Assessment in Online Learning

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Overview

“The move to online learning can be both scary and exhilarating for both teacher and student. Assessment can amplify those emotions. In this blended session, learn good practice, workable examples, and ways to reduce confusion and stress.”

Agenda

• Introductions
• Context
• Inspirations: Movies, TV, & Games
• Activity
• LMS Tools
• Secure Testing
• General Concepts & Advice
• Rubrics!
• Q & A
Session Structure

Part 1
Break
Part 2
Break
Part 3

Introductions

Hello
my name is

• Telephone: +1 (312) 362-5870
• Email: jmoore@depaul.edu
• URL: condor.depaul.edu/jmoore/
In case you were wondering...

Hometowns: Bath & London

But I live in Chicago
I Work At DePaul

DEPAUL UNIVERSITY
DRIEHHAUS COLLEGE OF BUSINESS

By Day…

James Moore
Director of Online Learning - College of Business

- 1999: Office of Distance Learning
  Webmaster
- 2002: Lifelong Learning & Suburban Campuses
  Web development manager
- 2005: ITD / IDD
  Instructional technology / instructional design consultant
- 2007: College of Business
  Director of Online Learning
By Night…
MKT595: Internet & Interactive Marketing
11-Week MBA Course
Taught entirely online
condor.depaul.edu/jmoore/mkt595/

Practical Internet Marketing
6-Week Certificate Course
Taught both online and flipped/hybrid
condor.depaul.edu/jmoore/pim/

Social…
moorejames
@dunsurfin
dunsurfin
+JamesMooreDunsurfin

Before U.S.A
• Worked for an independently held investment bank in The City
• Worked for one of the “Big” accountancy firms (one that still exists)
• Lived in Israel for two years (working with Jewish and Arab groups)
• ... and numerous other jobs that build experience and character. Or something like that.
There's a set of rules that anything that was in the world when you were born is normal and natural.

Anything invented between when you were 15 and 35 is new and revolutionary and exciting, and you'll probably get a career in it.

Anything invented after you're 35 is against the natural order of things.
Why Teach?

For Some, Better Human

To Produce Experts

1. Lots of factual knowledge
2. Mental organization (retrieval and application)
3. Meta-cognition ("do I really understand?!")

Why?

The Three C’s

Students
Convenience
Communication
Completion

Institution
Cost
Competition
Convenience

Faculty
Challenge
Convenience
Communication

How Do You Design?
Convenience

- The course has a simple trajectory that students follow
- The technology should be either transparent or a natural extension (like using a pen to write)
A murders a stranger, A-4, in a lonely wood where the soil is of a peculiar color, unlike any other soil for miles around. A sulks back home with the mud on his shoes.

(467) (1302)
Start At The End

- Instruction
- Experiment
- Assessment
- Certification

Ability to...
Knowledge of...
Demonstration of...

Assessment
Testing

Experiment
Interaction
Make mistakes
Feedback

Make mistakes
Feedback

Instruction
Deliver material

Plan Your Course
Like a Movie

Three-Act Structure

- Focus/Setup (Protagonist)
- Apprehension (Unexpected)
- Resolution (Understanding)

Actions - Reactions - Consequences
Discussion

A  →  B

Foundation of Trust

Rubric

<table>
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<tr>
<th>Points</th>
<th>Description</th>
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<tbody>
<tr>
<td>3</td>
<td>Precise, well-reasoned response. Citation of source material (link). Supports position with factual information.</td>
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<td>Offers relevant information. Makes note of outside source material.</td>
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<td>1</td>
<td>Participates.</td>
</tr>
</tbody>
</table>

Five Points Per Discussion
Multimedia (HTML)

Feedback & Review

"Jane made an excellent point..."

Three-Act Structure

A Discussion B

Focus Unexpected (Experiment) Assessment (Exam / Project)
Not Just Discussion Board

(but feedback needs to be within the LMS)
A Quiet Place to Explore

Week 0
- Profile
- Discussion Introduction
- Introductory Video
- Sample Dropbox

Constraints
Weekly Structure

- Week 0
- Week 1
- Week 2
- ...
- Week 11

Mini-Bosses and End-of-Level Bosses

Sub-Tasks

- Form Groups
- Create Script
- Create Test Video
- Upload Test Video
Coins

Points

Create groups: 20 points
Create script: 100 points
Create test video: 100 points
Upload test video: 50 points

GAME OVER
Quizzes

- Points for taking a quiz, not the score
- Retake quiz until happy with score
- Take 6 highest score from 8 exercises

Activity

Turing Test...

