The background features several clusters of stylized, overlapping leaf shapes. At the top right, there are light green leaves. On the left side, there are orange and yellow leaves. In the center, there are pink and red leaves. On the right side, there are green leaves. The leaves are simple, rounded shapes with white outlines, arranged in a way that suggests growth and vitality.

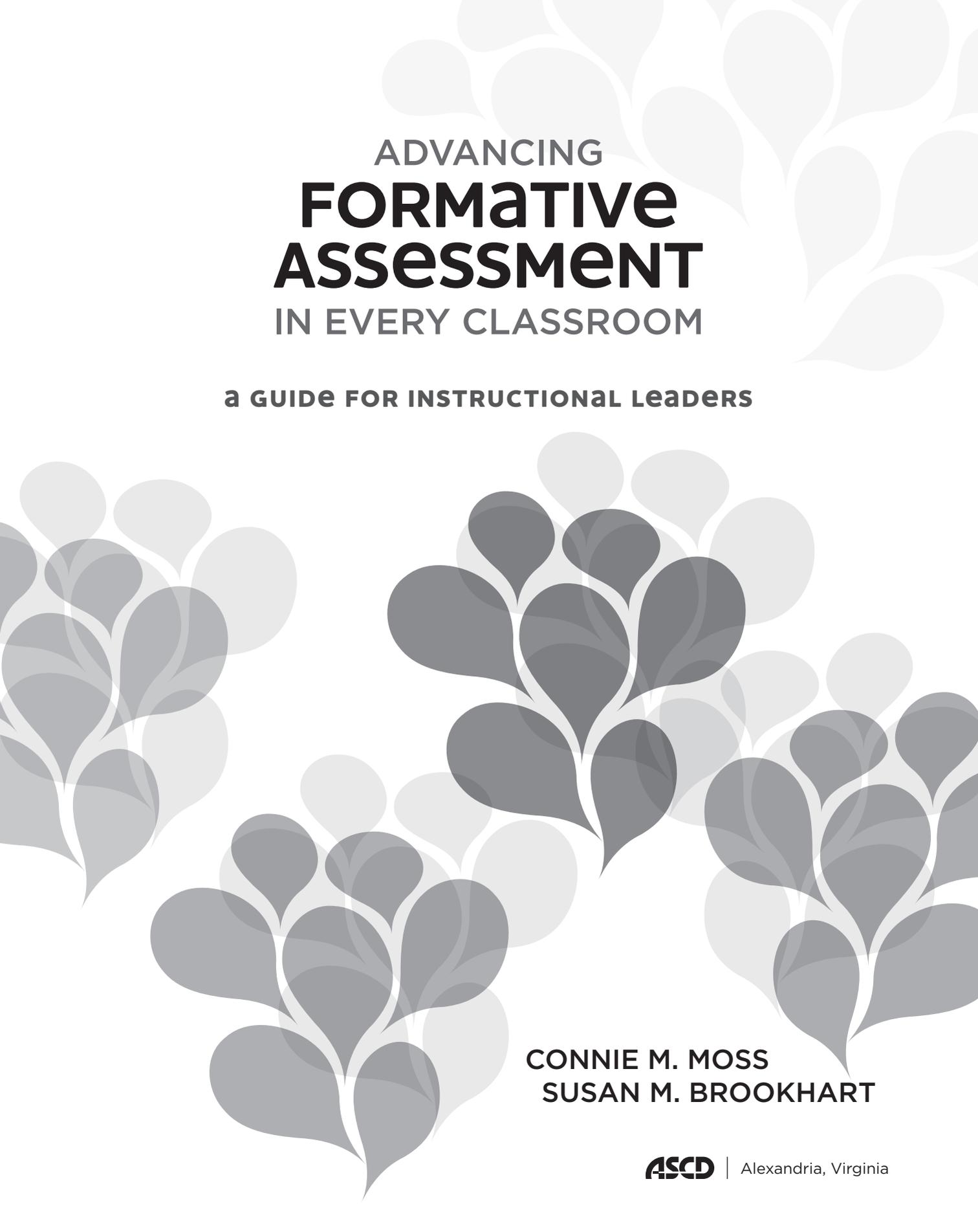
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IN EVERY CLASSROOM

a GUIDE FOR INSTRUCTIONAL LEADERS

CONNIE M. MOSS
SUSAN M. BROOKHART

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INTRODUCTION

Formative assessment, when used effectively, can significantly improve student achievement and raise teacher quality. Yet high-quality formative assessment is rarely a consistent part of the classroom culture. Teachers are neither sufficiently familiar with it nor equipped with the knowledge or the skill to put formative assessment to work for themselves and their students.

