Chapter 12  Standards-Based Education and Assessment
Chapter 13  Designing Programs for Learners: Curriculum, Instruction, and Technology
Chapter 14  Education in the Twenty-First Century
Curricular Foundations of Education

Viewing Education through a Curricular Lens

The curricular lens provides a way to examine what students should know and be able to do as a result of attending school. It allows us to explore the most effective ways to help students learn the content through the instructional strategies of teachers. However, it is not enough to teach the subject matter. Parents and others expect their children to learn the core knowledge and skills they will need for the future. Thus, assessments are essential tools for helping teachers determine whether students are learning. Effective assessments can help teachers adjust their instruction to help all students learn.

The curricular lens focuses on the relationship between teaching and learning. Deciding what to teach and how to teach it is central to the work of a teacher. Continuous learning is a lifelong pursuit for teachers as new standards are adopted, the curriculum changes, new teaching strategies evolve, new technology is introduced, and different types of assessments are imposed. The filters through which we will examine curricula in this section include standards, assessments, accountability, instruction, technology, and continuous learning and development on the part of teachers.

Focus Questions

The following questions will help you focus your learning as you read Part VI:

1. What are standards and why are they so important in today’s schools?
2. What are authentic assessments and why do educators find them more helpful in the classroom than most standardized tests?
3. What is the relationship of standards and assessments to student learning?
4. How are teachers and schools held accountable for student performance?
5. Who is involved in determining the curriculum in schools and what role do teachers have in deciding what is taught in their classrooms?
6. What instructional or teaching strategies guide the work of teachers?
7. How should technology relate to and interact with curriculum and instruction to help students learn?
8. How can teachers work effectively with parents to support student learning?
9. What is a teacher’s responsibility for participating in professional organizations and developing a plan for continuous learning?
Standards-Based Education and Assessment

Education in the News

Most Students Who Repeat Grades Fail MCAS, Boston School Records Show

By Michele Kurtz, Boston Globe, June 1, 2003

It began in 1998, just before students had to start passing MCAS to graduate. Districts around the state [Massachusetts] began holding back more ninth-graders than usual, believing that it is better to flunk students than to force them to take the high-stakes test and classes they’re not ready for.

But a Globe analysis of Boston student records suggests that it is an experiment that merits further review. Only about a third of the students in the class of 2003 who repeated ninth grade and took the MCAS passed it.

And nearly half of those ninth-grade repeaters are no longer attending Boston schools. Of the 661 who have left, nearly two-thirds either dropped out, entered GED programs, or have vanished—the district has no record of why they left.

Another 800 or so of the repeaters still attend Boston schools, but only two out of five have caught up with their peers and are seniors this year, according to the student records. The numbers—particularly the MCAS passing rate of the ninth-graders held back—drew an expression of concern from the state’s top education official who has defended the practice. “I would have thought the numbers would have been higher,” state education commissioner David P. Driscoll said of the 37 percent MCAS passing rate among the Boston repeaters. “That’s a discouraging statistic.”

Driscoll cautioned against drawing conclusions from the passing rate but said it’s worth studying. The city records the Globe analyzed covered only the class of 2003, so comparisons could not be made to passing rates among students held back in previous classes when the MCAS was not a graduation requirement.


Learning Outcomes

After reading and studying this chapter, you should be able to:

1. Identify different conceptions of standards and analyze the consequences that these conceptions have for teaching and learning.

2. Compare different sources of standards and describe the conflicts that result from the varied interests of these sources.

3. Identify problems that surround standards-based assessment practices and predict their influence on teachers and classroom practices. (INTASC 8: Assessment)

4. Define accountability for student learning and describe how the No Child Left Behind Act is holding schools, school districts, and states accountable for student achievement.

5. Understand the meaning of “helping all students learn” and explain how standards...
and assessments may increase or limit the chances of schools to meet this goal. (INTASC 8: Assessment)

**School-Based Observations**

You may see these learning outcomes in action during your visits to schools:

1. Talk with teachers in the schools that you are observing and review the school district’s website; then identify the standards that teachers are supposed to use. During your observations, record the evidence that convinces you that standards are (or are not) integrated into classroom instruction. Also indicate how the school is (or is not) supporting teachers in preparing students to meet the standards.

2. Identify the assessments that a school you are observing requires at the grade level and for the subject you plan to teach. Compile data on the length of time these assessments have been used, student performance on the assessments, and areas in which students are not performing as well as expected. Write your conclusions about the quality of instruction for that subject and grade level.

3. Interview several teachers who are required to administer state assessments that reflect standards. Ask the teachers to identify what they do to help students prepare for the assessments. Record the results of your interviews and then write your own stance (from an educator’s perspective) with regard to the value of statewide and high-stakes assessment.

Standards are a popular topic of debate in both the business and education worlds. Policymakers at the state and federal levels are concerned about standards, their rigor, and student achievement as measured against them. School administrators, teachers, curriculum developers, and education reformers are expected to implement the standards and show evidence that students meet them. Interestingly, even though people are using the term standards, their definitions of the term can be quite different. Some people view standards as synonymous with rigor and the setting of high expectations for schools, teachers, and students. Others focus on the specification of learner outcomes or use the term in relation to a particular approach to instruction. Still others equate standards with high-stakes tests.

Four big ideas surround and inform the standards movement. First is the articulation of rigorous standards for student achievement. A second is the increased demand from policymakers and the public for accountability—that students meet these standards. A third big idea is an emphasis on the importance of authentically assessing what students have learned. Fourth, standards require a major change in the curriculum and the way teachers and students think and work in classrooms. In total, the emphasis on standards-based education represents a major shift in thinking about accountability, teaching, and learning.

A number of important challenges and critical issues have emerged around the standards and assessment movement. Some of the questions that will be explored in this chapter include:

- What type of standards and assessments are appropriate for today’s schools?
- Who determines the content of standards and assessments?
- How fair is a common set of standards and assessments for a diverse population?
- How can assessments be made authentic to the contexts of the community and the world of work?
- When should assessments be tailored to individual development and when should they be standardized?
What is the role of the teacher in today’s standards and assessment environment?

What is the role of students and parents in today’s standards and assessment environment?

The dimensions that make up a standards-based curriculum as well as the implications for assessment practices are discussed in this chapter. We will also tackle issues and questions that surround standards-based education and assessment. At every turn, we place the emphasis on what teachers need to know and understand about this important education movement.

**STANDARDS-BASED EDUCATION**

Before 1987 most standards focused on the curriculum, identifying the content that teachers should teach. Many of today’s standards no longer describe what teachers and professors should teach. They identify what students and teachers should know and be able to do when they finish a course, a grade, or a program. Most of the standards-setting efforts are grounded in a constructivist approach to teaching and learning, encouraging “all students to construct, integrate, and apply their knowledge; to think critically and invent solutions to problems; and to respond creatively to unforeseeable issues that will confront them in the complex world of tomorrow.”

The accountability theme is heard in the repeated calls for schools to set rigorous educational standards that are measured by student performance on standardized tests. In many states, testing has become high stakes, determining who is permitted to move to the next grade, graduate from high school, be admitted to higher education, or be allowed to teach. In a growing number of states, accountability has taken the form of legislation that establishes statewide standards and assessments, with test scores being used to rank schools and label some schools as low performing or failing. These state report cards become headline stories in local and state newspapers, celebrating high test scores or decrying the poor state of education in communities where test scores are below a proficient level.

Many teachers are developing and using new forms of assessments that focus on student proficiencies identified in standards. Learning is measured through a variety of assessments throughout a school year rather than depending on a single test. Within the classroom there are three related themes: the use of standards to determine curriculum, the use of multiple assessments of student learning, and the development of a new model, or paradigm, of teaching and learning called standards-based education.

Standards-based education is a systemic approach to the entire teaching and learning process. Systemic implies that the entire school system (including the curriculum, instruction, assessments, and professional development) is driven and linked by

---

**proficiencies**

Knowledge, skills, or dispositions that students are expected to acquire in order to meet a set of standards.

---

*Students must meet high standards before they can graduate from high school. A growing number of states are requiring students to pass a test before they receive a diploma.*
a set of standards that the community of teachers, administrators, parents, and learners endorse. As an instructional approach, standards-based education places student learning at the center. Achievement of the standards is paramount and increasingly linked to a student being promoted or receiving a diploma. Student achievement of the standards, which is often measured by performance on standardized tests, sometimes determines the jobs and salaries of teachers and principals.

### Differing Conceptions of Standards

Standards are statements that describe an expected level of attainment or performance. However, they can have quite different meanings for different people. For some, a standard is a noteworthy accomplishment by a great performer. Such world-class standards are very high levels of learning and performance that are generally out of reach for most individuals. For others, a standard is the norm; it is a statement of what most people should be able to achieve. As such, this type of standard can be considered the bottom line, one that is reachable by most. Others describe standards in terms of desired student learning in a discipline or content area. At the same time, not everyone believes that the standards movement is desirable. They worry that standards will lead to a national curriculum, which they find problematic, or become overly prescriptive in their requirements for curriculum and instruction.

### World-Class Standards

Some educators and policymakers think of standards as world-class goals based on the performances of outstanding individuals, such as successful mathematicians, scientists, authors, and Olympic athletes. Schools such as Julliard or the Rhode Island School of Design have as their goal assisting artists in reaching world-class standards. These standards cannot be met in an elementary or secondary school setting. Rather, they are statements of accomplishment to be used for admiration and as models of excellence. Standards in this context are meant to inspire students to do better over time; they are not intended to be met within a single school year. Educators who adopt world-class standards tend to look at their curriculum as a developmental process. The purpose of each year in school is to show individual student improvement toward the high standard. Common sets of specific proficiencies that all students are expected to master are not seen to be as important as showing improvement in multiple and diverse ways over time.

### Real-World Standards

Another segment of the public believes that standards should be real-world goals. This conception of standards places primary emphasis on the necessary knowledge and skills that will make students employable and enable them to live independent lives. Assessments of reading, writing, and computing skills show that too many high school graduates lack these skills. Major U.S. firms report that 34 percent of tested job applicants lack the basic skills necessary for the job. In contrast to world-class standards, real-world standards are seen as being achievable in schools. Real-world standards set the expectation that students learn the basic skills of reading, writing, and computing that allow them to balance checkbooks, prepare for job interviews, manage their daily lives, and maintain employment.
DISCIPLINE-BASED OR CONTENT STANDARDS

Other people think of standards as discipline based. These standards describe what teachers and students should know and be able to do in various subject areas such as science, mathematics, history, geography, social studies, physical education, and the arts. Usually, these content standards emphasize the core components or big ideas of the discipline that should be known at a specific age or grade level. They are often accompanied by standards for what teachers should know about the content or subject to teach at the preschool, elementary, middle, or secondary level.

