# Formative Assessment 101

The basic goal of formative assessment is straightforward: figure out what students understand and where misconceptions or gaps in understanding exist, so you can plan instruction and interventions to help students master learning objectives. In his book *Transformative Assessment,* W. James Popham (2008) provides the following definition for formative assessment: "Testing students in the midst of an ongoing instructional sequence and then using the test results to improve instruction" (p. 3). The implementation of data collection and use of data to guide instruction is definitely easier said than done. It requires planning, an understanding of student needs, and pedagogical knowledge of the best interventions for students who struggle, as well as extensions for students who excel.

Formative assessment takes many shapes, and most teachers have set routines for collecting and analyzing data to inform their instruction. This might include observations and anecdotal notes, checklists to monitor skill development, quick quizzes at the beginning of class, or exit slips before the bell rings. The purpose should always be clear no matter *when* or *how* formative assessment data is collected. Teachers know what they are looking for when they pose a question to students—and they have a plan for what to do if students don't understand.

Why do teachers collect data? They might want information on how well students understand a concept, so they can

divide the class into groups for an activity. They might want a read of the room at the beginning of a class to gauge student interest before opening discussion questions. A teacher might also want to see if he or she can skip over a lesson because the class already understands a topic—or if they need to slow down to clarify misconceptions.

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## CYCLE OF FORMATIVE ASSESSMENT

The cycle of formative assessment is ongoing. Teachers continuously check in on students to make sure they are moving toward mastery of the concepts being taught. Teachers start by introducing a concept to students and gathering information on whether or not students understand. This happens by asking questions to the whole class or individual students, listening in as students complete a task, or reviewing work at the end of an

Adapted From Laura Greenstein's *What Teachers Really Want to Know About Formative Assessment*
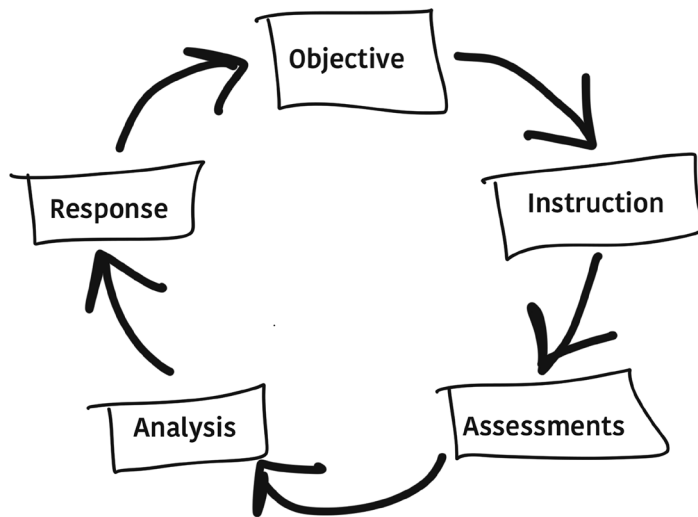
activity or lesson. Laura Greenstein (2010) describes formative assessment as a cycle: "With formative assessment, teaching and assessing become a cyclical process for continuous improvement, with each process informing the other" (p. 7).

## FORMATIVE ASSESSMENT IN A TRADITIONAL CLASSROOM

Throughout this book, we'll examine the ways technology can enhance traditional formative assessment practices. In order to do this, let's *establish* a foundation for *when* and *how* formative assessment takes place in a traditional classroom where technology isn't thrown into the mix. In this section, you'll see how formative assessment data is collected before, during, and after a daily lesson, multiday activity, or unit of study. In the next chapter, we'll come back to these key points as we discuss *meaningful*, *sustainable,* and *scalable* technology integration.

### Before a Lesson or Unit

In the early stages of planning a lesson teachers identify a clear objective or goal for student mastery. Planning a lesson is more than knowing what content your students need to know to pass a test. In addition to keeping your learning goals for students in mind, it is important to gauge what students already know about a concept and what misconceptions might get in the way of their understanding of new information. Before a lesson or unit, you also have an opportunity to learn about your students' interests and how they might connect to the topic you are teaching. All of this information—student understanding, misconceptions, and interests—will be useful to you use as you plan a daily lesson or month-long unit.

Questions to ask yourself:

- What do I want students to master by the end of the unit?
- How will I know if they understand a concept?
- What should I observe as I move about the classroom?
- What type of information can I collect from students to see if they have mastered a learning goal?

- How can I intervene if a student is struggling?
- What will I do if students are ready to think deeper or explore something new?
- How will I record and keep track of this formative assessment data?

For example, if you poll the class to see which nonfiction topics they like the best, you can use this data to choose informational text examples on high-interest topics like sharks or global warming when you model reading skills. In a math classroom, you might give a quick five-question quiz to students before starting the lesson. If everyone shows they understand the skill, you might use more challenging examples in your lesson or skip ahead to something new. If a few students struggle, you might work with them in a small group, while the other students work in partners to complete the daily task.

## During a Lesson or Unit

As teachers move through a lesson, they should check for understanding every few minutes. This will help you decide on the direction a lesson will take, including slowing down or speeding up as you share content with students. This doesn't mean you are interrupting a lesson to give multiple-choice questions every 10 minutes. It means you are consistently monitoring students through observations, questioning, and quick review of their work.

> What does the research say? Teachers should check for understanding every 5–10 minutes to ensure rigorous, supported instruction. (Fisher & Frey, 2011)

During a lesson, you are always gathering information (aka formative assessment data). This should be done in a purposeful, planned manner. You might have questions or prompts written out in your lesson plans or identified an indicator that will tell you if students understand a specific concept. In addition to your plan for formative assessment, you know your students and when a *pulse check* is necessary. Your decision to pause and check for understanding during these *on-the-fly*

moments should be in addition to plans you've made before the lesson to collect formative data at a certain time. This information will tell you who needs extra help right away and who can benefit from strategic interventions during other parts of the day or in subsequent lessons.

