

Formative Assessment

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What Is Formative Assessment?

The use of assessment to provide feedback to teachers and students in the course of learning is called formative assessment. Information gained through informal assessments provides opportunities for teachers to make adjustments to the ways in which they deliver instruction. For example, they may re-teach a concept, use alternative instructional approaches, or offer more opportunities for practice and reinforcement. These activities can lead to improved student success.

Formative assessment centers on active feedback loops that assist learning (Black & Wiliam, 2004; Sadler, 1989; Shavelson, 2006). Teachers use formative assessments both to provide **feedback** to students about their progress and to **guide decisions** about next steps in the learning process, thereby closing the gap between the learner's current and desired states. Popham (2008) defines formative assessment as "a planned process in which teachers or students use assessment-based evidence to adjust what they are currently doing." The operative word in this definition is "process," in that formative assessment is happening throughout the learning, as opposed to summative assessment, which is often a one-time event that occurs at the end of a learning unit and is used to make judgments about student competence.

Elements of the Formative Assessment Process

Several researchers (Sadler, 1989; Black & Wiliam, 1998) have identified essential elements of formative assessment. These include (1) identifying the gap, (2) feedback, (3), learning progressions, and (4) student involvement, as described below.

1. *Identifying the gap* is the process of defining the difference (the "gap") between what students know and what they need to know; it includes collaboration between teacher and learner to identify learning goals and outcomes and criteria for achieving these.
2. *Feedback* (i.e., rich conversations between the teacher and student) gives the teacher information needed to identify the current status of a student's learning as well as the specific next steps that students can take to improve. Teacher feedback to students must be both constructive and timely to enable students to advance their learning. It must include description of how their response differed from that reflected in the desired learning goal and how they can move forward. Student feedback and reflection can alert the teacher of the need to modify instructional approaches.
3. *Learning progressions* are used by the teacher to break a learning goal into smaller, more manageable sub-goals. The teacher identifies a student's location on the learning continuum and works collaboratively with the student to set a series of smaller goals.
4. *Involving students* in decisions about their own learning and in self-assessment helps students to engage in reflection and build their metacognitive skills. See the TEAL Center Fact Sheet on Metacognitive Processes. There is a profound influence on student motivation and self-esteem when students are involved in self-assessments and understand how to improve.

Formative assessment represents evidence-based instructional decision making. If you want to become more instructionally effective, and if you want your students to achieve more, then formative assessment should be for you.

– Popham (2008), p. 15.

Why Use Formative Assessment?

Formative assessment with appropriate feedback is **the** most powerful moderator in the enhancement of achievement (Hattie & Temperly, 2007). Formative assessment helps teachers identify the current state of learners' knowledge and skills; make changes in instruction so that students meet with success; create appropriate lessons, activities, and groupings; and inform students about their progress to help them set goals (Ainsworth and Viegut, 2006, p. 23).

Teachers can use results of formative assessments to adjust their teaching strategies and match students with appropriate materials and learning conditions. Information gained from formative assessment can help a teacher determine (1) how to group students, (2) whether students need alternative materials, (3) how much time to allocate to specific learning activities, (4) which concepts need to be re-taught to specific students, and (5) which students are ready to advance.

Feedback on Student Writing

The role of feedback in the learner's writing quality has received considerably less attention than it deserves, according to the few researchers who have turned the inquiry spotlight from students' compositions to teachers' comments on drafts. Teacher feedback, given in written annotations and in oral comments in conferencing, is the mechanism to provide the guided practice struggling writers need to apply newly learned skills (Pathey-Chavez, Matsumura, & Valdes, 2004).

Too often, students tend to correct only those specific errors or directions that are noted without taking the steps to revise the draft (Beach & Friedrich, 2006; Fisher & Frey, 2007), resulting in no real improvement in the consequent draft. These researchers recommend providing feedback through modeling of metacognitive processing, and they recommend carefully focusing feedback in written and oral comments on students' understanding of writing development. They emphasize that conferences about writing drafts should end with a written plan of action, whether or not these have occurred face-to-face or online.

A national study of effective writing conducted in the U.K. (Grief, Meyer, & Burgess, 2007) credits constructive and timely feedback with significant development

of competence and confidence. The study's authors recommend that group dialogue and individual feedback be part of a writing curriculum for adult basic education students.

Recommended Strategies

The purpose of assessment tasks and activities is to provide the teacher with a window into students' cognitive processes. Formative assessments allow students to show their thinking, and allow teachers a way to see and gauge students' cognitive processes.

