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 _____

_____

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.

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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The Best Value in Formative Assessment

Stephen Chappuis and Jan Chappuis

Ready-made benchmark tests cannot substitute for day-to-day formative assessment conducted by assessment-literate teachers.

Recently a school leader asked us to provide an example of a good test item on a formative assessment and then show how that item would be different when used on a summative test. He wanted to explain to his staff the difference between formative and summative assessment. His end goal was for teachers to develop assessments to measure how well students were mastering the content standards that would appear on the state accountability test before the test was given in the spring.

His question reflects the confusion many educators have about formative and summative assessment. This confusion isn't surprising: Definitions of formative assessment abound, resulting in multiple and sometimes conflicting understandings. And in part because of these varying definitions and views, practices labeled as formative assessment in schools today vary widely.

One result of No Child Left Behind has been a surge in student testing—much of it voluntary, going well beyond what federal law or state assessment systems require. Many schools and districts administer tests with names like *benchmark, short-cycle*, and *interim assessments* to predict student performance on high-stakes tests and to identify students needing additional help. This increasingly popular level of testing has contributed to the widening scope of what is called formative assessment.

Testing companies in the K–12 education market, seeking to support the trend toward more testing, sometimes advertise products as "formative assessments." This adds to the confusion by encouraging the idea that it's the test itself that's formative (Chappuis, 2005).

In reality, this level of testing is often little more than a series of minisummative tests, not always tightly aligned to what was taught in the classroom. There is nothing inherently formative in such tests—they may or may not be used to make changes in teaching that will lead to greater student learning.

The Difference Between Summative and Formative

What is formative assessment, then? First, it's not a product. That was the central misunderstanding of the administrator who asked for an example of a good formative test item. Even though assessments will continue to be labeled *formative* or *summative*, how the results are used is what determines whether the assessment is formative or summative.

To begin, let's look at summative assessment. In general, its results are used to make some sort of judgment, such as to determine what grade a student will receive on a classroom assignment, measure program effectiveness, or determine whether a school has made adequate yearly progress. Summative assessment, sometimes referred to as assessment *of* learning, typically documents how much learning has occurred at a point in time; its purpose is to measure the level of student, school, or program success.

Formative assessment, on the other hand, delivers information *during* the instructional process, *before* the summative assessment. Both the teacher and the student use formative assessment results to make decisions about what actions to take to promote further learning.

It is an ongoing, dynamic process that involves far more than frequent testing, and measurement of student learning is just one of its components.

Summative Assessment Used in Formative Ways

Almost any assessment instrument can be used for summative or formative purposes, but some, by design, are better suited to summative use and others to formative use. For example, state assessments, although they may also have some limited formative use, are designed to provide accountability data and to compare schools and districts. Because their primary purpose is summative, the results may not be communicated in ways that teachers and students can easily interpret and work with. Further, the results are often delivered months after the administration of the tests. For these reasons, such state tests usually do not function well in a formative way: They can't contribute much information to guide day-to-day instruction or help determine the next learning steps of individual students.

Benchmark assessments, either purchased by the district from commercial vendors or developed locally, are generally meant to measure progress toward state or district content standards and to predict future performance on large-scale summative tests. A common misconception is that this level of assessment is automatically formative. Although such assessments are sometimes intended for formative use—that is, to guide further instruction for groups or individual students—teachers' and administrators' lack of understanding of how to use the results can derail this intention. The assessments will produce no formative benefits if teachers administer them, report the results, and then continue with instruction as previously planned—as can easily happen when teachers are expected to cover a hefty amount of content in a given time.

Teachers also select or develop their own summative assessments—those that count for a grade. Compared with state and district tests, these classroom assessments can more readily be adapted to formative use because their results are more immediately available and their learning targets have been more recently taught. When teachers know what specific learning target each question or task on their test measures, they can use the results to select and reteach portions of the curriculum that students haven't yet mastered. Carefully designed common assessments can be used this way as well.

Students, too, can use summative test results to make decisions about further study. If the assessment items are explicitly matched to the intended learning targets, teachers can guide students in examining their right and wrong answers in order to answer questions such as these:

- What are my strengths relative to the standards?
- What have I seen myself improve at?
- Where are my areas of weakness?
- Where didn't I perform as desired, and how might I make those answers better?
- What do these results mean for the next steps in my learning, and how should I prepare for that improvement?

For students to make maximum use of these questions to guide further study, however, teachers must plan and allow time for students to learn the knowledge and skills they missed on the summative assessment and to retake the assessment. Lack of time for such learning is one of the biggest hindrances to formatively using summative classroom assessments.