For example, a teacher moving around the classroom might make a note on a checklist if students are struggling to work through the steps of a science experiment with their group. Depending on what the teacher hears when she leans in to listen to a student discussion, she may decide to pause and remind the whole class of key vocabulary terms they'll need to complete the task. Alternatively, during a writing conference you might notice a student struggling to support his or her topic sentence with details. If two or three other students are struggling with this same skill, you might decide to pull them together for a strategy lesson the following day.

## After a Lesson or Unit

The information collected once a lesson is finished can help teachers plan for future instruction. When reflecting on a day's lesson, you might find (1) everyone, (2) some students, or (3) none of your students *got it*. With this information, you'll decide if you are going to

- reteach a lesson with new strategies,
- slow down your lesson to dig deeper,
- differentiate by forming leveled groups of students, or
- decide on specific interventions for individual students.

The information gathered at the end of a daily lesson can help you determine what your whole-group and small-group instruction will look like in subsequent days. For example, after completing a lesson on causes of the American Revolution, tell students, "Jot down on an index card which event leading up to the American Revolution had the most impact on the colonists' decision to declare

*Leveled or strategy group:* a small group of students with similar needs who spend extra time with their teacher to practice a skill

independence." Collecting this at the end of the lesson will help you figure out if there are any misconceptions to address at the beginning of the next day's lesson.

At the end of a unit, you will gather information to help you plan for the next unit by noticing patterns where students may need extra support. For example, in an English Language Arts classroom, once a unit on persuasive writing is finished, you might notice a few students struggle with sentence structure or grouping ideas in paragraphs. Even though your next unit is on memoirs, this information can help you plan for small-group lessons on these basic writing skills during the following unit.

Formative assessment is more than gauging what students *don't know*. The collection of formative assessment data provides a window into student understanding. You might pose questions to students to see what they find interesting about a topic to create more engaging lessons. You can ask questions to determine if you can move through information quicker if your class already demonstrates understanding, or if you'll need to slow down to address misconceptions. With formative assessment, teachers are leading a *fact-finding mission,* and it is essential to establish *why* you are collecting data, *how* you will collect data, and *what* you will do with this information.

**Table 1.1** Collecting Formative Assessment Data

| Before a lesson or unit | During a lesson or unit | After a lesson or unit |
|---|---|---|
| • Poll the class to gauge interest | • Confer with individual students | • Collect an exit slip with student responses to a comprehension question |
| • Give a quick quiz on the new skill or topic to see what students already know | • Listen to group or partner talk | • Ask students to tell you something they found confusing in a lesson |
| • Use a KWL chart or identify misconceptions | • Ask students to write a question they have on a sticky note | • Review final projects to look for skill gaps that can be addressed in an upcoming unit |

## FORMATIVE vs. SUMMATIVE ASSESSMENT

When people outside of the world of education hear the term *assessment*, they picture students bubbling in answers in a silent room with desks neatly lined up. State and national exams administered at the end of the school year are called *summative assessments*. Summative assessments are the end-of-unit and end-of-year exams designed to gauge a student's understanding of course content. This information might be used to place a student in the appropriate-leveled course for the following year. It does not inform the instruction of the teacher or intervention specialists currently working with a child.

Summative tests can give teachers and districts a general feel for the effectiveness of teaching practices and curriculum material. It does not give the actionable data teachers can use to inform their instruction to meet the immediate needs of students. In this book, we will focus on *formative assessments*—how teachers can purposefully embed these types of assessments into their instruction and gather data to make decisions for teaching and learning.

**Table 1.2**  Examples of Formative and Summative Assessments

| Formative assessment | Summative assessment |
|---|---|
| • Exit slips | • End of unit exams |
| • Mid-unit quizzes | • Final projects |
| • Conferences | • Portfolios |

## REIMAGINE THE CYCLE OF #FORMATIVETECH WITH TECHNOLOGY

Part of what we will discuss in this book are quick fixes for substituting traditional formative assessment practices. These quick fixes will help teachers collect data more efficiently to save instructional time. In addition to quick fixes, other aspects of the text will address large-scale changes to totally transform your practice. This includes ways to

redefine how students reflect on their progress and respond to teacher feedback. It will explore reasons to embed questions into your instruction and identify opportunities for students to interact with their peers as they move through the school year. Teachers looking to build their confidence with technology tools who are just starting to wrap their head around thoughtful technology integration may want to start off with some of these simple tips as they move toward more transformative practice with #FormativeTech.

The practical changes outlined throughout the book—and the powerful teacher stories of formative assessment in action—are perfect for educators and school leaders looking to make big changes. Altering your workflow to make formative assessment happen seamlessly is all part of the process. We will build on the foundation of best practices for formative assessment introduced in this chapter by discussing how to thoughtfully integrate technology tools to make this work more meaningful, sustainable, and scalable.

## TIPS FOR TODAY

- *Meaningful*: Take stock of your formative assessment practices. What are you currently doing to check for student understanding as you teach a lesson?
- *Sustainable*: Reflect on your current formative assessment practices. What is working or not working when you collect data on student understanding?
- *Scalable*: Commit to a simple goal you can put into practice tomorrow—with or without technology—such as polling for student interest or meeting with a strategy group. What is one thing you can add to your formative assessment routine?

Scan this QR code to visit the companion website with extra resources and information on #FormativeTech:

**http://resources.corwin.com/formativetech**