Evaluating the ease and efficiency of using assessment rubrics with two open-source learning management systems, Moodle and Canvas

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Background:

Students rate instructors’ lack of technology knowledge as the biggest barrier to integrating technology in the classroom.


Teaching staff who use an LMS will need technological know-how.

Might there be an LMS which is easier for instructors to use?
Background:

- Is an LMS a key instructional technology?
- Instructional technologies support learning (outcomes?)
- Rate of adoption of an LMS is one measure of success?

Frequency of UMMoodle Use

- Teaching Staff Use UMMoodle:
  - 45% twice per week
  - 24% once per week
  - 15% twice per month
  - 15% once per semester
  - 15% never

- Teaching Staff Ask Students to Use UMMoodle:
  - 44% twice per week
  - 28% once per week
  - 13% twice per month
  - 16% once per semester
  - 13% never

- Some students prefer Facebook for online exchanges
students have access to resources and activities on UMMoodle and little anytime, anywhere. Technical guidelines on UMMoodle or educational technologies are provided. Pedagogical support on how little or educational technologies can be used in teaching.
Moodle Activities Teaching Staff Would Like to Use in Fall 2013

Interest in Selected Features of Moodle 2.x

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>VERY INTERESTED</th>
<th>SOMEWHAT INTERESTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>organizing content and labels on your homepage</td>
<td>23%</td>
<td>31%</td>
</tr>
<tr>
<td>setting up groups and group activities</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>grading with rubrics</td>
<td><strong>29%</strong></td>
<td><strong>29%</strong></td>
</tr>
<tr>
<td>peer grading with a ‘workshop’ activity</td>
<td>16%</td>
<td>36%</td>
</tr>
</tbody>
</table>
Recent publications on rubrics:

A good rubric criteria...

“focuses on learning outcomes and not task directions.”

“Provides a rating scale for each criterion into descriptions of performance at each level.”

Aims:
Examine the ease of use of using rubrics with two different LMS, Moodle 2.3 and Canvas.
Share experiences which might enhance cooperation and knowledge building.

Framework:
Technology adoption frameworks were not fully explored. Might a TAM framework be suitable?
- Bradley, J. "If We Build It They Will Come? The Technology Acceptance Model ..." 2012.

Any comments or suggestions would be most welcome.
Approach:

Several approaches might be used to assess the ease of use of a feature of a LMS.

a) Number of steps
b) Time need to complete a task
c) Survey feedback from users on ease of use / satisfaction
d) Identify timesaving features (marking, comments)
Results:

List of steps and time needed to create an assignment with a rubric:

Moodle 2.3:
26 unique steps, at least 6-7 minutes were needed to complete task

Canvas:
39 unique steps, at least 6-8 minutes were needed to complete task
When a new criteria was created in Moodle, the row below the first criteria would contain the same rating scale.

When a new criteria was created in Canvas, the row below the first criteria would only contain three placeholders.

Thus, slightly more steps were needed to edit the rubric ratings.
Results:

List of steps and time needed to assess one assignment with a rubric:
Moodle: 10 unique steps, at least 2-3 minutes were needed to complete task
Canvas: 13 unique steps, at least 2-3 minutes were needed to complete task

Remarks:
The standard Moodle 2.3 LMS requires that each document submitted for an assignment be downloaded.

The Canvas LMS displays the document that was submitted in a web browser, alongside the rubric, commenting tools, and a unique discussion forum which allow for video and audio comments to be made.

Image: guides.instructure.com
Remarks: The Canvas LMS provides a template for creating a outcome rubric. A Moodle LMS requires a scale to be created by writing a list of comma separated values or items.

Other potential timesaving features:
Canvas LMS allows for peer assessment of assignments, which can be assessed by students with a rubric.

Canvas LMS allows for documents uploaded for an assignment to be loaded in the web browser; documents that students uploaded do not have to be downloaded and opened.
Student perspective:

Comments on ease of use:
• Reports from teachers at an American university indicate that both Moodle and Canvas are quite similar in terms of ease of use.
• Reports from students at an American university clearly indicated that students preferred the modern interface in Canvas LMS.

Conclusion:
Overall, using technology requires significant knowhow.
• Identifying systems which are easier to use may assist teaching staff in making use of learning management systems - but students perceptions of technology also play a fundamental role in selecting a system that will widely-adopted.