This book is intended as a resource for school leaders as they work with teachers to make the formative assessment process an integral part of their classrooms. We focus on classroom-level practices that affect student learning and achievement, build capacity, and foster schoolwide outcomes that can meet the demands for high-stakes accountability facing today's education professionals. And amid calls for data-driven decision making, we intentionally focus the book on practices that put information about learning into the hands of the most important decision makers of all—the students.

We have organized this book so that school leaders, school teams, and collaborative groups can use it as a guide to engage in highly effective formative assessment practices that promote school improvement and increase student achievement. We place particular emphasis on the ways that the formative assessment process enables students to harness the workings of their own minds to become intentional and skilled learners.



We begin in Chapter 1 with an overview of the formative assessment process—what it is and what it is not. Then, to emphasize classroom practices that not only help students achieve but also help them learn how to learn, we have organized the next six chapters around six elements of the formative assessment process—one per chapter—that we believe have a particularly powerful effect on student learning and teacher quality. We have arranged the elements in a logical sequence that has been, in our experience, very successful in helping teachers integrate formative assessment practices in ways that build on the elements’ interrelated nature to maximize their effect. School leaders who support and coach teachers in these practices will help teachers and students succeed. We use the following set of Q&A prompts to examine each element of the process and show its connection to increased student achievement and motivation to learn:

- What is it?
- How does it affect student learning and achievement?
- What common misconceptions might teachers hold?
- What is the “motivation connection”?
- What are specific strategies I can share with teachers?
- How will I recognize it when I see it?
- How can I model it in conversations with teachers about their own professional learning?
- What if?

As the sequence of questions suggests, we structure each chapter first to “tell.” We explain the element of the formative assessment process, supporting our description with relevant research on its effects in the classroom. Next, we use classroom examples to “show” how teachers and their students can incorporate formative assessment into their day-to-day, minute-by-minute teaching and learning. Finally, we suggest strategies for using highly effective classroom practices that boost student achievement, maximize the collection and use of strong evidence of student learning, and bring increased clarity and coherence to the teaching-learning process. These strategies are useful for all teachers in all grades, subjects, and content areas. In other words, each of these chapters not only covers the “what” and the “how” but also begins with perhaps the most important aspect, the “why.”

We also use Chapters 2 through 7 to describe practical ways that school leaders can model and use the elements of the formative assessment process during conversations with teachers. We envision these conversations happening as part of formal classroom observations and informal classroom walk-throughs and during other communication with individual teachers and teacher groups. These formative conversations can enrich professional relationships, promote a schoolwide culture of inquiry, and encourage teachers to learn together about the significant relationship that exists between the quality of their teaching practices and the level of student achievement in their classrooms.

We finish each of these chapters by providing two ways for educational leaders to extend their thinking about the focus of the chapter. First, we provide a short “What If?” scenario to help you think through possible challenges and to offer supportive advice. Second, we suggest reflection questions to assist you in gauging where you are in terms of high-quality formative assessment practices. Finally, each chapter concludes with a summary of the major points.

In the book’s final chapter, we discuss taking formative assessment schoolwide and note the role that formative assessment can play in transforming all learning and all learners in the school. As educators inquire together about the quality of their classroom practices, they can continually refine their professional knowledge and expertise.

It is our hope that the ideas presented here will lead to increased understanding of how formative assessment can affect student learning and achievement, because after all is said and done, that is its primary purpose. We also hope that school leaders will see this book as a resource they can tap again and again as they use the formative assessment process to dramatically influence teaching and learning in their schools.

1

THE LAY OF THE LAND: Essential Elements of the Formative Assessment Process

When teachers join forces with their students in the formative assessment process, their partnership generates powerful learning outcomes. Teachers become more effective, students become actively engaged, and they both become intentional learners.