At a meeting of the U.S. state governors in 1989, President George Bush supported the development of content standards to ensure that the nation’s students would be first in international academic competitions. The first set of student standards was released in 1989 by the National Council of Teachers of Mathematics (NCTM). With federal support, standards for P–12 students were developed by professional associations and other groups such as the National Research Council in subsequent years. Many states followed suit, developing their own content standards or adapting the national standards to their own state contexts.

NO CHILD LEFT BEHIND AND STANDARDS

To help ensure that all students will learn at acceptable levels, Congress enacted legislation entitled No Child Left Behind (NCLB) in 2001. This act required all states to set standards for what a child should know and learn for all grades in mathematics, reading, and science. In addition, the states were required to set a level of proficiency for determining whether the standards are met by students. Schools are expected to make adequate yearly progress (AYP) as shown by their students achieving at the state’s proficiency level or above on the state test. Federal expectations are that low-income students, students with disabilities, English language learners, and students from different racial and ethnic backgrounds will meet state proficiencies. If AYP is not achieved by one or more of these groups for more than two years, the school will be identified as needing improvement. Student performance will be publicly reported for schools in district report cards. By 2013 all students are expected to be at the proficiency level for their grade level.

WHY STANDARDS DIFFER

These diverse conceptions of standards stem from differing expectations people have for education. Business leaders tend to want high school graduates who are ready for work by being able to read, write, and compute. They expect schools to prepare a supply of future workers. Businesses are willing to provide specific job training, but they do not want to teach what they consider basic skills that all students should have before entering the world of work.

Policymakers think about the larger, long-term needs of society. They promote more rigorous academic standards that will ensure that students perform at high levels on international comparisons, maintaining world-class status for the United States. They want students to know more science, history, mathematics, literature, and geography than students in other countries.

Parents choose standards based on their own personal goals and family histories. Some parents want their children to go to prestigious colleges; others want their children

The purpose of this title is to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments.

No Child Left Behind Act

CROSS-REFERENCE

Chapters 1, 5, and 12 also include references to No Child Left Behind.

The setting of standards requires understanding different expectations, learning new things, and extensive discussions about the content.
to obtain a job immediately after high school; still others want their offspring to prepare for a professional career such as a medical doctor, lawyer, or engineer. These expectations influence the type of standards that parents support.

Figure 12.1 is a summary of the different dimensions and tensions that those who develop standards must consider. School districts wrestle with these differing expectations for schools when they adopt a set of learning standards. It is not easy to have a clearly articulated, coordinated set of standards that meets the expectations of all members of a community. The process of setting standards is not a simple one, and those who write standards often receive criticism from various dissatisfied community members. Despite these difficulties, the development of clear standards enables different constituencies within the school community to clarify their needs and their aspirations. The process of selecting and adapting standards also provides a forum for conducting dialogues and negotiating what schools should do and for what schools, teachers, and students should be held accountable.

**USES OF STANDARDS**

Just as standards differ conceptually, they can also be used for different purposes. Standards can be used to make school curricula across a district or state more alike. They can provide a set of uniform expectations by grade level that must be met by all students before they can progress to the next grade. When standards are used in this way, all teachers are focused on the same set of knowledge and skills, and they are aware of the relationship of their work to other grade-level expectations.

Standards can also be used as guidelines for improving student learning, as Congress expects under No Child Left Behind. These standards clearly articulate what students should know and be able to do by the time they finish a grade, finish high school, or complete a professional program. They generally enable schools to show that all students have attained specific types of knowledge and skill development. Curriculum, instruction, and assessments must be aligned to support students in meeting the standards at a specified level of proficiency. On the other hand, standards do not always clearly meet the diverse needs of students. The uniqueness of individual students can be neglected in the push to make clear what most students should learn.

**SOURCES FOR STANDARDS**

The sources of educational standards seem as plentiful as stars in a clear night sky. In fact, within the past fifteen years many groups have set standards for students and educators alike. The authors of the standards released in 1989 by the National Council of Teachers of Mathematics had researched, developed, sought feedback, and refined their student standards over a ten-year period. The process had involved both mathematics teachers and mathematicians. The NCTM standards became the benchmark for other standard-setting projects at the state and national levels.

During the 1990s, the U.S. Department of Education funded subject-area groups and coalitions to prepare standards similar to the mathematics stan-
dards in disciplines such as science, history, civics, language arts, geography, the fine arts, and foreign language. Standards continue to be developed and re-

fined by many different groups. For example, the National Council for the So-

cial Studies (NCSS), the American Association for the Advancement of Science

(AAAS), and the National Association for Sports and Physical Education (NASPE) have all published sets of standards that represent what they believe

students should know and be able to do throughout primary, elementary, mid-

dle, and secondary school. These national content standards have been trans-

lated into different sets of state standards. Individual school districts have also
developed district learning standards based on their interpretations of state

standards.

Although all of these student standards are worth examining, it is not easy

for individual teachers to determine which set is best suited for their individ-

ual contexts, philosophies, and teaching styles. The challenge for teachers is to

have a clear understanding of each group’s rationale for developing a set of

standards and be able to articulate a clear set of professional reasons for en-

dorsing one set of standards rather than another.

In addition to the work of discipline-specific groups that have developed

standards for student achievement at the P–12 level, professional education as-

sociations have developed standards for teachers and other professional school

personnel. These professional standards outline what educators should know

and be able to do to teach or work as a school library media specialist, school

counselor, principal, or other professional in a school. You are probably ex-

pected to demonstrate the knowledge, skills, and dispositions of one or more

sets of these standards before you obtain a license to teach.

### TYPES OF STANDARDS

At least three types of standards have emerged from the different conceptions

and uses of standards. Content standards focus on knowing the subject matter. Performance standards focus on teacher and student accomplishments. Opportunity-to-learn standards focus on the resources and support necessary to ensure that students can meet content and performance standards. Each type ul-

timately focuses on developing student achievement. For example, if teachers

attain a certain level of professional expertise (performance standards) and

schools meet stringent opportunity-to-learn standards by providing resources

that relate to student achievement, all students will benefit from such a con-

certed effort to support learning.

### CONTENT STANDARDS

Content standards establish the knowledge that should be learned in various

subject areas. These standards are often linked to big ideas, themes, or concep-
tual strands that should be nurtured throughout a student’s education. For ex-

ample, in the national science standards, the big ideas of evolution and

equilibrium, form and function, systems, and the nature of science are explic-

itly described, along with specific grade-level benchmarks that are linked to

these bigger ideas. The same is true in the standards for social studies; the big

ideas of community, scarcity of resources, and democracy are specified in state-

ments concerning what students should know in primary, elementary, middle,

and secondary schools. The NCTM standards, furthermore, state that students

should be able to understand and use numbers and operations; specifically,

they should

- understand numbers, ways of representing numbers, relationships among

  numbers, and number systems;
- understand meanings of operations and how they relate to one to another;
- compute fluently and make reasonable estimates.3

---

### CROSS-REFERENCE

Assessments for teachers and teacher candidates are discussed in greater detail in Chapter 1.

---

**dispositions**

A habitual tendency or inclination to behave in a specific way.

**benchmarks**

A level of performance at which a standard is met. Examples of levels include “proficient” and “correct re-

sponse on 80% of questions or performances.”
In addition to knowledge acquisition statements, content standards often specify what thinking and process skills and strategies students and/or teachers should acquire. These skills and strategies might include developing a plan and hypothesis; interpreting, extrapolating, drawing conclusions; and communicating results. Standards may also include statements about the habits or dispositions that should be nurtured in students. These habits or dispositions include curiosity, perseverance, tenacity, caring, and open-mindedness. For instance, the INTASC standards for state licensure expect new teachers to demonstrate the following dispositions related to individual and group motivation and behavior:

- The teacher takes responsibility for establishing a positive climate in the classroom and participates in maintaining such a climate in the school as a whole.
- The teacher understands how participation supports commitment, and is committed to the expression and use of democratic values in the classroom.
- The teacher values the role of students in promoting each other’s learning and recognizes the importance of peer relationships in establishing a climate of learning.
- The teacher recognizes the value of intrinsic motivation to students’ lifelong growth and learning.
- The teacher is committed to the continuous development of individual students’ abilities and considers how different motivational strategies are likely to encourage this development for each student.4

**PERFORMANCE STANDARDS**

Performance standards are statements about what a student or a teacher should be able to do. These performance statements are not a list of discrete facts or skills; rather, they encompass combinations of knowledge and skills. The development of performance standards is the next logical step after determining a content standard. For example, once we know that we want students to understand the events of the Revolutionary War, the next logical question is, “How will we know they understand?” This is where performance standards come into play. Performance standards are used in specifying both student learning and teacher development.

Performance standards differ from district to district, even though many lists of performance standards have been developed by state and national groups. Some educators contend that one set of uniform performance standards for P–12 students should be developed across the nation to guarantee a minimum level of achievement. A collaboration of the Learning Research and Development Center of the University of Pittsburgh and the National Center on Education and the Economy in partnership with state boards of education, New Standards has developed and disseminated a national set of student performance benchmarks that try to answer the question “How good is good enough?” These performance standards were derived from the various content standards and consist of two parts:

*Performance descriptions:* Descriptions of what students should know and the ways they should demonstrate the knowledge and skills they have acquired in the four areas assessed by New Standards—English language arts, mathematics, science, and applied learning—at the elementary, middle, and high school levels.

*Work samples and commentaries:* Samples of student work that illustrate standard-setting performances, each accompanied by commentary that shows how the performance descriptions are reflected in the work sample.5

One example from the New Standards performance description for reading clearly states the performance expectations for students:

Students read at least twenty-five books or book equivalents each year. The materials should include traditional and contemporary literature as well as magazines,
newspapers, textbooks, and on-line materials. Examples of activities through which students might produce evidence of reading include:

- Maintain an annotated list of works read.
- Generate a reading log or journal.
- Participate in formal and informal book talks.

