

Assessment to Promote Learning Helping Students Understand Assessment

Jan Chappuis

Formative assessments promote learning when they help students answer three questions: Where am I going? Where am I now? and How can I close the gap?

During the last decade, many schools have begun to emphasize formative assessment. As teachers work to develop short-cycle or common assessments and engage in data-driven decision making, they typically remain in the central decision-making role. This approach reflects the underlying assumption that teachers control learning. Although teachers must create the conditions for learning, however, students ultimately decide whether they feel capable of learning and whether they will do the work. Therefore, students are equally important users of formative assessment information. The research tells us why.

Necessary Components of Formative Assessment

In their 1998 synthesis of research, Black and Wiliam reported that formative assessment produced significant learning gains, with effect sizes between 0.4 and 0.7. They noted, however, that in schools achieving these gains, students were the primary users of formative assessment information. In such schools,

- Formative assessment began with offering students a clear picture of learning targets.
- Students received feedback on their work that helped them understand where they were with respect to the desired learning target.
- Students engaged in self-assessment.
- Formative assessment provided an understanding of specific steps that students could take to improve.

Sadler (1989) had previously reported similar findings. In describing the role of formative assessment in developing expertise, he identified three conditions required for students to improve:

The student comes to hold a concept of quality roughly similar to that held by the teacher, is able to monitor continuously the quality of what is being produced during the act of production itself, and has a repertoire of alternative moves or strategies from which to draw at any given point. (p. 121)

This research on effective formative assessment suggests that students should be able to answer three basic questions: Where am I going? Where am I now? and How can I close the gap? (adapted from Atkin, Black, & Coffey, 2001). The seven strategies described in the following sections can help ensure systematic student involvement in the formative assessment process (Stiggins, Arter, Chappuis, & Chappuis, 2004).

Where Am I Going?

Students need to know what learning targets they are responsible for mastering, and at what level. Marzano (2005) asserts that students who can identify what they are learning significantly outscore those who cannot.

Strategy 1: Provide a clear and understandable vision of the learning target. Share the learning targets before you begin instruction, in language your students can understand. For example, when introducing a reading comprehension unit calling for inference, you might say, "We are learning to *infer*. This means we are learning to make reasonable guesses on the basis of clues." Or provide students with a written list of learning targets described in student-friendly language, such as,

We are learning about fractions. We are learning to

- Read and write fractions with halves, thirds, fourths, and tenths.
- Read and write mixed numbers (whole numbers plus fractions).
- Change fractions written as tenths into decimals.

When working with more complex content standards that call for performance assessment, such as "Writes clearly and effectively," introduce the language of the scoring guide that the school will use to define quality. To do this, ask students what they think constitutes good writing, and then help them identify where their concept of good writing matches the concepts in the scoring guide. If the scoring guide is above students' reading level, you might want to create a student-friendly version.

Strategy 2: Use examples of strong and weak work. To know where they are going, students must know what excellent performance looks like. Ask students to evaluate anonymous work samples for quality and then to discuss and defend their judgments, using the language of the scoring guide in the case of performance assessments. Such an exercise will help students develop skill in accurate self-assessment.

Teachers often use strong examples, or exemplars, but avoid using weak examples because they worry that students will accidentally emulate them. On the contrary, when students evaluate weak examples that mirror common problems, they become more proficient at identifying their own weaknesses and gain a better understanding of quality. To introduce work samples to students, you might

1. Distribute to students a student-friendly version of the scoring guide you will use to evaluate their final products.
2. Choose one aspect of quality (one trait) to focus on.
3. Show an overhead transparency of a strong anonymous sample, but don't let students know it's a strong example. Have students work independently to score it for the one trait using the student-friendly scoring guide. You may ask students to underline the statements in the scoring guide that they believe describe the work they're examining.
4. After students have settled on a score independently, have them share their scores in small groups, using the language of the scoring guide to explain their reasoning.
5. Ask the class to vote and tally their scores on an overhead transparency. Then ask for volunteers to share their scores and the rationale behind them. Listen for, and encourage, use of the language of the scoring guide.
6. Repeat this process with a weak anonymous sample, focusing on the same trait. Do this several times, alternating between strong and weak papers, until students

are able to distinguish between strong and weak work and independently give rationales reflecting the concepts in the scoring guide (Stiggins et al., 2004).

Where Am I Now?

When my daughter was in 3rd grade, she once brought home a math paper with a smiley face, a minus 3, and an M at the top. When we asked her what the M meant she had learned, she looked at us as though we were trying to trick her and replied, “Math?” When we asked her what that meant she needed to work on, she frowned and ventured, “Math?”

Papers marked like this one do not give students the information they need. At best, such marks might tell the student, “I’m doing OK in math,” but they will not enable the student to assess his or her own strengths and weaknesses. You can use the following two strategies to help students identify how they are currently performing in relation to the learning and actions that are expected of them.

Strategy 3: Offer regular descriptive feedback. Black and Wiliam (1998) recommend that to improve formative assessment, teachers should reduce *evaluative* feedback—such as “B+. Good work!” or “You didn’t put enough effort into this”—and increase *descriptive* feedback, such as “You maintained eye contact with your audience throughout your whole presentation” or “Your problem-solving strategy for dividing all the people into equal groups worked well right up to the end, but you need to figure out what to do with the remaining people.”