We can use the metaphor of a windmill to visualize the formative assessment process and its effects. Just as a windmill intentionally harnesses the power of moving air to generate energy, the formative assessment process helps students intentionally harness the workings of their own minds to generate motivation to learn. Propelled by the formative assessment process, students understand and use learning targets, set their own learning goals, select effective learning strategies, and assess their own learning progress. And as students develop into more confident and competent learners, they become motivated (energized) to learn, increasingly able to persist during demanding tasks and to regulate their own effort and actions when they tackle new learning challenges.

When a windmill whirls into action, its individual blades seem to disappear. The same thing happens to the six elements of the formative assessment process. These interrelated elements are the following:

- Shared learning targets and criteria for success
- Feedback that feeds forward



- Student goal setting
- Student self-assessment
- Strategic teacher questioning
- Student engagement in asking effective questions

As teachers and students actively and intentionally engage in learning, the individual elements unite in a flurry of cognitive activity, working together and depending on each other. Their power comes from their combined effort.

What Is Formative Assessment?

Formative assessment is an active and intentional learning process that partners the teacher and the students to continuously and systematically gather evidence of learning with the express goal of improving student achievement. Intentional learning refers to cognitive processes that have learning as a goal rather than an incidental outcome (Bereiter & Scardamalia, 1989). Teachers and their students actively and intentionally engage in the formative assessment process when they work together to do the following (Brookhart, 2006):

- Focus on learning goals.
- Take stock of where current work is in relation to the goal.
- Take action to move closer to the goal.

The primary purpose of formative assessment is to improve learning, not merely to audit it. It is assessment *for* learning rather than assessment *of* learning. Formative assessment is both an “instructional tool” that teachers and their students “use while learning is occurring” and “an accountability tool to determine if learning has occurred” (National Education Association, 2003, p. 3). In other words, to be “formative,” assessments must inform the decisions that teachers and their students make minute by minute in the classroom. Figure 1.1 compares the characteristics of formative assessment and summative assessment.

Here are some examples of the formative assessment process in the classroom:

- A teacher asks students in his 6th grade social studies class to form pairs to generate three strategic questions that will help them better meet their learning target of describing how erosion has produced physical patterns on the earth’s surface that have affected human activities.

FIGURE 1.1
Characteristics of Formative and Summative Assessment

Formative Assessment (Assessment <i>for</i> Learning)	Summative Assessment (Assessment <i>of</i> Learning)
Purpose: To improve learning and achievement	Purpose: To measure or audit attainment
Carried out while learning is in progress—day to day, minute by minute.	Carried out from time to time to create snapshots of what has happened.
Focused on the learning process and the learning progress.	Focused on the products of learning.
Viewed as an integral part of the teaching-learning process.	Viewed as something separate, an activity performed after the teaching-learning cycle.
<i>Collaborative</i> —Teachers and students know where they are headed, understand the learning needs, and use assessment information as feedback to guide and adapt what they do to meet those needs.	<i>Teacher directed</i> —Teachers assign what the students must do and then evaluate how well they complete the assignment.
<i>Fluid</i> —An ongoing process influenced by student need and teacher feedback.	<i>Rigid</i> —An unchanging measure of what the student achieved.
Teachers and students adopt the role of intentional learners.	Teachers adopt the role of auditors and students assume the role of the audited.
Teachers and students use the evidence they gather to make adjustments for continuous improvement.	Teachers use the results to make final “success or failure” decisions about a relatively fixed set of instructional activities.

- Before a lesson on creating a family budget, a consumer science teacher states the goals for the lesson and asks the students to paraphrase the goals.
- In a high school English class, students use a rubric that they generated as a class to plan their essays, monitor their writing, and edit their drafts in order to meet the criteria for a successful essay.

- In his feedback to a 1st grade student, a teacher shows the student what she did correctly in her attempt to draw the life cycle of a frog. Then the teacher gives the student a strategy to use to improve the accuracy of her drawing before she turns in her final sketch.
- A middle school student decides to use a story map to plan his short story depicting life in the Victorian era. It will help him reach his goal of improving the organization and sequencing of his story.

What Three Questions Guide the Formative Assessment Process?

The formative assessment process aligns what happens in the classroom—day to day and minute by minute—with three central questions:

- Where am I going?
- Where am I now?
- What strategy or strategies can help me get to where I need to go?

These central questions guide everything the teacher does, everything the student does, and everything teachers and their students do together. The questions are deceptively simple, yet to address them students and teachers must become skilled assessors who can gauge the gap between the students' current level of understanding and the shared learning target. Only then can they choose appropriate strategies to close the gap.

