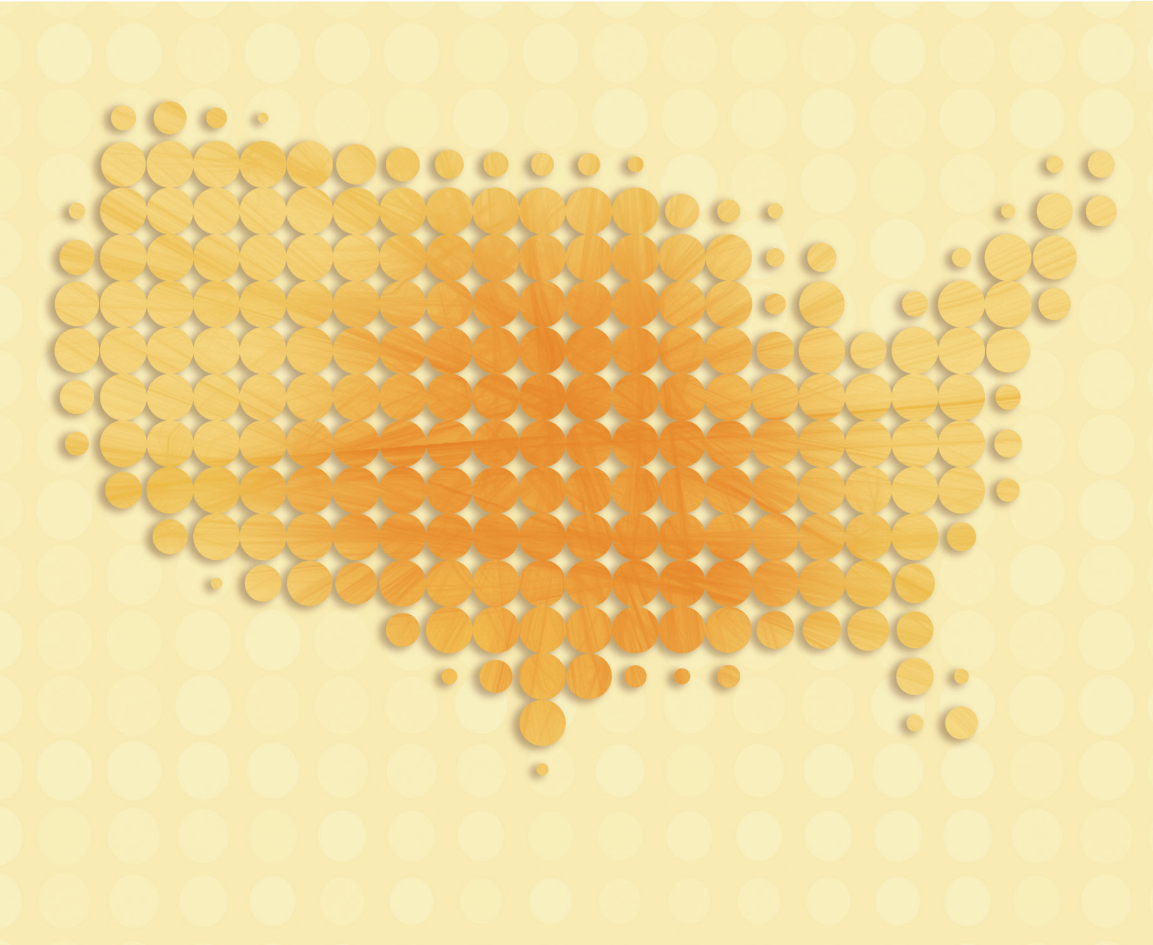
John Kendall

Understanding Common Core State Standards



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1

The Common Core Standards in Context

In the spring of 2009, in an effort unprecedented in the history of U.S. education, governors and state commissioners of education from across the United States formed the Common Core State Standards Initiative (CCSSI). The goal of this initiative? To develop a set of shared national standards ensuring that students in every state are held to the same level of expectations that students in the world's highest-performing countries are, and that they gain the knowledge and skills that will prepare them for success in postsecondary education and in the global arena.

The Council of Chief State School Officers and the National Governors Association committed to this work with representatives from 48 states, 2 territories, and the District of Columbia. The task engaged the talents and expertise of educators, content specialists, researchers, community groups, and national organizations, including an advisory group of experts from Achieve, ACT, the College Board, the National Association of State Boards of Education, and the State Higher Education Executive Officers. The subject-area organizations, including the National Council of Teachers of English (NCTE) and the National Council of Teachers of Mathematics (NCTM), were not asked to help draft or provide feedback to early drafts of the standards but were invited to critique drafts of the Common Core standards prior to their release

for public comment. In addition, the draft standards were informed by feedback from teachers, parents, business leaders, and the general public.

June 2010 saw the publication of *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects* (CCSSE/L) and *Common Core State Standards for Mathematics* (CCSSM). Efforts are also under way to develop state-shared standards in science and social studies. A committee selected by the National Research Council is currently crafting a conceptual framework to guide the development of standards in science, an effort funded by the Carnegie Corporation. The National Council for the Social Studies is part of a coalition of 18 states and 15 professional organizations that have started work on a conceptual framework and criteria for a set of interdisciplinary standards.

In some respects, this effort came as a surprise. Education curricula in the United States have long been controlled at the state and local levels. Yet the Common Core can also be seen as a natural product of the standards-based education movement of the last 20 years. Without having experienced the standards movement, it is improbable that so many states—as of now, 43, plus Washington, D.C., and Puerto Rico—would sign on to such a great enterprise. The fact that the voices arguing against adoption of the Common Core standards do not reject the *idea* of common standards but, rather, argue that their own standards are better, stands as a testament to the significant inroads the standards movement has made in public schooling. It appears that the debate over the merits of establishing common standards is over. It is no longer considered acceptable that students in different states are learning at different levels.

Where It All Began: Standards-Based Education in the United States

Before we move on to discuss the details of the Common Core standards, we would be wise to place them in context by examining the

history of the standards-based education movement—and why it has experienced only limited success. Figure 1.1 outlines some noteworthy differences among the Common Core approach, standards-based education, and the general character of education prior to the standards-based education movement.

To fully understand the Common Core, it is necessary to understand how standards-based education transformed K–12 education in the United States. In the early 1990s, working with researcher Robert Marzano as a consultant, I observed teachers from a local school district discuss the new idea of establishing districtwide standards. Back then, as now, it was typical for districts to be ahead of the curve; they could move with greater alacrity than the states and were eager to understand how standards might affect curriculum and instruction. The leaders in this district had created an atmosphere that encouraged thoughtful, open discussion. A few wise old owls in the room, ready to educate the younger set, enlightened us to the fact that we were looking at just another fad in education—one that would have its day and be gone. For these veterans, the key question was how to conserve their energy and tack into the storm in a way that would not leave them exhausted and waterlogged when it was all over. Other teachers, who viewed their work in the classroom as an eclectic mix of the best ideas that zipped through these workshops, pushed the discussion forward to glean from it whatever nuggets they might carry away. For them, too, the reform effort was simply a local, temporary phenomenon.

But some teachers were quick to see why this idea should not be another three-year buzz and fizzle. First, the effectiveness of standards-based education depended heavily on the school as a system of learning with students as its focus. It couldn't survive if teachers remained autocratic, using what they liked in the textbook and ignoring what they didn't. This systemic approach appealed to teachers who believed that their jobs were made more difficult by colleagues who taught only what they liked to teach rather than what students really needed. Second, the national subject-area organizations, bent on ensuring that the essential

Figure 1.1

A Comparison of Education Before Standards-Based Education, During the Standards Movement, and Under the Common Core

	Before Standards-Based Education	**During the Standards Movement**	**Under the Common Core**
Appropriateness of expectations to instructional time available	Time available = time needed.	Varies by state; no explicit design criteria. Often, not enough instructional time available to address all standards.	Standards are designed to require 85 percent of instructional time available.
Curriculum support	Curriculum is defined by the textbook.	Standards drive the curriculum, but curriculum development lags behind standards development.	Standards publication is followed quickly by curriculum development.
Methods of describing student outcomes	Seat time; Carnegie units (emphasis on inputs over outcomes).	State standards; criterion-based.	Cross-state standards; consortia of states.
Source of expectations for students	The expectations in textbooks or those described in Carnegie units; historical, traditional influences.	Varies by state; over time, moved from traditional course descriptions to college- and career-ready criteria.	The knowledge and skills required to be college- and career-ready; international benchmarks; state standards.
Primary assessment purposes	Infrequent comparison of students against a national sample; minimum competency tests in the 1970s.	Accountability; to clarify student performance by subgroup (NCLB).	Accountability; to inform and improve teaching and learning.
Systemic nature of reform	Not systemic; reform is enacted through programs at the school or district level.	Reform varies by state and within states. Some are tightly aligned; "local control" states are much less systemic.	Standards, curriculum, and assessment are shared among participating states and territories.

concepts and skills of their disciplines were a part of every curriculum, emphasized the importance of agreeing on what all students should learn. Educators continued to generate greater potency for the standards movement as they asked themselves, "How much more effective

could we be if we deliberately identified exactly what students need to learn during each step of their schooling?" Finally, state departments of education began to turn the system, however ponderously, taking standards as true north and aligning policy and reform efforts to help schools and districts reach shared goals for students.