An example of a performance task in elementary mathematics requires students to show how many different ways nine fish can be put into two bowls. Students are required to show all their work and at the end explain why they made the decisions they did as they solved the problem. A performance task in elementary science requires students to complete a laboratory activity in which they adjust the mass and/or volume of an object so that the object does not float on top of water or sink. This task calls for students to explore the range of available floating and sinking objects. To accomplish the task, it is necessary to combine floating and sinking objects to construct one of the correct density. These examples of performance standards provide a set of benchmarks against which teachers and students can determine how well they are doing in moving toward the full achievement of a standard.

**OCCURRITY-TO-LEARN STANDARDS**

Teachers’ and students’ awareness of content and performance standards will do little to ensure achievement unless supports and resources are provided by the district and the community. Hence, some experts have advocated for opportunity-to-learn standards, which are sometimes called input or delivery standards. These standards address the need for the provision of adequate and appropriate instructional resources, assessments, and system structures to create the proper conditions for students to achieve the standards. Examples include guaranteeing that students have sufficient opportunities to relearn when a standard is not achieved, ensuring that sufficient time is offered to students so that they can achieve various standards at their own pace, offering alternative ways to achieve a standard based on individual needs, specifying the types of technology to be available in schools and classrooms, and regularly providing staff inservice that helps teachers fine-tune instructional techniques that lead to student achievement of specific standards. Students with disabilities and English language learners should be provided appropriate accommodations to support their learning of the proficiencies outlined in standards.

**DEBATES OVER SETTING STANDARDS**

Sometimes conflict exists among stakeholders regarding setting standards at the national, state, and local levels. For example, the National Council of Teachers of English, the International Reading Association, and the Center for the Study of Reading at the University of Illinois received funding from the U.S. Department of Education (USDE) to draft content standards in the English language arts. However, the USDE rejected the standards proposed by this coalition and terminated its funding. One reason for the rejection of the standards was the perceived excessive emphasis on process rather than knowledge.

Standards are influenced by one’s perspective along a continuum, with pluralists who support multiple perspectives at one end and monolists who believe in one singular perspective at the other end. A common approach is to consider the views of all stakeholders, including teachers, students, and parents, when setting standards. This approach ensures that the needs of all students are considered and that the standards are applicable to all learners. By incorporating diverse perspectives, educators can create standards that are inclusive and effective for all students.
end and fundamentalists who believe in the existence of one correct perspective at the other. These differences led to conflict in the acceptance of the proposed American history standards. Critics objected to the absence of certain American heroes in the secondary standards proposed by the National History Standards Project. They argued that the attempt to make the standards inclusive of the numerous ethnic and cultural groups in the United States would be divisive rather than unifying. As a result, these standards were the focus of a full-scale debate in the U.S. Congress in January 1995. Some members objected to the absence of Robert E. Lee and the Wright Brothers; others noted that Senator Joseph McCarthy was mentioned nineteen times, but Albert Einstein was not mentioned at all. Such criticism led to a ninety-nine-to-one vote in the Senate for a resolution condemning the standards. Similar debates have occurred at the state and local levels about the use of phonics versus whole language in the English language arts and reading, the importance of teaching historical facts in social studies, teaching of creationism versus evolution in science, and the use of calculators to teach mathematics.

A third type of conflict over standards occurs when two groups attempt to develop standards for the same area, as occurred in science when the National Science Standards were developed through federal funds by the National Research Council and Benchmarks for Science Literacy were developed by the Association for the Advancement of Science. These two sets of national standards exist as independent sources for teaching science. Some argue that having different sets of national standards is positive and provides a necessary dialectic for selecting standards. Such healthy conflict allows for change and guards against developing a rigid, inflexible set of standards. Others note that in the absence of a single set of national standards, schools and teachers are left in the precarious position of having to choose their own unique sets of standards, and once again there is little guarantee of uniformity in the content that all students are expected to know and be able to do at the end of their schooling experience.

THE FUTURE OF STANDARDS-BASED EDUCATION

There is no escaping standards in schools today. They are not abstract statements of ideals that teachers can simply ignore. They are now driving what teachers teach and, in many districts, how schools—and in some cases teachers—are evaluated. Moving from a traditional to standards-based education requires a great deal of time, the involvement of all constituencies (teachers, administrators, parents, and community members), and good communications among the stakeholders.

Standards-based education is a complex and sophisticated approach to teaching and learning. It is a professional challenge for beginning teachers, as well as experienced teachers, to learn to teach this way. The teacher’s role shifts from conveyor of knowledge and dispenser of grades to coach and facilitator of students as they engage in learning. The expectations and checkpoints are stated and known by the teacher and students before instruction begins. Students not only know beforehand what is to be learned, but they also know what the assessment tasks will be like—that is, the types of performances described in the expectations.

Many questions color the future of standards. How will school organization, use of time, graduation requirements, and power relationships change because of the standards movement? Can the same standards really be put in place everywhere without also bringing opportunity-to-learn standards to the front and center? How can the plethora of standards be managed by teachers and still be integrated with the move toward thematic and interdisciplinary instruction? If the standards movement is to be worth the upheaval it has generated, such questions must be answered by thoughtful, knowledgeable participants who are engaged in the process of changing what students learn and how they learn. One important step is the compilation of data about student learning related to...
standards. Therefore, one of the early efforts in the standards movement has been significantly increased attention to methods for assessing student learning.

**ASSESSMENT: THE OTHER SIDE OF STANDARDS**

Standards are not an end unto themselves. Simply listing standards in a school brochure will make little difference in the way students learn and achieve. If standards are to have any real effect on schools and on student achievement, they need to be supported by other elements in a school’s structure: an articulated curriculum, professional development sessions focused on improving student achievement, and a well-thought-out array of assessments that match the standards.

When assessments are linked to standards, changes will occur in the types of assessments used, the kinds of data collected, and the ways in which assessment results are used to enhance student achievement. These changes in the assessment process can be quite dramatic, since assessment in the past has often meant little more than teachers producing grades or students doing well on paper-and-pencil achievement tests. When assessments are interwoven into standards-based frameworks, they become much more varied and meaningful to teachers and students alike. The following section examines the changing face of assessment and the ways in which it should enhance the teaching and learning process.

**WHAT IS ASSESSMENT?**

Assessment in education implies many things: evaluation, grades, tests, performances, criteria, rubrics, and more. To adequately encompass its many dimensions, it is helpful to examine assessment in a broader sense by analyzing its root meanings. The term *assessment* is derived from the Latin word *assesio*, which means “to sit beside.” This image provides an excellent metaphor. Ultimately, assessment can be thought of as the act of sitting beside oneself and analyzing what one observes. In a sense, all assessment is based on this image: the examination of oneself through the perception of an examiner who sits beside you and provides feedback. Some theorists contend that all true assessment is ultimately self-assessment. Assessors can provide information, but in the end it is the person being assessed who accepts the information or rejects it, using the information to further his or her development or setting aside the information as unimportant.

The image of an assessor sitting beside a learner also implies the use of tools or measuring devices that enable the assessor to gather different types of information. Paper-and-pencil tests, performance assessments, portfolios, journals, and observation checklists are examples of different assessment measures. Often these tools are labeled assessments, but in fact they are merely measures that assessors use to provide feedback. Keep in mind that assessment is really the larger process of gathering information, interpreting the information, providing feedback, and ultimately using or rejecting the feedback.

**PURPOSES FOR ASSESSMENT**

The ultimate reason for assessment in the classroom is to help students learn. However, assessments of students and teachers today are being used for a number of other purposes as well. It is important to clarify these different purposes before attempting to interpret assessment results.

**STUDENT LEARNING**

Put simply, for teachers and students, assessing in classrooms is done for two purposes. The first is a *formative assessment* to determine what the student

---

rubric
Scoring guides that describe what learners should know and be able to do at different levels of competence.

formative assessment
Collection of data to show what a student has learned in order to determine instruction required next.
An application of the IEP is

data about student performance that are used to make a judgment about a grade, promotion to the next grade, graduation, college entrance, etc.

has learned and provide feedback to the learner so that both the teacher and the student can understand where to next focus their energies. The second is a summative assessment to make a final judgment about whether a certain level of accomplishment has been attained, such as passing a course. Most assessments for these purposes have been developed by teachers for use in their own classrooms. In standards-based education, teachers are checking throughout the year for evidence that students are meeting the standards through tests and a variety of other sources.

Student essays, projects, and portfolios are also valuable resources for knowing how deeply students understand the content of a subject. Observing students as they conduct experiments, demonstrate how to solve a mathematics problem, or interact with other students on a group project provides additional information about student learning. More and more teachers are recording their observations of student learning throughout the school year in journals that can show growth over time. These formative assessments help teachers know which students know the content at the expected level and which students need additional assistance.

DIAGNOSIS

Diagnostic assessments are used to determine at what level a student is functioning as compared to the level at which he or she should be able to function developmentally. Tests and other assessments can be used to help determine whether students are performing at grade level. The feedback from these sources should help teachers design new or different instructional strategies that will assist students who are having difficulty. These types of assessments provide an array of questions and tasks for a student to perform in a specific area such as reading, writing, mathematics, or motor skills. In such assessments, the questions and tasks might be organized by difficulty. As the student performs each task successfully, she or he is given another, more difficult question. Eventually, the student will be unable to answer or perform any tasks successfully.

Diagnostic assessments are also used to determine the need for special services or accommodations and are usually conducted by a special education teacher, school psychologist, speech/language pathologist, occupational therapist, or regular teacher trained to administer a specific test. Most school districts require these tests of students who have been referred by teachers or parents for special education or gifted and talented services. If a student is identified as needing special education services, an individualized education plan (IEP) is developed collaboratively by the regular teacher, a special education teacher, parents, and appropriate specialists such as a reading specialist or speech/language pathologist. The goal of the IEP is to identify appropriate instruction to support student learning at a level and pace that is appropriate to a student’s specific needs.

