Using Course-Embedded Assessment to Collect Data on Program Learning Outcomes

Tina Colvin, Ph.D.
Anthology at the University of Idaho
Tuesday, February 28, 2023
After participating in this session, you will be able to...

• **Define** course-embedded assessment

• **Evaluate** and **identify** existing assignments for use

• **Determine** alignment to learning outcome
What is **Course-Embedded Assessment**?
Define: What is the relationship between outcomes assessment and program assessment?

Outcomes Assessment:
Assesses student learning goals and course outcomes; requires direct evidence of student learning; focus is on student learning

Program Assessment:
Incorporates the results of outcomes assessment as well as evaluation of non-academic program goals and outcomes; focus is on the program

Source: A Program Assessment Guide | University of Wisconsin-Madison
Define: What is course-embedded assessment?

Simply put, **course-embedded assessment**...

- make use of the actual work that students produce in courses
- come from assignments graded by faculty teaching the courses, but student work selected for assessment is evaluated independently of that grade

**Course-embedded assessment may...**

- select from work that students *already* do in courses (preexisting assignments, questions)
- be designed overtly for assessment purposes and then incorporated into courses

Source: Skidmore College: Embedded Assessments
Course-embedded assessment refers to **methods of assessing student learning within the classroom environment**, using **course goals, objectives and content** to gauge the extent of the learning that is taking place. This technique generates information about what and how students are learning within the program and classroom environment, using **existing information** that instructors routinely collect (test performance, short answer performance, quizzes, essays, etc.) or through **assessment instruments introduced into a course** specifically for the purpose of measuring student learning.

Martha L. A. Stassen, Kathryn Doherty, and Mya Poe

**University of Massachusetts Amherst**
Define: How does course-embedded assessment differ from classroom assessment techniques?

Course-embedded assessment is often confused with and therefore requires differentiation from “classroom assessment techniques”.

Classroom assessment techniques, or CATs, are...

- Quick and simple “spot checks” of student understanding performed by instructors
- Opportunities for students to evaluate their comprehension
- Openings for instructors to adjust instruction by spending more or less time clarifying ideas and information, for example
- Openings for feedback, both instructor-to-student and student-to-instructor
- Provide information to the instructor on student comprehension, but not necessarily to the program

Source: Classroom Assessment Techniques (CATs): Center for Teaching and Learning; IUPUI
Define: What are some examples of course-embedded assessment?

Examples of course-embedded assessment include...

• Questions embedded in exams and tests, including common questions across course sections
• Student artifacts / work samples, including
  • research projects
  • writing projects
  • portfolio reflections
  • oral or video presentations
• “Real-life” assignments, such as dance performances or work submitted to a public or academic venue (journal article; art showing)

Source: General Education Assessment | Office of Institutional Effectiveness (louisiana.edu)
Define: What are some examples of course-embedded assessment aligned with PLOs?

CONTEXTUAL COMMUNICATION: Develop and share insights using appropriate means of expression.

This learning goal emphasizes the importance of communication skills for developing and expressing your ideas and understandings. Effective communication requires multiple drafts of your message and attention to your audience, your format and the organization and mechanics of your product. It is not just a tool for expression, but also a strategy for developing your thoughts and insights.

In the context of this course, you are developing your Contextual Communication skills when you:

- Adapt content, language, and organizational strategies through drafting and revising.
- Produce works of communication that respond to different audiences and contexts.
**Define:** What are some examples of course-embedded assessment aligned with PLOs?

<table>
<thead>
<tr>
<th>Hallmarks Learning Goals</th>
<th>WRIT-201 Goals</th>
<th>What Students Will Do (in Practice)</th>
</tr>
</thead>
</table>
| CO2: Produce works of communication that respond to different audiences and contexts. | Produce single-authored persuasive communication with attention to varied audiences, purposes, and contexts. | • Produce both informal and formal communication in and out of class and reflect on the processes used to complete them.  
• Use a variety of appropriate media formats (or genres) to communicate.  
• Use reflective drafting and revising practices to incorporate feedback in order to produce effective communication.  
• Demonstrate understanding of a range of professional communication styles. |

Source: T. Colvin’s Spring 2021 WRIT201 Syllabus
Key Takeaway:

Let the Program Learning Outcome help **determine the assignment** you adapt into a course-embedded assessment.
Define: What is course-embedded assessment?