It was easy to see the advantage afforded by standards: if we could agree on a set of standards for each grade level, then students would start each school year better prepared to learn. As some teachers saw it, standards formed the basis of a social contract with their colleagues. If everyone could see what the expectations were, the responsibilities of each teacher would be clear. Some feared their loss of control over the curriculum, characterizing their resistance to standards as concern for losing the freedom required for the art of teaching. Certainly lost was a level of autonomy—the freedom for each teacher to do whatever he or she deemed best without knowing whether or not it clearly served students' futures.

The Drawbacks of State Standards

The Common Core standards are indebted to the standards-based movement and its accomplishments. But just as important, the Common Core also reflects lessons learned. In the next few sections, I discuss the flaws of standards-based education and the challenges it presents to date.

Too Many Standards

The National Council of Teachers of Mathematics effectively initiated the standards-based movement with the publication of its mathematics standards in 1989, a work that implicitly argued that it was educators, not textbook or assessment publishers, who were best equipped to identify what students should know and be able to do. Other subject-area groups with a predominant teacher membership quickly endorsed this view and began to publish their own drafts. Funds for these efforts became available not long after an Education Summit was held that

same year, during which President George H. W. Bush and the nation's governors set forth ambitious education goals, including student competency across the subject areas.

The definition of a standard, including its scope and specificity, varied from one group to the next. But the groups had at least one thing in common: the amount of content they identified as important for student mastery staked significant claims on the school day. Over time, the publication of standards in each subject area effectively delegitimized textbooks as the basis for curriculum in the United States. This result had a further consequence, likely unintended, of weakening local school boards, whose authority over the curriculum had been exercised largely through textbook selection. Departments of education, often directed by state legislation, began the process of developing state standards in mathematics, language arts, and science. Eventually, most states established standards for every subject area. Relying in large part on the foundational work of the national subject-area groups and having little research to counterbalance the groups' claims, the states tended to accept too many standards from each discipline—often, more than could be realistically addressed in the instructional time available. Ironically, this situation meant that teachers were once again the final arbiters of what students would learn: they had to either select what to teach and what to ignore or race through all the standards ineffectively.

Too Little Curriculum

Prior to the standards movement, the textbook largely defined what students should learn. The textbook *was* the curriculum. But when standards began defining what students should learn, a sudden vacuum in curriculum support became apparent. Standards were out in the front, while curriculum built to support these standards trailed behind. This lag crippled districts' and schools' attempts to implement standards-based instruction and has been counted by many as the single greatest failing of the standards movement. The fact that each state developed its own standards and then created high-stakes assessments aligned to

them put a premium on curriculum and instructional materials that targeted the specifics within a state standard. This state-by-state specificity rendered sharing resources across states problematic. Publishers, to meet the sudden demand, became notorious for quickly producing customized versions of each textbook series for state standards, although many suspected that it was only the ad copy that had changed.

The Direct Implications of These Drawbacks: A Scenario

Here's a scenario depicting how standards-based education can inadvertently hurt schools and students. Imagine that you're a teacher in a classroom anywhere in the United States. The 2000 U.S. Census found that up to 18 percent of school-age children had moved in the previous year (U.S. Census Bureau, 2001); research also shows that the rate of school mobility over a two- to three-year period commonly exceeds 30 percent (Reynolds, Chen, & Herbers, 2009). That means if you're teaching mathematics to 30 4th graders, you may have no idea what 5 or more of your students know about fractions or decimals. They might not be ready to learn what you have to teach, or they might already know it well. Some studies (Burkam, Lee, & Dwyer, 2009; Rumberger, 2003) show that the greater the number of new students in your class, the more your continuing students will suffer. Why? Because your commitment to helping students means that you will invest much of your time and attention to learning what your new students know and don't know.

Even if the "regular" students in your classroom had last year's class just down the hall from you, how confident can you be that they are prepared to learn what you have to teach? It depends on several factors: the state you're in (geographically speaking) and how well the state designed the standards for the previous grade; how strongly your district supports the standards through aligned curriculum and assessment; and, finally, your school and its culture, and whether your colleagues have the commitment and resources to ensure that students leave their classrooms ready to move on to yours.

You and your colleagues may fully believe in developing an agreement on what students should know before heading to the next grade but may be hindered by practical issues. For example, does the instructional day include as much time as the standards require? Does your school have effective interventions in place to help struggling students? Are the standards too ambitious, and do they demand more attention than your time allows? Or are they so generally written that you can't know for certain whether or not you've reached their stated goals? Have too many hours been spent on other, more frequently tested subjects, encouraging schoolwide tunnel vision?

Now, let's say you're teaching a 5th grade class irregular verbs (a subject without which no student, in however free a society, should be able to escape elementary school), and you don't like the approach your textbook or curriculum guide takes. "Someone *somewhere* must have come up with a great idea that works," you think. Yet once you've begun to search the Internet, you find that most lessons are tied to other state standards that address the question in earlier or later grades and are therefore designed for different sets of skills than the ones you need to address with your students. Disappointed, you realize that there aren't any customized resources made for you, or at least for what you're tasked with teaching. You have no option but to rummage through your desk drawer for a previously used lesson and do your best to reconstruct it. You wonder to yourself, "Wouldn't it make more sense to share great lesson plans?"

Finally, think back to those five students in your hypothetical class who are new to the school. Some of them may have moved from another state. Are their families hoping for continuity between state school systems? Too bad. It's not even remotely likely that a student will continue where he or she left off. In some states, students will experience this disparity just moving from one district to another. From a student's point of view, this scenario doesn't make sense. More to the point, it's just not fair that the degree to which a student is prepared for the next class or grade should be a matter of geography.

Current Solutions Fall Short

Teachers tackle problems like these every day, and naturally, some of their solutions are less elegant than others. For example, they may use quick tests to diagnose where their students are in relation to the standards, but these assessments, like the standards, may be meaningful only for their district or school.

Let's say a district actually recognizes that the state standards are too voluminous or too vague or do not provide direction where it matters most: identifying, grade by grade, what students need to learn. If this district doesn't improve on the standards, then a teacher's only recourse is to select from among the standards that seem to make sense. But will every teacher's decisions be wise? Will each teacher make choices that prepare students to succeed in next year's classroom? What if, instead, a school collectively asks teachers to select their "favorite" 50 percent of the state standards to teach, as was recently recommended by a best-selling education consultant (Schmoker, 2011)? Such an approach seems democratic on the surface but is really the work of an oligarchy because the standards apply only to the teachers and students in this school, ignoring the larger community beyond. Other schools, led by a few teachers in other districts, may distribute the standards totally differently. None of these is a viable solution. When learning goals are developed from teacher preferences rather than from the perspective of students' learning progress, the best paths are lost.

A Promising Alternative

As an educator, you ultimately don't contribute so much time and effort to your students just to help them do well in your class; you are also preparing them to succeed in life. So it's frustrating to know that so many students leave high school unprepared to succeed in higher education or a career. Each year, the amount of remediation that students need in their first year of postsecondary education grows. Between 1995 and 2000, the proportion of institutions reporting an average of one year of

remediation needed for students upon college entry increased from 28 percent to 35 percent, while the proportion of institutions indicating that students needed less than one year of remediation declined from 67 percent to 60 percent (Parsad & Lewis, 2003). How can a system that identifies the knowledge and skills that students must acquire each year, kindergarten through 12th grade, somehow fail to determine what these students actually need to succeed? If the hallmark of a standards-based education is that it provides a systematic method for identifying and delivering crucial knowledge and skills through the grades, how is it that, at the end of the process, students end up needing a remedial course?