GATEKEEPING

Assessments are often used as gatekeepers to determine who moves to the next grade or is admitted to a profession. For example, college admissions offices have a long history of using students’ performance on standardized tests such as the ACT and SAT to determine who can be admitted. Professions such as law, medicine, nursing, physical therapy, certified public accountancy, and architecture require persons to pass a standardized test before they are admitted to the profession and allowed to work in a specific state. Most state departments of education require new teachers to pass a standardized test to be eligible for a license to teach. The use of standards for gatekeeping purposes is also becoming a way of life at the P–12 level. One of the first steps for children entering some of the prestigious preschools in a number of metropolitan areas is passing a test. A growing number of states require students to pass a test before a diploma of graduation is granted. Some school districts expect students to pass a test to move to the next grade.
TRADITIONAL ASSESSMENTS

Educators use different types of assessments depending on the purpose of the assessments. The types described next are among the most common. Many are manifested in paper-and-pencil formats; others take the form of a demonstration of skills. Educators and parents should know the type of assessments being administered to their students and children. Are the assessments designed to compare students across the state, or to determine if students have developed the core knowledge and skills expected in standards? The second design could be very helpful to a teacher and parents in knowing whether students are learning.

COMPETENCY-BASED ASSESSMENTS

These assessments can be used to demonstrate a specific competence. For example, if students have been taught a specific method for using a piece of science equipment, such as a gram balance, a competency-based assessment would include having the learner weigh several objects on a balance. The teacher would typically observe the learner to see whether all the specific techniques in accurately weighing a sample were used. Assessments of specific competencies in schools include many teacher-made assessments that focus on the specific things a learner has studied. An example of a competency-based assessment outside the classroom is the road test employed in most states as a prerequisite to receive a driver’s license. The critical characteristic of such an assessment is that the assessment is closely related to something the learner must be able to do. Hence, in the road test, a person drives a car in situations that the driver will typically experience: turning left or right, backing up, parking, and so forth. The person is usually scored through an observation checklist that the assessor uses.

NORM-REFERENCED ASSESSMENTS

Sometimes assessments are used to demonstrate who is best in some area. In a norm-referenced assessment, the individual’s performance is compared with that of a norm group of similar individuals. After these types of assessments are developed, they are carefully revised on a regular basis to ensure that the tests yield varied test scores from low to high. These types of assessment do not reveal all that an individual child knows or is able to do. They are not the appropriate assessment to use to determine whether students meet proficiencies outlined in standards. In some ways, norm-referenced assessments are like a contest, and it is expected that some students will excel and others fail.

Norm-referenced assessments are misused more often than most other assessments. Teachers must be cautious in concluding that individual students who score low are not doing well. Norm-referenced tests typically sample only a portion of what students in a particular class are expected to know and do. Therefore, the student might not be performing well in those areas assessed by the tests but be doing better in other areas that were not tested.

Sometimes state authorities penalize a school district or school whose students as a group perform below a specific level on a norm-referenced test. This is a flawed practice because norm-referenced tests are designed such that 50 percent will score below the fiftieth percentile. In fact, when schools begin to score regularly above this percentile, the test is made more difficult. A related problem is that the nature of the test prevents the inclusion of questions on some of the core, most important concepts in content standards. Too many students select the correct answer because their teachers focused on this key concept in their teaching to ensure that students learned it. If a large number of
students select the correct answer, the test question is revised. As a result, many of the items on the test address peripheral areas of the standards, avoiding the important knowledge and skills at the heart of the standards. The goal is not to determine if most students meet standards but to make sure there is an appropriate distribution of scores.

**CRITERION-REFERENCED ASSESSMENTS**

Instead of comparing a student’s performance with that of a group of students, criterion-referenced assessments compare a student’s performance with a specific type of accomplishment or criterion. For instance, one can assess whether students can add two-digit numbers without regrouping. To measure this skill, a student could be asked to answer ten different questions. If a child successfully answers all ten, or nine or even eight of the ten questions, a teacher can state with some degree of confidence that the child knows how to add two-digit numbers without regrouping. This type of assessment is similar to a competency-based assessment; the major difference is that the criterion may be a very narrow competency, such as adding two-digit numbers, in contrast to a competency such as driving a car.

Most classroom tests should measure students’ knowledge in a criterion-referenced manner; that is, a student should be asked to answer questions a number of times that measure the same learning. Then, instead of scoring the test by using some sort of A through F range, the teacher sets an acceptable score that determines that the student really understands a concept at an acceptable level.

**CAPSTONE/SUMMATIVE ASSESSMENTS**

Summative or capstone assessments can be developed to celebrate a milestone accomplishment or to demonstrate how well a person has mastered something. These types of assessments are used near the end of some major accomplishment such as recitals or graduation. For instance, after completing courses in education, a teacher candidate student teaches to show that he or she can help students learn the subject matter. Hence, student teaching is a capstone-type assessment. This capstone assessment is evaluated by a master teacher who notes all the accomplishments that are shown by the student teacher throughout the performance. In such an assessment, deficiencies can also be identified, but the major focus is to uncover what a teacher candidate has mastered throughout a program of study.

At the school level, a capstone assessment can be used at the end of a school year. Students can be asked to apply all they have learned in science by completing a science project or in language by writing a short story or a research paper. Some schools require a comprehensive test, presentation of student work in a portfolio, or essay as the capstone experience for graduation.

**PERFORMANCE ASSESSMENT**

The notion of assessment is changing. For decades, educators have called for better testing, but the response was the proliferation of a number of different kinds of tests with different emphases. Tests of achievement, basic skills tests, criterion-referenced tests related to specific objectives, tests of cognitive ability, tests of flexibility, and tests of critical thinking were developed. Despite these worthy attempts, these tests provided a limited view of what students know. Many educators viewed these paper-and-pencil instruments as an intrusion and not directly related to what was really happening in the classroom.

Instead, educators wanted performance assessments that would allow students to demonstrate in a number of ways that they met standards in real-world or authentic settings. The best performance assessments are designed to promote student understanding, learning, and engagement rather than simply the recall of facts.
These performance assessments are examples of an **authentic assessment**, which clearly examines student performance on a learned task. Generally, this is accomplished by using a context or situation that directly relates to what the student has learned.

**TYPES OF PERFORMANCE ASSESSMENTS**

To provide opportunities for students to show what they know and can do, multiple assessment methods must be used. At the basis of these tools or methods is the notion of performance. Thinking of assessments as performances in which the student is given opportunities to display some sort of learning task is critical to the design of an authentic performance assessment method. To be authentic, educators employ a wide variety of assessment opportunities to evaluate student success.

**LEARNING LOGS AND JOURNALS**

Learning logs are notebooks or journals that contain written descriptions, drawings, reminders, data, charts, conclusions, inferences, generalizations, and any number of notes developed by the student during the learning process. The teacher's role in the development of these learning logs is to generate questions for the student to ponder and respond to during the learning task. The more varied the questions, the better the assessment. For example, during a learning task, students can be asked to relate what they are studying to their real lives. They can be asked to make a generalization based on what they are doing or to communicate through a mind map, drawing how what they are learning relates to something else. The most important element of using learning logs is the development of a rich bank of questions so that the student practices and records different modes of learning.

**FOLIOS AND PORTFOLIOS**

Students can use learning logs to develop a portfolio as well. Samples of student work can be organized and stored in a folio, which is similar to a file cabinet drawer in which all sorts of examples are kept for later use. Samples of student work might show growth over time. Samples can be self-selected by students or with assistance from others. Students can be asked to annotate their work samples by describing the characteristics that make their work noteworthy. The process promotes self-assessment and encourages students to develop skills for defending and describing their work.

Students' best work can be compiled into a portfolio to show that they are meeting standards. For example, they can be asked to examine their folio and select their best science and social science diagrams and write down the characteristics that make each example a good diagram. Teachers can also have students select their most accurate drawing or their best graph. In all cases, the student should articulate why they chose the items they did. Including elements of a student's log permits the student to display learning in yet another way. Portfolios don’t have to be in the more traditional hard-copy format. Portfolios can be electronic, including voice, video, CD-ROM, and an archive of written documents.

The important point is that a collection of work is not an assessment unless the student and/or teacher does something with it. Portfolios can have several goals: to show growth over time, to show the breadth of achievements, and to showcase the student’s best work. Students and their teacher should formulate a shared goal, students should select entries from their folio that reflect learning related to the goal, students (and possibly the teacher) should include written self-assessment about the student’s progress, the teacher should provide feedback, and both should discuss the portfolio, possibly in relation to a rubric they developed for evaluating the portfolio.

**Cross-reference**

Portfolios for teacher candidates are described in Chapter 1.

**Authentic Assessment**

A multifaceted performance task that is based in the context of the learner and allows the learner to construct a response that demonstrates what he or she has learned.
INTERVIEWS  Students can also indicate what they have learned by being interviewed, either by another student or by the teacher. Face-to-face discussion that includes probing questions is one way in which teachers and students can determine whether something has been learned. Once again, interview questions need to be varied to allow a full range of responses from the student.

OBSERVATION AND ANECDOTAL RECORDS  Classroom observation has been a tool used for many years. Within the realm of authentic assessment, observation means using day-to-day classroom activities to determine whether understanding and skills are being demonstrated. To accomplish this properly, teachers need to keep observation notes or checklists, regularly recording what they see and the type of learning being exhibited. These daily observations can be a powerful resource in assessing learning.

In addition to formal observations, keeping anecdotal records is an excellent assessment technique. Teachers who keep a diary and jot down any relevant information about the child’s learning progress, accomplishments, and other relevant information will find that their understanding of the whole child is increased. One important caution in using anecdotal records is to be careful in distinguishing between what has been observed (the objective facts) and interpretations of the meaning (judgments).

STUDENT PRODUCTS AND PROJECTS  Teachers can have students achieve closure for their learning by completing a project. Sometimes this project can take the form of a specific product. Products include writing a eulogy for a famous person, developing a room layout, designing a complex machine composed of simple machines, creating a proposal for a new park facility, organizing a senior trip, writing a proposal for improving school safety on the playground, or writing a morning radio news report for the school. Displaying these products and using them to note the content and the skill acquisition implicit within each product is another excellent assessment device.

VIDEOTAPES/AUDIOTAPES  Teachers can use audiotapes and videotapes to record a student’s abilities in areas hard to document other ways. Teachers can also use video to record the process students use as they develop individual products. These tapes are excellent assessment tools that teachers can show to students and parents alike to exhibit what students know and can do. Tapes can provide a record of growth over time, such as a student giving a speech at the beginning and at the end of a year. The tapes can also show what students still need to learn.

RUBRICS  

In its simplest and most basic sense, a rubric is a scoring guide. Rubrics are often associated with performance assessments because, in evaluating a performance, it is important to clarify what aspects of the performance are expected at different levels. Rubrics enable assessors to focus on the important components of a performance. They also provide guidance to ensure that different assessors score in the same manner.

