



UNIVERSITY OF CALGARY
Taylor Institute for Teaching and Learning

PLANNING STUDENT ASSESSMENTS

FOUNDATIONS OF COURSE DESIGN

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Planning Student Assessments

Once you have established the course learning outcomes, the next step is to determine how well students have met those outcomes. Assessment is an ongoing process, generally composed of two main parts:

- formative (assessment for learning)
- summative (assessment of learning)

Key Concepts:

Alignment: Assessments need to measure the intended course learning outcomes and to what degree students have met those outcomes. The nature of the assessments impact how students engage with the course (Lizzio et al, 2002; Iannone & Simpson, 2017), and selecting appropriate assessment methods and questions should connect to the course learning outcomes.

Feedback: Explicit feedback directs students' attention to areas they can improve on and what they are doing well. Feedback also helps students become self-directed learners and incorporate metacognition/reflection into their own learning (Mannion, 2022).

Formative, continuous feedback has been shown to help develop student metacognition and reflective practice (Irons & Elkington, 2022).

Summative assessments provide a basis for certification/grades, keep students accountable, and an opportunity for further feedback. (Kibble, 2017)

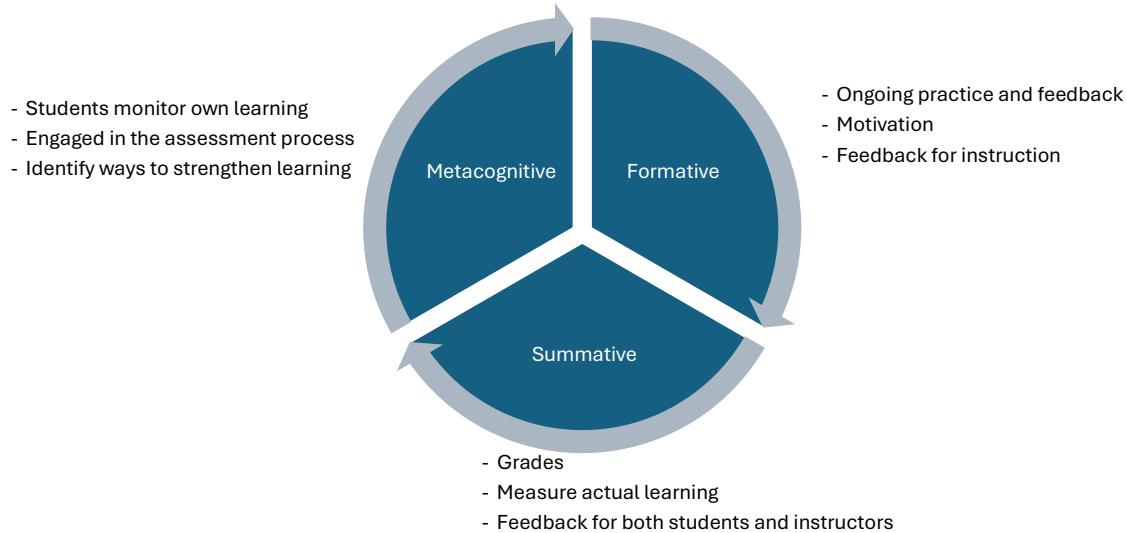
Prior knowledge: Assess prior knowledge early in the course to both activate prior knowledge and determine the readiness to integrate new material. Review previous material and integrate self-directed learning and reflection techniques to help students gauge their own learning and progress. (Ambrose et al, 2010)

Student Self-Regulation: Promotes self-regulated learning. When students receive feedback and are engaged in reflection, they can develop their metacognitive skills, allowing them to monitor and manage their learning effectively (Fusion, n.d.).



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Types of assessments



Formative assessment (assessment for learning)

Formative assessment (assessment for learning) is a dynamic and ongoing process that provides feedback to both students and instructors throughout the course.

Formative Assessment Examples:

- **Quizzes:** Incorporate short, low-stakes quizzes throughout the course to gauge students' understanding. These quizzes can be auto-graded and can help identify areas where students may be struggling.
- **Peer Review:** Encourage peer review and self-assessment. This not only provides additional perspectives but also empowers students to reflect on their work critically.
- **Digital Tools:** Leverage technology for formative assessment. Online platforms and tools allow for instant feedback, interactive simulations, and data analytics that can inform both students and instructors.
- **In class activities:** Not all assessments need to be graded and can take place during a class such as concept mapping, think-pair-share, muddiest point, and jigsaw. (<https://www.usf.edu/atle/documents/handout-interactive-techniques.pdf>)

Summative Assessment (Assessment of Learning)



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Overview:

Summative assessments are typically administered at the end of a unit, module, or course to gauge the overall learning outcomes and the degree to which students have achieved the stated objectives.

