SEVENTH EDITION

AN INTRODUCTION TO

Student-Involved Assessment FOR Learning

JAN CHAPPUIS | RICK J. STIGGINS

Pearson

An Introduction to

Student–Involved Assessment FOR Learning

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Seventh Edition

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Student–Involved Assessment FOR Learning

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This book is dedicated to aspiring teachers everywhere. May you use assessment as the gift to teaching and learning it can be.

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PREFACE

Very few people choose teaching as a profession because they can't wait to assess. We would venture to say that most people don't regard assessment as integral to learning and even fewer still regard assessment as "the fun part." Yet when we do it right and use it well, assessment can be a gift we give our students. It becomes a mirror we hold up to show them how far they have come. When we understand assessment's power to nurture learning and not just measure it, we use it not to punish or reward, but to guide students along a path to self-direction as learners.

This may not have been your experience with assessment as a student. We have written the seventh edition of *An Introduction to Student-Involved Assessment FOR Learning* to prepare you to begin your teaching career on Day 1 understanding how to make sure your assessments are accurate. Assessment is, in part, the process of gathering information to inform instructional decisions. Those decisions, when made well, drive student learning success. Effective instructional decision-making requires accurate assessment. Beyond that, we want you to be prepared to use assessment processes and information to help students increase their achievement. Classroom assessment is far more than merely a source of evidence for grading. When we understand how it can contribute to student confidence and motivation by meeting students' information needs, classroom assessment can become a very strong contributor to student success.

We intend this text to function as a long-term companion guide, first as your preservice preparation for classroom assessment and then as your primary resource throughout your teaching career. Only with practice over time can you develop the level of personal understanding needed to make these concepts and procedures part of your teaching routine. To learn what is needed to begin your career with competence, we offer the following suggestions:

1. You are going to spend a great deal of your professional time directly involved in assessment-related activities. If you merely study this book with the purpose of committing key ideas to short-term memory for a course grade, you will finish being neither confident with nor competent in your assessment practices. We urge you to take this learning task very seriously, striving to master the lessons that follow for the sake of the well-being of your students. Each chapter is structured around a set of learning targets. Those learning targets, taken together, define what it means to be competent at classroom assessment. Some of the end-of-chapter activities are designed to offer you practice with those learning targets. We urge you to complete them even if they are not assigned.
2. Throughout the content and structure of the text we have modeled the partnership that must exist between you and your students. We want the work you do in conjunction with this book to keep you in touch with, and therefore feeling in control of, your own growing professional competence in assessment.

Specifically, several of the end-of-chapter activities provide opportunities for reflection on what you are learning, how it compares to your past experiences as a student, and how it applies to your current learning. We urge you to select one or more of these activities to complete, again, even if they are not assigned.

3. You will learn more, faster, and with deeper understanding if you collaborate with others who are engaged in the same learning. The research literature on adult learning and professional development supports this contention. For this reason, consider forming small teams within your class. Meet between classes to discuss key concepts, work through unfamiliar parts, compare your responses to the practice exercises, complete end-of-chapter activities together, and/or discuss the social and cultural issues raised. This collaborative learning time is very important to solidifying your understanding.

The vision of excellence in assessment presented here arises from decades of research, our own experiences as teachers, and interactions with hundreds of other practicing teachers who have worked to make assessment serve learning. Our mission is to help you begin to develop the know-how and practical skills you need to be confident in and comfortable with the assessment practices you adopt as a teacher. And our hope is that you will find joy in refining your assessment proficiencies throughout a long and rewarding career.

New to This Edition

Much has changed in education policies and practices since the first edition of *An Introduction to Student-Involved Assessment FOR Learning* was published in 1994, but the principles of sound classroom assessment have remained the same. Updates to the editions over the years have mirrored the changes while remaining deeply rooted in those principles. In this seventh edition, we have made a number of significant revisions to better equip you, as new teachers, to do assessment right and use it well beginning on your first day. Major content changes include the following:

1. More detailed explanations of formative assessment practices, including offering effective feedback and preparing students to self-assess and set goals for next steps
2. More examples of how to involve students in the assessment process day to day
3. Updated explanations of the types of content standards in use today
4. Step-by-step guidance on assessment planning and development
5. More guidance on how to design performance tasks and rubrics and how to audit them for quality
6. A deeper treatment of questioning strategies designed to promote deeper thinking
7. A more robust explanation of how to track both formative and summative information

8. Specific instruction on how to derive accurate grades for use in a standards-based reporting system
9. Updated explanation of standardized testing

Changes to text features include the following:

1. Each chapter begins with a set of clearly stated learning targets and ends with a series of activities designed to help you master those learning targets. Some activities are designed to deepen your understanding of the chapter content, some are set up to give you practice with concepts taught, and some are designed to elicit reflection on key ideas. Many are structured so that you can complete them collaboratively if you wish, which has the potential to increase their learning value. In addition, each chapter's activities include one designed to prepare you to answer an interview question based on the chapter content.
2. Anecdotes, called "From the Classroom," are woven throughout the chapters. Written by practicing teachers who have worked with our materials to implement sound assessment practices in their classrooms, the anecdotes describe how specific assessment practices have improved their teaching as well as their students' attitudes and approach to learning.
3. Also woven throughout the chapters are video clips of elementary, middle school, and high school teachers and students engaged in formative assessment practices and discussing their impact on learning.

■ New Digital Features in the MyEducationLab with Enhanced eText

The most visible change in the seventh edition (and certainly one of the most significant changes) is the expansion of the digital learning and assessment resources embedded in the eText. They are designed to bring you more directly into the world of K-12 classrooms and to help you see the very real impact that high-quality assessment practices can have on learners.

The online resources in the MyEducationLab with Enhanced eText include:

Video Examples. Throughout the eText, embedded videos provide illustrations of sound assessment practices in action. See pages 27 and 34 for some examples.

Self-Checks and Application Exercises. Throughout the chapters you will find MyEducationLab: Self-check exercises. The self-checks include practice items designed to help you develop mastery of the content for each chapter learning outcome as well as quiz items to help you assess your level of mastery of chapter learning outcomes. These exercises are made up of self-grading multiple-choice items that not only provide feedback on whether questions are answered correctly or incorrectly, but also provide rationales for answers. In addition, the self-checks include application exercises, which challenge you to apply chapter content to authentic classroom assessment contexts. See pages 22 and 30 for some examples.

Acknowledgments

We are indebted to a host of capable professionals who have shepherded this latest edition from revision outline to final printing: Kevin M. Davis, Director of Education at Pearson Education, our editor and developer for many years; Pamela D. Bennett, Project Manager, who oversaw production of the text from copyediting through paging; Katrina Ostler, Project Manager, who provided day-to-day (and sometimes hourly) guidance through production and copyediting; Janelle Rogers, Program Manager, who cheerfully managed the schedule, budget, timeline, and permissions; Anne McAlpine, Editorial Assistant; and Lauren Carlson, Project Manager of Media Development and Production. We so appreciate your skill at working as a team to make all of the pieces come together.

Thank you also to the educators who reviewed the sixth edition and offered insightful comments about its strengths and suggestions for changes and additions to the seventh edition: Leigh Ausband, University of North Carolina–Charlotte; Christopher DeLuca, University of South Florida; Catherine Hogg, Rutgers University–Newark; Xyanthe Neider, Washington State University; and Kathleen Svoboda Ed.D., Eastern Michigan University.

And finally, our deepest gratitude goes to all of the teachers and administrators who have shared their insights, challenges, and solutions with us throughout the last twenty-five years. You have been our best teachers.

Jan Chappuis
Rick Stiggins
Portland, Oregon
July 2016

ABOUT THE AUTHORS

Jan Chappuis, educator and author, joined Rick Stiggins at the Assessment Training Institute in Portland, Oregon in 2001. Prior to that she had been an elementary and secondary teacher as well as a curriculum developer in English/Language Arts, Mathematics, Social Studies, and World Languages.

For the past twenty years Chappuis has written books and developed workshops focused on classroom assessment literacy, presenting both nationally and internationally. She is recognized as a national thought leader in the area of formative assessment for her work in translating research into practical classroom applications. Chappuis is author of *Seven Strategies of Assessment for Learning*, 2e (2015) and *Learning Team Facilitator Handbook* (2007). She is co-author of *Classroom Assessment for Student Learning: Doing It Right—Using It Well*, 2e (2012), *Creating and Recognizing Quality Rubrics* (2006), and *Understanding School Assessment—A Parent and Community Guide to Helping Students Learn* (2002).

Rick Stiggins, B.S., M.A., Ph.D., founded the Assessment Training Institute in Portland, Oregon, in 1992 to provide professional development for educators facing the challenges of day-to-day classroom assessment. In 2009, the Institute joined the Pearson Education team to extend its professional development services around the world.

Dr. Stiggins received his bachelor's degree in psychology from the State University of New York at Plattsburgh, master's degree in industrial psychology from Springfield (MA) College, and doctoral degree in education measurement from Michigan State University. Dr. Stiggins began his assessment work on the faculty of Michigan State before becoming a member of the faculty of educational foundations at the University of Minnesota, Minneapolis. In addition, he has served as director of test development for the ACT, Iowa City, Iowa; as a visiting scholar at Stanford University; as a Libra Scholar, University of Southern Maine; as director of the Centers for Classroom Assessment and Performance Assessment at the Northwest Regional Educational Laboratory, Portland, Oregon; and as a member of the faculty of Lewis and Clark College, Portland.