Rubrics can be analytic or holistic measures. Analytic means looking at each dimension of the performance and scoring each. Holistic refers to considering all
RELEVANT RESEARCH

A Case Study of Alternative Assessment: Student, Teacher, and Observer Perceptions in a Ninth-Grade Biology Classroom

STUDY PURPOSE/QUESTIONS: This single-site phenomenological case study at a suburban high school examined the perceptions of one teacher (Len) as well as his students, colleagues, and principal about alternative assessment strategies and associated phenomena in Len’s ninth-grade biology classroom. Researcher perceptions are also included. The primary focus of the research was to understand and make sense of the world in which Len existed and where he viewed what he considered more meaningful assessment activities as alternative assessments. The study’s intent was to contribute to the understanding of alternative assessment by providing detailed, in-depth analysis of how Len, a thirty-year biology teacher, implemented and perceived assessment.

STUDY DESIGN: This study was a qualitative descriptive case study using a phenomenological perspective that describes the world experienced by the participants in their own terms. Questions guiding the study were: (1) What happened in Len’s biology classroom as he used alternative assessment? (2) What were Len’s perceptions of alternative assessments? (3) How did students view Len’s assessment strategies? (4) What did students think were the primary determinants of their grades?

STUDY FINDINGS: Data were reduced from interview transcripts, observations, and documents into thematic perception generalizations of Len and the other participants toward alternative assessment. The resulting generalizations were as follows:

- Students felt that they did best when they worked in cooperative groups, took fewer tests, did projects, were active in class, and experienced less teacher talk.
- Students were more comfortable when the teacher evaluated them than when they evaluated themselves or each other.
- Len’s colleagues perceived alternative assessments as requiring too much time for the number of students they taught.
- Len’s principal had only limited knowledge about alternative science assessment but thought that her science teachers were “moving in the right direction.”

IMPLICATIONS: This study uncovered several problems inherent in alternative assessment. Len discovered that using interviews, observations, and projects as assessment tools required a great deal of extra time and energy. His colleagues remained skeptical about the value of alternative assessments; they were concerned about the time needed to implement and interpret them. Len also found that students did not appreciate the value of self-assessment techniques, which are at the heart of alternative assessment approaches.

The study also clarified positive elements in alternative assessments. Students noted that the collaboration activities that Len used throughout the assessment projects developed their personal understandings of the content. Len felt that he had a clearer, more detailed understanding of individual students’ achievement; he also noted that alternative assessment techniques provided insight into students’ dispositions and work ethic (aspects that national learning standards emphasize).

This study elucidates questions about the feasibility and use of alternative assessments. Given the heavy investment of time both during the school period and outside of school, is alternative assessment worth the cost? How do teachers who want to use alternative assessments deal with student resistance to self-assessment? Because alternative assessment is focused on clarifying what precisely students know and do not know, how can this descriptive information be translated into letter grades?

criterion simultaneously and making one overall evaluation. You might sum all the analytic scores for a total score, or you might have one holistic dimension within an analytic rubric to provide an overall impression score. By doing this, assessors can access the benefits of both analytic and holistic scoring procedures. Analytic scoring, of course, provides the most specific data for use as a diagnostic assessment; it also limits flexibility because the dimensions are prescribed ahead of time. Holistic scoring does not require specific dimensions to be assessed; as such, it provides more flexibility and allows an assessor to give credit for unexpected dimensions that may contribute to the overall success of a performance. However, holistic scoring provides less direction for students than analytic scoring does. Tables 12.1 and 12.2 are examples of analytic and holistic scoring rubrics.

**DESIGNING AUTHENTIC PERFORMANCE ASSESSMENTS**

There are three major areas to consider in developing authentic assessments for standards. First, a rich context needs to be designed, one that permits inquiry to occur. Second, it is important to fill the context with a wide variety of questions so that different types of thinking can occur. Finally, the critical indicators for learning need to be identified.

**SELECTING A PROPER CONTEXT** The first and most important step in developing authentic assessments is to structure some task that is complex enough to permit students to show important learning, that is motivating enough to en-

### TABLE 12.1 Analytic Trait Rubrics for Fifth-Grade Science Experiments

<table>
<thead>
<tr>
<th>Experiment Design</th>
<th>Scientific Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Design shows student has analyzed the problem and has independently designed and conducted a thoughtful experiment.</td>
<td>4 Pamphlet explained with convincing clarity the solution to the problem. Information from other sources or other experiments was used in explaining.</td>
</tr>
<tr>
<td>3 Design shows student grasps the basic idea of the scientific process by conducting experiment that controlled obvious variables.</td>
<td>3 Pamphlet showed that student understands the results and knows how to explain them.</td>
</tr>
<tr>
<td>2 Design shows student grasps basic idea of scientific process but needs some help in controlling obvious variables.</td>
<td>2 Pamphlet showed results of experiment. Conclusions reached were incomplete or were explained only after questioning.</td>
</tr>
<tr>
<td>1 Design shows student can conduct an experiment when given considerable help by the teacher.</td>
<td>1 Pamphlet showed results of the experiment. Conclusions drawn were lacking, incomplete, or confused.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data Collection</th>
<th>Verbal Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Data were collected and recorded in an orderly manner that accurately reflects the results of the experiment.</td>
<td>4 Speech presented a clearly defined point of view that can be supported by research. Audience interest was considered, as were gestures, voice, and eye contact.</td>
</tr>
<tr>
<td>3 Data were recorded in a manner that probably represents the results of the experiment.</td>
<td>3 Speech was prepared with some adult help but uses experiment’s result. Speech was logical and used gestures, voice, and eye contact to clarify meaning.</td>
</tr>
<tr>
<td>2 Data were recorded in a disorganized manner or only with teacher assistance.</td>
<td>2 Speech was given after active instruction from an adult. Some consideration was given to gestures, voice, and eye contact.</td>
</tr>
<tr>
<td>1 Data were recorded in an incomplete, haphazard manner or only after considerable teacher assistance.</td>
<td>1 Speech was given only after active instruction from an adult.</td>
</tr>
</tbody>
</table>

courage students to think, and that is rich enough with multiple opportunities to show how and what students have shaped into an understanding. Some writers call the structure of such a task the context. By context they mean the various activities, hands-on experiences, and questions that encourage learners to think and to show what they know.

Selecting the context for a performance of worth begins by considering the learning goals, standards, and outcomes of current and past instruction. It is critical that students be assessed on the intended goals and outcomes of their instruction and that the assessments are authentic—that is, that they match the instruction. Too often teachers assess one way but teach in another. Assessing by using paper-and-pencil, single-answer questions when instruction has been emphasizing inquiry is inappropriate. The reverse is also true. Assessing students in a hands-on inquiry mode when all instruction was lecture and reading/writing is equally improper.

In addition, the teacher needs to consider how the learning goals and standards relate to the lives and actions of scientists, writers, historians, and mathematicians. Consider what professionals do and how they use their different ways of knowing. Together, these considerations will often trigger ideas for the performance context.

To illustrate this way of determining a context, consider a curriculum that is filled with learning experiences focused on food chains, prey and predator relationships, and the balance of nature. How does this translate into a real-world context? Having students dissect owl pellets and analyze findings in light of the previous concepts provides one such context that is closely tied to the real world and to environmental issues. Like practicing scientists, students could be asked to investigate a set of owl pellets that have been collected from a specific area of the country. Students can apply what they know and use skills and thinking...
processes throughout the investigation. The assessment should provide students with opportunities to take measurements, make observations, and record observations about the owl pellets. Students can be asked to create data tables that summarize the types of prey that were consumed, make inferences and draw conclusions about food availability, and finally even answer direct questions about food chains.

**STUFFING THE CONTEXT WITH MULTIPLE OPPORTUNITIES** Once a context has been selected, it needs to be structured and filled with opportunities to show how and what students have learned. Asking students to display their cognitive abilities in as many ways as possible enhances the teacher’s understanding of students’ unique ways of knowing. This is where assessment tools are helpful. Observing students in action and recording these observations in a variety of ways are critical.

**ASKING DIFFERENT TYPES OF QUESTIONS** Teachers have long been aware that questioning is an important way to cue students to display their understanding. Research indicates that the types of questions students are asked determine the academic culture of a classroom. Questions that focus on a single aspect of knowing (knowledge or skills) limit the opportunities for showing understanding (the interactions of knowledge, skills, and habits of mind). Having a clearer picture of the multidimensionality of understanding (ways of knowing) directs teachers to ask a wide variety of questions. This is especially true during an assessment experience. Students should be asked many different types of questions within a rich, hands-on context. Table 12.3 presents examples of the variety of question types that allow students multiple opportunities to show their various ways of knowing.

**ASSESSING THE IMPORTANT ELEMENTS** Once students are engaged in a motivating inquiry, they will be better able to exhibit learning development. It is important that teachers focus on all aspects of learning when they examine student performance and not simply focus on those aspects that are easy to assess.

**TABLE 12.3** Examples of the Types of Questions That Encourage Students to Show Different Ways of Knowing

<table>
<thead>
<tr>
<th>Question Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis Questions</td>
<td>What are the key parts? Which parts are essential and why?</td>
</tr>
<tr>
<td>Comparison Questions</td>
<td>How are these alike? What specific characteristics are similar? How are they different? In what way(s) are they different?</td>
</tr>
<tr>
<td>Classification Questions</td>
<td>Into what groups could you organize these things? What are the rules for membership in each group? What are the defining characteristics of each group?</td>
</tr>
<tr>
<td>Connections Clarification Questions</td>
<td>What does this remind you of in another context? To what is this connected?</td>
</tr>
<tr>
<td>Constructing Support Questions</td>
<td>What data can you cite that support this conclusion? What is an argument that would support this claim?</td>
</tr>
<tr>
<td>Deduction Questions</td>
<td>On the basis of this rule, what would you deduce? What are the conditions that make this inevitable?</td>
</tr>
<tr>
<td>Inferring and Concluding Questions</td>
<td>On the basis of these data, what would you conclude? How likely is it that this will occur?</td>
</tr>
<tr>
<td>Abstracting Questions</td>
<td>What pattern underlies all these situations? What are the essential characteristics of this thing?</td>
</tr>
<tr>
<td>Error Analysis</td>
<td>How is this conclusion misleading? What does not match?</td>
</tr>
</tbody>
</table>
context is truly authentic, there should be ample opportunities for students to display what they know and can do across a variety of different standards:

- Knowledge and comprehension of concepts, application of concepts, and connection of concepts to real-world contexts
- Ability to solve problems and exercise thinking skills
- Ability to perform and apply process skills
- Ability to structure thinking
- Collaboration and other dispositions
- Communication and ability to modify ideas on the basis of new evidence

A rich assessment context allows students to display many of these components of understanding and skill. The art of assessing well includes identifying indicators—things that can be observed that relate to different aspects of some important standard. Identifying indicators in a performance task is much like acting as an X-ray: teachers need to notice what behaviors count and how successful ways of doing and knowing look. To do this, teachers need to step back from the performance, much like a physician, and identify those actions that are meaningful and, more important, the learning that those actions indicate. Once teachers develop lists of indicators, they can easily assess what a child knows and does not know. These lists can form the basis for assigning grades, discussing student progress, and making decisions about student needs.