Some **advantages** of course-embedded assessment include...

- **INTEGRATED ASSESSMENT PROCESS.** The student experience of assessment is seamless as embedded assessment means students simply fulfill the normal requirements of the course(s); consequently, issues related to motivation are eliminated.

- **STREAMLINES DATA COLLECTION.** Instructors understand the assignments to be collected in advance and can plan accordingly.

- **NOT ONLY SUMMATIVE.** Course-embedded assessments can be used to evaluate developmental stages of student learning, rather than simply being only summative assessments at the end of the students' programs (helpful for evaluating PLOs at varied stages of mastery).

Source: Embedded Assessments (skidmore.edu)
Define: What is course-embedded assessment?

Some additional advantages of course-embedded assessment include...

• FACILITATES SCAFFOLDING. An assessment-process that includes course-embedded assessment can help faculty consider which skills or knowledge might best be introduced at which levels or in which sequence.

• CONTINUOUS IMPROVEMENT. Embedded assessment assignments that do not provide reliable information can be revised and/or redesigned to yield better data.

Source: Embedded Assessments (skidmore.edu)
Define: What is course-embedded assessment?

Some potential **disadvantages** of course-embedded assessment include...

- Complex assignments may require rubrics and/or a team of faculty to evaluate.
- If the program decides to include common embedded assessments across course sections, faculty will need to update syllabi and/or course structures to include them.
- Assignments must yield satisfactory data (think: how much is enough to show PLO achievement?)
- Weighting the embedded assignment appropriately might be challenging.

Source: Embedded Assessments (skidmore.edu)
Evaluating Existing Assignments for Course-Embedded Assessment
The assignment or course activity must provide the student an appropriate opportunity to demonstrate the program learning outcome. Using the program learning outcome as the guide, consider the various requirements in your courses to determine which assignment or activity provides the best opportunity for students to demonstrate that learning. This assignment or activity can be used for embedded assessment. In most cases, you will not report the overall assignment or activity grade. Instead, you will take a second look on this particular course requirement and assess only the student’s performance on the program learning outcome. You will answer, ‘how well did the student demonstrate the program learning outcome?’
Questions for Getting Started

What assignment are you considering? What is the example of work (artifact) that students produce?

What role does the assignment already play in your course in terms of evaluating student learning?

What program learning outcome might you align with?

Why do you think this assignment is a good candidate for PLO assessment?
Align your Course-Embedded Assessment with Program Learning Outcome(s)
Exercise, Part 1: Align an Existing Assignment to a PLO

<table>
<thead>
<tr>
<th>1. Program Learning Outcome (PLO)</th>
<th>2. Student / Course Learning Outcome</th>
<th>3. What will students <em>do</em> in the course to demonstrate they have met the PLO?</th>
</tr>
</thead>
</table>

For #3, consider: What are recognizable indications that students have met the PLO?

And/or: what kinds of practical activities or work will students produce to meet the PLO?

*The more you describe for #3, the more possibilities for course-embedded assessment you’ll have!*
Exercise, Part 1: Align an Existing Assignment to a PLO

<table>
<thead>
<tr>
<th>1. Program Learning Outcome (PLO)</th>
<th>2. Student / Course Learning Outcome</th>
<th>3. What will students do in the course to demonstrate they have met the PLO?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Produce works of communication that respond to different audiences and contexts</td>
<td>Produce single-authored persuasive communication with attention to varied audiences, purposes, and contexts.</td>
<td>• Produce both informal and formal communication in and out of class and reflect on the processes used to complete them. • Use a variety of appropriate media formats (or genres) to communicate. • Use reflective drafting and revising practices to incorporate feedback in order to produce effective communication. • Demonstrate understanding of a range of professional communication styles.</td>
</tr>
</tbody>
</table>
Exercise, Part 2: Align an Existing Assignment to a PLO

Review your response to question #3, “What will students do in the course to demonstrate they have met the PLO?”. Notice the kind of student work and evidence of learning it prioritizes. Consider: **what existing assignment in your course already asks students to perform one or more of these behaviors/activities?**

Then, consider: what do you need to do to **revise your existing assignment** to prioritize the features you described in #3? What in the assignment description (assignment sheet, syllabus description, evaluation rubric, etc.) **needs to be modified such that those activities are put into focus?**

>> Spend 10 minutes reviewing an assignment and what needs updating to align with a PLO.