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CHAPTER 1

Classroom Assessment for Student Success

Chapter 1 Learning Targets

As a result of your study of Chapter 1, you will be able to do the following:

1. Know how classroom assessment fits into the big picture of your job as a teacher
2. Become familiar with the guiding principles for accuracy and effective use that underpin sound classroom assessment practice
3. Understand relationships among student motivation, success at learning, and assessment

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"I wish we'd learned this in preservice." We have heard this comment and its companion question, "Why didn't they teach us this in college?" regularly over the past 20 years when giving presentations on classroom assessment to teachers and administrators around the country. Many of the practicing educators we work with throughout the nation believe they were inadequately prepared to assess student learning—with good reason. The lack of focus on classroom assessment in most teacher preparation programs has been repeatedly documented over several decades (Stiggins & Conklin, 1992; Popham, 2009; Andrade, 2013). When available, preservice classes addressing assessment have often focused on psychometric principles and related formal, technical, and statistical topics (McMillan, 2013). To be sure, these matters of assessment quality are important. But what has been missing is consideration of the use of assessment as an instructional tool. Many students planning to become teachers have not had the opportunity to learn about assessment in the classroom in the context of day-to-day teaching and student learning needs.

As a result, many practicing educators have learned what they know about classroom assessment through replicating what they themselves experienced as students, through discussions with colleagues, from the teacher's edition of textbooks, and through trial and error. Unfortunately, many of the most common assessment practices passed on through generations of teachers do not meet standards of quality

figure 1.1 ■ Definition of Classroom Assessment Literacy

Assessment Literacy:

The knowledge and skill to measure and report student achievement accurately and to use the assessment process and its results to improve learning.

for ensuring accuracy of information and are not grounded in research on learning or motivation. The content of this book is drawn from the field of educational measurement, shaped by decades of experience in translating psychometric principles into practical classroom applications, and by current research into the connections between assessment and learning. The goal of this book is to create a generation of educators who are *assessment literate*; that is, who are able to measure and report student achievement accurately and to use the assessment process and its results to improve learning (Figure 1.1). Becoming assessment literate requires a foundation of knowledge coupled with experience in applying that knowledge in everyday teaching and learning environments. Therefore, our mission as authors is to prepare you to do two things:

1. To use sound assessment practices thoughtfully beginning on your first day of teaching
2. To be committed to increasing your assessment expertise throughout your education career

■ The Teacher's Classroom Assessment Responsibilities

Assessment is, in part, the process of gathering evidence of student learning to inform instructional decisions. This process can be done well or poorly. To maximize student learning we all must be able to do it well. That means we must do the following:

- Gather *accurate evidence* of student achievement—the quality and impact of our instructional decisions depend on it.
- Interpret assessment results of all types to *communicate clearly* about student achievement.
- Integrate the classroom assessment process and its results into daily instruction in ways that *benefit students'* learning; that is, in ways that enhance both their motivation to learn and their achievement.

Figure 1.2 lists the specific competencies that underlie each of these responsibilities.

figure 1.2 ■ Classroom Assessment Competencies

1. *Clear Purpose* Assessment processes and results serve clear and appropriate purposes.	**a.** Identify the key users of classroom assessment information and know what their information needs are. **b.** Understand formative and summative assessment uses and know when to use each.
2. *Clear Targets* Assessments reflect clear student learning targets.	**a.** Know how to identify the five kinds of learning targets. **b.** Know how to turn broad statements of content standards into classroom-level learning targets. **c.** Begin instructional planning with clear learning targets. **d.** Translate learning targets into student-friendly language.
3. *Sound Design* Learning targets are translated into assessments that yield accurate results.	**a.** Design assessments to serve intended formative and summative purposes. **b.** Select assessment methods to match intended learning targets. **c.** Understand and apply principles of sampling learning appropriately. **d.** Write and/or select assessment items, tasks, scoring guides, and rubrics that meet standards of quality. **e.** Know and avoid sources of bias that distort results.
4. *Effective Communication* Assessment results function to increase student achievement. Results are managed well, combined appropriately, and communicated effectively.	**a.** Use assessment information to plan instruction. **b.** Offer effective feedback to students during learning. **c.** Record formative and summative assessment information accurately. **d.** Combine and summarize information appropriately to accurately reflect current level of student learning.
5. *Student Involvement* Students are active participants in the assessment process.	**a.** Identify students as important users of assessment information. **b.** Share learning targets and standards of quality with students. **c.** Design assessments so students can self-assess and set goals on the basis of results. **d.** Involve students in tracking, reflecting on, and sharing their own learning progress.

Gathering Accurate Information about Student Learning

Two requirements for assessment accuracy are *validity* and *reliability*. These two constructs can help us identify and avoid problems that will compromise the accuracy of our evidence of student learning.

Validity One way to think about the quality of an assessment is in terms of the fidelity of the results it produces. Just as we want our high-definition television to produce a high-quality representation of the real thing, so do we want assessments to provide a high-fidelity representation of the desired learning. In the assessment realm, this is referred to as the *validity* of the test. All assessment results (scores, for example) provide outward indications of an inner state. To understand the concept of validity, imagine you weigh yourself at home and your bathroom scale reads 140 pounds; then you drive immediately to a doctor's appointment and the doctor's scale reads 147 pounds. One (or both) of these scales is not providing an accurate representation of your weight. Within the classroom, the entity we intend to measure is *achievement,* and an assessment's results are said to be valid if they accurately represent the level of student achievement on a predetermined set of learning targets. Let's say the intent of an assessment is to measure mastery of a body of knowledge related to the immune system. For the results to be valid, the assessment must provide a representative sample of the information about the immune system that was to be mastered. Otherwise, the score will not be an accurate read of what a student has actually learned.

A second validity consideration is the extent to which the results can be used successfully to accomplish the intended purpose of the assessment. A valid assessment is said to serve the purpose for which it is intended. For instance, a diagnostic test should help the user identify specific student strengths and needs. If it can't provide that level of detail, even though the score may accurately reflect learning, it is not a valid assessment for that purpose. We always seek to develop and use assessments that fit the context at hand—that are valid for a specific purpose or set of purposes.

Reliability An assessment's ability to give consistent results is known as its *reliability*. Using the bathroom scale example again, if when you step on it the first time it reads 142 and then you step on it again and it reads 145, you are not getting consistent results. If your scale's results were reliable, you could step on and off repeatedly and it would produce the same number each time. Similarly, an educational assessment is said to be reliable if it reflects the same level of learning (i.e., a consistent score) each time we administer it. Additionally, as learning grows and improves, a reliable assessment will reflect those improvements with changing results. Over the course of this book, we will identify factors other than students' actual level of achievement that influence test scores—bad test items, test anxiety, distractions during testing, teacher scoring and grading practices, and the like. When this happens, the score is distorted by factors extraneous to achievement level and is said to have provided unreliable results.

Supporting Student Learning

Our model of assessment quality is not complete without consideration of how well both assessment processes and instruments contribute to increased achievement. In the past both large-scale and classroom assessments have served the purpose of identifying and weeding out unable and unwilling learners (many of whom drop out of school) and ranking those who remain to graduate from the highest to lowest achiever. However, after decades of a sort-and-select assessment system, our society has come to understand that it is unfair and inadequate. In light of accelerating change in technology, growing international interconnectedness, and the increasing challenge of securing living-wage employment, all students now more than ever must succeed in school.

Assessment processes and instruments have the opportunity to do far more than serve as the basis of grading and ranking students. They can accurately diagnose student needs, track and enhance student growth toward standards, motivate students to persist at learning, and teach them to self-assess and set goals for next steps. What types of assessments we use, what we do with the results, what we communicate to students and to their parents, and when we communicate all factor in to supporting student learning. This brings us back to our second validity consideration: Are the assessment processes and instruments we use capable of supporting learning in these ways? Are they valid for these uses?

MyEdLab **Self-Check 1.1**

MyEdLab **Application Exercise 1.1** The teacher's classroom assessment responsibilities

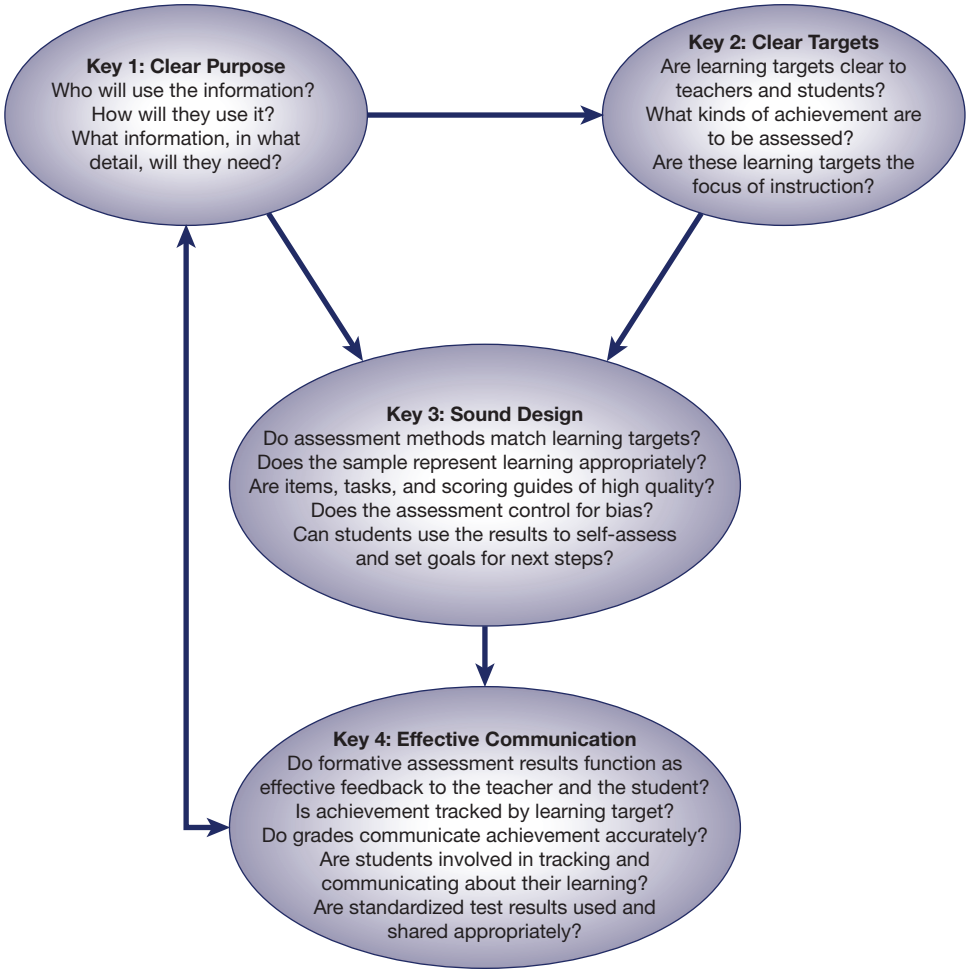
Keys to Assessment Quality

Considerations of validity, reliability, and the extent to which assessment instruments and practices contribute to learning come together in a set of guiding principles (Figure 1.3, which we refer to as *Keys to Quality Assessment*). The four keys to quality represent the foundation on which we will build the framework for understanding how to assess well in the classroom.