Authentic assessment is both an art and a science. As an art, assessment is like the world of a play. Placing students in the proper context is like situating characters to play a particular role; once in this context, students cannot help but display the knowledge, thinking, and habits of mind they have developed. On the other hand, authentic assessment is also like a science in that the educator needs to meticulously identify and examine the important questions and other types of learning indicators that are important to the task.

As can be seen, authentic assessment is an attempt to make testing both in and out of the classroom more closely grounded in the context of student learning and less narrowly focused on a few aspects of what has been learned. Its very name implies trying to better determine what children have really learned.

PROFESSIONAL ASPECTS OF GOOD ASSESSMENTS

Thus far, we have examined the purposes and described a variety of the methods being applied to performance assessment. However, assessing student learning has more to it than the mechanics of constructing authentic tasks. Assessing student learning is an activity that influences and affects many people. Therefore, there are professional and ethical considerations. A number of very technical issues are also related to whether each assessment task is fair and truly assesses what was intended.

PRINCIPLES FOR HIGH-QUALITY ASSESSMENTS

Like other professionals who have knowledge that their clients do not have and whose actions and judgments affect their clients, classroom teachers are responsible for conducting themselves in an ethical manner. This responsibility is particularly important in education because, unlike other professions, students have no choice about whether they will or will not attend school. The following principles are keys to developing and using powerful and responsible assessments:

- Base assessments on standards for learning.
- Represent performances of understanding in authentic ways.
- Embed assessments in curriculum and instruction.
- Provide multiple forms of evidence about student learning.
- Evaluate standards without unnecessary standardization.
Involve local educators in designing and scoring assessments.
Let the innovators of the system lead.
Provide professional development that builds the capacity of teachers and schools to enact new teaching and assessment practices.
Judge school performance based on practices as well as longitudinal performance data for individuals.10

In addition, parents, students, and members of the community should join a variety of experts, teachers, and other educators in shaping the assessment system. Discussion of assessment purposes and methods should involve a wide range of people interested in education. Educators, schools, districts, and states should clearly and regularly discuss assessment system practices and student and program progress with students and their families. Examples of assessments and student work should be made available to parents and the community. Finally, assessment systems should be regularly evaluated and improved to ensure that they are beneficial to all students. Reviewers should include stakeholders in the education system and independent experts.

FAIRNESS
Some of the attractions of state tests are that they are standardized, perceived as objective, and inexpensive in comparison to performance assessments. One of the problems is that they ignore the lived experiences of many test takers, resulting in biases that give students from one group an advantage over another. Analyses of test items show that many of them are biased against students from low-income families. Basing assessments on a set of standards provides appropriate standardization. Performance assessments, unlike standardized tests, can take into account the variations in students’ learning contexts while still holding to the levels of achievement expected to meet standards.11

RELIABILITY AND VALIDITY OF ASSESSMENTS
Two critical aspects of any effort to assess student learning, whether the assessment items have been developed by an individual teacher or a national testing company, are reliability and validity. Each of these terms is regularly used in professional discussions; however, their meaning and implications might not be appreciated. The only way in which any assessment of student learning can be counted on to be fair is if each and every item is both valid and reliable.

Validity refers to whether the assessment item measures what it is intended to measure. All too frequently, test items do not measure what the test maker had in mind. For example, a history teacher could have a learning objective related to students being able to describe key social, economic, and political causes of the Civil War. If the teacher then uses a test item that asks students to describe the results of key battles during the Civil War, the test item would not be valid. It did not ask students to demonstrate what they had learned in relation to the stated learning objective. This is a simple and obvious example of an assessment item that is not valid. Problems related to validity are many and can be extremely complex. Still, it is essential that teachers

Communicating with all constituencies, including taxpayers, parents, and students, is an essential part of developing standards and having a shared understanding about assessment methods and the meaning of results.
make every effort in the construction of assessment items to make sure that what
students are being asked to do is closely aligned with the statement of standards
and learning objectives.

Reliability is an equally important technical aspect of having high-quality as-
sessments. Reliability has to do with the consistency of information about student
learning that results from repeated use of each assessment item or task. If two stu-
dents who have learned the same amount complete the same assessment, do they
receive identical scores? If they do, then the item has high reliability. If two stu-
dents with the same level of learning receive discrepant scores, then the item is
not consistent or reliable. Test makers often check for reliability of their items in
another way, called test–retest. In this approach to checking reliability, the same
student responds to the same test item after a carefully selected time interval, typ-
ically a week or two. Here too the reliability question is “How consistent are the
results from both administrations of the assessment?” If both assessments have
similar results, then the assessment is considered to be reliable.

ACCOUNTABILITY

Parents and policymakers in many areas of the country are holding their teach-
ers, schools, and school districts accountable for student learning as measured
on standardized tests. The federal legislation No Child Left Behind requires
schools to annually test all students in grades 3 through 8 on their achievement
of standards in math, reading, and science by 2008. Secondary students must be
tested at least once. One of the purposes is to provide feedback on student
learning to students, parents, and teachers. Data are publicly reported in district
and state report cards that show how students in local schools perform in com-
parison to students in other schools. The legislation allows parents to remove
their children from a local school that has been found in need of improvement
for two consecutive years and send them to a school at which students are
achieving at a higher level.

Student assessments can provide important information on whether school
programs are effective. One way of assessing the success of a school program is
through norm-referenced assessments, but these assessments are quite limited.
They measure only how well a group of students does on a standardized paper-
and-pencil task in comparison to other groups of students across the country. To
determine how well a program is doing, it is important to use multiple assess-
ments. For example, one additional way to assess a school program would be to
regularly gather information about how graduates are performing in the real
world. Information about how many students successfully graduate without being
retained could be another useful indicator. Having a broad array of assessment
data can enable school districts to take stock and redirect efforts such as changing
the types of instruction being used and the types of learning being emphasized.

TESTING UPS AND DOWNS

The nationwide movement toward standards, performance, and a variety of as-
sessment strategies is a good one, especially for teachers and their students. The
goals of teaching and learning are made clear, which then makes it easier for
teachers to know what to teach and how. Having standards certainly aids stu-
dents in understanding what is most important to learn. And having standards
helps teachers, schools, school districts, and states in determining the learning
outcomes that should be assessed. Still, as with any education initiative, the
standards movement has had a number of unintended consequences that need
to be considered. Several of the more important of these consequences with di-
rect impact on teachers and students in classrooms are discussed next.
In nearly every school, teachers and principals are under significant pressure to help their students do well on the tests. In high-stakes conditions, we can expect teachers and principals to invest considerable effort in helping their students do well on the tests. In nearly every school, we can expect teachers and principals to invest considerable effort in helping their students do well on the tests.

Over half the public supports the use of high-stakes testing, as shown in Figure 12.2. Public supports the use of high-stakes testing, as shown in Figure 12.2. Over half the public supports the use of high-stakes testing, as shown in Figure 12.2. For more information, visit AERA’s website at www.aera.net.

### TABLE 12.4 Criteria for High-Stakes Testing Practices

The American Educational Research Association’s (AERA) Public Policy Statement on High-Stakes Testing in PreK–12 Education, adopted in July 2000, provides twelve criteria, based on solid research, that state education leaders, local school leaders, parents, and others can use to assess the assessments. AERA states that every high-stakes testing program should ensure:

- Protection against high-stakes decisions based on a single test
- Adequate resources and opportunity to learn
- Validation for each separate intended use
- Full disclosure of likely negative consequences of high-stakes testing programs
- Alignment between the test and the curriculum
- Validity of passing scores and achievement levels
- Opportunities for meaningful remediation for examinees who fail high-stakes tests
- Appropriate attention to language differences among examinees
- Appropriate attention to students with disabilities
- Careful adherence to explicit rules for determining which students are to be tested
- Sufficient reliability for each intended use
- Ongoing evaluation of intended and unintended effects of high-stakes testing

For more information, visit AERA’s website at www.aera.net.

### HIGH-STAKES TESTING

As the focus on student performance has intensified, policymakers have mandated that students be tested annually. Testing of this type is called high stakes because of the consequences for the test taker or school once the test results are known. At a minimum, the student test results are compiled by schools and reported to the public. Schools are named and ranked in the newspaper, and sharp questions are asked about those schools that are not meeting adequate yearly progress.

Another way in which testing can be high stakes is through the assignment of rewards and sanctions. In a few states, “high-performing” schools receive additional funds. In some districts, teachers and/or principals receive salary bonuses if test scores improve. Some states provide rewards to high-performing schools, but much more likely is some sort of sanctioning of the low-performing schools. Over half the states and the District of Columbia identify schools as low performing. On the positive side, Kentucky and North Carolina provide assistance to schools that are “in need of improvement” by assigning an experienced master teacher or principal to work with the schools. In other cases, principals are reassigned and entire school staffs replaced. In states such as New Jersey, Massachusetts, and Ohio, an entire school district that is designated low performing can be taken over by the state. Criteria for high-stakes testing are listed in Table 12.4.

Tests can be high stakes for students and their future as well. Nineteen states now use standardized exams to determine graduation from high school, and five states use tests to decide student promotions. Nearly half the population thinks that about the right amount of testing is occurring in schools, as compared to 31 percent who think there is too much testing. Over half the public supports the use of high-stakes testing, as shown in Figure 12.2.