The Ultimate Question

- What question or project truly allows you to assess a student?
LMS Quizzes

- Provide full feedback and links to resources
- Ungraded
- Grade for participation
- Promotes active learning (pre/post test)
- Allow for failure
- Mini surveys at every module
Mini Survey

☑ How useful to you were the lecture videos?
☑ What is your preferred format for the lecture videos?
☑ Is there anything that you did not understand?
☑ Did you experience any technical difficulties?
☑ Is there anything you want to tell me?
☑ What was the most useful thing that you learned?
☑ What was the least useful thing that you learned?
☑ What didn’t you understand?

Testing Options

☑ True/False
☑ Multiple Choice
☑ Multi-Select
☑ Long Answer
☑ Short Answer
☑ Multi-Short Answer
☑ Fill in the Blanks
☑ Matching
☑ Ordering
☑ Arithmetic
☑ Significant Figures

What To Use / What Not To Use
D2L Example

This is an example of a True or False question. D2L can automatically grade these types of questions.

Question 1 (1 point)

True or False? The Rockefeller Graduate School of Business is named for Charles M. Ha业, the former chief executive officer and chairman of IBM, in bubble and gray.
Use It?

Maybe
(limited use)

2: MULTIPLE CHOICE

D2L Example

Question 1 (1 point)
This is an example of a Multiple Choice question. D2L/D2Lseed can automatically grade these kinds of questions. You select the correct answer(s) from the choices below.

The Eleanor College of Business launched its master of business administration (MBA) program in:

- 2012
- 1998
- 1985
- 2001
- Same
Multiple Choice
Offer the most flexibility in terms of content.
Construct questions with a single correct answer.
Refrain from using the choices "all of the above" or "none of the above" (lazy).
Avoid negative wording (especially double negatives).
When item is controversial, indicate whose opinion is sought.
Avoid irrelevant cues to correct answer (length, grammar).
Items should test one central idea or concept.
Present options in alphabetical or logical order.
Consider randomization of possible answers.

Use It?
Yes!

3: MULTI-SELECT
Multiple Answers

☑ A different (harder) form of multiple choice.
☑ Items should test one central idea or concept.
☑ Multiple answers must be clearly correct.

Use It?

Yes!

(if you have time....)
Possible to use pre-populate HTML content in answer.

Essays measure the student’s ability to communicate effectively, not just their understanding of content.

Easier (quicker) for instructor to create but harder and (more subjective) to grade.

Be cautious when auto exporting grades.

Requires model answer to grade effectively.

Clearly define task, scope, and directions for a “good” answer:
- How long or short an answer is sought?
- Should they show their work?
- Whose opinion do you want (book, lecture, their own)?
Use It?

Yes!
(if you have time....)

Issues With Interface

- In D2L, students may not understand that they can resize the text box.
- Students sometimes delete their answers.

5: SHORT ANSWER
D2L Example

Question 1 (1 point)

This is an example of a Short Answer question. D2L can automatically grade these types of questions. However, your professor may have to manually review your response for typos or unexpected capitalization in your answer.

Name one of the nine schools of business' scholarly departments.

Save

Short Answer

- Best used for testing fact recall or application of knowledge.
- Anticipate alternative spelling and capitalization.
- May require manual review.

Use It?

Yes!

(but students need to understand manual grading)
6: MULTI-SHORT ANSWER

D2L Example

Question 1 (1 point)

This is an example of a Multi-Short Answer question. Desire2Learn can automatically grade these types of questions; however, your professor may have to manually review your responses for proper or incorrect capitalization in your answer.

Name three of the October College of Business exercises:

- Exercise
- Exercise
- Exercise

Save

Multi-Short Answer

- Best used for testing fact recall or application of knowledge.
- Anticipate alternative spelling and capitalization.
- May require manual review.
- Will take some time to create.
Use It?

Yes!

(but students need to understand manual grading)

7: FILL IN THE BLANKS

D2L Example

Question 1 (1 point)

This is an example of a Fill-In-The-Blank question. D2L can automatically grade these types of questions. However, your professor may require you to manually review your response for typos or unanticipated spelling in your answer.

The Drake University College of Business is accredited by

Accreditation standards challenge post-secondary educators to pursue excellence and continuous improvement throughout their business programs.

Save
Fill In The Blank

- Best used for testing fact recall or application of knowledge.
- Anticipate alternative spelling and capitalization.
- May require manual review.

