



Understanding Student Learning Through Formative Assessment in Online Courses

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Assessment Advisory Committee: Formative Assessment

Goal: Expand the use of assessment practices that support students through the learning process

Two Projects

1. Review high enrollment courses to gauge current use of formative assessment in PG courses
2. Develop materials for Course Leaders and SMEs on how to design formative assessments

Assessment Advisory Committee: Formative Assessment

Goal: Expand the use of assessment practices that support students through the learning process

Project Team

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- Mike Keathley - Academic Chair, Composition and Writing Across the Curriculum
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What is Formative Assessment?

Formative assessment is used to inform or guide teaching and learning decisions and actions during instruction. In contrast, summative assessment takes place after instruction for the purpose of evaluating or summing up what students have learned, often to assign grades.

Course Review

1. CM107 College Composition I / Gen Ed
2. CS204 Professional Presence / Gen Ed
3. SC121 Anatomy and Physiology I / Gen Ed
4. MT140 Introduction to Management / Business
5. HU245 Ethics / Gen Ed
6. HS111 Medical Terminology / Health Sciences
7. CS113 Academic Strategies for the Business Professional / Business
8. MM255 Business Math and Statistical Measures / Gen Ed
9. CJ100 Preparing for a Career in Public Safety / Public Safety
10. PS124 Introduction to Psychology / A&S

Formative Assessment Checklist

- Types of formative assessment activities
- Observable evidence of formative assessment taking place
- Graded or ungraded
- Low-stakes or significant contributors to the overall grade
- Immediacy of feedback
- Personalized or general
- Student reflection
- Multiple opportunities for feedback
- Data used for improvement

Takeaways From FA Review

- From the courses reviewed, there is potential for formative assessment to be taking place, and perhaps the intent was there during course design, but we can't have confidence that formative assessment is taking place based on the courses as they are taken/taught now, and faculty actions cannot be observed in the MCOs.
- Faculty have minimal insight into the results of learning activities and third-party tool activities, even to the point of not being certain whether learning activities are being completed as no proof of completion is required.
- FA activities lacked clear alignment to learning outcomes.
- The review did (could) not take into account the “second level” of what individual instructors may be doing in their own sections to foster formative assessment.
- Seminar offers many opportunities for formative assessment to take place, but attendance is not required (alternate assignment).
- Is the Discussion Board the best forum for formative assessment? Given that faculty are not able (nor expected) to respond to every single student post, does the DB facilitate social learning more so than formative assessment?
- Third-party materials varied in their effectiveness (Hawkes vs. terminology tool)

Recommendations from FA Review

- Ensure learning activities and FA quizzes provide specific feedback that guides growth toward increased mastery of the learning outcome.
- Incorporate reflection into FA course activities as appropriate.
- Develop a culture of shared knowledge to help formative assessment move from intent to application across sections (e.g. through Curriculum, Composition Department's Google site, regular e-mails from chair and course leader during term).
- Build more structure into courses to intentionally support formative assessment.
- Piggyback on C&I documentation work to support course leaders and curriculum team.
- Leverage the CTL for training and the daily e-mail as a means of communicating out further guidance on practicing formative assessment. (e.g. utilization of current tools like Polls and Breakout Rooms during seminars for Formative Assessment) and communicating with students about FA.

PG Courses

- **Learning Activities**
- **Discussion**
- **Live Seminars**
- **Journals**
- **Assignments**

Low Stakes Quiz

- Learning Activities – requires faculty to know results and adjust teaching to outcomes.
- How can faculty see the results of a unit quiz?
To view results,
 - 1. Go to the Gradebook.
 - 2. Click the icon next to the student's grade.
 - 3. A window will display. Select the attempt you would like to view. The results will then display in the window.

The image shows a gradebook interface. On the left, there is a dropdown menu labeled "Attempt" with "Attempt 1" selected. Below it, the text "Attempt 1" is displayed. On the right, a table shows the student's performance in Unit 2. The table has three columns: "Unit 2 Discussion", "Unit 2 Quiz", and "Unit 2 Assignment". The "Unit 2 Quiz" column shows a score of 30 / 30, 100%. A red arrow points from the question mark icon next to this score to the "Attempt 1" dropdown menu. Another red arrow points from the "Unit 2 Quiz" column to the "Attempt 1" dropdown menu.

| Unit 2 | | |
|-------------------|----------------|-------------------|
| Unit 2 Discussion | Unit 2 Quiz | Unit 2 Assignment |
| 30 / 30, 100 % | 30 / 30, 100 % | 100 / 100, 100 % |

Brightspace Quiz Features

- How can faculty access the correct answers to a quiz?
- 1. Click Quizzes in the top navigation.
- 2. Click the link to the quiz that you want to view answers from.