### PRESSURES TO CHEAT

In high-stakes conditions, we can expect teachers and principals to invest concerted effort in helping their students do well on the tests. In nearly every school, teachers and principals are under significant pressure to help their students do well on the tests. In high-stakes conditions, we can expect teachers and principals to invest considerable effort in helping their students do well on the tests. In nearly every school, teachers and principals are under significant pressure to help their students do well on the tests.
and classroom, teachers stop their regular instruction for a week or more to help students prepare for the test. These preparations can be as practical as practicing answering multiple-choice questions and reviewing what has been taught during the year. The problem arises when teachers—and in some cases principals—help their students cheat. Cheating ranges from telling students how to answer specific test items to teachers, principals, and school district administrators actually changing students’ responses on individual tests. In other instances, schools have encouraged some students, such as those with learning disabilities, to stay at home on the day of testing.

TEACHING TO THE TEST

A related issue has to do with balancing the time teachers spend on topics that are likely to be on the test versus instructional time spent on the rest of the curriculum. About two-thirds of teachers indicate that their instruction is too focused on content that will be tested, to the detriment of covering other material. Almost 80 percent of teachers report that they teach test-taking skills to students, reducing the amount of time to teach the content itself.

Any single test is bound to sample a very limited part of what students learn. Also, state tests might have little overlap with the various sets of content standards and the emphasis in district curriculum materials. Time spent on preparing for high-stakes tests reduces the time available to teach related material and other subjects, such as the performing arts, that are not being tested or for which the stakes are not as high. Teaching to the test also often means that the development of critical-thinking and higher-order thinking skills is neglected. If the whole of the district curriculum is aligned with state standards, then those students whose instruction covers more of the standards should perform better on the tests.

ONE-SIZE-FITS-ALL

Another critical issue related to the heavy focus on testing is the assumption that the same test is appropriate for all students, schools, and states. Historically, in the U.S. system of education heavy emphasis has been placed on the importance of attending to individual differences and emphasizing that all students do not develop at the same rate. Now policymakers are mandating that one test be given to all students at a certain grade level at a specified time—in other words, one-size-fits-all. No matter what the uniqueness of individuals might be, all are to take the same relatively narrow test, and major decisions about individual students and/or schools are based on the test results. Academically able students take the same test that poor urban students take. This practice undermines the credibility of the test and its results and clearly disadvantages some students and schools.

THE THREAT OF A NATIONAL EXAM

A growing concern of some people is that the practice of many states using the same tests is just one step away from a national exam, which will lead shortly thereafter to a national curriculum. This is the one-size-fits-all concern taken to the extreme. Others believe that there already is a national curriculum and that national requirements are appropriate. A key target of this perspective is the National Assessment of Educational Progress (NAEP), which is administered each year to students in a sample of schools in each state. One of its purposes is to make it possible for policymakers and educators to view nationally how well students are doing. Comparisons then are made with student achievement in other countries, and most assuredly comparisons are made from state to state in this country. NAEP is designed to make inferences about student achievement.
PROFESSIONAL DILEMMA

What Is the Proper Way to Prepare for High-Stakes, State-Mandated Tests?

Schools across the country are now required to administer state assessments linked to learning standards. The assessments tend to be paper-and-pencil, multiple-choice examinations of reading, mathematics, science, social studies, and writing. The assessments are given annually to students in grades 3–8. Teachers within these targeted grade levels are required to interrupt their regular school instruction to administer these state examinations.

The state-mandated assessments are comprehensive in nature; that is, they cover a wide variety of topics that relate to the state standards. This often poses a dilemma for teachers who instruct at one of the targeted grade levels. Students in their classrooms might show that they have not had proper instruction in one or more aspects of the state content. This can and does occur because the district curriculum might not fully represent state standards, because individual students do not develop at the same pace, or because students transfer from school districts that have diverse curricula.

What can or should a teacher at a targeted grade level do to assist students on these state examinations? Some teachers attempt to teach to the test. That is, they try to get sample test items, and they clarify what was on the prior year’s examination. These teachers may even develop teacher-made test questions that mimic the state examination and require students to practice taking these preparation tests. In some states, practice tests can be purchased from private publishing companies. Teachers who teach to the test in this way are sometimes criticized because they take time out of the regular school curriculum. They are also criticized because some educators consider teaching to the test to be improper.

Other teachers do not try to teach to the test, but they do have students practice test-taking techniques. They teach students strategies that could assist them in taking any standardized multiple-choice examination. They too take time out of the normal curriculum, but these teachers contend that the acquisition of such test-taking skills assists in all areas of learning.

A third group of educators refuse to do any test preparation other than to teach the required curriculum for their grade level. These educators believe that state tests should not affect the normal instructional process. If students do not perform well, then the curriculum should be officially changed.

- What will you do if you are teaching in one of these target grade levels?
- Should you teach to the test?
- Should you teach test-taking techniques?
- Should you ignore the test and simply follow the normal curriculum?
- What approach can you defend as the proper one?

To answer these questions on-line and e-mail your answers to your professor, go to Chapter 12 of the companion website (www.ablongman.com/johnson13e) and click on Professional Dilemma.

within states. It is not designed to make judgments about individual students or schools. Unfortunately, although NAEP has existed for several decades and its findings are very useful, school districts and schools are increasingly unwilling to participate owing to the mounting pressure and time demands of the many other required tests.

GLOBAL PERSPECTIVES

Assessment of Student Learning across Nations

National assessment is not limited to the United States; it is a worldwide phenomenon that has blossomed over the past decade. Participants in the World Education Forum adopted a World Declaration on Education for All in Jomtien, Thailand, in 1990 and ratified the declaration in Dakar, Senegal, in 2000. The declaration recognized that periodic student assessments make a valuable contribution toward the improvement of educational quality. Many countries con-
sider academic achievement as pivotal in establishing a highly qualified labor force that attracts foreign capital and allows them to be competitive in the global marketplace.  

To promote these efforts, the World Bank, Inter-American Development Bank, United Nations Educational, Scientific, and Cultural Organization (UNESCO), and the U.S. Agency for International Development (AID) have invested in the design and implementation of national assessments.

What assessments are required in other countries? England has a national examination for students at ages seven, eleven, fourteen, and sixteen that measures the effectiveness of schools in delivering the national curriculum. Schools in England set targets for student growth. France conducts national assessments at grades 3, 6, and 9 for diagnostic and planning purposes. The tests at the end of grade 9 and the end of high school measure student achievement.

National examinations in Hong Kong dictate instruction in schools. China views its National College Entrance Examination as critical to the nation’s development. Much of the population sees the national test as providing opportunities for the oppressed to achieve an elite education. The only national test in Japan is for college entrance. However, Japanese students take other high-stakes tests to gain admission to high schools.

Students in Argentina are tested annually in grades 3, 6, 7, 9, and 12 in mathematics, language, science, and social studies. All twelfth graders are tested, but testing at the other grades is conducted through a sampling process. Chile assesses all students in grades 4 and 8 in language and mathematics, and samples 10 percent of the students in natural sciences, history, and geography. Uruguay tests students in mathematics and language in grades 3, 6, and 9. Each of these three South American countries compiles data on the school and family socioeconomic conditions of test takers and develops individualized school reports. Argentina and Chile have disseminated test results publicly for nearly a decade.

INCREASED TEACHER BURDEN

As exciting and important as the new approaches to assessment are, one of the downsides is the increased work for teachers. Developing more authentic tasks takes more time than does constructing multiple-choice and true/false test items. Deriving scoring devices for authentic tasks is added work too. Holistic scoring entails first developing a scoring rubric and then examining each student’s response in sufficient detail to be able to determine a total score. The load on teachers becomes even heavier in secondary schools because each teacher has contact with more students. One of the important solutions to the risk of an increased burden is for teachers within a school or school district to collaborate in the development of assessment tasks. There also is national sharing of assessment items through discipline-based professional associations and various chat rooms on the web. A related key for individual teachers is to keep in mind that many of the traditional activities that teachers have been doing to assess student learning, such as noting their performance in laboratories and in the field, have become more legitimate with the move to authentic assessment.

EQUITY WITHIN ACCOUNTABILITY

No Child Left Behind expects schools to help all students meet standards at defined proficiency levels regardless of their socioeconomic status, ethnicity, race, first language, disability, migrant status, or gender. In fact, performance by students from each of these groups must be reported on the school’s and district’s annual report card. Thus, teachers are held responsible for helping all students learn as reflected on a single assessment—the state content test. Meeting this goal will be more difficult in some settings than others, especially when resources are limited or nonexistent for providing students with the facilities and support

There’s something wrong with imposing universal standards on a state or nation until, prior to that time, we have given the children genuinely equal resources. The way it is being done today is invidious, punitive, and humiliating.

Jonathan Kozol
Students with disabilities, their parents, and their advocates have been fighting for years for inclusion in classrooms and fairness in all aspects of the educational process. One area that continues to be debated is the treatment of students with disabilities in a high-stakes environment. This debate explores the question of whether students with disabilities should be exempted from the graduation tests, which may give them access to jobs and higher education.

Special educators are trained to look at the whole child and make decisions based on individual needs. I feel that I must qualify my “yes” answer by rephrasing the question to read, “Should some special needs students be exempt from taking graduation tests?”

I don’t believe students should be routinely exempted, but I do believe that only the experts who participate on a student’s Child Study Team should make that decision. As long as bureaucrats and politicians can mandate that all students take a single test to graduate, a team’s ability to exempt a student from such testing is compromised.

If special needs students are lumped together with nondisabled peers and required to take high-stakes tests without procedural safeguards, I have grave concerns about fairness.

These concerns center around how special needs students are identified and tracked, what accommodations for them are made, and whether a single indicator is relied on for an assessment.

The referral process for identifying special education students always involves the use of multiple indicators. Tests, observations, psychological reports, student work samples, parent and teacher interviews, and many other tools are used to identify, describe, and provide necessary to promote learning at a high level and providing teachers the necessary professional development. Nevertheless, it is a goal worth achieving.

A continuing point of criticism about these traditional tests is that they do not address or accommodate the diversity of students in today’s classrooms. Each student brings a unique set of background experiences, prior knowledge, and cultural perspectives to learning. Asking all students to show what they know on a narrow standardized test is a very real problem.

The question is not whether special needs students should be exempt from taking graduation tests. The real question is whether students should be required to take tests that do not include appropriate accommodations. The answer is no.