Examples of summative assessment:

- **Final Exams:** A common form of summative assessment is a comprehensive final exam that covers the knowledge and skills learned throughout the course. This can include essay questions, multiple-choice questions, and authentic assessments.
- **Term Papers and Projects:** Assigning a major research paper, project, or capstone assignment that students work on throughout the course and submit at the end is a way to assess their cumulative learning.
- **Portfolios:** Summative assessment can also take the form of student portfolios, which compile examples of the student's work over the duration of the course. These may include essays, projects, and other assignments.

Examples of metacognitive assessment:

A continued effort for students to reflect on their own thinking and learning strategies such as study habits, task management, and exam writing.

- **Peer feedback:** Students provide each other with feedback on their work or their approaches using guiding questions or rubric. Generally peer feedback is used to inform the student of readability, being on task, or raising questions. Peer feedback may or may not be graded.
- **Reflection:** Students can be prompted to reflect on experiences and their own learning through prompts or guiding questions. In depth reflection can occur in journalling or other graded forms of reflective writing. Or quick reflective activities can happen in class such as minute papers, the muddiest point, think-pair-share or using a classroom response system (e.g. [TopHat](#))
- **Exam wrappers:** Prompting students to reflect on their preparation and performance on an assessment (read more at <https://uwaterloo.ca/centre-for-teaching-excellence/node/4521>)



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Student Assessment in Action:

1. Check with the department/faculty to determine any requirements that must be included in the course (e.g. a midterm with 15%, a written essay, or a final exam is required)
2. Use a variety of assessment methods. A variety of assessment methods provide students with different opportunities to practice and demonstrate their learning while not relying on a certain method. (CAST, 2020)
3. Sequence assessments to establish a flow to the course. Having early low-stakes assessments helps students become familiar with the assessment aspects of the course, while spacing out assessments provides time for students to respond to feedback.
4. Provide choice where possible. Examples of choices include selecting a topic to report on, options to answer a selection of questions on an exam, and choosing which medium to use (such as creating an infographic vs an essay)
5. Be mindful of high-stakes assessments. High stakes can also create high anxiety among students. Strategies such as providing early practice and feedback, and breaking down high-stakes assignment into smaller tasks (ie Final Project => proposal + project)
6. Be transparent with assessment expectations. Communicate expectations to students early in the course and share rubrics with students.



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Try this:

Create an assessment blueprint that connects each assessment to its respective course learning outcome. Indicate if the assessment is formative or summative and describe the purpose of that assessment. Plan the schedule and spacing of each assessment to foster meaningful reflection and use of feedback.

Assessment Item	%	Formative Summative	Associated Course Learning Outcomes	Date(s)	Purpose
Pre-Test	5	F	CLO1	Sept 10	To evaluate pre-req knowledge
In-class quizzes	20	F	CLO1, CLO2	Sept 20 Oct 15 Nov 8 Nov 26	Based on lectures, discussions, readings. Factual with some application with feedback and peer discussions.
Midterm	25	S			
Project	35	S			Application of theories and critical thinking, problem solving.
Reflective paper	15				



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Further Reading:

Designing student assessments:

<https://taylorinstitute.ucalgary.ca/resources/module/designing-student-assessments>

Managing student team projects:

<https://taylorinstitute.ucalgary.ca/resources/module/managing-team-projects>

<https://taylorinstitute.ucalgary.ca/resources/consistent-and-effective-grading>

<https://taylorinstitute.ucalgary.ca/resources/module/designing-online-assessments/grading-feedback>

<https://www.cast.org/binaries/content/assets/common/publications/downloads/cast-udltipsforassessment-20200920-a11y.pdf>

University of Alberta Centre for Teaching and Learning. (2025). *Assessment design*.

<https://www.ualberta.ca/en/centre-for-teaching-and-learning/resources/generative-ai/assessment-design/index.html>

University College London (2025). *Three categories of GenAI use in assessment*.

<https://www.ucl.ac.uk/teaching-learning/generative-ai-hub/three-categories-genai-use-assessment>



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- Mannion, J. (2022) Beyond the grade: the planning, formative and summative (PFS) model of self-assessment for higher education, *Assessment & Evaluation in Higher Education*, 47(3), 411-423, <https://doi.org/10.1080/02602938.2021.1922874>
- Winstone, N. E., & Boud, D. (2020). The need to disentangle assessment and feedback in higher education. *Studies in Higher Education*, 47(3), 656–667. <https://doi.org/10.1080/03075079.2020.1779687>



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