This situation is one reason the Common Core standards were developed. The Common Core provides an established set of standards whose mastery will provide each student with the skill and knowledge to advance in study, whether as a master craftsman, a biochemist, or a pioneer in a field that has yet to emerge. And for the immediate future, you know what your students need to learn to succeed in the next grade or course, just as the teachers who have the students you'll receive next year know what their students need to succeed in your class. This transparency is both a significant obligation and a significant freedom.

The obligation comes in the form of a social contract affirming that you will prepare each student to learn the content specified for the subject and grade that you teach. The freedom is that just as you prepare students for their next class, students come to you prepared. Even if the teacher doesn't know you or teaches in a different state, he or she knows what students need to be successful in your class. More important, the students and their parents know. You don't need to spend time trying to bring students up to the first step because they're already there, ready for you to help them take the next step, and the next. You don't begin the year reteaching; you begin the year teaching.

In the next chapter, I describe just what the Common Core standards look like.

2

What the Standards Look Like

According to its mission statement, the Common Core State Standards Initiative aims to

> provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy. (www.corestandards.org)

Accordingly, the writers established criteria to guide the development of standards that are

- Fewer, higher, and clearer to best drive effective policy and practice;
- Aligned with college and work expectations, so that all students are prepared for success upon graduating from high school;
- Inclusive of rigorous content and applications of knowledge through higher-order skills, so that all students are prepared for the 21st century;

- Internationally benchmarked, so that all students are prepared for succeeding in our global economy and society; and
- Research- and evidence-based. (Common Core State Standards Initiative, n.d.)

During the standards-based education movement of the last 20 years, states produced multiple drafts and revisions of standards as they tried to identify what all students should know and be able to do. The Common Core State Standards Initiative employed similar processes and criteria, with the goal that the standards be informed by the most effective models from states across the country and countries around the world. The standards group at Mid-continent Research for Education and Learning (McREL), whose work I've guided for more than 15 years, has helped more than a dozen state, territorial, and foreign education agencies develop and revise standards using similar processes. We were given the opportunity to contribute to early drafts of the Common Core as technical advisors to North Dakota, one of the Initiative's participating states. Many of our recommendations were incorporated.

The process of drafting, reviewing, revising, and redrafting the standards moved at an incredible speed. But with each round of revisions, the quality of the material improved significantly. The standards are finalized now, and endorsed by all but a few states.

A Closer Look at the Standards

Let's look at how the two overarching sets of standards—(1) language and literacy and (2) mathematics—are organized and examine their key aspects.

How the Language and Literacy Standards Are Organized

Four strands—Reading, Writing, Speaking and Listening, and Language—make up a set of College and Career Readiness (CCR) Anchor Standards that broadly describe what students should know and be able to do, from

kindergarten to 12th grade. Within each strand, standards are organized under a set of topics, which apply across all grades. Figure 2.1, which depicts the Language strand, shows how this structure works.

Figure 2.1
The Language Strand

Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

5. Demonstrate understanding of word relationships and nuances in word meanings.

6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

At each grade level, the CCR standards are rendered in specific language to make clear what students should know at that grade. For example, here is how standard 5 in the Language strand is written for 3rd grade:

5. Demonstrate understanding of word relationships and nuances in word meanings.
   a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps).
   b. Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful).
   c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered).

And here is how the same standard is written for 8th grade:

5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
   a. Interpret figures of speech (e.g., verbal irony, puns) in context.
   b. Use the relationship between particular words to better understand each of the words.
   c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., bullheaded, willful, firm, persistent, resolute).

Note that both grade-level standards echo the same anchor standard: *Demonstrate understanding of figurative language, word relationships, and nuances in word meanings*. This organizational design applies across all the strands and grades. An additional organizational level appears in the Reading strand, which addresses reading informational text separately from reading literature. An exception to the overall design is a subset of skills in reading called the Foundational Skills; these standards appear only at grades K–5 and are not linked to the anchoring CCR standards. These standards address print concepts and phonological awareness (K–1) and phonics and word recognition and fluency (K–5).

Content in the standards document is organized into three major sections: K–5 language arts and literacy, 6–12 language arts, and 6–12 literacy. For K–5, content is organized first by strand, then grade by grade. Language arts at 6–8 is similar, organized by strand and then by grade.

At high school, grades are grouped into two sets (9–10 and 11–12) under each strand. Finally, a separate set of 6–12 standards identify literacy in history/social studies, science, and technical subjects; the grades are divided into three groupings (6–8, 9–10, and 11–12) and address reading and writing only.

Key Aspects of the Language and Literacy Standards

Here, we look at the most significant aspects of the language and literacy standards: the four strands under the College and Career Readiness Anchor Standards, plus the articulation of literacy standards across the content areas. Keep in mind that although the standards are divided into these strands, the interconnection of these language and literacy skills is reflected throughout the standards document. For example, students write about what they read, and they share findings from their reading in the Speaking and Listening strand. You will find more detailed explanations in the Common Core standards' supplementary notes and appendices, available at www.corestandards.org/the-standards.

Reading. Of all subject-area standards, reading standards have presented the greatest challenge for developers. How, exactly, do you specify the progress of a student's reading skills from one grade to the next, or even across a range of grades? Many reading processes—for example, making contextual inferences about the meaning of a new word—are developed in the primary grades and continue to be applied daily even among adult readers. Once these processes are mastered, they are not helpful for identifying stages of learning, even though they are a fundamental part of the reading process. This difficulty in setting clear descriptions of students' advancement is especially troubling because reading is fundamental across disciplines, and on-track reading is crucial for student success.

In general, research evidence shows that as college and workplace texts remain complex, K–12 reading texts have become easier, so there is a growing and significant difficulty gap between texts used at the end of high school and those used at the beginning of college (Williamson,

2006). In addition, K–12 reading favors narrative over expository texts, yet the majority of reading required in college and the workplace is the more challenging expository prose. Even the expository text found in grades K–12 is not very challenging; for example, students' assigned learning goal may be just to skim the text for a main idea. Many students will have a lot of catching up to do in college, and those who need remediation upon entry are less likely than those not needing such courses to attain a degree (Wirt et al., 2004).

Although assessing students' ability to read and comprehend increasingly complex texts is one way to measure progress in reading, few state standards set clear measures of text complexity to be used as a guide for determining student growth. In contrast, the Common Core standards make text complexity the central factor in assessing students' grade-by-grade progress in the reading standards. The Common Core standards' Appendix A (www.corestandards.org/assets/Appendix_A.pdf) describes a three-part model for evaluating a text's level of complexity: (1) quantitative tools, (2) qualitative criteria, and (3) the relationship among the individual reader, the task, and the text:

- *Quantitative tools:* Quantitative measures include formulas that measure text complexity through the average length of words and sentences and, in some cases, word frequency. A variety of tools for making such measurements—including the Flesch-Kincaid Grade Level Test and the Lexile Framework for Reading—are currently being used throughout the United States, but it is clear that more sophisticated tools, some of which are in development, are needed. It is important to note that the Lexile ranges required for students to be on track for college and career (as defined by Appendix A of the Common Core standards) are set above the traditionally required levels. Quantitative measures, however, form just one part of the model used to evaluate text complexity.
- *Qualitative criteria:* Qualitative measures require human readers to make judgments. These judgments include identifying multiple meanings within literary texts and, for expository texts, varying levels of purpose (for example, identifying whether the text has a hidden purpose).

Both narrative and expository texts may also be judged more challenging through their use of unconventional or nonlinear structures, as well as through the nature of the language used (for example, ironic, figurative, or academic). Qualitative measures also include determining the background knowledge and experience that the text requires of the reader. For example, John Steinbeck's *The Grapes of Wrath* may reflect simple vocabulary and syntax at the 3rd grade level, but qualitative judgment shows it to be more appropriate for early high school readers. (For further explanation and for sample analyses of excerpted texts, see pages 13–14 of the Common Core standards' Appendix A.)

- *Relationship among reader, task, and text:* The third method for evaluating a text's level of complexity is the interplay among reader, task, and text. Whenever text is read, there is an individual reader with a specific configuration of motivations, skills, and experiences, in addition to the task itself, which encompasses both the text to be read and the purpose for which it is read.

Although a computer program can assign quantitative measures, and readers outside the classroom can standardize and assign qualitative measures, it is only within the context of instruction that the nature and capacity of the reader and text can be assessed. Therefore, whereas quantitative and qualitative judgments fall within the purview of established standards, the third method for evaluating texts' complexity is unequivocally a matter for teacher judgment. Neither the quantitative nor the qualitative measures take into account the fact that readers (and learners) don't move in a simple linear fashion through levels of reading difficulty. It is the teacher's unique perspective on the student's motivation, interest in a given topic, and background knowledge that best determines the degree to which a student is challenged by a specific reading task. Students reading significantly above or below reading level require teacher guidance for text selection.