Key 1: Start with a Clear Purpose

Anyone designing or selecting an assessment must begin with a clear sense of purpose: Who will use the information? What decisions will the results be used to inform? At the classroom level, assessment information is used summatively, to r*eport* learning, as when test scores are combined to create a final grade. It is also used formatively, to *support* learning, as when diagnostic assessment information leads to further instruction. However, classroom-level assessment is part of a larger system that exists within schools and districts to meet the information needs of a variety of different users. Beyond the classroom, certain types of assessments are used for

figure 1.3 ■ Keys to Quality Assessment



accountability purposes as well as for program evaluation and improvement across a school district. And at the district and state levels, assessment information is used to identify areas of need, to allocate resources, to provide accountability information, and to shape policy decisions. These different assessment users bring different information needs to the table. For this reason, the starting place for the creation of a quality assessment for use in any particular context must be a clear sense of the information needs of the decision makers to be served. Without a sense of what kind of information will help them and, therefore, what kind of assessment must be conducted, the results will likely lead to poorly informed decisions that run counter to teacher effectiveness and to increasing student achievement. Chapter 2 describes the

key users of classroom assessment information and their information needs. It also explains the impact formative assessment practices can have on learning and what strategies we can put in place to maximize that impact.

Key 2: Establish Clear and Appropriate Learning Targets

Learning targets are statements of what we want students to know and be able to do. The written curriculum in each subject takes the form of an ordered progression of learning expectations across grade levels. These statements of expected learning are sometimes called *content standards*, *learning outcomes*, or *achievement expectations*. We will use the term *learning targets* throughout the text to refer to these learning expectations, for the sake of clarity and consistency.

Assessment validity requires that we begin with clearly defined statements of the learning our students will be responsible for achieving prior to creating or selecting assessments of that learning. There are many different kinds of learning targets within our educational system, from mastering content knowledge to complex problem solving, from performing a flute recital to speaking Spanish to constructing an effective argument. All are important. One of the precursors to accurate assessment at the classroom level is to be masters ourselves of the learning targets we are responsible for teaching. Only then can we ensure that our assessments accurately represent that learning. Chapter 3 explains the five categories of learning targets, how to determine if our learning targets are clearly defined, how to deconstruct complex content standards, and how to make learning targets clear to students.

Key 3: Create High-Quality Assessments That Yield Dependable Information

High-quality assessments of all types attend to four design standards. They must do all of the following if they are to support valid and reliable inferences about student learning:

1. Rely on an assessment method capable of reflecting the target. Assessment methods are not interchangeable. Certain methods will yield accurate information only for certain learning target types.
2. Sample student achievement appropriately. How much information to gather is dependent on the type of learning target to be assessed and the purpose for assessing it.
3. Include only high-quality items, tasks, and scoring procedures.
4. Eliminate or minimize distortion of results due to bias. Regardless of how carefully an assessment is planned, things can still go wrong, causing the results to be inaccurate.

All assessments must meet these accuracy requirements. Chapter 4 describes four assessment methods, when to choose each, and how to plan an assessment with each of these four standards in mind. Chapters 5 through 8 expand on these

standards for each individual assessment method: selected response (Chapter 5), written response (Chapter 6), performance assessment (Chapter 7), and personal communication (Chapter 8).

Key 4: Communicate Results Effectively

Mention the idea of communicating assessment results and the first thoughts that come to mind are of test scores and grades. When the purpose of the communication is summative, that is, to report the level of student achievement for accountability purposes, scores and grades can work. Assessment-literate teachers know how to combine results from a variety of sources to derive a fair and defensible end-of-term grade.

When the purpose of the communication is formative, that is, to support learning, then summaries such as grades, scores, or ratings will not do the job. In those cases, teachers and students need access to diagnostic information that helps them understand what the students have done well, what they still need to work on, and what their next steps might be. In other words, numbers and grades are not the only—or in formative contexts even the best—way to communicate about achievement.

Effective communication of assessment results is in part driven by the purpose for the assessment. Assessment-literate teachers balance their use of assessment results to offer feedback during learning with use of results to report level of achievement at the conclusion of learning. And beyond the classroom assessment context, they are able to interpret, use, and communicate about standardized test results appropriately. Chapters 9, 10, 11, and 12 address the different aspects of effective communication related to classroom assessment, from recordkeeping and grading to portfolios, and conferences. Appendix B addresses the interpretation and use of standardized test results.

An Overarching Principle: Student Involvement

A strong belief underpinning this book is that the greatest potential value of classroom assessment to increase achievement comes when we open up the process during learning and welcome students in as full partners. Within each of these four guiding principles—clear purpose, clear target, sound design, and effective communication—we can involve students in assessment from the beginning and all the way through the learning. We start in Key 1 by acknowledging that students are central decision makers in the educational system—if they decide not to try, no other decision maker's actions will cause learning. We can and should plan our assessment practices and instruments to meet students' information needs as well as ours and the system's needs. We continue in Key 2 by making the learning targets clear to students at the outset of instruction so they know how to focus their effort. In Key 3 we design or select assessments that are capable of providing the basis for student

self-assessment. And in Key 4 we make time in the instructional cycle to allow students to track, reflect on, and share their growth in achievement to keep them in touch with their learning progress.

A Classroom Example of Student-Involved Assessment

At a district school board meeting toward the end of the school year, a high school English department faculty presented the results of their evaluation of the writing instruction program they had implemented over the past year. As the first step in presenting program evaluation results, Ms. Weathersby, the department chair, distributed a sample of student work to the board members, asking them to read and evaluate the writing. They were critical in their commentary. As the members registered their opinions, a faculty member recorded them on chart paper. The list included *repetitiveness*, *problems with organization*, *run-on sentences*, and *lack of connection among ideas*. Next, Ms. Weathersby distributed another sample of student work, asking the board members to read and evaluate it. They commented on how much better the second sample was and offered specific comments such as *words and phrases that make meaning clear*, *strong sentence structure*, and *interesting introduction*. At this point, Ms. Weathersby revealed that the two samples they had just evaluated, one of relatively poor quality and one of outstanding quality, were written by the same student, the first at the beginning of the year and the second toward the end of the year. She explained that this is typical of the growth the English teachers had seen in student writing over the course of the year. The rest of the English faculty joined the presentation and shared graphs charting the growth of student competence on each of six dimensions of writing over time. They too offered "before" and "after" samples of student papers.

The board members were interested in knowing more about the new program, and Ms. Weathersby explained it briefly. In preparation for implementation, the faculty had attended an institute the previous summer on integrating writing assessment with instruction, with a specific focus on teaching students to use rubrics to improve their writing. They began the year by introducing the content of the rubrics to students and then having students use the rubrics to evaluate samples of writing representing a range of quality. This helped students understand the differences between good and poor-quality writing. The teachers used the rubrics to diagnose specific needs and taught focused lessons to help students improve on one aspect of quality at a time. They used the language of the rubrics in their feedback comments, taught students to offer peer feedback in writing groups, and provided time for students to self-assess prior to revising their work.

Then Ms. Weathersby informed the board that Emily, the student whose writing they had evaluated, was present in the audience and invited her to come forward. Emily highlighted the practices that helped move her from a struggling writer to a competent one. "To begin with, Ms. Weathersby taught us to do what you just did. We analyzed other people's writing. We looked at good writing and not-so-good writing—passages from books, newspaper articles, and other students'

writing. Pretty soon we could look at our own writing that same way. We kept our writing in a portfolio so we could keep working on it and see that we were getting better. She was the first teacher to tell me that it was okay not to be very good at something at first and that my goal was to get a little better each time. She didn't want us to give up on ourselves. If we kept improving over time we could learn to write well. I wish every teacher would do that. She would say, 'There's no shortage of success around here. You learn to write well, you get an A. My goal is to have everyone learn to write well.'" As the presentation concluded, it was clear to all in attendance that this application of student-involved classroom assessment had contributed to significant learning.

The Keys to Success What conditions were in place in Ms. Weathersby's classroom for Emily and her classmates to have experienced such success?

- First, the assessment purpose was crystal clear—to help students assess the quality of their own writing and to fix it where it needed work.
- Second, Ms. Weathersby introduced a well-defined vision of the learning target that identified key attributes of effective writing and was designed to help students understand different levels of quality so she could engage them in the study with her of writing samples representing various levels of quality.
- Third, this vision of high-quality writing (represented by the writing rubrics she used) was aligned to the district writing content standards and was designed to be used for the intended purpose.
- Fourth, students were engaged regularly in giving and receiving feedback during learning to guide their next steps.
- Last, students assessed their own strengths and weaknesses repeatedly over time and intentionally tracked their own improvement.