Forms of assessment can range from performance-based assessments to reflection journals to multiple-choice items. They can take the form of checklists, rubrics, written papers or oral presentations, graphic organizers, Socratic questioning, etc. They can be teacher observations of student performance, teacher questioning/class discussions, analysis of student work, student self-assessment, KWLs, and student journals, among other informal assessments. The following describes several approaches that are useful for assessing student knowledge about a given topic as well as their writing skills:

- **Quick Write:** As a pre- or post-assessment tool, 1- to 3-minute quick writes on a topic or big idea can be revealing. Student responses often show what they do or do not understand about a topic, and they provide the teacher with insights into the reasoning processes that students are using.
- **Graphic Organizers:** These include items such as Venn diagrams, word/idea webs or concept maps, cause/effect charts, flowcharts, and sequence charts. Graphic organizers can be used to assess prior knowledge, record learning during a lecture or class reading, or organize knowledge after learning.
- **Cloze Writing:** Fill-in-the-blank activities for sentences and paragraphs can be used to assess knowledge. Facilitative supports, such as a vocabulary bank, can be used for sentences. For a more extended response, students can be given a short story (for example) for which they must write a one-paragraph ending. The brainstorming for this activity can be done in pairs or small groups, and then each student can write his or her own one-paragraph ending.

- **Think-Pair-Share** or **Write-Pair-Share:** These types of activities make sure that everyone has a chance to talk and process their thinking. Ask for two minutes of silence while each student considers his or her response to a prompt, text, lecture, etc. Then have students take turns sharing their reflections with a partner. Some reflections can then be shared with the whole group.
- **Entry/Exit Cards:** As students enter class, they respond to a prompt displayed on the board or a flipchart (e.g., a sentence or short paragraph) related to the topic of that day's lesson. Alternatively, students can be asked for an "exit card" that provides insight into what they learned from the day's activities or what they predict might follow.
- **Student Reflection:** The teacher can encourage students to reflect on their accomplishments as well as their challenges by asking students to answer questions that spark critical thinking:
 - What was your task, the ultimate goal, or the outcome for this activity?
 - What are some important concepts and ideas that you discovered/learned? Why are they important?
 - How did you solve the problem or task? Did you reach your goal? Explain.
 - Would you make changes if you had to do it again? Explain.

There is a significant body of evidence linking the formative assessment with student achievement. Adult educators, by encouraging student reflection on their learning and by involving students in decisions related to next steps in reaching their learning goals, both motivate and empower students in the assessment and learning process. Formative assessment can help teachers improve the quality of instruction and help students reach their full potential.

References

- Ainsworth, L., & Viegut, D. (2006). *Common formative assessments*. Thousand Oaks, CA: Corwin Press.
- Beach, R. & Friedrich, T. (2006). Response to writing. In MacArthur, C. A., Graham, S., & Fitzgerald, J. (Eds.), *Handbook of writing research* (pp. 222-234). New York, NY: Guilford Press.
- Black, P. and William, D. (1998). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan*, 80(2): 139–148.

Black, P., & William, D. (2004). The formative purpose: Assessment must first promote learning. In M. Wilson (Ed.), *Towards coherence between classroom assessment and accountability*. Chicago: University of Chicago Press.

Fisher, D. & Frey, N. (2007). *Checking for understanding: Formative assessment techniques for your classroom*. Alexandria, VA: ASCD.

Grief, S., Meyer, B., & Burgess, A. (2007). *Effective teaching and learning: Writing*. London: NRDC. Available at <http://www.nrdc.org.uk/content.asp?CategoryID=440&ArticleID=1314>.

Hattie, J., & Temperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112.

Pathey-Chavez, G. G., Matsumura, L. C., & Valdes, R. (2004). Investigating the process approach to writing instruction in urban middle schools. *Journal of Adolescent and Adult Literacy*, 47(6), 462–477.

Popham, W. J. (2008). *Transformative Assessment*. Alexandria, VA: Association for Supervision and Curriculum Development.

Sadler, D.R. (1989). Formative assessment and the design of instructional systems. *Instructional Science*, 18(2): 119–144.

Shavelson, R. J. (2006). *On the integration of formative assessment in teaching and learning with implications for teacher education*. Paper prepared for the Stanford Education Assessment Laboratory and the University of Hawaii Curriculum Research and Development Group. Available at www.stanford.edu/dept/SUSE/SEAL.

TEAL Center. (2010). *Metacognitive processes*. Washington, DC: American Institutes for Research. Available at <http://teal.ed.gov>.

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