Appendix A provides excerpted texts and demonstrates how they might be judged employing the three approaches just described. Appendix B (www.corestandards.org/assets/Appendix_B.pdf) provides multiple

exemplar texts, some of which are accompanied by short performance tasks to indicate the types of activities and student performances that will support specific reading standards.

Writing. The Common Core writing standards emphasize an area not fully developed in most state standards: argument. State standards commonly focus on persuasion, but on a form that appeals to the audience through emotions or the character or credentials of the writer rather than depending on argument, which seeks to convince the audience by means of the perceived merit of the claims and proofs offered. Argument forces writers to think critically and deeply and consider multiple viewpoints. Surveys of university faculty and staff (Conley, 2003) as well as of employers (Hart Research Associates & Public Opinion Strategies, 2005) show that students' use of sound logic and ability to respond to varied perspectives is crucial to their success in college and the workplace.

Appendix C (www.corestandards.org/assets/Appendix_C.pdf) provides annotated samples of student writing for each grade level that meet or exceed the minimum level of proficiency demanded by the standards. Student samples are provided for each grade level across all three of the text types required by the standards: argument, informational/expository, and narrative. In most cases, the samples are accompanied by a description of the context for writing (prompt, requirements, audience, and purpose). The annotations explain how a sample meets the requirements of the grade-level standards.

Speaking and Listening. Two major topics organize the standards for the Speaking and Listening strand: (1) Comprehension and Collaboration and (2) Presentation of Knowledge and Ideas. Students are expected to use effective communication in a variety of settings, including one-on-one, small-group, and whole-class discussions. Similarly, the standards require that students interpret and analyze messages in a variety of formats: oral, visual, or multimodal. The role of oral language in literacy is also described in Appendix A, as are various aspects of Language, including vocabulary.

Language. The Common Core standards articulate a variety of student knowledge and skills related to vocabulary in the Language strand. Similar content is commonly found in state standards and English language arts curriculum; however, the Common Core places special emphasis on "general academic" and "domain-specific" words and phrases.

General academic words, sometimes called Tier 2 words, are words that are commonly used in academic or professional writing but rarely used in speech or informal settings. Domain-specific words, sometimes called Tier 3 words, are specific to a discipline or field of study. The Common Core requires student understanding and use of domain-specific words in the principal reading and writing standards and in the literacy standards for history/social studies, science, and technical subjects.

Literacy Across the Content Areas. Another key aspect to the standards is their articulation of literacy standards across multiple subject areas. Standards for Literacy in History/Social Studies, Science, and Technical Subjects are embedded in the reading and writing standards at each grade level, K–5. However, in the secondary grades, this content is articulated by grade band (6–8, 9–10, and 11–12) and in three separate sections: Reading Standards for History/Social Studies; Reading Standards for Science and Technical Subjects; and Writing Standards for History/Social Studies, Science, and Technical Subjects.

Unlike programs that promote general reading and writing skills across the curriculum, the Common Core standards recognize that students read and write in different ways for different content areas. For example, the standards note that in history/social studies, students "need to be able to analyze, evaluate, and differentiate primary and secondary sources," whereas when reading scientific and technical texts, students "need to be able to gain knowledge from challenging texts that often make extensive use of elaborate diagrams and data to convey information and illustrate concepts." In contrast to these types of texts, the informational texts identified for use in the English language arts classroom are literary nonfiction, which includes "personal essays;

speeches; opinion pieces; essays about art or literature; biographies; memoirs; journalism; and historical, scientific, technical, or economic accounts written for a broad audience." According to the Common Core, students must gain literacy skills specific to a variety of disciplines to be college- and career-ready, and teaching and assessing those skills is the responsibility of a variety of subject-area teachers.

How the Mathematics Standards Are Organized

The Common Core standards for mathematics are divided into two sets of standards: Mathematical Practice and Mathematical Content. The Standards for Mathematical Practice describe areas of expertise in mathematics that students must develop and practice from kindergarten through 12th grade. The Standards for Mathematical Content form the major part of the document. They are organized grade by grade between kindergarten and 8th grade; in high school, they are organized by "conceptual categories," including number and quantity, algebra, functions, geometry, modeling, and probability and statistics. Both K–8 and high school Mathematical Content standards are organized according to the following hierarchy:

- *Standard:* A standard specifically describes what students should understand and be able to do. Typically, several standards can be found beneath a cluster heading. For example, "Explain a proof of the Pythagorean Theorem and its converse" is one of three standards under the 8th grade cluster "Understand and apply the Pythagorean Theorem."
- *Cluster:* A cluster is a group of related standards. Each cluster captures several ideas that, taken with other clusters, summarize the important aspects of their domain. For example, "Understand and apply theorems about circles" is one of two clusters under the high school domain of "Circles." At times, content found in different domains or clusters may be closely related, which simply reflects the interconnections found throughout mathematics.
- *Domain:* Expressed in one or a few words, domains are big ideas that connect standards and topics, sometimes across grades.

For example, "Measurement and Data" appears as a domain in grades K–5. At the high school level, domains help organize each conceptual category. For example, domains such as "Congruence" and "Circles" appear under the conceptual category of "Geometry."

Each grade or high school conceptual category begins with a brief overview of its domains and clusters as well as an introduction that identifies and describes crucial areas for instructional focus. Unlike the standards for Language and Literacy, there are no overarching College and Career Readiness Anchor Standards for Mathematics. However, taken together, the mathematics standards identify what students should know and be able to do to be college- and career-ready. The Common Core State Standards for Mathematics, also unlike those for Language and Literacy, include standards that may not be required of all students; these standards, which are not intended for high-stakes assessment, are marked with a plus sign (+) in the standards document.

To facilitate the use of the standards within different high school models, the standards' Appendix A (www.corestandards.org/assets/CCSSI_Mathematics_Appendix_A.pdf) provides examples of different pathways that students may take to be exposed to all of the standards by the end of high school. One approach is called U.S. (Traditional) and consists of two algebra courses and a geometry course, with some data and probability and statistics included in each course. Another approach is more typical of a course sequence seen internationally: three courses, each of which includes the conceptual categories of number and quantity, algebra, geometry, and probability and statistics. There are also versions of each model in which content in grades 7–9 is "compacted" to allow students to accelerate and master more advanced study, such as calculus, prior to graduation.

Key Aspects of the Mathematics Standards

There is no doubt that the principal authors of the Common Core mathematics standards kept in mind the observation of researcher William Schmidt, whose work on the Trends in International Mathematics and

Science Study (TIMSS) led him to lament that U.S. standards were "a mile wide and an inch deep." The writers of the Common Core standards took care to avoid many state standards' shallow and sprawling coverage of content, instead developing standards that reflect focus and coherence.

Focus. Finding the balance between scope and specificity is a challenge for any standards-setting effort. Many states sacrifice detail in an attempt to ensure that their standards, by being written broadly enough, don't let any important mathematics "escape." This approach also permits authors to be technically correct in saying they've identified "fewer" standards. But the only way standards can ensure that content is addressed at an effective level of depth is to specify the topics that are essential at each grade level and to describe them in detailed language. The Common Core standards provide introductions for each grade that identify the central themes of that level. This structure owes some debt to the National Council of Teachers of Mathematics' (NCTM) Curriculum Focal Points (2006), which launched a new era of stipulating standards at each grade level.

Coherence. Coherence, like focus, requires and reinforces depth of understanding and comes about through the organization of ideas. In standards development, there are commonly two related but distinct ways of achieving coherence. The first is through the organization of content into logical topics. In the Common Core mathematics standards, content is organized into domains, clusters, and standards and is divided into traditional topics of the discipline, such as algebra or geometry. This structure provides a fairly straightforward way of uncovering or reinforcing the connections among different sets of content.

The second way to develop coherence is to organize content according to how students learn. A *learning progression* is not an instructional method, although it is intended to inform instruction; it is the organization of knowledge and skills into a sequence that reflects both cognitive research about how students learn and the logical structure of mathematics. At the moment, however, organizing the standards

according to learning progressions is unrealistic, chiefly because there is insufficient research to permit a significant change to the design of the current standards. Instead, grade placements for topics were made on the basis of state and international comparisons and according to the collective judgment of experienced educators, researchers, and mathematicians. As researchers and educators better understand how students learn mathematics and acquire English language and literacy, their identification of more robust learning progressions will likely inform future revisions of the Common Core standards.