Use It?

Yes!

8: MATCHING
D2L Example

Question 1 (1 point)

This is an example of a Matching question. Instructors can automatically grade these types of questions.

Match the following country names with the corresponding capital names:

1. Brussels
2. Lisbon
3. Prague
4. Sofia
5. Budapest
6. Brussels

Send

Matching

- Best used for testing knowledge level:
  - Term – Definition.
  - Cause – Effect.
  - Problem – Solution.
  - Symbol – Meaning.
- Keep each matching set short.
- Arrange responses in alphabetical or logical order.
- Reusing matching set will reduce guesses.
- Provide more answers than questions.
- Indicate basis for matching.
- Ensure only one correct answer.

Use It?

Maybe

(Unless your LMS uses a better interface)
Issues With Matching

Question 1 (1 point)
This is an example of a matching question. D2L allows us to automatically grade these types of questions.

Match the following country names with the corresponding capital names:

A. Belgium
B. Berlin
C. Hungary
D. Stockholm
E. Warsaw

9: ORDERING

D2L Example

Question 1 (1 point)
This is an example of an ordering question. D2L allows us to automatically grade these types of questions.
Put the five departments below in alphabetical order.

A. Economics
B. Finance
C. Marketing
D. Real Estate
E. Management
Ordering

- Tests fact recall.
- Test knowledge of hierarchy / topology / sequencing.
- Keep options short.
- Arrange responses in alphabetical or logical order.

Use It?

Maybe

(Unless your LMS uses a better interface)

Issues With Ordering
10: ARITHMETIC

D2L Example

Question 1 (1 point)

This is an example of an Arithmetic question. The variables in this question are generated randomly. D2L (in Learn) can automatically grade these types of questions.

If a classroom at DePaul has a height of 20 ft and a width of 15 ft, what is the area of the floor of that classroom?

Answer:

Submit

Arithmetic

- Personalizes each question for each attempt.
- Tests correct application of a formula (and correct calculation).
- Involves considerable time to create appropriate question. Requires validation.
- Graded automatically.
- Does not allow students to show work.
Use It?

Yes!

(If you have time, and question type is relevant)

11: SIGNIFICANT FIGURES

D2L Example

Question 1 [1 point]
If you multiplied $(3.324 	imes 10^4)(1.6986 	imes 10^3)$, what would the result be? Round answer to 3 significant digits.

Notes: Your answer is assumed to be rounded to the highest power possible.

Your Answer: 0.00

Save
Arithmetic

- Requires students to answer in scientific notation and provide solutions that contain a specified number of significant figures
- Automatically graded.
- Does not allow students to show work.

Use It?

Yes!

(If you have time, and question type is relevant)

Secure Testing
Software Secure
Remote Proctor Now
$15 per exam/student
Material cost - like textbook

Proctored Recording
Clean Rules Violations Suspicious

Remote Proctor Now Timeline

<table>
<thead>
<tr>
<th>Week</th>
<th>Action Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Course</td>
<td>Information posted in syllabus</td>
</tr>
<tr>
<td>Week 1</td>
<td>Exam reminder</td>
</tr>
<tr>
<td>Week 3</td>
<td>Practice exam (required)</td>
</tr>
<tr>
<td>Week 5</td>
<td>Midterm exam</td>
</tr>
<tr>
<td>Week 11</td>
<td>Final exam</td>
</tr>
</tbody>
</table>
## Engagement Rubric

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Acceptable communication. Some deadlines met. Assignments mostly understood.</td>
</tr>
<tr>
<td>2</td>
<td>Professional communication. Deadlines met. Understands scope and purpose of assignments.</td>
</tr>
<tr>
<td>1</td>
<td>Comments are sometimes constructive, with occasional signs of insight. Student does not use appropriate terminology; comments not always relevant to the discussion.</td>
</tr>
<tr>
<td>0</td>
<td>Comments mostly insightful &amp; constructive; mostly uses appropriate terminology. Occasionally comments are too general or not relevant to the discussion.</td>
</tr>
</tbody>
</table>

## Discussion Rubric

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Precise, well-reasoned response. Citation of source material. Supports position with factual information.</td>
</tr>
<tr>
<td>2</td>
<td>Offers relevant information. Makes note of outside source material.</td>
</tr>
<tr>
<td>1</td>
<td>Participates.</td>
</tr>
<tr>
<td>0</td>
<td>Noise.</td>
</tr>
</tbody>
</table>