In a nutshell, the keys to success in Ms. Weathersby's class were *clear purpose*, *clear targets*, *sound design*, *effective communication*, and a heavy dose of *student involvement*.

MyEdLab **Self-Check 1.2**

MyEdLab **Application Exercise 1.2** The keys to quality to assessment in your personal classroom experiences

Understanding Motivation to Learn

It would be so much easier to teach if all students decided to put forth the effort needed to succeed. Many studies (Ames, 1992; Black & Wiliam, 1998a; Butler, 1988; Halvorson, 2012; Hattie & Timperley, 2007; Schunk, 1996) have found that students' willingness to persist at a task is influenced by their *goal orientation*. This is a term researchers use to define different ideas students have about why they are

doing their work in school. A goal orientation can be thought of as how a student answers the question, "What is the aim of my work?" or "Why am I doing this assignment?"

To illustrate the concept of goal orientation, let's say you ask a student what she learned today in school. It's possible she will draw a blank. She may tell you what she did—"We worked on a math problem about camping," or "We watched our teacher cook stuff in Science and then we got to eat it"—but she may not be able to tell you why. This student's attention is focused not on what she is supposed to be learning but on what she is supposed to be doing. She may not even know the goal in math class is to learn to use the problem-solving strategy "draw a picture" to solve a problem or that the intended learning behind the teacher's cooking was for students to draw inferences about the differences between a physical change and a chemical change.

Goal orientations typically fall into one of three categories (Figure 1.4) (Ames, 1992; Black & Wiliam, 1998a; Halvorson, 2012):

1. A learning orientation, where the student's goal is to get better
2. An ego-involved orientation, where the student's goal is to prove ability or hide a perceived lack of ability
3. A task-completion orientation, where the student's goal is to get it done and get a grade

Learning Orientation

Students who adopt a learning goal approach focus their effort on improving their work and getting better. Their goal is to find out what they don't know and master it. Students with this orientation believe that success means improving their level of competence and that their job in school is to develop new skills and master the intended learning. Their goals focus on continuous improvement; they are motivated by a desire to become competent and by evidence of increasing mastery. They tend to seek help more frequently in developing competence and explain help avoidance in terms of attempting independent mastery (Ames, 1992, p. 262; Halvorson, 2012, pp. 43–52). "What does 'done well' look like?" is a guiding question of students with a learning orientation.

figure 1.4 ■ Three Common Goal Orientations

What is the aim of my work?

1. Learning Orientation: "To get better"
2. Ego Orientation: "To prove ability" or "To hide perceived lack of ability"
3. Task Completion Orientation: "To get it done and get a grade"

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Ego-Involved Orientation

Students who adopt an ego-involved goal approach to school focus their effort on protecting their sense of self-worth. Their goal is to attain public recognition of having done better than others or having performed at a superior level. Students with this orientation often believe successful achievement is a function of ability, not a result of effort. Their sense of self-worth is tied to their capacity to demonstrate high ability by doing better than others or achieving success with little effort. Their goals focus on being judged as smart or being seen as competent in relation to others. They are motivated by judgments indicating superior performance. Students with ego-involving goals are working with a focus primarily on maintaining positive self-esteem by either demonstrating that they have high ability or masking their perceived low ability. They tend to avoid seeking help and in research studies have explained this behavior in terms of hiding their lack of ability (Ames, 1992, pp. 262–263; Halvorson, 2012, pp. 43–52). "What do I need to do to outperform others?" or "How do I avoid being seen as stupid?" are guiding questions of students with an ego-involved orientation.

Task-Completion Orientation

Students who adopt a task-completion approach to school focus their effort on assignment completion. They believe it is their job to finish the task—to get it done—and to get the points. Students with this orientation believe that points and grades, rather than learning and mastery, are the aim of their work (Schunk, 1996; Black & Wiliam, 1998a). "When is it due?" or "How much is this worth?" are guiding questions of students with a task-completion orientation. See Figure 1.5 for a comparison of the impact each of these three goal orientations can have on motivation and learning.

Goal Orientations and College and Career Readiness

Within each of these three orientations, we see that students are motivated to accomplish different goals and in only one orientation do the goals focus on learning. Let's now compare the goal orientations to the characteristics of college- and career-ready students described by the Common Core State Standards (NGSS, 2010a). Students who are college- and career-ready are:

- Self-directed learners who know how to assess their own learning needs
- Inclined to seek out and use resources to assist them in learning

They exhibit willingness to try and persistence in the face of difficulty. Only when students adopt a learning orientation are they able to commit to and sustain the effort-based strategies characteristic of college- and career-ready students.

figure 1.5 ■ Impact of Goal Orientations on Motivation and Learning

	Learning Orientation	Ego Orientation	Task-Completion Orientation
Belief about effort	Effort will lead to success: "I can do this if I keep trying."	Succeeding with little effort proves ability. "I'm smart." Trying hard when it doesn't lead to success proves lack of ability: "I'm not smart enough."	Will expend as much effort as needed to get work turned in or earn points/get grades
Direction of effort	To develop new skills, try to understand their own work, improve their level of competence, and achieve a sense of mastery relative to their own past level	To exceed the performance of others or hide perceived lack of ability: "If I can't be the best, it's not worth it."	To complete an activity or assignment: "Get it done."
Response when faced with difficulty	Leans in: Increases level of involvement and sustains commitment to effort-based strategies to produce quality work	Backs off: highest value is achieving success with little effort, which leads to unwillingness to try effort-based strategies	Works for points and grades rather than understanding; looks for ways to get points/higher grade
Response to perceived failure	"Failure tolerance": belief that failure can be overcome by a change in strategy	Anxiety and poor performance ("I don't know what I'm doing, so I lack ability"); quits, cheats, or chooses easier work	Looks for ways to get more points/higher grade
Help avoidance	Explains help avoidance in terms of wanting to figure it out alone: "Let me see if I can do it by myself first."	Explains help avoidance in terms of wanting to hide perceived lack of ability: "If I need help that means I'm not as smart as I want people to think I am."	Will accept help if it means more points/higher grade Doesn't resist help: it matters less who does the work as long as it's turned in
Attitude toward school	Motivation to learn and a willingness to engage in the process of learning Development of an intrinsic valuing of learning	Appearing to already know is safer than revealing learning needs Resistant to risk-taking required to learn	Learning is a by-product rather than a goal External rewards-driven motivation

Goal Orientations and the Connection to Assessment

It is clear that students who adopt a learning orientation have a far greater chance of succeeding at school. The good news is that goal orientations are a response to a set of conditions: students can hold one orientation in one classroom and another in a different one. We can think of them as *modes* that students shift into and out of. We create the conditions for shifting into learning mode through the assessment practices that we establish in our classrooms. For example, if we ourselves do not have clear learning targets, or if we don't share them with students, many of them will conclude that it is their ultimate job to do the work with the goal of completing the assignment and getting a grade, a task-completion mode. What they are learning, and how well they are learning it, will not be part of their thinking. Or, if we rely solely on grading to provide feedback to students, those who do not do well at first will be at risk of concluding they are not "good" at the subject and moving into an ego-protecting mode. For an example of how assessment practices can help students shift into learning mode, read seventh-grade teacher Janna Smith's explanation in Figure 1.6.

Assessment's power to increase achievement relies in part on its ability to increase motivation not through a carrot-and-stick, reward-and-punish mechanism, but rather through developing in students an understanding that learning is the goal of schooling and fostering a commitment to effort-based strategies to attain that goal. In Chapter 2, we will explore how formative assessment practices can help us accomplish this goal.

MyEdLab **Self-Check 1.3**
MyEdLab **Application Exercise 1.3** Student motivation and goals in classroom assessment

figure 1.6 ■ From the Classroom: Janna Smith

I used to think of assessment as an "ending" to a learning event. When preparing to teach a unit, my planning primarily consisted of looking at the objectives and crafting activities that would engage all students. The word *assessment* was a noun that referred only to a task generally used at the end to determine a grade. The things students were asked to do as part of an endpoint assessment task may—or may not—have been aligned to the key objectives. Items on an end-of-unit test were usually selected response or short-answer/essay, but for the most part that was just for variety's sake.

Now *assessment* is not a singular noun referring to an individual test or task, but refers to an ongoing process that is interwoven with instruction. The process no longer happens only at the end; in fact, it begins with pre-assessment. With my current group of 7th-grade mathematics students, I introduce a grid at the onset of each unit. The grid lists the learning targets for that unit, with space for students to record their analysis of the results of their pre-assessment, target by target.

Additional boxes are included for each target, where students list sources of evidence from daily work, quizzes, etc. Throughout the unit, we periodically pause for students to select which of the learning targets their evidence indicates they are doing well with and on which they need more support. I use their self-assessments along with my own records of their performance to determine mini-lessons, small-group instruction topics, and areas where we might move more quickly.

When I was first introduced to the principles of assessment *for* learning, I was a district-level administrator. My role consisted of providing professional development and supporting principals and teachers in implementing quality classroom assessment practices. I believed it could work and spoke passionately about how to integrate these strategies into instruction. I modeled lessons to demonstrate how learning targets could be turned into student-friendly language. I even taught a graduate-level course on classroom assessment in a school district, but I had never actually used assessment *for* learning in my own classroom! When I finally had that opportunity, I was determined to "walk my talk" with a group of 7th graders who have struggled with mathematics. I wanted to see my own "Inside the Black Box" (Black & Wiliam, 1998b) with my students, hoping it would result in increased achievement and motivation.