Assessment *for* Learning

When teachers assess student learning for purely formative purposes, there is no final mark on the paper and no summative grade in the grade book. Rather, assessment serves as practice for students, just like a meaningful homework assignment does. This is formative assessment at its most valuable. Called assessment *for* learning, it supports learning in two ways:

- Teachers can adapt instruction on the basis of evidence, making changes and improvements that will yield immediate benefits to student learning.
- Students can use evidence of their current progress to actively manage and adjust their own learning. (Stiggins, Arter, Chappuis, & Chappuis, 2006)

Assessment for learning can take many different forms in the classroom. It consists of anything teachers do to help students answer three questions (Atkin, Black, & Coffey, 2001):

Where am I going?

- Give students a list of the learning targets they are responsible for mastering, written in student-friendly language.
- Show students anonymous strong and weak examples of the kind of product or performance they are expected to create and have them use a scoring guide to determine which one is better and why.

Where am I now?

- Administer a nongraded quiz part-way through the learning, to help both teacher and students understand who needs to work on what.
- Highlight phrases on a scoring guide reflecting specific strengths and areas for improvement and staple it to student work.
- Have students identify their own strengths and areas for improvement using a scoring guide.
- Have students keep a list of learning targets for the course and periodically check off the ones they have mastered.

How can I close the gap?

- Give students feedback and have them use it to set goals.
- Have students graph or describe their progress on specific learning targets.
- Ask students to comment on their progress: What changes have they noticed? What is easy that used to be hard? What insights into themselves as learners have they discovered?

When students use feedback from the teacher to learn how to self-assess and set goals, they increase ownership of their own success. In this type of assessment environment, teachers and students collaborate in an ongoing process using assessment information to improve rather than judge learning. It all hinges on the assessment's ability to provide timely, understandable, and descriptive feedback to teachers and students.

Feedback: The Key Difference

Feedback in an assessment *for* learning context occurs while there is still time to take action. It functions as a global positioning system, offering descriptive information about the work, product, or performance relative to the intended learning goals. It avoids marks or comments that judge the level of achievement or imply that the learning journey is over.

Effective descriptive feedback focuses on the intended learning, identifies specific strengths, points to areas needing improvement, suggests a route of action students can take to close the gap between where they are now and where they need to be, takes into account the amount of corrective feedback the learner can act on at one time, and models the kind of thinking students will engage in when they self-assess. These are a few examples of descriptive feedback:

- You have interpreted the bars on this graph correctly, but you need to make sure the marks on the *x* and *y* axes are placed at equal intervals.
- What you have written is a hypothesis because it is a proposed explanation. You can improve it by writing it as an "if … then … " statement.
- The good stories we have been reading have a beginning, a middle, and an end. I see that your story has a beginning and a middle, just like those good stories do. Can you draw and write an ending?
- You have described the similarities between _____ and _____ clearly in this paper, and you have identified key differences. Work on illustrating those differences with concrete examples from the text.

In contrast, the feedback from a summative assessment—whether given in the classroom or in a larger context—tells teachers and students who made it to the learning destination and who didn't. The assessment's coded, evaluative feedback—*B+, 84%, Meets Standards, Great Job, Proficient*, and so on—does not identify individual student strengths and areas needing improvement. It does not offer specific information for course correction.

Advantages of Formative Classroom Assessment

Although all formative assessment practices have the potential to increase student learning, assessment for learning in the classroom offers a number of distinct benefits:

- The timeliness of results enables teachers to adjust instruction quickly, while learning is in progress.
- The students who are assessed are the ones who benefit from the adjustments.
- The students can use the results to adjust and improve their own learning.

When we try to teacher-proof the assessment process by providing a steady diet of ready-made external tests, we lose these advantages. Such tests cannot substitute for the day-to-day level of formative assessment that only assessment-literate teachers are able to conduct. The greatest value in formative assessment lies in teachers and students making use of results to improve real-time teaching and learning at every turn.

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ASSESSMENT FOR LEARNING SEMINAR

Read one of the assigned articles using the following questions/statements to guide your reading and assist you in preparing to "teach" your colleagues about your article.

Helping Students Understand Assessment by Jan Chappuis

Guiding Questions:

1. Describe the findings in those schools that used formative assessment and reported significant student gains.

2. What are the three overarching questions that students must be able to answer?

3. Explain the seven strategies that teachers must implement to enable students to answer the three questions.

The Best Value in Formative Assessment by Stephen and Jan Chappuis

Guiding Questions:

1. Explain the difference between formative assessment and summative assessment by identifying the important descriptive phrases that clarify each of them.

2. What is the major element that determines whether an assessment is formative or summative?

3. Contrast the difference in the feedback with assessment for learning and feedback from assessment of learning.

4. Identify the advantages of formative classroom assessment.