Coherence refers not simply to the organizational structure of content or to a logical sequence of student learning; it also extends to students' own experience of mathematics. The Common Core requires students themselves to bring coherence to mathematics. As an educator, you likely share the standards authors' concern that students who don't understand what they are doing depend too heavily on the simple execution of processes, which results in a lack of the understanding needed to adapt to new situations or recognize how problems relate to one another.

The Common Core mathematics standards' emphasis on conceptual understanding is evident not just in its Standards for Mathematical Content but also in its Standards for Mathematical Practice, which show indebtedness to NCTM's (2000) *Principles and Standards for School Mathematics* and to the strands of mathematical proficiency identified in the National Research Council's influential text *Adding It Up* (Kilpatrick, Swafford, & Findell, 2001). Indeed, the Common Core mathematical standards' table of contents gives equal weight to the Standards for Mathematical Practice and the Standards for Mathematical Content. This dual role is echoed through the introductory material, which emphasizes that the eight standards of mathematical practice, listed in Figure 2.2 (p. 24), apply from kindergarten through 12th grade and "describe varieties of expertise that mathematics educators at all levels should seek to develop in their students" (p. 6).

Figure 2.2
The Eight Standards of Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

These standards establish critical practices that are valued throughout the grade levels. Teachers can use the standards to help students grasp content that is more conceptual in nature. It's not difficult to create an appropriate activity that helps students learn a skill or process—for example, using a formula. But we don't acquire a concept, like understanding long division, simply by repeating the algorithm. The standards of practice offer opportunities for activities that lead to understanding—for example, if the teacher asks students to look for structure and pattern as they analyze the results of their division problems. Such an analysis will help students grasp, for example, how division may be understood as repeated subtraction.

Differences from State Standards

The Common Core mathematics standards differ from many state mathematics standards in a variety of ways: the focus for instruction is made clear for each grade; there is a significant emphasis on students' conceptual understanding of mathematics; and the Standards for Mathematical Practice are raised to the same level as the Standards for Mathematical Content. More specifically, the Common Core standards

include more proofs and more statistics concepts than are generally found in a typical high school sequence, and grade 7 includes deliberate preparation for grade 8 pre-algebra. In addition, there are "compacted" approaches that allow students to accelerate.

Because the Common Core connects certain major topics across multiple grade levels, teachers will find such subjects as fractions addressed as early as 2nd grade, under the Geometry domain. The most notable differences appear at middle school: probability and statistics begins in 6th grade, and students begin working at expressions of ratio and proportion in 7th grade. In 8th grade, students are expected not only to apply the Pythagorean Theorem but also to prove it. Teachers may find that the descriptions, arguments, and proofs required present a greater challenge than their states' standards for middle school.

The Common Core high school standards include content typically found in an Algebra 2 course, as well as advanced topics in statistics; although these topics are found in the higher-rated states' standards, such concepts are not common among most state standards.

A quick survey against state standards shows that there is less stark difference between the Common Core standards and the standards of states rated highly by national organizations and states that had revised their standards using NCTM's Curriculum Focal Points.

A Note on Detail

The Common Core mathematics standards include much explanatory detail, and the resulting large amount of text may give the impression that the document does not meet the criterion of "fewer" found in the phrase "fewer, higher, clearer." However, in the lower grades in particular, it may be helpful to review the cluster headings at the beginning of each grade. These headings, along with the discussion of focal points in each grade's introduction, should help orient you to the expectations for each grade and show you that there are fewer concepts addressed than you will find in the majority of state standards. For example, for 5th grade, the Common Core lists 26 numbered standards, but they

are grouped under 11 cluster headings. Because the cluster headings are generally equivalent in specificity to most states' standards, it's likely that the number of concepts in 5th grade is either equivalent to or lower than the number listed in many state standards documents. For example, the Minnesota state mathematics standards for 5th grade include 27 standards. Alaska has 46, and Texas lists a total of 50 knowledge and skill statements.

This chapter's quick survey of the Common Core standards is no substitute for diving into the standards themselves to get a sense of their scope and of the impact they will have, and I encourage you to do so. In the next chapter, I discuss the benefits and implications of the Common Core standards.

3

Benefits and Concerns

The principal purpose of the Common Core State Standards Initiative is to identify for all stakeholders the knowledge and skills that students must acquire to succeed in college and career. Defining this body of knowledge should provide the basis for a meaningful and much-needed dialogue between K–12 schools and institutions of postsecondary education. During the last several years, research (Wirt et al., 2004) has shown the increasing amount of remediation required to bring postsecondary students up to mastery, and businesses have complained about high school graduates' lack of preparedness for the work world (Eisen, Jasinowski, & Kleinert, 2005). A measure of success in the implementation of the Common Core should be a reduction in the number of students who need additional help once they enter college or career training.

The essence of the Common Core initiative can be induced from its name. The nature of the *core* is of an essential, irreducible set of knowledge and skills, while *common* suggests a social contract and all that it implies: shared benefit and equitable treatment. As we look more deeply into the Common Core standards, I'll identify how shared goals have immediate benefits and implications for states, districts, schools,

and students. I'll also examine some of the concerns surrounding the Common Core.

Benefits of the Common Core

Intentional Instruction

Somewhere in the United States today, students are participating in a lesson activity that is fun but, unfortunately, meaningless. In another classroom, students may be experiencing what seems like recess in the middle of a lesson. We've all had a teacher who is especially fond of a lesson whose point is unclear. But because learning, not instruction, is the goal of schooling, everything should be bent to, and intent upon, that larger purpose.

Some complain that the Common Core threatens teacher professionalism, removes opportunity for creativity, and takes the joy out of teaching. But other teachers have long understood that closing the classroom door and teaching whatever they want is simply not tenable. In a globally competitive society, the teacher alone cannot be the final arbiter of what students should learn.

Yet all autonomy is not lost: it is more important than ever for teachers to creatively engage students with effective instructional strategies and adapt content to the needs of individual learners. If standards establish the "what," then teachers determine the "how." Standards are the agreements made outside the classroom by society at large, but helping students attain those standards requires teachers' best skills to determine, sometimes in the moment, what each student needs to succeed. The spontaneous interactions that characterize much of teaching and learning could never be formalized into standards.

Certain characteristics of good instruction have been identified as effective across the subject areas. Teachers who practice *intentional instruction* carefully select strategies appropriate to the type of content that students are learning and establish an environment conducive for

learning by setting objectives, reinforcing effort, and providing recognition (Dean, Hubbell, Pitler, & Stone, in press).

Effective teaching can happen even when lesson objectives are disconnected from the rest of the student's school experience. Within a coherent system, however—one in which the student's prior learning has been orchestrated to prepare for later learning—intentional instruction gains in efficiency and potency. Students are more likely to grasp a lesson objective that builds on their prior experience. They will also take what they have learned to other classes whose objectives are designed to capitalize on that understanding. Designed to be both challenging to students and coherent as a system, the Common Core benefits from and amplifies the effectiveness of good teaching.

A Manageable Number of Standards

Unlike past standards-based initiatives, the Common Core standards were designed to represent just 85 percent of the total standards that states might ultimately decide to implement. The most important takeaway message here is the implicit assurance that the content that has been identified in the standards can be addressed well within teachers' available instruction time. This 85 percent design also makes clear the importance of the role that the Council of Chief State School Officers (CCSSO) had in this undertaking, helping to reduce the likelihood that subject areas would demand more time than is available in the school day. A recent survey from the Center on Education Policy (2011) indicates that of the 34 states responding, 12 do not plan to add content at this point, 11 do, and another 11 are undecided. Of the 11 that do, 9 expect to add content to the English language arts standards and 8 expect to add content to the mathematics standards. Although states may elect to add content to reflect regional concerns or to make the content more challenging, the core they share forms the basis of shared assessment. As I have argued elsewhere (Kendall, 2010), the 15 percent may be more effectively used as the breathing room schools need to transition to the Common Core.

A Greater Pool of Resources

In even the most cursory review of state standards, you will see certain topics crop up again and again. Genres and fractions, for example, show up in standards from Florida to Alaska. Given this commonality, it would be reasonable to expect resources and lesson plans to be shared freely across states. After all, there's only so much a teacher can do with fractions in elementary school. But as I touched on in Chapter 1, states don't always teach the same topics in the same grades. In addition, some states and schools identify and report out on quite specific standards, so it's not efficient to use a lesson plan that ultimately cannot provide information about where students are on state content.