The screenshot shows the Brightspace interface for 'NFO102 New Faculty Orientation'. The top navigation bar includes 'Content', 'Discussions', 'Assignments', 'Quizzes', 'Grades', 'More Tools', 'Help', and 'CLA'. The 'Quizzes' menu item is highlighted with a red arrow. Below the navigation bar, there are tabs for 'Manage Quizzes', 'Question Library', and 'Statistics'. The 'Manage Quizzes' tab is active. There is an 'Edit Categories' button and a 'View: By Availability' dropdown menu. Below this, a table titled 'Current Quizzes' is displayed. The table has two columns: 'Current Quizzes' and 'Published'. The 'Unit 2 Quiz' link is highlighted with a red arrow.

| Current Quizzes | Published |
|---------------------------------|-----------|
| Unit 2 Quiz ▼ ⓘ | 122/122 |
| Unit 3 Quiz ▼ ⓘ | 118/118 |
| Unit 4 Quiz ▼ ⓘ | 134/134 |
| | 136/136 |

http://purdueglobal.brightspace.com/d2l/mo/quizzing/admin/modify/quiz_newedit_properties.d2lfile=2778148&ou=98263

Brightspace Quiz Features

- Click the link next to the question and answer you would like to view. A window will display with the question and the correct answer.

Quiz Questions

| Page Name | Type | Points | Diff | Bonus | Mandatory |
|-------------------------------|------|--------|------|-------|-----------|
| 1 Q1. q01-001 | MC | 3 | 1 | | |
| 1 Q2. q01-002 | MC | 3 | 1 | | |
| 1 Q3. q01-003 | MC | 3 | 1 | | |
| 1 Q4. q01-004 | MC | 3 | 1 | | |
| 1 Q5. q01-005 | T/F | 3 | 1 | | |
| 1 Q6. q01-006 | MC | 3 | 1 | | |
| 1 Q7. q01-007 | MC | 3 | 1 | | |
| 1 Q8. q01-008 | T/F | 3 | 1 | | |

| | | | | | |
|-------------------------------|-----|---|---|--|--|
| Close q01-009 | T/F | 3 | 1 | | |
|-------------------------------|-----|---|---|--|--|

javascript://

Discussion

- Can quizzes be used during seminar to assess student learning?

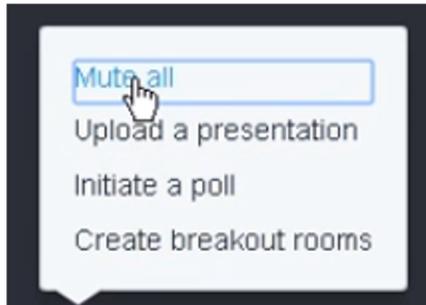
Discussion board- Not low stakes, requires feedback, not adjustable

- **Look for struggling students**
- **Offer highly personalized lessons**
- **Reach out with more support**
- **Offer ASC video links**

- **Suggestions?**

Live Seminars

- See **BONGO Faculty Seminar Guide for Breakrooms**
- **Breakout Rooms are a great way to engage students and promote collaboration, open a discussion, and provide an opportunity for quiet students to participate in a low-stakes environment.**



Live Seminars

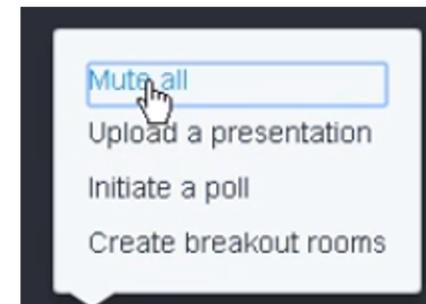
Surveys are a quick way to determine what your students have learned about a topic of study. Create ten short response questions - true/false, multiple choice, or one word completion questions.

Text chat -allows you to see individual responses.

- Can be hard to follow
- Students can copy answers

Take a poll to assess learning? Allows you to see a summary of class.

- Technology issues for Cell Phone users and some computers



Journals

- Journals are a great way to formatively assess students and get a “window” into their thinking (Reiger).
- Low stakes
- Reading over the student responses will provide you with information about student understanding

- Not Adjustable
- Often submitted after seminar

Assignments

Writing assignments are considered Summative Assessments because they evaluate student learning at the end of a unit by comparing it against some standard or benchmark.

Summative assessments are often high stakes, which means that they have a high point value.

(Eberly)

Formative Assessment Strategies

- Exit Ticket
- Show of Hands
- Sentence Prompts
- Questions (Low level, Fill in the blank, high level)
- One sentence summaries
- Open ended questions
- List 10 things
- Teach a Friend
- Think- Pair-Share

Formative Assessment

- Takes place during the learning process
- Informs both teachers and students
- Allows teachers to adjust instruction
- Involves students
- Cannot be separated from the instructional process
- Is Classroom Assessment *for* Learning

(White)

Any more ideas?

- **How can PG Courses use Formative Assessment?**

References

References

Eberly Center. (2020). Retrieved from Teaching Excellence & Educational Innovation:

<https://www.cmu.edu/teaching/assessment/basics/formative-summative.html>

Reiger, N. (2012). 60 Formative Assessment Strategies. *Learning That Works CTE*.

White, D. (2015). Rich Formative Assessment: Critical Component . *Global 12 West Virginia*

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