As states and locals move toward higher standards and expectations, it’s critical to include students with special needs. For many years special ed was viewed as an adjunct program that was trying to “mainstream” such students into the general ed environment. Access to the curriculum was an afterthought.

Under IDEA ’97, the emphasis is not just on access to the school but access to the curriculum as well, and, with it, recognition of student effort. We now expect that, with appropriate accommodations, students can complete the core curriculum.

Many states and locals currently acknowledge the different learning needs of all students and make accommodations through the IEP process. Schools recognize student strengths and weaknesses and allow for measures of what a student knows and not what they do not. Should a standard exit exam do the same?

I posed this question to a group of secondary learning disabled students to get their impressions. Their response:
The gap between the test scores of white students and most students of color remains wide. The data collected from the fifty states and the District of Columbia for Education Week’s Annual Quality Counts 2003 showed that the achievement gap between white and black or Latino students in twenty-five states on the NAEP eighth-grade math test was 20 percentage points or more.20

Ironically, many researchers have found that state tests are much better determiners of the family’s socioeconomic level than of academic ability. Students

### Debate

#### Yes

information about disabilities that may be affecting a student’s performance.

After identification, appropriate individual accommodations, supports, and adaptations are developed to modify instruction, allowing for as much success as possible. When tests are used in the classroom, they are often modified in ways consistent with a student’s IEP and list of appropriate accommodations.

It’s understood that the nature of a student’s disability might not allow that student to demonstrate mastery of concepts the way other students do. Why isn’t it understood that graduation tests require the same modification?

I believe that holding all students accountable to high graduation standards is certainly important and necessary. But test designers often fail to consider the possible disabilities of students taking the graduation tests. They construct the test items with standards in mind, but do they think about what kinds of students must take the test?

What about students who have visual or motor problems that interfere with their ability to quickly process and respond to information? Will the test come in a format that allows it to be untimed for these students?

Can the test be broken into segments or must it be taken in one massive block? Will there be enlarged print or Braille versions?

It’s extremely difficult for test makers to anticipate the wide variety of accommodations that may be required, which returns us to the concept of considering special needs students on an individual, case-by-case basis.

Ultimately, I think, we may need to develop criteria for creating a “body of evidence” that assesses student mastery. My overriding concern is that special needs students be treated fairly. To do anything less is simply discriminatory and unfair.

#### No

response was intriguing. The feeling was unanimous that they should be required to take an exit exam. They are eager to show what they have accomplished.

But these students were perplexed about why the core classes required to graduate could be modified but not the tests that would measure their success.

As one student put it: “I am good at some things and not others, but how would anyone know?”

The question is valid. What other people may know or perceive is extremely important. If students are not awarded diplomas, what do they receive?

If the purpose of a diploma is to demonstrate a student has successfully completed the required course of study, anything less sends a message of failure the student will carry for life.

“All potential employers are going to think is that I did not make the grade,” one student told me. “They won’t know how hard I worked, what I did learn, or what I can still learn. For the rest of my life, my application will say I couldn’t do it. That just isn’t fair.”

Many would argue that making accommodations creates an unequal playing field. But equal is not the issue. Equal is when every student gets the same thing. Fair is when all students get what they need.

The national demand for high standards and accountability is appropriate for all students. But it’s patently unfair not to make the accommodations that will enable students with special needs to demonstrate their abilities.

Would we not make accommodations for a student in a wheelchair? A disability is a disability.

For many students, gaining a high school diploma is a major life goal. As educators, we are the keys that open doors to opportunity and dreams. We must leave the door open for all students.


### What Do You Think?

Should special needs students be exempt from graduation tests?

To give your opinion, go to Chapter 12 of the companion website (www.ablongman.com/johnson13e) and click on Debate.
standards can be used to make school curricula more alike. Critics also believe that all students can learn and that highly qualified teachers are essential, but they worry about the use of a single standardized test rather than multiple assessments to determine whether a student can be promoted or graduate. They also question the ability of schools, especially in high-poverty areas, to raise test scores without intensive professional development of teachers, reduction of student-to-teacher ratios, greater involvement of parents, and more stimulating curriculum and instruction—all areas that require financial resources that are not usually available in communities with the greatest need.

These issues become even more glaring for students who are English language learners and those with special needs and learning disabilities. State assessments usually allow for exemptions from taking the test for some students and require appropriate accommodations for others. Often, simply changing the way in which learning is assessed can provide significant new opportunities for these students to demonstrate their knowledge and skills against a set of standards.

**SUMMARY**

Standards, assessments, and standards-based education are core components of the standards movement and are affecting everyone who has a stake in education. One of the dilemmas related to standards includes the varying conceptions of standards endorsed by different groups. Standards can be used to make school curricula more alike. They can provide a set of uniform expectations by grade level that all students must meet before progressing to the next grade. They can also be used to compare the performance of students across schools and groups of students.

Three types of standards have emerged based on the different conceptions and uses of standards: content standards, which focus on student achievement of subject matter and school curricula; performance standards, which focus on teacher and student accomplishments; and delivery or opportunity-to-learn standards, which focus on resources and support for schools. Each of these types of standards ultimately focuses on developing student achievement.

Standards and assessments are being used to hold schools and school districts accountable for student learning. Assessments that are integrated into a standards-based program need to be multiple and varied. Authentic contextualized assessments provide opportunities for students to show what they know and are able to do within and across a number of different disciplines. However, standardized tests are the most prominent assessment used by states and the federal government to make public the performance of students within a school.

**DISCUSSION QUESTIONS**

1. Standards have now been developed for the subjects taught in P–12 schools. What are the core knowledge, performances, and dispositions in the standards that you will be expected to implement in the subject(s) that you plan to teach at the grade level in which you plan to work (for example, early childhood, elementary, middle level, or high school)? How reasonable is it to expect you to ensure that students meet these standards by the time they finish a school year?

2. States are being required by No Child Left Behind to develop standards for different grade levels. What benefits and problems are inherent in developing a common set of standards for all students across a state?

3. Standards-based education calls for the use of performance assessments in determining whether students meet standards. How could student portfolios be used to show what students have learned? What problems might such assessments cause?
4. How fair is it to demand that all students, no matter what their ability or socioeconomic status, master a common set of learning standards before obtaining a diploma? In what cases do you think students should be exempt from testing requirements for graduation?

5. What do you see as your role as a teacher in a standards-based education classroom? What professional development will you need as a new teacher in order to implement standards-based curriculum and performance assessments in your classroom?

**Journal Entries**

1. Consider the types of assessments that have been used throughout your college studies. Select one assessment experience that you have found to be especially helpful in displaying what you believe you really know and can do. Describe the assessment, and then list what characteristics of the assessment enabled you to express your understanding.

2. Obtain a copy of your state’s learning standards for one discipline. Examine the framework in which the standards are described. Do they have related goals, benchmarks, or other dimensions? Focus on one standard and identify all of the components that relate to that learning standard. In your journal, draw a diagram or create a mind map or concept map that shows the interrelationships of all the supporting pieces that surround the standard.

3. Standards-based education and new approaches to assessing learning are being applied in higher education, especially in teacher education programs. The same ideas apply in both P–12 and higher education settings. In what courses have you seen standards-based education reflected? In what ways? How would you compare the effectiveness of a standards-based approach to a traditional approach to teaching and learning?

**Portfolio Development**

1. Authentic assessments attempt to provide students with opportunities to show what they know and can do within a real-world setting. Within your major subject area, develop an authentic assessment that would enable students to demonstrate what they have learned in relation to one of the national standards.

2. Use the library, the web, or a faculty member to search out information about the activities in one school district regarding their use of standards and their assessment of learning related to those standards. Look closely at the standards and assessments for your planned teaching area. Develop a page of notes about what you would say in a job interview related to their use of standards-based education. Also note three or four questions for which you would need to find additional information or develop better understanding before you went to the interview.

**Preparing for Certification**

**Standards and Assessment**

1. Two topics in the Praxis II Principles of Teaching and Learning (PLT) test relate to this chapter: “monitoring students’ understanding of content through a variety of means” and “reflecting on the extent to which learning goals were met.” In this chapter, you learned about the importance of the standards movement in establishing curriculum goals and assessing student learning. Learn more about the national standards for the subjects and grade levels you plan to teach. What goals for learning are contained in those standards? What are a variety of ways in which you might assess those goals?

2. Answer the following multiple-choice question, which is similar to items in Praxis and other state certification tests. If you are unsure of the answer, reread the Assessments: The Other Side of Standards section of this chapter.

   Mr. Harding has just completed a unit on sonnets. To assess students’ understanding of the structure of sonnets, he constructed a quiz of ten poems and asked students which poems were sonnets. He expected students to be able to classify the poems with at least 80 percent accuracy.

   This assessment is an example of
   
   (A) norm-referenced assessment
   (B) criterion-referenced assessment
   (C) authentic assessment
   (D) summative assessment

3. Answer the following short-answer question, which is similar to items in Praxis and other state certification tests. After you’ve completed your written response,


popham, w. james. (2001). the truth about testing: an educator’s call to action. alexandria, va: association for supervision and curriculum development. a critique of the tests being used by states for high-stakes testing programs. guidelines are included to help teachers use tests for instructional benefits.

sacks, peter. (1999). standardized minds: the high price of america’s testing culture and what we can do to change it. cambridge, ma: perseus books. a critique of standardized testing and its negative impact on teaching and learning, especially for students from low-income families.

symcox, linda. (2002). whose history? the struggle for national standards in american classrooms. new york: teachers college press. a discussion and analysis of the drafting of the history standards, the controversy, and their subsequent rejection by congress. the analysis provides valuable insights into how decisions are made about the history to be taught in schools and about developing national content standards.

use the scoring guide in the test at a glance materials to assess your response. can you revise your response to improve your score?

reread the education in the news feature at the beginning of the chapter, which reports that some school districts in massachusetts are holding back more ninth-grade students to better prepare them to pass the state’s mcas test, a requirement for graduation. next, complete the following task.

you are a ninth-grade teacher in a school district that is proposing a policy to retain students at the ninth-grade level if they clearly will be unable to pass the state test in the tenth grade. your school principal is interviewing all the ninth-grade teachers to get their opinions of this proposed policy. what will you tell the principal? take a position for or against the policy and provide your reasons for the position you take.
6. Ibid.
7. Ibid.
8. Ibid.
11. Ibid.
13. Ibid., p. 76.
18. Ibid.