In "local control" states where standards are not strictly dictated but are presented as models or suggestions, expectations often vary district by district. Some states' standards are so generally written that districts, and sometimes schools, have been reduced to writing their own standards to clarify expectations. In these cases, teachers would find that they'd created lesson plans too specific to exchange with colleagues in other districts, even those that share the same state standards. When districts establish similarly specific reporting systems, it makes it problematic for teachers across districts to exchange or compare assessments that are related to the same state standard.

In contrast, the Common Core State Standards are specific enough that districts will not need to rewrite them. Thus, the more effectively a lesson plan addresses a Common Core standard, the more valuable it is and the more exchangeable it is. As a result, educators' support networks will expand considerably. Where yesterday you might have shared your lesson with the teacher across the hall, under the Common Core standards you'll be able to share lessons with teachers across the country, with no alteration needed for state- or district-specific goals. Instead of struggling to develop and squirrel away a collection of lesson plans, you'll be able to use your time to review and select from numerous lesson plans with the same learning objectives. If you find yourself tweaking a lesson to suit your approach, as will inevitably happen,

the change you make could easily be valued by another. Websites that currently provide the means for teachers to exchange lesson plans will almost certainly recognize that the Common Core standards provide a natural link through which to make future exchanges.

Increased Collegiality

Research in schools surfaces a simple, unsurprising, but nonetheless vital fact: communication is at the heart of collegiality (DuFour & Eaker, 1998; Kohm & Nance, 2009). A shared language is the essential first step for communication. As of this writing, the Common Core is established as the lingua franca for academic content in 43 states: wherever you travel within them, you are assured that others will be speaking about expectations for students in the same way.

Over the next few years, some educators will struggle as they learn this new language. Although some might find new content, many more will find that the content they are familiar with is now differently expressed or has gone through a slight shift in meaning and implication. In fact, McREL staff are working with states whose first step toward adoption is to compare their current standards with the Common Core standards as a kind of translation exercise. This process itself is rewarding and develops collegiality because it provides an opportunity for each person to offer a perspective on what the current state standards mean and how they differ from or resemble the Common Core standards. In Chapter 4, I further discuss how schools might go about comparing the two sets of standards.

Increased Professionalism

One hallmark of a professional is mastery of a body of knowledge. Like medicine, education requires not only grounding in content but also a deep understanding of the individual in the context of significant change—in the case of education, of a student going through the process of learning. Like a curriculum, a medical course of treatment may be prescribed based on the best of current knowledge and understanding,

but the specific application must vary according to how well the individual responds. In education, the greater the challenge is for students, the more crucial it is that teachers have both a mastery of content and an understanding of teaching and learning.

In a sense, the Common Core "universalizes" a body of knowledge that is expected of all teachers. With this increased commonality comes the opportunity for an unprecedented level of discourse. Students' struggle with concepts or skills is driven in part by the context of prior learning and in part by how current expectations are described. Discussions across districts and states with fellow teachers who share a fundamental perspective about student expectations are apt to elevate the level and quality of their communication. It is also through this dialogue that teachers, now speaking in the same language, will have greater influence on the development and implementation of standards because they will be able to identify shared concerns and suggestions from the experience of the classroom.

A More Consistent, Equitable Learning Experience

It was not until her college years that my sister discovered why everyone but she knew the Roman numerals. It wasn't a case of inattention, or a case of the mumps. We moved to another state when she was in elementary school. The school she had just left taught Roman numerals in the next grade, whereas the school she transferred to had already taught them in the previous grade. Meanwhile, another student making the opposite journey across the country may have had to learn Roman numerals not once, but twice. Stories like this are legion. Students miss chunks of content and may never realize it, but their learning suffers for it. The fact that simple accidents of timing can result in missed or repeated content does a disservice to students and wastes resources, including teachers' limited instructional time.

There is more at stake here than simply swapping content from one grade to the next. The situation is far more hazardous when a student's luck for landing in the right state, district, or school determines what

expectations are held for his or her future. Some students' backgrounds set them at a considerable disadvantage, and it's not acceptable to abandon them to the poor odds they face.

The greatest beneficiary of the Common Core is the one for whom education is designed: the student. Moving from one state or district to another between grades will no longer carry with it the threat of learning the same material over again, or worse, missing something completely. In addition to escaping boredom and hiccups in coverage, the student will know that although she is in a new state, the 4th grade class she'll be entering is designed for students who completed the same 3rd grade class that she did. This consistency should allay many fears, both for students and for their parents.

A benefit of standards has always been that they reveal learning difficulties that are more easily obscured in non-standards-based curricula. When schools teach to common standards, students' problems with certain content tend to crop up again and again, often for specific populations. Even for students who do not struggle, being part of a larger cohort increases the likelihood that programs that suit their exceptional needs can be made. A common set of standards across states makes it possible to create efficient personalized learning environments by expanding the number of students who would share in and benefit from their development.

Further, students will have learned to provide evidence about their strongest areas of understanding and will have a clearer idea about where they need further assistance. Parents also will have a better handle on how they can assist their children.

The End of the Carnegie Unit

The Carnegie unit, a time-based reference for measuring secondary school educational attainment, came about during the late 19th and early 20th centuries in an attempt to standardize the educational experience. One Carnegie unit is commonly defined as about 140 hours of instruction. Although the Carnegie unit is still used to determine

student completion of coursework, many are critical of the unit's arbitrary use of time as the basis for measuring educational attainment. As a unit of communication about student mastery of knowledge and skills, the Carnegie unit has not been particularly effective. First, it's too large to be useful in a practical sense: who knows, really, what a student with one Carnegie unit in English has mastered? Second, over the years, it has been reduced to a measure of seat time.

The fully implemented Common Core means that students transferring to new schools will be able to bring descriptions of what they have mastered in broadly used and accepted terms. Schools will more readily accept students into classes regardless of what state they come from, assuming that teachers and schools are held accountable. And whether a university is in the same state or across the country, it will have a clearer understanding of what the student has mastered.

Customized Learning and Multiple Pathways

If you visit any U.S. state, you will likely be able to visit the past, present, and future of education; school districts exist at all points on the time continuum. In Colorado, for example, some districts that have only recently started to discuss and implement the idea of "standards" work alongside a district that has redesigned schooling by treating standards not as norms that drive a time-centered school experience but as criteria that allow students to grow and learn at their own pace. This district—Adams County School District 50, in Westminster, Colorado—groups students by competency level rather than by age or grade level (Tuzzeo, 2011; Vail, 2010). Such an approach values learning more than time spent sitting at a desk.

Letting students learn and progress at their own pace is less challenging than it initially seems. The premise that it's difficult to deal with a class in which students shift in and out depending on their level of mastery rests on the assumption that there is still a classroom of students who stay in the same place and learn the same thing at the same time. A different perspective of schooling—one that begins with

the individual learner and then asks how the system can best serve that learner—visualizes the problem differently.

In such a school, students arrive at a class that addresses the standards they need to master; some students may move on quickly, while students who are struggling are provided with additional resources. Such personalized learning is not unique to Adams 50. A number of schools have demonstrated that such personalized learning is possible and can be greatly enhanced by technology (Wolf, 2010). In this kind of system, a student traditionally expected to be in 4th grade may be at 5th grade in science and 3rd grade in language arts. Until there are commonly held standards across states, a student on a track that is truly standards-based runs a real risk when transferring to another school. But in a Common Core system, teachers will be able to understand where students are relative to the standards. Even if a student moves to a school that has no such free-moving design, it will not be a significant challenge to understand where the student excels relative to peers, and where the student needs extra help.

Cross-state shared standards will also make it easier for high school students to find their own paths. When meeting standards rather than accruing Carnegie units becomes the normal prerequisite for graduation, students will find alternative ways to demonstrate their readiness. For example, a statistics student may demonstrate mastery through a report on animal populations in biology or through a presentation on how sampling can be used to monitor production quality in a manufacturing plant. Clear, shared descriptions of expectations enable schools to personalize the learning experience for each student while showing that the students have reached a standard expected of everyone.