Making assessment *for* learning come to life in my own classroom has renewed my zeal for teaching. I am more focused on essential learning targets, and my students always know what we are learning, how they are doing, and what we can work on together to close any gaps. They have become fantastic self-assessors, using their "evidence files" to determine their own strengths and challenges. Most importantly, they are becoming more confident problem solvers who no longer avoid and complain about math. By going back to the classroom, I now know firsthand that using these strategies can have a significant positive impact on student learning.

Source: Reprinted with permission from Janna Smith, Classroom Teacher, Far Hills Country Day School, Far Hills, NJ, January 2011.

Summary: The Importance of Sound Assessment

Quality classroom assessment produces accurate information that is used effectively to both report and support student learning. An assessment-literate teacher is able to do the following:

- Identify the information needs of those instructional decision makers who will use classroom assessment results.
- Establish clear learning targets as the basis of instruction and assessment.
- Select assessment methods that are capable of reflecting student mastery of the learning target(s) accurately.
- Select or design and build high-quality assessments that lead to confident conclusions about level of student achievement.
- Communicate assessment results in a timely and understandable manner to intended user(s) for both formative and summative purposes.
- Involve students in the assessment process to develop their capabilities as self-directed learners.

Suggested Activities

End-of-chapter activities are intended to help you master the chapter's learning targets. They are designed to deepen your understanding of the chapter content, provide opportunities for personal reflection on ideas presented, and serve as a basis for discussion among peers. You may wish to do all of them or select those that you believe will be most useful to your learning. Each activity is correlated to one or more chapter learning targets to help with your selection.

Chapter 1 Learning Targets

As a result of your study of Chapter 1, you will be able to do the following:

1. Know how classroom assessment fits into the big picture of your job as a teacher
2. Become familiar with the guiding principles for accuracy and effective use that underpin sound classroom assessment practice
3. Understand relationships among student motivation, success at learning, and assessment

Chapter 1 Activities

Activity 1.1 Keeping a Reflective Journal (All chapter learning targets)

Activity 1.2 Comparing Your Prior Thoughts to Information in the Text (Learning Target 1)

Activity 1.3 Connecting Your Experiences to the Keys to Assessment Quality (Learning Target 2)

Activity 1.4 Reflecting on Your Experiences with Student-Involved Assessment (Learning Targets 2 and 3)

Activity 1.5 Evaluating Classroom Assessment Scenarios (Learning Target 3)

Activity 1.6 Thinking More about Student Goal Orientations (Learning Target 3)

Activity 1.7 Reflecting on Your Learning from Chapter 1 (All chapter learning targets)

Activity 1.8 Setting Up a Growth Portfolio (All chapter learning targets)

Activity 1.1: Keeping a Reflective Journal

Keep a record of your thoughts, questions, and insights as you read Chapter 1.

Activity 1.2: Comparing Your Prior Thoughts to Information in the Text

After reading the section "The Teacher's Classroom Assessment Responsibilities," write a short reflection explaining how the three responsibilities described match your own prior understanding of what a teacher's assessment responsibilities are. How does what you've read compare to what you thought before taking this class?

Activity 1.3: Connecting Your Experiences to the Keys to Assessment Quality

Think of an assessment experience from your personal educational past that was a good experience for you. What made it a productive experience? What emotional and learning impact did it have for you?

Now think of one that was a negative experience for you. What made it a counterproductive experience? What emotional and learning impact did it have for you?

What was a significant difference between the two experiences? How does that difference relate to the Keys to Quality Assessment (including the principle of student involvement) described in this chapter?

Activity 1.4: Reflecting on Your Experiences with Student-Involved Assessment

During your K–12 schooling experience, did your teachers engage you in activities that are described in this chapter as student-involved? If so, what did they do? What impact did the experience have on you? If they did not, where in your schooling might your involvement in assessment have helped you?

Activity 1.5: Evaluating Classroom Assessment Scenarios

Read the following classroom assessment scenarios and decide if each is likely to increase or decrease student motivation to learn. Give a reason related to Chapter 1 content for each of your decisions.

- Mr. Green is having his students score each other's quizzes and then call out the scores so he can enter them in his gradebook. He feels this practice motivates students to learn from mistakes and provides students with immediate feedback. It also saves him time.
- Students in Ms. Brown's science class are examining a range of anonymous samples of lab notes to decide which are great examples and which are poor examples. They will then make a list of what good science notes should look like.
- Jeremy's teacher tells him that because his grades on practice quizzes and chapter tests have been so low, no matter how well he does from now on, the highest grade he can possibly receive is a D.

Activity 1.6: Thinking More about Student Goal Orientations

After reading the section "Understanding Motivation to Learn," respond to the following questions:

1. What else might students be focused on as the goal of their schoolwork *other than learning*?
2. How might that other focus *inhibit* success at learning?
3. What are key factors in *developing* a learning focus in students?

Activity 1.7: Reflecting on Your Learning from Chapter 1

Review the Chapter 1 learning targets and select one that struck you as most significant. Write a short reflection that captures your current understanding. If you are working with a group, discuss what you have written.

Activity 1.8: Setting Up a Growth Portfolio

We encourage you to collect evidence of your progress throughout the course of this study and recommend that you assemble the evidence in a growth portfolio—a collection of work selected to show growth over time—focused on your developing classroom assessment literacy.

You may not want to include evidence of everything you have learned—you may want to narrow your focus somewhat. Each chapter begins with a list of learning targets for that chapter. If one or more of those learning targets is an area of focused growth for you, you may wish to complete the corresponding chapter activity or activities and use them as portfolio entries, along with anything else you develop along the way.

Many people find it helpful to keep a record of their thoughts and questions as they read each chapter and try the activities, both for their own learning and to prepare for class discussions. The first activity for each chapter is to create a reflective journal entry that documents your thoughts, questions, and activities. If you choose to do this activity, it can also become part of your growth portfolio.

CHAPTER 2

Why We Assess

Chapter 2 Learning Targets

As a result of your study of Chapter 2, you will be able to do the following:

1. Define the meaning of the terms *formative assessment* and *summative assessment*
2. Understand the positive impact of formative assessment on student achievement
3. Understand how formative assessment and summative assessment fit into a balanced assessment system
4. Understand research-based strategies for implementing formative assessment practices in the classroom

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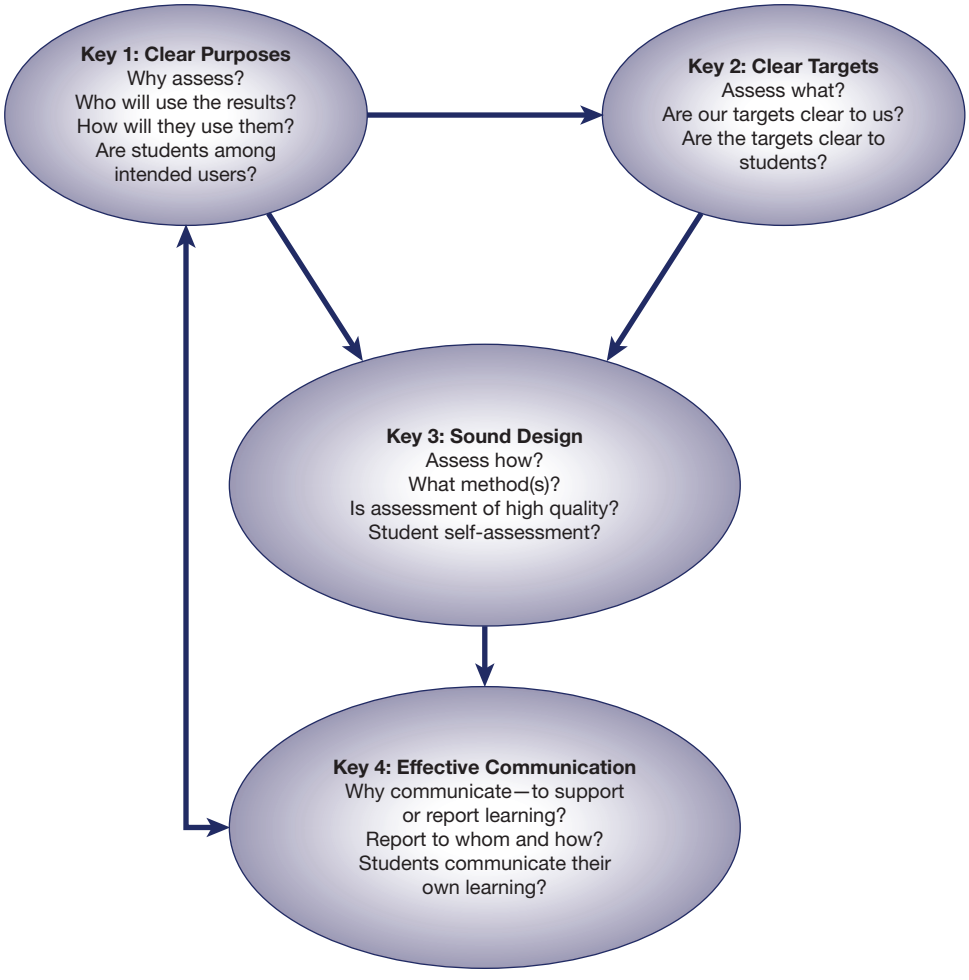
In Chapter 1, we established that we can assess for two different reasons: to *support* learning or to *report on the sufficiency* of the learning. Traditionally schools have placed far greater emphasis on the latter purpose: assessing to evaluate and report on how much students have learned. There is still the belief today among many teachers and most students that the primary purpose of classroom assessment is to generate a grade. While grades are important, they are not the only or even the most powerful purpose for assessing if we wish to maximize school quality.

Being an effective teacher requires that we understand both of the ways assessment can be used, when to employ each, and how to ensure that our assessment practices serve student well-being. Assessment-literate educators know how to use assessment to meet the information needs of all important instructional decision makers including students, parents, instructional leaders, and policy makers. Figure 2.1 highlights the key to assessment quality we address in Chapter 2: *Clear Purpose*. In this chapter we will explore the range of assessment purposes (users and uses), both inside and outside of the classroom, with an emphasis on understanding how to use assessment to enhance achievement, not merely measure it.

