

Formative and Summative Assessment

Yale Center for Teaching and Learning

<https://ctl.yale.edu/> / <https://ctl.yale.edu/Formative-Summative-Assessments>

Assessment allows both instructor and student to monitor progress towards achieving learning objectives. **Formative assessment** refers to tools used throughout a class or course that identify misconceptions, struggles, and learning gaps, while assessing ways to close such gaps. Formative assessment can help students take ownership of their learning when they understand its goals to be about improving learning, not raising final marks (Trumbull and Lash, 2013).

Summative assessment evaluates student learning, knowledge, proficiency, or success at the conclusion of a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment.

Examples of Formative and Summative Assessments

Formative	Summative
In-class discussions	Instructor-created exams
Clicker questions	Standardized tests
Low-stakes group work	Final projects
Weekly quizzes	Final essays
1-minute reflection writing assignments	Final presentations
Homework assignments	Final reports
Surveys	Final Grades

Both forms of assessment can vary across several dimensions (Trumbull and Lash, 2013):

- Informal / formal
- Immediate / delayed feedback
- Embedded in lesson plan / stand-alone
- Spontaneous / planned
- Individual / group
- Verbal / nonverbal
- Oral / written
- Graded / ungraded
- Open-ended response / closed/constrained response
- Teacher initiated/controlled / student initiated/controlled
- Teacher and student(s) / peers
- Process-oriented / product-oriented
- Brief / extended
- Scaffolded (teacher supported) / independently performed

Recommendations

Formative Assessment Ideally, formative assessment strategies improve teaching and learning simultaneously. Seven principles (adapted from Nicol and Macfarlane-Dick, 2007 with additions) can guide instructor strategies:

- **Keep clear criteria for what defines good performance** - Instructors can explain criteria for A-F graded papers, and encourage student discussion and reflection about these criteria (though office hours, rubrics, post-grade peer review, or exam / assignment wrappers). Instructors may also hold class-wide conversations on performance criteria at strategic moments throughout term.
- **Encourage students' self-reflection** - Instructors can ask students to utilize course criteria to evaluate their own or a peer's work, and to share what kinds of feedback they find most valuable. In addition, instructors can ask students to describe the qualities of their best work, either through writing or group discussion.
- **Give students detailed, actionable feedback** - Instructors can consistently provide specific feedback tied to predefined criteria, with opportunities to revise or apply feedback before final submission. Feedback may be corrective and forward-looking, rather than just evaluative. Examples include comments on multiple paper drafts, criterion discussions during 1-on-1 conferences, and regular online quizzes.
- **Encourage teacher and peer dialogue around learning** - Instructors can invite students to discuss the formative learning process together. This practice primarily revolves around midterm evaluations and small group feedback sessions, where students reflect on the course and instructors respond to student concerns. Students can also identify examples of feedback comments they found useful and explain how they helped. A particularly useful strategy, instructors can invite students to discuss learning goals and assignment criteria, and weave student hopes into the syllabus.
- **Promote positive motivational beliefs and self-esteem** - Students will be more likely to find motivation and engage when they are assured that an instructor cares for their development. Instructors can allow for rewrites/resubmissions to signal that an assignment is designed to promote development of learning. These rewrites might utilize low-stakes assessments, or even automated online testing that is anonymous, and (if appropriate) allows for unlimited resubmissions.
- **Provide opportunities to close the gap between current and desired performance** - Related to the above, instructors can improve student motivation and engagement by making visible any opportunities to close gaps between current and desired performance. Examples include opportunities for resubmission, specific action points for assignments, and sharing study or process strategies that an instructor would use in order to succeed.

Summative Assessment Because summative assessments are usually higher-stakes than formative assessments, it is especially important to ensure that the assessment aligns with the goals and expected outcomes of instruction.

- **Use a Rubric or Table of Specifications** - Instructors can use a rubric to lay out expected performance criteria for a range of grades. Rubrics will describe what an ideal assignment looks like, and “summarize” expected performance at the beginning of term, providing students with a trajectory and sense of completion.
- **Design Clear, Effective Questions** - If designing essay questions, instructors can ensure that questions meet criteria while allowing students freedom to express their knowledge creatively and in ways that honor how they digested, constructed, or mastered meaning.
- **Assess Comprehensiveness** - Effective summative assessments provide an opportunity for students to consider the totality of a course’s content, making broad connections, demonstrating synthesized skills, and exploring deeper concepts that drive or found a course’s ideas and content.
- **Make Parameters Clear** - When approaching a final assessment, instructors can ensure that parameters are well defined (length of assessment, depth of response, time and date, grading standards); knowledge assessed relates clearly to content covered in course; and students with disabilities are provided required space and support.
- **Consider Blind Grading** - Instructors may wish to know whose work they grade, in order to provide feedback that speaks to a student’s term-long trajectory. If instructors wish to provide truly unbiased summative assessment, they can also consider blind grading.

References

Nicol, D.J. and Macfarlane-Dick, D. (2006) Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education* 31(2): 2-19.

Trumbull, E., & Lash, A. (2013). *Understanding formative assessment: Insights from learning theory and measurement theory*. San Francisco: WestEd.