This continuous process of setting a learning target, assessing present levels of understanding, and then working strategically to narrow the distance between the two is the essence of formative assessment. Once a learning target is mastered, a new “just right” target is set and the process continues forward. It comes down to the Goldilocks Principle: to generate motivation to learn, the level of challenge and the level of support must be just right. And that means all classroom decisions—those made by the teacher and those made by the students themselves—must be informed by continually gathering evidence of student learning.

The three central questions of the formative assessment process are a great starting point for school leaders as they help teachers recognize and use formative assessment in their classrooms. The questions can guide teachers as they (1) plan

their lessons, (2) monitor their teaching, and (3) help their students become self-regulated learners. Teachers can display the questions in their classrooms and remind their students to think about them before, during, and after each learning experience.

How Does the Formative Assessment Process Affect Student Learning and Achievement?

There is a firm body of evidence that formative assessment is an essential component of classroom work and that its development can raise standards of achievement. We know of no other way of raising standards for which such a strong prima facie case can be made.

—Paul Black & Dylan Wiliam,
“Inside the Black Box: Raising Standards Through Classroom Assessment”

The research is clear: formative assessment works. It works because it has a direct effect on the two most important players in the teaching-learning process: the teacher and the student.

In too many classrooms, teachers and their students are flying blind. Teachers cannot point to strong evidence of exactly what their students know and exactly where their students are in relation to daily classroom learning goals. The lack of detailed and current evidence makes it particularly difficult for teachers to provide effective feedback that describes for students the next steps they should take to improve. Students are operating in the dark as well. Without the benefit of knowing how to assess and regulate their own learning, they try to perform well on assignments without knowing exactly where they are headed, what they need to do to get there, and how they will tell when they have arrived.

Effects on Teacher Quality

Teacher quality exerts greater influence on student achievement than any other factor in education—no other factor even comes close (Darling-Hammond, 1999; Hanushek, Kain, O’Brien, & Rivkin, 2005; Thompson & Wiliam, 2007). Formative assessment affects teacher quality because it operates at the core of effective teaching (Black & Wiliam, 1998; Elmore, 2004). Engaged in the

formative assessment process, teachers learn about effective teaching by studying the effectiveness of their own instructional decisions. This practice promotes professional learning that is relevant, authentic, and transformational.

Despite professional development efforts focused on training teachers to use best practices in their classroom, studies clearly show that teachers do not always teach in ways that research supports as best practices for student learning. Rather, teachers teach in ways they *believe* to be best, often ignoring the findings of educational research. The distinction here is critical. Teachers' beliefs not only determine what they do in the classroom but also influence what they count as evidence that learning has occurred. And unless professional learning experiences help teachers examine their working assumptions about how students learn and how good teaching supports learning, they will not make meaningful changes in their teaching practices (Moss, 2002; Schreiber, Moss, & Staab, 2007).

Formative assessment can have a transformational effect on teachers and teaching (see Figure 1.2). In a very real way it flips a switch, shining a bright light on individual teaching decisions so that teachers can see clearly (and perhaps for the first time) the difference between the *intent* and the *effect* of their actions. Armed with this new perspective, teachers can take constructive action in their classrooms. They begin to collect and use strong evidence of exactly what works and exactly what does not work in their classrooms, with their students. And as they critically examine their own knowledge, practices, and working assumptions—during each day, during each lesson, and during each interaction with their students—they become inquiry-minded and keenly aware of exactly where they need to focus their change and improvement efforts in order to raise student achievement.

Effects on Student Learning

The effects of the formative assessment process on students are just as dramatic because it engages students in learning how to learn. Students learn more, learn smarter, and grow into self-aware learners who can tell you exactly what they did to get to exactly where they are. In other words, students become self-regulated learners and data-driven decision makers. They learn to gather evidence about their own learning and to use that information to choose from a growing collection of strategies for success. And students not only learn how to take