Such models of learning are already in place—and achieving success—at schools throughout the United States. High Schools That Work is an improvement initiative of the Southern Regional Education Board that focuses on integrating academic learning with Career and Technical Education (CTE). A recent study (Stone, Alfeld, & Pearson, 2008) has shown that effective integration of mathematics into CTE courses can

result in significantly better showings of mathematical performance as measured by standardized tests. The High Schools That Work initiative has been effective in keeping at-risk students in school and engaged in their learning (Southern Regional Education Board, 2011). Similar efforts are under way in the Ohio Department of Education, which has recently issued a request for proposals to assist in the development of a "Hybrid CTE curriculum," which refers to "CTE content 100 percent delivered through project/problem-based instructional strategy that is locally/statewide approved for simultaneous academic and career-technical credit" (Ohio Department of Education, 2011, p. 1). When models like these incorporate the Common Core standards, students will not only be able to find their niche but will also acquire academic skills that are translatable to other schools across the country and that will keep them on track for college entry.

Because meeting a Common Core standard is intended to offer a more universally meaningful credit, universities, technical colleges, and many other programs will be able to support and connect more directly to curriculum in schools. Local agencies, such as zoos and museums, will be able to tailor their programs in a way that provides students with credit on a specific standard. Knowing what 3rd graders have mastered and what they are learning will help any agency outside the school system ensure that it is part of a national, coordinated effort. Certainly, such an a la carte approach will open the door to a plethora of web-based offerings. Websites such as the lesson plan section of the *New York Times*, which currently links to McREL's compendium of K–12 standards, will no doubt realize the advantages of linking to the Common Core.

Concerns About the Common Core

Although this introduction to the Common Core is not the place for a lengthy essay on the purposes of education and the extent to which those purposes are served by national standards, here I discuss what appear to me to be the most salient objections to the Common Core.

It's a Free Country!

In a commentary on the development of Common Core standards, published months before the first drafts were completed, noted scholar and historian Diane Ravitch (2010) cautioned that standards must be voluntary. Pointing out that some schools and districts will never accept external direction about what their students should learn, she says, "It's a free country, and they should retain their freedom to ignore official pronouncements." It's not clear where this argument begins and ends, however. A few states have chosen not to sign on to the Common Core, but they are still obligated to ensure that their students will not suffer for being "off-track" from 40-plus other states. Students should be able to move from one district or state to another without paying the penalty that their district's freedom cost.

Reading the "freedom" argument called to mind a story I once heard of a researcher who had just completed weeks of classroom observation. Curiosity finally getting the better of him, he asked the mathematics teacher why she had methodically worked through the textbook but skipped the section on fractions. The teacher replied, "Oh, I don't like fractions." The story might be apocryphal; certainly the events happened years ago. But the question it raises is a very real one: at what point does our obligation as a community outweigh individual expressions of freedom, whether at the classroom, school, or district level?

Down with the Progressive Tense!

In *Focus: Elevating the Essentials to Radically Improve Student Learning*, Mike Schmoker (2011) makes an impassioned plea against verb aspects of the progressive tense. Actually, he's not so much against the progressive tense as he is against the idea that students should actually have to form and use it. It's not just the hours I spent teaching undergraduates how to conjugate and use the progressive tense in Latin that makes me think this is wrongheaded. I value the information it conveys in critical situations ("Pointing the nozzle away from your eyes, release the valve . . .") and the logic it embeds in language and argument ("Before that

occurs, we will be making other plans . . .”). But the real problem occurs when Mike Schmoker is the one who decides whether the progressive tense has value, not the hundreds of individuals who contributed to the development of the Common Core. It’s the very idiosyncratic nature of his argument that makes the strongest case for making such choices at the community level. It was not a single group that came up with the Common Core standards. The significant editorial changes that have been made to the standards since the time the first drafts went to state representatives around the country make very clear how broadly educators were represented.

Accountability and Assessment

A longstanding, significant concern about standards is the quality of their attendant assessments and those assessments’ effect on teaching quality. Resnick and Berger (2010) assert that what we currently have is a test-based accountability system, not a standards-based accountability system. Such a system, they argue, has negative consequences for teaching and learning, especially for poor and minority students. When educators serving at-risk students face stiff consequences for poor test results, they often resort to providing practice on exercises that match the format and content of their states’ end-of-year accountability tests. Such exercises have little connection to best instructional practices. As CCSSO executive director Gene Wilhoit has said, “We are chasing test responses, and that is showing up in the classroom and in the curriculum” (Brodie, 2010). The assessment consortia have a significant challenge before them if they are to provide data on whether students are on track for college and career in a way that supports and improves instruction. If the tests are to be as frequent as currently proposed, their value for the classroom will need to increase proportionately.

One Size Fits All?

Even discounting the effect of assessment and accountability, the development of any standards system runs the risk of narrowing the curriculum and, hence, real options for students. By developing a set of standards designed to prepare students for college *or* career, the Common Core would appear to redress a concern recently raised in a study from the Harvard Graduate School of Education (2011) that "for too many of our youth, we have treated preparing for college versus preparing for career as mutually exclusive options" (p. 24). However, the Common Core standards don't comprise career standards *and* college standards; instead, the assertion is that to be college-ready is to be career-ready. This assertion is not new; it's unlikely that students ready for college wouldn't likewise be ready to enter a career training school. The real thrust of the argument is that, owing to the nature of today's career opportunities, students *must* be college-ready to be career-ready. This argument has met with some skepticism among the educators we've worked with during the last year.

Students must be able to recognize their future in the standards they master, especially when those standards are challenging. We won't improve a 30 percent dropout rate simply by demanding more from students who are already struggling. We need to identify ways to connect students' work to the future they see for themselves. We can make this connection if we are ready to try new ways of organizing high schools and working with standards. Such programs as Pathways (Harvard Graduate School of Education, 2011) and High Schools That Work (Southern Regional Education Board, 2011) must have the flexibility to incorporate Common Core standards in a way that allows for a wide range of student interests and skills, so that students who find a career interest in high school will see how the Common Core can help them reach their goals. In this way, students will discover that being college-ready is an added benefit to being prepared for their chosen path.

Ready for Whose College?

Although the Common Core aims to define the knowledge and skills that students need to succeed in college and career, the standards are a promise, not a contract. It's unlikely that any college admissions officer has signed off that mastery of these standards will guarantee students a spot in the freshman class. As Paul Barton (2009) notes, there is wide variation among the entrance requirements at different kinds of post-secondary institutions. This variation presents a formidable challenge for assessing a student's readiness to enter the college of his or her choice. Add to this that there hasn't been consistent agreement on what students really need to know to be college-ready (Kendall, Pollack, Schwols, & Snyder, 2007).

And Yet . . .

Despite these often-legitimate concerns, the Common Core offers more opportunity for improvement than the system we have now, and we appear to be determined to get it as right as we can this time.

4

Preparing for the Common Core

During the 2014–2015 school year, students will be assessed on the Common Core standards for the first time. Two consortia of member states are currently developing the assessments. These new assessments will, of course, influence the sequence of instruction, and some educators have expressed concerns about choosing the "wrong" standards to focus on first, believing it to be wiser to wait until the assessments make clear just how and on what content students will be tested.

Fortunately, schools can take action to prepare for the Common Core, both by seeking out curriculum support for the assessments and by performing strategic examinations of the Common Core standards themselves.

Curriculum Support

Recall that a drawback of the standards-based movement was a sudden vacuum in curriculum support. Standards were out in the front, while curriculum built to support the standards trailed behind. In an effort to support instruction, a group named the Common Core (not affiliated with the CCSSI), funded by the Bill and Melinda Gates Foundation, has developed curriculum maps for the English language arts (visit

http://commoncore.org). Electronic editions of the maps were posted for public comment not long after the Common Core standards were released.

For mathematics instructors, the National Council of Teachers of Mathematics (NCTM) (2010) has developed a guide that identifies how current NCTM resources can support teachers as they implement the Common Core. In addition, Inside Mathematics (http://insidemathematics.org), which features classroom examples of innovative teaching methods and insights into student learning, is currently working to align its resources with the Common Core. Finally, to help teachers understand the language of the Common Core and to connect context to standards, McREL has hyperlinked the Common Core standards to its online compendium (Kendall, 2011; http://www.mcrel.org/standards-benchmarks). Benchmarks within the compendium are "unpacked" to knowledge and skill statements, and associated concept vocabulary is provided with released assessment items and activities that teachers may find helpful. Through significant funding from philanthropic organizations and, more recently, through an increase in federal funds for the standards' assessment consortia, curriculum resources should be rapidly growing. There is a concerted effort to ensure that any teacher or school desiring to get out in front of this effort will not lack the resources to do so.