Note: Some elements of this rubric are based upon Carnegie Mellon's "Rubric for Assessing Student Participation" (Eberly Center for Teaching Excellence) and "Blogging Rubric" (Cork Institute of Technology). Rubric is based upon that of the work of Bill Pelz (Journal of Asynchronous Learning Networks, 8(3), My three principles of effective online pedagogy, 2004).
Blogging Rubric

<table>
<thead>
<tr>
<th>Points</th>
<th>Bonus Points</th>
</tr>
</thead>
</table>
| 3 | • Precise, well-reasoned post.  
| | • Citation (link) of source material.  
| | • Supports position with factual information.  
| 2 | • Offers relevant information.  
| | • Makes note of outside source material.  
| 1 | • Participates.  
| +1 | • Uses relevant images to enhance post.  
| +1 | • Uses relevant tags (keywords).  
| +1 | • Provides relevant response to blog comments.  

Project Rubric

<table>
<thead>
<tr>
<th>Context</th>
<th>1 Point</th>
<th>2 Points</th>
<th>3 Points</th>
</tr>
</thead>
</table>
| Content / Information | The central idea is expressed though it may be vague or too broad.  
| | Some sense of purpose is maintained  
| | Some evidence of critical careful thought and analysis and/or insight  
| Originality | Central idea is forced.  
| | Central idea is not original.  

Project Rubric

<table>
<thead>
<tr>
<th>Execution</th>
<th>1 Point</th>
<th>2 Points</th>
<th>3 Points</th>
</tr>
</thead>
</table>
| Structure | There is some level of organization, though digressions, ambiguities, irrelevances are too many  
| | Difficult to follow  
| | Ineffective transitions  
| | Rambling format  
| | Paper has a clear organizational structure with some digressions, ambiguities or irrelevances  
| | Easily followed  
| | Basic transitions  
| | Structured format  
| | Paper is logically organized  
| | Easily followed  
| | Effective, smooth and logical transitions  
| | Professional format |
| Grammar/mechanics | Uses compound sentences  
| | Too many punctuation and/or mechanical errors  
| | Uses complex sentences  
| | Few punctuation or mechanical errors  
| | Manipulates complex sentences for effect/impact  
| | No punctuation or mechanical errors |
| Language | Vocabulary is used properly, though sentences may be simple  
| | Infrequently uses specific vocabulary correctly  
| | Writer’s tone exhibits some level of audience sensitivity  
| | Vocabulary is varied, specific and appropriate  
| | Frequently uses subject-specific vocabulary correctly  
| | Writer’s tone emerges and is generally appropriate to audience  

**Note:** Rubrics are adapted from University of Colorado’s Center for Innovations in Training Technology (CITT) online tutorials.
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>1 Point</th>
<th>2 Points</th>
<th>3 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>Display of technical skill, ability to follow directions, craftsmanship</td>
<td>Poor craftsmanship given available technologies</td>
<td>For multimedia, no attempt to manipulate timing, flow, transitions for effect</td>
<td>Production errors not addressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Project fails to address assignment production criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acceptable craftsmanship. No obvious easily correctable errors</td>
<td>For multimedia projects, elementary efforts to control timing, flow, transitions</td>
<td>Project fulfills assignment criteria</td>
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<tr>
<td>Professionalism</td>
<td>Ability to present work on time, interact with instructor, staff classmates, subject matter experts and other stakeholders in a professional manner</td>
<td>Multiple instances of inappropriate communication with stakeholders, clients, team members, or professor</td>
<td>Substantial number of deadlines missed or project incomplete</td>
<td>Project completed, communications basic but effective</td>
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</tr>
<tr>
<td>Sources/Citations</td>
<td>Depending on the nature of the project, authors may need to correctly cite project sources</td>
<td>One or more resources not cited</td>
<td>Multiple citation errors</td>
<td>All resources cited</td>
</tr>
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<tr>
<td>Engagement</td>
<td>Ability to demonstrate enthusiasm for the subject and capture attention</td>
<td>Lack of focus</td>
<td>Message not communicated effectively</td>
<td>Clear delivery</td>
</tr>
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</tr>
<tr>
<td>Digital Literacy</td>
<td>Ability to communicate through digital formats</td>
<td>Inappropriate choice of file formats</td>
<td>Files do not work as intended</td>
<td>Materials successfully delivered in electronic format</td>
</tr>
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**Q & A**

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