FIGURE 1.2
Impact of the Formative Assessment Process on Teachers

Teachers Adopt a Working Assumption That . . .	Teachers Take Constructive Action to . . .
<i>Students learn more effectively when they know and understand the learning goal.</i>	<ul style="list-style-type: none"> • Bring precision to their planning. • Communicate learning goals in student-friendly language. • Unpack the exact criteria students must meet to succeed on each task.
<i>To help each student succeed, I must know precisely where that student is in relation to the learning goal.</i>	<ul style="list-style-type: none"> • Continuously collect evidence of student learning to monitor and adapt their teaching during a lesson.
<i>Effective feedback provides specific suggestions for closing the gap between where students are and where they need to be in relation to the learning goal.</i>	<ul style="list-style-type: none"> • Give feedback that is focused, generative, and descriptive. • Develop a repertoire of feedback strategies.
<i>One of the most important skills I can teach my students is how to regulate their own learning.</i>	<ul style="list-style-type: none"> • Teach their students how to self-assess. • Make rubrics, checklists, guides, and other metacognitive tools an integral part of what students do before, during, and after learning.
<i>Meaningful learning happens between minds, during strategic conversations, and when students become models of success for each other.</i>	<ul style="list-style-type: none"> • Encourage students to become learning resources for each other. • Plan for and ask strategic questions that will produce evidence of student learning.
<i>Motivation isn't something I can give to my students; it is something I must help them develop.</i>	<ul style="list-style-type: none"> • Align appropriate levels of challenge and just-right support. • Intentionally create learning experiences in which students learn what they do well, what they should do more of, and how to focus their efforts to maximize success.

ownership of their learning but also increasingly view themselves as autonomous, confident, and capable.

This combination of learning factors—ownership, autonomy, confidence, and capability—fortifies students with increased levels of resilience. Raising student resilience can derail a dangerous cycle for many students who attribute their failure to perform well on classroom tasks to a lack of academic ability. Judging themselves to be incapable of achieving and powerless to change things, they become discouraged and quit trying (Ames, 1992; Boston, 2002; Vispoel & Austin, 1995). Resilient learners, on the other hand, bounce back from poor performances and adversities. They attribute their failures and their successes on learning tasks to factors *within* their control. They rebound rather than giving up in the face of a challenge. Resilient students believe in their capacity to adapt what they are doing and how they are doing it in order to succeed.

And although formative assessment has a significant effect on learning for all students, it “helps low achievers more than other students and so reduces the range of achievement while raising achievement overall” (Black & Wiliam, 1998). For reasons we mention here and for many more we explore in later chapters, the formative assessment process is a compelling force for increasing student learning and closing the achievement gap.

How Does Formative Assessment Forge a Teacher-Student Learning Partnership?

High-quality formative assessment blurs the artificial barriers between teaching, learning, and assessment to forge a culture of collaborative inquiry and improvement in the classroom. As this learning partnership grows stronger, conversations about learning become the rule of thumb rather than the exception to the rule. Teachers and students work together to gather information about the strengths and weaknesses of their performances in ways that inform *all* learners and *all* learning in the classroom. They do this by talking with one another, planning with one another, comparing evidence of learning, and setting shared learning goals that establish the parameters of what counts as evidence that learning has indeed occurred.

The bottom line is that formative assessment fundamentally changes the quality and quantity of teacher-student interactions. And every day, throughout the day, what happens in the classroom focuses squarely on student achievement.

What Common Misconceptions Might Teachers Hold About Formative Assessment?

Misconceptions are the inevitable result of misunderstanding and often cause teachers to question the formative assessment process. Clearly these misconceptions can dilute the effectiveness of formative assessment and block its consistent use in the classroom. School leaders can take an active role in helping teachers build accurate understandings of what formative assessment is and, perhaps most important, what it *is not*. They can include strategic talking points in their initial and ongoing conversations with teachers about formative assessment. Here we identify common misconceptions and suggest strategic talking points for each.

Misconception #1: Formative assessment is a special kind of test or series of tests that teachers learn to use to find out what their students know. This is probably the most common misconception regarding formative assessment. It is directly related to our sometimes careless custom of using the terms *assessment* and *test* interchangeably. Is it any wonder teachers mistakenly assume that formative assessment is a special kind of test item, test, or series of tests—something that they must administer *to* their students in order to audit learning?

Strategic talking points school leaders can use to address this misconception include the following:

- Formative assessment is not a test item, a test, or a series of tests.
- Formative assessment is an intentional learning process teachers engage in *with* their students to gather information *during* the learning process to improve achievement.
- Formative assessment is a learning partnership that involves teachers and their students taking stock of where they are in relation to their learning goals.