Our first step in becoming assessment literate is to understand the range of possible users and uses of assessment information.

figure 2.1 ■ Keys to Quality Assessment



■ Formative and Summative Purposes for Assessment

Assessments provide evidence of learning. What we do with the evidence, as you remember from Chapter 1, can be thought of as falling into one of two categories, which we have labeled as *supporting* learning and *reporting* on the amount learned. The supporting function is also known as *formative assessment* and the reporting function is known as *summative assessment* (Figure 2.2). We define *formative assessment* as a collection of formal and informal processes teachers and students use to

figure 2.2 ■ Formative and Summative Assessment

Formative Assessment
Formal and informal processes teachers and students use to gather evidence for the purpose of informing next steps in learning.

Summative Assessment
Assessments that provide evidence of student achievement for the purpose of making a judgment about student competence or program effectiveness.

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gather evidence for the purpose of informing next steps in learning. Formative assessment practices occur during the learning, while students are practicing and improving, and before student achievement levels are measured for a report card grade. Research conducted around the world over the past three decades has revealed formative assessment applications that have given rise to profound achievement gains. For this reason, interest in this purpose has intensified in American schools in recent years.

We define *summative assessment* as the process of gathering information to be used to make a judgment about level of competence or achievement. Summative assessment results are generally used to evaluate rather than improve learning. Summative assessments are conducted after the learning has occurred as a way to communicate to students and others about how much they have learned. In the classroom, this information is usually translated into a grade that is used to help determine students' final grade for the report card.

What we do with assessment information determines whether the event is formative or summative.

MyEdLab **Self-Check 2.1**

High-Impact Formative Assessment Practices

In 1998, British researchers Paul Black and Dylan Wiliam published a review of research on formative assessment practices which triggered a growing awareness of the importance of formative assessment. Their research review (1998a) examined an international array of studies that represented a range of subject areas, involved students from kindergarten level to college level, and were conducted in countries throughout the world. In their analysis of these studies, they noted achievement gains associated with formative applications that were among the largest found for any instructional intervention. Their reporting of these results put formative assessment center stage in the school improvement literature. For this reason and not surprisingly, the adjective *formative* has been attached to a plethora of assessment products and practices. But calling a product or practice *formative* does not make it so. For Black and Wiliam and for many other experts in the field, formative isn't a

characteristic of the assessment itself; it is a reflection of how the assessment information is used. Formative assessment is a collection of practices with a common feature: each leads to some action that improves learning. Black and Wiliam (1998b) concluded that the following practices had the highest impact on student growth:

- Use of evidence gathered during classroom work and from homework to determine the current state of student understanding, with action taken to improve learning and correct misunderstandings
- Provision of feedback during the learning, with guidance on how to improve
- Development of student self-assessment and peer-feedback skills

Let's look at each of these three categories in a bit more detail. In the first category, the teacher is examining information, interpreting it, and acting on it. Practices that help teachers obtain, interpret, and act on student information help them answer questions critical to good instruction (Chappuis, 2015, pp. 8–9):

- Who is and is not understanding the lesson?
- What adjustments should I make to instruction?
- What are each student's strengths and needs?
- What misconceptions do I need to address?
- How should I group students for instruction?
- What differentiation do I need to prepare?
- Are students ready for feedback? If so, what feedback should I give?

In the second category of high-impact practices, the teacher is examining the information, interpreting it, and sharing it with students, but the students must also examine their work, interpret what the teacher has shared, and finally act on it. So, in this instance, both teacher and student are active users of assessment information. In the third category, the student is examining the work, interpreting the results, and acting on them. Australian researcher D. Royce Sadler (1989) concludes that formative assessment's greatest potential derives from teaching students to monitor the quality of their own work during production:

> *The indispensable conditions for improvement are that 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, emphasis in original).

It is not the *giving* of feedback that causes achievement gains—it is the *acting* on it that causes gains. No action, no gains.

The power of formative assessment lies in its ability to guide both teacher and student actions, to keep learning on a successful track, and to maintain student belief that success is within reach.

MyEdLab **Self-Check 2.2**
MyEdLab **Application Exercise 2.1** Formative assessment practices and student achievement

■ How Formative and Summative Assessment Fits into a Balanced Assessment System

So, how do we balance formative and summative assessment to meet the needs of all stakeholders? The answer turns on understanding how information needs of decision makers differ across contexts of assessment use. Some users face the need to make instructional decisions continuously, day to day in the classroom. Others use assessment results far less frequently—sometimes only once a year. We balance our assessment systems when we build them to meet the information needs (serve the purposes) of all of these different users.

Let's examine classroom-level uses of formative and summative assessment information first and describe a balanced classroom approach. Then we will review the district-level and state-level uses of formative and summative assessment information and describe the elements of a balanced assessment system. Figure 2.3 summarizes the three levels of assessment, the purposes they serve, the stakeholders who use the information generated, and the uses they make of it.

figure 2.3 ■ Elements of a Balanced Assessment System

Level of Assessment	What Is the Assessment Purpose?	Who Will Use the Information?	How Will It Be Used?
Classroom assessment	To measure level of student achievement on learning targets taught	Teachers	Summative: To determine grades for reporting purposes
		Individual teachers, teacher teams	Formative: To revise teaching plans for next year/semester
	To diagnose student strengths and areas needing further work		Formative: To plan further instruction; to differentiate instruction
		Teachers, students	Formative: To provide feedback to students
		Students	Formative: To self-assess and to set goals for next steps
District benchmark, interim, or common assessments	To measure level of student achievement toward content standards	District and school leadership, teacher teams	Summative: To evaluate program effectiveness
			Formative: To identify standards in need of more effective programs
	To identify students and/or portions of the curriculum needing additional/different instruction	District and school leadership, teacher teams, individual teachers	Formative: To plan interventions for groups or individuals

figure 2.3 ■ Elements of a Balanced Assessment System (*Continued*)

Level of Assessment	What Is the Assessment Purpose?	Who Will Use the Information?	How Will It Be Used?
Annual testing	To measure level of student achievement on preset content standards	District and school leadership, teacher teams, individual teachers	Summative: To evaluate achievement level of each student and summarize across students
		District and school leadership, teacher teams	Summative: To determine program effectiveness
			Formative: To identify program or curriculum needs
	To identify percentage of students meeting state content standards	State leadership, district and school leadership	Summative: To evaluate schools and districts
			Summative: To issue sanctions and rewards
		State leadership, district and school leadership, teacher teams	Formative: To develop programs or interventions for groups or individuals

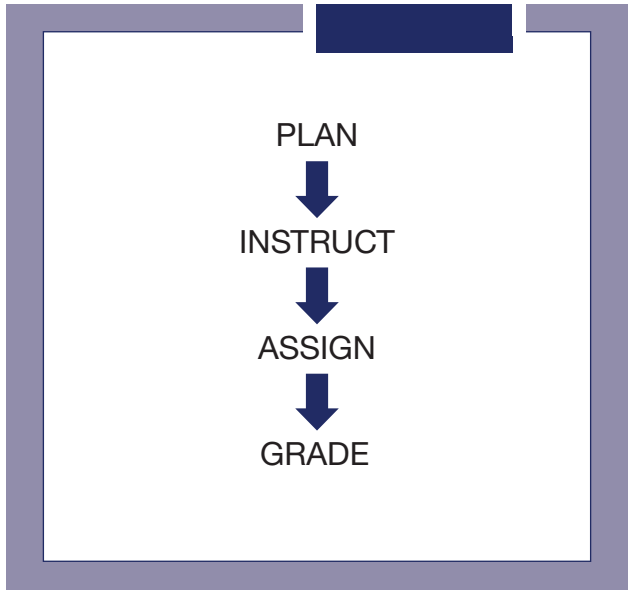
Balancing Formative and Summative Assessment in the Classroom

Let us say for argument's sake that the only answer we have to the question "who will use assessment information?" is "the teacher" and the only answer we have to the question "How will they use it?" is "to assign a grade." In this scenario basically we are only addressing a summative purpose for assessment. We will plan instruction, deliver it, give students an assignment, and then grade the results.

In fact, the preservice education many of us veteran teachers experienced focused primarily on this application of assessment. Consequently, we began teaching with a repertoire of four steps: plan, instruct, assign, and grade (Figure 2.4). First, we planned what we would do and what our students would do. Then, we prepared the materials and resources. Next, we did what we planned, and they did what we planned. Last, we graded what they did. However, learning and teaching turned out to be far messier than we had been prepared for. Somewhere between "we taught it" and "they learned it," the straight shot downstream to achievement sprung surprisingly into an array of diverging tributaries. Over the course of our first years of teaching, we discovered there are a thousand ways for learners to "not get" a lesson.