The quality of the feedback, rather than its quantity, determines its effectiveness (Bangert-Downs, Kulik, Kulik, & Morgan, 1991; Sadler, 1989). The most effective feedback identifies success and also offers students a recipe for corrective action (Bloom, 1984; Brown, 1994). Grades and other coded marks—such as ✓ + and 92%—do not tell students what areas they need to improve. Instead, such marks signal that the work on this piece is finished.

Here are some simple actions you can take to provide effective feedback:

- After students have practiced using a scoring guide with anonymous work and they understand the meaning of the phrases in the scoring guide, highlight phrases that describe strengths and weaknesses of their work. If you are working with a multitrait scoring guide, limit feedback to one or two traits at a time.
- Have students *traffic light* their work (Atkin et al., 2001), marking it with a green, yellow, or red dot to indicate the level of help they need. Allow students with green and yellow dots to provide descriptive feedback to one another, while you provide feedback for students with red dots.

Strategy 4: Teach students to self-assess and set goals. In giving students descriptive feedback, you have modeled the kind of thinking you want them to do as self-assessors. As a next step, turn that task over to students and guide them in practicing self-assessment and goal setting. You may find it useful to have students identify the strengths and weaknesses of their work before you offer your own feedback. Have them complete a form like the one in Figure 1 and staple it to their work when they turn it in. Respond with your feedback, either on the form or orally.

Figure 1. Student Self-Assessment Form

My Strengths and Areas to Improve Trait(s): _____ Name: _____ Name of Paper: _____ Date: _____ My Opinion My strengths are _____ _____ What I think I need to work on is _____ _____ My Teacher's or Classmate's Opinion Strengths include _____ _____ Work on _____ _____ My Plan What I will do now is _____ _____ Next time I'll ask for feedback from _____ _____ <i>Source: From Classroom Assessment for Student Learning: Doing It Right—Using It Well, by R. J. Stiggins, J. Arter, J. Chappuis, and S. Chappuis, 2004, Portland, OR: Assessment Training Institute. Reprinted with permission.</i>

To help students align their expectations with yours, ask them to turn in a scoring guide with their work, highlighting in yellow the phrases in the guide that they believe represent the quality of their work. On the same scoring guide, highlight in blue the phrases that you think describe their work, and return the guide to them. Where the highlighted phrases are green (blue over yellow), your feedback matches the student's self-assessment. Any highlighted phrases that remain blue or yellow, however, indicate areas in which the student probably needs to refine his or her vision of quality (Stiggins et al., 2004).

If you are using a selected-response test, you can arrange the items according to the learning targets they assess and give students the list of learning targets correlated to the test item numbers. When they receive their corrected test, students can identify which learning targets they have mastered and which learning targets they need to work on further. They can then develop a plan for how they will improve the targeted areas. This practice is especially effective if students have the opportunity to retake the test.

How Can I Close the Gap?

The final essential step in making formative assessment work is to keep students in touch with what they can do to close the gap between where they are now and where they need to be.

Strategy 5: Design lessons to focus on one aspect of quality at a time. This strategy breaks learning into more manageable chunks for students. For example, suppose that students are learning to design and conduct scientific investigations, and one part of the

scoring guide describes the qualities of a good hypothesis. If students are having trouble formulating hypotheses, they can refer to that portion of the scoring guide as they differentiate between strong and weak examples of hypotheses, practice drafting hypotheses, give one another descriptive feedback on their drafts, and assess their own drafts' strengths and weaknesses.

Strategy 6: Teach students focused revision. Let students practice revising their work before being held accountable by a final grade. You might begin with one of the anonymous, weak work samples that your students have evaluated (see *Strategy 2*). Focusing on just the single aspect of quality that they evaluated, ask students to work in pairs to either revise the sample or create a revision plan describing what the anonymous student needs to do to improve the work. Then ask students to apply the same process to their own work, either revising it to make it better or submitting a revision plan. For example, after assessing their draft hypotheses in science, students could use the scoring guide to write out what they need to do to improve their hypotheses.

Strategy 7: Engage students in self-reflection and let them document and share their learning. We know the power of self-reflection to deepen learning for adults. It also works for students. One of the strongest motivators is the opportunity to look back and see progress.

In a skill-based course, such as physical education, students can fill out a daily form that asks two questions: "What are two important things you learned from today's class?" and "What is one goal you have for tomorrow's class?"

Student portfolios can also promote students' self-reflection. In collecting their work and insights in portfolios, students have the opportunity to reflect on their learning, develop an internal feedback loop, and understand themselves better as learners. To use portfolios in this way, students must clearly understand their learning goals, the steps that they have taken toward reaching those goals, and how far they have come. Involving students in parent-teacher conferences can accomplish the same purpose. Students gain insight from explaining to their parents the learning that their work represents, their strengths as learners, and what they plan to work on next.

Students at the Center

The seven strategies described here are designed to help students better understand their learning goals, recognize their own skill level in relation to the goals, and take responsibility for reaching the goals. By expanding our formative assessment practices to systematically involve students as decision makers, teachers acknowledge the contributions that students make to their own success and give them the opportunity and structure they need to become active partners in improving their learning.

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