts collaboration  
- Increases teaching effectiveness | - Hard to sustain successful teamwork  
- Requires unique assessment rubrics |
Additional Techniques

• Educational games such as crossword puzzles, flashcards, or Jeopardy
Best Practices in Online Assessment

What are we assessing?

How are we assessing?

What is the target level?

Identify clear standards
Best Practices in Online Assessment

- Formative vs Summative?
- Direct vs Indirect?
- Sampling vs Whole?

Include a variety of assessment methods
Best Practices in Online Assessment

Background?

Misconceptions about Online Learning?

What to do in case of technical emergency?

Think of students’ communication/technological skills
Best Practices in Online Assessment

- Use various tools/software packages
Best Practices in Online Assessment
Conclusions

• Match Assessment Techniques to Learning Objectives
• Assess in pieces and then as a whole
What is Next?

- How much data is enough?
- Is data valid?
- What is the desired level of learning?
- Can we add interactive tutorials and simulations?

Optional vs. Mandatory Surveys, etc.

Online learning target level vs. Face-to-face target level

Technology and Technical Knowledge of Students
Questions