The belief underpinning our teacher preparation seemed to be that learning trots right along after good instruction, a sort of stimulus-response system, in which instruction alone will create learning. However, when students have continued learning needs after instruction, it is not necessarily an indication that something went wrong. Learning is an unpredictable process; instructional correctives are part of the normal flow of attaining mastery in any field.

figure 2.4 ■ Summative Assessment Model of Teaching



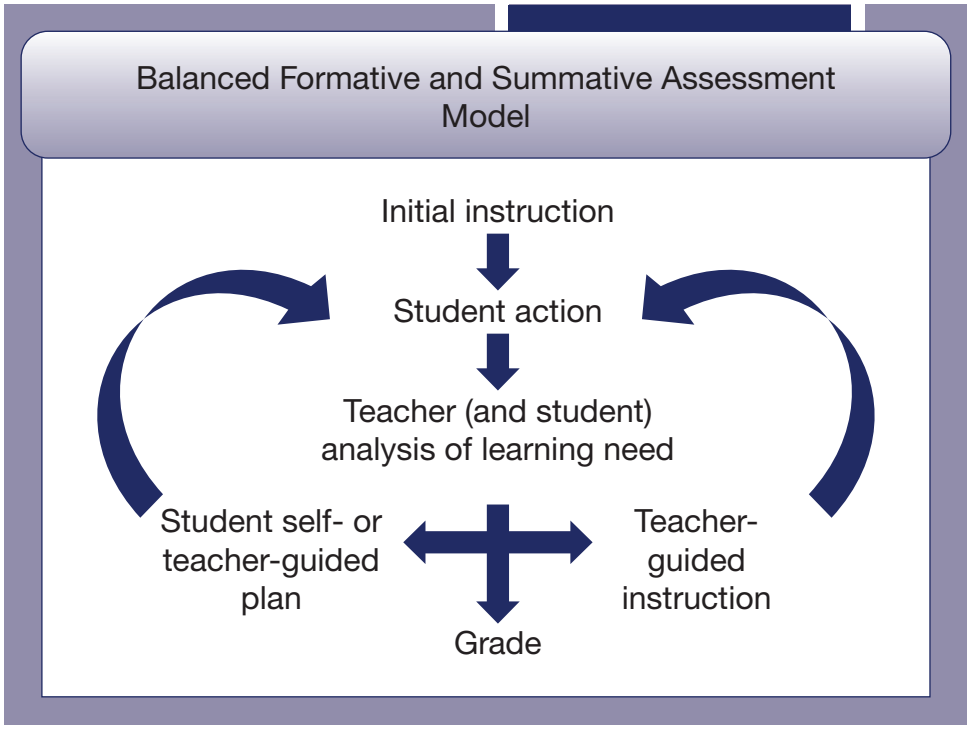
When we teach along a straight path of "plan, instruct, assign, and grade," we don't weave in the time or mechanisms needed to respond to students' instructional needs. Yet w*hether* learning occurs is directly influenced by the steps we and our students take *after* instruction. Do we reteach and relearn or move on? This is where formative assessment practices can be so helpful—they provide the ongoing "back and forth" between *instruct* and *assess* that allows us to respond to what student work shows us they know and do not yet know, before we assign a grade and move on.

John Hattie (2009) calls this the zone of "what happens next" and describes it as a *feedback loop*. In this conception of learning, formative and summative assessments each play a role, but they are in balance (Figure 2.5). The feedback loop begins with a "knowledge-eliciting activity"—what students do in response to instruction. Teachers examine student responses—the "assessment." Then teachers and students take action based on what students' responses reveal. The next step may be to offer feedback to the student, but it may not be. Feedback isn't always the best teaching tool: identification of the student's learning need determines whether feedback is the appropriate next step or whether further instruction is called for (Wiliam, 2013).

This feedback loop was missing from the beginning instruction of most of us veteran teachers. We planned for instructing, but not for learning. When our students did something in response to instruction, we were not prepared to "loop back" and help them move further along the continuum of learning, either by giving feedback to focus their revisions or by reteaching the parts not yet learned.

When formative and summative assessment purposes are in balance in the classroom, we use formative assessment first to seek evidence of what students do

figure 2.5 ■ Balanced Formative and Summative Assessment Model of Teaching



not "get." We make sure our assessment processes and instruments have sufficient instructional traction to identify specific learning needs for each student throughout a unit or teaching cycle. And we plan time in our teaching cycle to respond to each student's learning needs so we can move all students forward to the point of mastery. Assessing for a grade is what we do last, after the practice events, feedback, and revision opportunities have caused increases in learning. Summative assessment is quite important—we must know how to create fair and defensible grades that represent achievement accurately. However, summative assessment can and often does happen too soon in the teaching cycle: when everything that students do is worth points that count toward a grade, everything is summative, thus introducing accountability for having learned before sufficient opportunity to accomplish it.

Wiliam (2013, p. 205), citing Crooks' research, reports the following effects of students' experiencing a steady diet of summative assessment:

- Reduction in intrinsic motivation
- Increase in text anxiety

- Increased ability attributions (attributing success or failure to innate intelligence or lack of it), which undermines effort
- Lowered self-efficacy in struggling students

With summative assessment, we welcome having learned. With formative assessment, we welcome the learning journey.

MyEdLab

Video Example 2.1

Using Assessment Results to Guide Learning

On the other hand, if we make space for students to "grow" their learning before points and grades are assigned, we can help students understand that "not knowing" is not a problem, it's a place on a continuum that all successful learners pass through. Making space for learning and emphasizing learning as the goal also helps students drop a *task-completion* orientation –"I'm doing this because it's worth points"—and develop a *learning* orientation—"I'm doing this because it's worth learning." Watch Video Example 2.1 to hear teachers and students describe the impact of using assessment results to shape action.

So the first step in the development or selection of any assessment is to determine its purpose. Why are you doing it? Who will use the results and what will those results help you (them) accomplish? Figure 2.6 is a form you can use to work through the planning decisions of this first step.

figure 2.6 ■ Assessment Development Step 1: Clear Purpose

Name of Assessment:

Who will use the information?
- Teacher
- Student
- Other

How will the information be used?
- To plan instruction
- To differentiate instruction
- To offer feedback to students
- To use for student self-assessment and goal setting
- To measure level of achievement for an end-of-term grade
- Other

What types of information will be needed?
- Formative
- Summative

If formative, does it meet the following conditions?
- The instrument or event provides information of sufficient detail to pinpoint specific problems, such as misunderstandings, so that teachers (and students, if appropriate) can make good decisions about what actions to take.
- The results are available in time to take action with the students who generated them.

Balanced Assessment throughout the School System

One of the challenges school districts face is in crafting a multilevel, balanced assessment system to ensure that the information needs of all instructional decision makers are met. Because the teacher's role is to engage in sound assessment practices in the classroom (as just discussed previously), the classroom level of Figure 2.3 will be the focus of most of our attention in the chapters that follow. In addition, however, you may be involved in the development of local benchmark, interim, or common assessments and the content of this book will prepare you to do that as well. It will also be important to understand the purposes for the other assessments your students will be taking (as represented by the district and state levels in Figure 2.3) and the appropriate use of the resulting information.

Formative and Summative Uses of District Benchmark, Interim, and Common Assessments It is increasingly common for teacher teams, schools, and districts to adopt or develop and administer assessments periodically throughout the school year to track student progress in mastering pre-established achievement standards. These assessments can be purchased from a test publisher, developed in-district, or provided by the state or other entity. These tests can be used formatively to answer questions such as the following:

- Are there particular standards that our students struggle to master?
- How can we improve our instruction on those standards right now?
- What patterns of student success emerge, and what patterns of difficulty can be identified?
- Can we identify individual students or groups of students who are struggling?
- What assistance can be provided right now to help these students before the annual accountability test?

We see the following patterns emerge from district-level uses summarized in Figure 2.3:

- The decisions to be made often focus on the instructional program or on groups of students in the classroom.
- Because such decisions are made periodically, the assessment need only be periodic.
- The results are most helpful when they can show how each student is doing in mastering *each* standard. Assessments that sample many standards and blend results into a single overall score will not help due to their low resolution results, that is, their lack of sufficient instructional detail.
- At this level, reliance is placed on using assessment results from instruments or procedures held constant across classrooms, sometimes termed *common* assessments. In other words, some standardization is required if sound information and good programmatic decisions are to result.

figure 2.7 ■ Comparing Classroom and Interim Levels of Formative Assessment Use

	Classroom Level	Interim Level
Achievement focus	Student progress toward each standard	Student mastery of each standard
Student focus	Results provide achievement info for each individual student separately	Results are aggregated across students to summarize group results
Frequency of assessment	Continuous	Periodic
Results inform	Student and teacher	Teachers and school leaders
Key instructional decision	What comes next in the learning?	How can instruction be improved?
Consistency of assessment	Can be unique to an individual student	Typically standardized across students (same test for all)

Interim assessments also can serve two kinds of summative purposes. One takes the form of program evaluation in which the purpose of data gathering is to test the level of success of the program under school or district scrutiny. For example, is this program of instruction effective and worth continuing (or purchasing), or should it be abandoned or replaced? A second summative application of an interim assessment occurs when a school or district decides to gather evidence of student mastery of individual standards one or a few at a time periodically throughout the year rather than testing all relevant standards at once at the end of the year. In this case, each such summative assessment would need to provide compelling evidence of student mastery of its particular standard(s).

Comparing Classroom and Interim Formative Uses Both classroom and interim assessments are important, because they can inform decisions that, if made well, can influence student learning while instruction is still taking place. But it is important that you understand that they are different, and that they accomplish different things. Figure 2.7 highlights the differences.

Annual Testing

The final level of assessment serves teachers and principals, curriculum directors and other district-level administrators, state-level leaders and policy makers, and community members by providing evidence of achievement annually on standardized tests. These can take the form of districtwide, statewide, national, or even international examinations. Based on the assessment results received, users make comparisons to similar districts or states to identify those in need of help, allocate resources

to overcome weaknesses, set procedural policies that guide instructional practices, identify groups of students at risk, and use results to evaluate the impact of commercial instructional programs. And so, once again at this level, we can identify formative and summative uses.

We can make the following generalizations about annual testing on the basis of the information in Figure 2.3:

- On the summative side, they ask: Who attained mastery of each standard? Did enough students achieve mastery? What can be inferred about overall school effectiveness?
- On the formative side, the key question is the same as with interim assessments: Which standards do students consistently struggle to master? Where do we need to improve our programs long term? Can we identify students or groups of students in need of additional instruction/assistance?
- As with the interim level, data are summarized across students to fulfill program improvement and accountability needs.
- As with the interim level, periodic assessment will suffice—typically once a year.
- At this level too, assessment procedures must be standardized across contexts and over time—the decisions to be made require it.

A note of caution regarding this level of assessment is warranted here. Because of the large numbers of students tested in annual districtwide or statewide testing programs, the costs of test development, administration, scoring, and reporting are high. For this reason, this level of assessment has traditionally relied on the most economical of testing formats: multiple-choice tests. When we are limited to only that assessment format, we severely restrict the kinds of achievement targets that can be assessed to mastery of content knowledge and simple patterns of reasoning. More complex learning targets such as multistage reasoning and academic behaviors, which require different assessment methods, typically have been left out. We will illustrate this problem in greater detail in later chapters. But for now, suffice it to say, total reliance on the selected response testing format to yield only gross test scores annually has caused their results to be representative of achievement on only a portion of the content standards in any given subject and those results are of extremely limited use for day-to-day instructional decision-making in the classroom.

MyEdLab **Self-Check 2.3**

MyEdLab **Application Exercise 2.2** Formative assessment and summative assessment in a balanced assessment system

Assessment for Learning in the Classroom

In recent years, a special type of formative assessment has emerged that places a high priority on meeting students' information needs, as well as those of teachers. This type of formative assessment plays out while students are learning and so is known as *assessment for learning*. Its purpose is to support student growth by using the

assessment process to keep them in touch with the development of their own academic capabilities as they learn. The effect of this ongoing feedback system is to keep students believing that ultimate success is within reach if they keep trying. The confidence-building and motivational effects of this way of assessing can be profoundly positive. The learning gains associated with consistent reliance on assessment for learning strategies have turned it into one of our most important purposes for assessment.

Those strategies serve the purpose of supporting learning by connecting assessment very tightly to students, their learning targets, and their mastery of those standards. We teach the strategies in a framework of seven strategies that apply high-impact formative assessment practices across disciplines, content standards, and grade levels. (Think back to Black and Wiliam's three categories of high-impact practices [1998b]: use of evidence gathered during instruction to determine next steps; provision of feedback during the learning with guidance on how to improve; and development of student self-assessment and peer-feedback skills.) The seven strategies are organized by three questions, "Where am I going?", "Where am I now?", and "How can I close the gap?" derived from the three conditions Sadler (1989) contends are necessary for students to improve:

- They know what high-quality work looks like ("Where am I going?")
- They are able to objectively compare their work to the standard ("Where am I now?")
- They have a store of tactics to make work better based on their observations ("How can I close the gap?")

The seven strategies, some of which are teacher actions and some of which are student actions, reflect practices that have always been a part of good teaching (see Figure 2.8). What may be new is their strategic use, focusing on ways both we and

figure 2.8 ■ Seven Strategies of Assessment for Learning

Where Am I Going?
Strategy 1: Provide students with a clear and understandable vision of the learning target.
Strategy 2: Use examples and models of strong and weak work.
Where Am I Now?
Strategy 3: Offer regular descriptive feedback during the learning.
Strategy 4: Teach students to self-assess and set goals for next steps.
How Can I Close the Gap?
Strategy 5: Use evidence of student learning needs to determine next steps in teaching.
Strategy 6: Design focused instruction, followed by practice with feedback.
Strategy 7: Provide students opportunites to track, reflect on, and share their learning progress.

Source: Chappuis, Jan, *Seven Strategies Of Assessment For Learning*, 2nd Ed., ©2015. Reprinted and Electronically reproduced by permission of Pearson Education, Inc., New York, New York.

our students can use assessment intentionally and in collaborative ways to support learning. The strategies are described briefly here; specific applications will be explained in more detail at the end of each chapter.

Where Am I Going?

Strategy 1: Provide a Clear and Understandable Vision of the Learning Target. The opening step in this use of assessment to support learning is to give students a vision of the learning destination. We share with our students the learning targets, objectives, or goals either at the outset of instruction or before they begin an independent practice activity during instruction. It is important to check to make sure students understand what learning target is at the heart of the lesson by asking, "Why are we doing this activity? What are we going to be learning?" Strategy 1 helps students develop a learning goal orientation and direct their effort to important features of the task. It also prepares students to think more deeply and accurately about what constitutes quality.

Strategy 2: Use Examples and Models of Strong and Weak Work. To help students sort through and come to see what is and isn't quality work we can share strong and weak models from anonymous student work, examples from life beyond school, and from our own work. We ask students to analyze these samples for quality and then justify their judgments. When we engage students in analyzing examples or models, they develop a vision of what the knowledge, understanding, skill, product, or performance looks like when it's executed well. Engaging with Strategy 2 provides the following benefits:

- It helps students develop a more refined vision of the differences between high- and low-quality work—a vision that is more closely aligned to that of the teacher.
- It helps students become better able to produce work at higher levels of quality on the first try if they have engaged in Strategy 2.
- It prepares students to understand and act on feedback.
- It helps prepare students to self-assess.
- It helps prepare students to offer effective peer feedback.

Where Am I Now?

Strategy 3: Offer Regular Descriptive Feedback during the Learning. When students' work demonstrates at least partial mastery of the learning target, they are ready to receive feedback. Effective feedback identifies strengths and areas for improvement with respect to the specific learning target(s) they are trying to achieve in a given assignment. It helps students answer the question, "Where am I now?" with respect to "Where do I need to be?" and it points the way to "How can I close

the gap?" With those insights in mind, we can offer feedback, instead of grades, on work that is for practice and give students opportunities to act on it and improve before being held accountable for mastery. Giving students time to practice after offering feedback allows them to grow with guidance. Also, providing this kind of feedback models the kind of thinking you want students to engage in when they self-assess and identify next steps. Additionally, research literature reveals strong learning gains attributable to peer feedback (c.f., White & Frederiksen, 1998). To offer each other useful feedback, students must understand the intended learning targets, objectives, or goals (Strategy 1); be clear about how to distinguish levels of quality (Strategy 2); and have practiced with protocols for offering feedback in a controlled situation (Strategy 3).

Strategy 4: Teach Students to Self-Assess and Set Goals for Next Steps. With this strategy, we transfer the ownership of learning to the student. In essence, when we teach students to self-assess and set goals, we teach them to generate their own feedback. To be accurate self-assessors, students need a clear vision of the intended learning (Strategy 1), practice with identifying strengths and weaknesses in a variety of examples (Strategy 2), and exposure to feedback that models "self-assessment" thinking: "What have I done well? Where do I need to continue working?" (Strategy 3). This strategy is a proven contributor to increased learning and a necessary part of becoming a self-regulated learner. It is *not* what we do only if we have the time or if we have the "right" students, for example, those who can already do it. Monitoring and regulating their own learning can be taught to all kinds of students, including those with mild to moderate learning disabilities (Andrade, 2010). While assessment for learning strategies work well for all students, struggling students have the most to gain from learning how to do this kind of thinking.

How Can I Close the Gap?

Strategy 5: Use Evidence of Student Learning Needs to Determine Next Steps in Teaching. With this strategy, we build a feedback loop into the teaching cycle, checking for understanding and continuing instruction guided by information about what students have and have not yet mastered. After having delivered a lesson and after students have done something in response, we use what they have done to determine further learning needs. Do their responses reveal incomplete understanding, flawed reasoning, or misconceptions? Are they ready to receive feedback? Strategy 5 includes a repertoire of approaches to diagnose the type of student learning needs in preparation for addressing them.

Strategy 6: Design Focused Instruction, Followed by Practice with Feedback. This strategy scaffolds learning by narrowing the focus of a lesson to address specific misconceptions or problems identified in Strategy 5. If you are working on a learning target having more than one aspect of quality, it is critically important to build

competence one block at a time by addressing one component at a time. After delivering instruction targeted to an area of need, let students practice and get better before reassessing. Give them opportunities to revise their work, product, or performance, based on feedback focused just on that area of need prior to the graded event. This narrows the volume of feedback students, especially struggling learners, need to attend to at a given time and raises their chances of success in doing so. It is a time-saver for you and more instructionally powerful for students.

Strategy 7: Provide Opportunities for Students to Track, Reflect on, and Share Their Learning Progress. Any activity that requires students to reflect on what they are learning and to share their progress reinforces the learning and helps them develop insights into themselves as learners. These kinds of activities give students the opportunity to notice their own strengths, to see how far they have come, and to feel in control of the conditions of their success. By reflecting on their learning, they deepen their understanding and remember it longer. By sharing their progress, students develop a deeper commitment to making progress.

The Seven Strategies as a Progression

These seven strategies are not a recipe to be followed step by step, although they do build on one another. Strategy 4 (engaging students in self-assessment and goal setting) and Strategy 7 (tracking, reflecting on, and sharing learning progress) are "destinations," Strategies 1 through 3 (making the target clear, using a range of examples, and providing feedback) are "enablers," and Strategies 5 and 6 (identifying learning needs and offering targeted instruction with sufficient time to practice) are "floaters." The destination strategies are where we want students to arrive as a result of being learners in our classrooms. These essential learnings can be developed starting as early as prekindergarten. The enabler strategies, especially Strategies 1 and 2, generally have been undervalued, and yet without them—without a clear picture of where we are going—it is hard to determine where we are now and even harder to identify actions to close the gap. Imagine attempting to get from Point A to Point B using a GPS system that only gives your current location, which is akin to what grades do. Strategies 1 and 2 equip the GPS system with information it needs to communicate next steps. The floater strategies 5 and 6 can happen any time and often employ the use of the preceding strategies as part of the lessons. Taken together, these formative assessment strategies represent actions that will strengthen students' sense of self-efficacy (their belief that effort will lead to improvement), their motivation to try, and ultimately, their achievement.

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Video Example 2.2

Developing a Learning Culture in the Classroom