Schools will also have the means to assess the quality of materials that will no doubt soon be offered by publishers. The authors of the Common Core standards are circulating draft criteria to guide states in evaluating materials created to support the English language arts and literacy standards. Still, there is a long way to go. A group of education, business, and policy leaders, spearheaded by the Albert Shanker Institute, has called for the development of specific curricula and materials. Such support would include a clear and practical design for teaching the discipline, along with sample lessons, examples of student work, and assessments that help teachers focus instruction and measure student outcomes ("Stakeholders Push," 2011).

Strategic Analysis

Schools can't expect to adopt the Common Core in a day. As a member of a school or a district or state team, you can undertake several tasks to help smooth the transition to the Common Core. The best way to work up to it is to compare the Common Core standards with current state standards and discuss how the current curriculum does or does not serve the same objectives as those described in the Common Core. This process will help you identify where to invest your efforts in the future.

Creating a Crosswalk

All states adopting the Common Core have current standards in place for English language arts and mathematics. Many of these states identify standards grade by grade, whereas others describe content in grade bands or ranges. Some states have detailed standards and provide supporting materials, such as textbooks and classroom assessments, aligned to those standards. Other states that emphasize local control may describe standards in general terms and only in grade bands, and they may not provide classroom resources that are aligned to the standards or assessments that are linked to curriculum and instruction. Regardless of the system in place, it's likely that you will have something new to learn and something to unlearn, which is why creating a "crosswalk" of current standards and Common Core standards is a useful exercise.

A crosswalk, which compares the content of two documents side by side, is sometimes called a gap analysis because comparisons inevitably identify gaps in coverage. The most useful crosswalk for the Common Core is made up of two documents, each offering a different perspective. One document is organized according to the state standards, which are listed on the left side of the page. The right side of the page lists the Common Core standards that match up against the state standards. A middle column is reserved for commentary to touch on items of particular interest or subtleties in the comparison that shouldn't go unnoticed. The second document is organized according to the Common Core standards, against which the state standards are evaluated—that is, the

Common Core standards are listed on the left side of the page and the state standards on the right side (see Figure 4.1 for an example).

Figure 4.1

Mathematics Gap Analysis (Sample): Common Core View of State Standards

Common Core Standards		Content Alignment	More Rigor*	Comments	State Content Standards	
Grade 4						
Number and Operations — Fractions						
Extend understanding of fraction equivalence and ordering.						
4.NF.1	Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	Strong	CC	CC content is in grade 4. ST content is in grade 5.	5.1.2	Understand and write equivalent fractions using numeric notation.
				CC content is in grade 4. ST content is in grade 5.	5.1.3	Compare fractions represented by drawings or concrete materials to show equivalency (e.g., 1/2 of a circle is the same amount as 4/8 of another circle that is the same size; 5/9 is larger than 1/3).
4.NF.2	Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record	Partial (specificity)	CC	CC is more specific. CC content is in grade 4. ST content is in grade 5	5.1.3	Compare fractions represented by drawings or concrete materials to show equivalency (e.g., 1/2 of a circle is the same amount as 4/8 of another circle that is the same size; 5/9 is larger than 1/3).

* Rigor: CC: Common Core standards are more rigorous; ST: State standards are more rigorous.

When we work from the organizing document, we look for everything related in the second document, but we don't ask whether the organizing document has addressed everything in the second document; that's done when the standards are swapped. You will find that some questions can be answered only by selecting one or the other of the two documents. Samples of each type of crosswalk document for each subject area are available at http://www.changetheodds.org/ServiceDetail.aspx?Topic=Curriculum&Id=221. Figures 4.2 and 4.3 list some sample questions that stimulate thoughtful discussion.

Figure 4.2

Questions to Consider for the State Standards–Organized Document

- Is this state standard addressed in the Common Core?
- Are all aspects of this standard addressed in the Common Core, or are there more details found in the state standard?
- Does the emphasis or focus of this state standard differ in the Common Core?
- Is the content of the state standard addressed in the Common Core at the same grade level, or is it addressed in earlier or later grades?
- Is the state standard content more or less challenging than the Common Core content?
- Would current resources (lesson plans, activities, classroom assessments) for instruction on this benchmark still be useful given how and where the content is addressed in the Common Core?

Figure 4.3

Questions to Consider for the Common Core–Organized Document

- Is this Common Core standard currently addressed in the state standards?
- Are all aspects of this standard currently taught in the state, or does the Common Core standard contain more details?
- Does the emphasis or focus of this Common Core standard differ from the state standard?
- Is the content of the Common Core standard addressed in the state standards at the same grade level, or is it addressed in earlier or later grades?
- Is the Common Core content more or less challenging than the state standard content?

It is also crucial to consider the implications for instruction. The crosswalk document can provide an excellent jumping-off point for discussions on topics that range from understanding fractions at 3rd grade to using assessments that reflect students' abilities to apply what they know. These kinds of discussions will help participants grasp the nature of important future work, such as identifying critical areas for professional development, developing a process for identifying and revising current curriculum resources to work with the Common Core, and developing transition support documents. Of these tasks, it's the development of transition documents that will make the most immediate impact in deepening understanding of the standards.

Developing Transition Support Documents

Transition documents support deeper understanding of the Common Core standards by using current standards as a bridge to understanding. For example, although the Common Core avoids the phrase "persuasive writing," the phrase is commonplace in state standards. A transition document would help identify the Common Core's standards for writing an argument that align with the state standards for writing persuasively.

The alignments provided in crosswalk documents as well as the discussions that surround the study of those crosswalks are useful in developing transition documents. Because its purpose is to orient current practice to what is about to come, the transition document is best organized according to the state standards rather than the Common Core standards. Classroom teachers should use the transition document as a daily guide until the Common Core State Standards are fully implemented. Figure 4.4 depicts an excerpt from a sample transition support document.

Note that in this figure, the current state standards and benchmarks on a selected topic appear in the top half of the table, whereas the bottom half of the table includes additional content related to that topic that is covered by the Common Core. The right-hand column

labeled "6th grade" identifies additional or more-specific content that is addressed in the Common Core standards, and the two other columns identify content included in the 4th and 5th grade Common Core standards but not in the state's current 4th and 5th grade standards. The Common Core content shown has been paraphrased into bullets

Figure 4.4
Excerpt from a Transition Document

Grade 6 **1. NUMBER OPERATIONS AND CONCEPTS** Students will be able to use and analyze numbers in a variety of different forms (e.g., decimals and fractions).		
MTH.1.1	Students will be able to • Convert between decimals and fractions. • Convert between mixed numbers and improper fractions. • Simplify fractions and mixed numbers to their simplest form. • Round decimal numbers. • Convert between decimals, fractions, and percentages.	
MTH.1.2	Students add and subtract mixed numbers with like denominators.	
Additional Content Found in the Common Core State Standards		
4th Grade	**5th Grade**	**6th Grade**
• Add and subtract related fractions or solve word problems involving fractions with like denominators. • Assess the reasonableness of answers when using the estimation process with decimals and fractions.	• Compare decimals using the concept of place value. • Add and subtract decimals to the thousandths place. • Convert decimals to fractions before they are added and subtracted. • Find inverse relationships and place value to compute sums, differences, products, and quotients of finite decimals. • Compare and order fractions with unlike denominators.	• Recognize that a fraction multiplied by its denominator's reciprocal results in the numerator. • Identify pairs of equivalent fractions.

to keep the document simple and user-friendly, but you could also list the Common Core standards verbatim or cite the related Common Core standard(s) in parentheses after each bullet so that teachers may reference the full text of the Common Core standards as needed.

This information is helpful in a few ways. It alerts teachers to the additional knowledge and skills that students will have acquired in prior grades once the Common Core is fully implemented. In addition, for teachers who would like to touch on some of the new 6th grade content, it identifies additional background knowledge and skills that students will need in order to grapple with that content. The document also lets teachers know if there is any content they currently teach in 6th grade that will be addressed at an earlier grade under the Common Core standards. As more teachers use transition documents over the next few years, they and their students will grow more familiar with the content identified in the Common Core.

Creating Other Supporting Documents

Like a crosswalk document, a transition document can form the basis for the development of further supports. Teachers can use the document to note the differences they see between the Common Core and the state standards and use these insights in discussions to suggest future development work. By examining this document together, teachers can begin to answer these kinds of important questions:

- How is the content I am teaching today, in this lesson, addressed differently in the Common Core?
- Would this lesson plan or activity work for the Common Core content?
  - If not, can it be revised?
  - If so, is the lesson or activity demanding enough?
- Do I need to rethink how I go about teaching this content?
- Does the change in content present a new area for professional growth?

- How do the state standards and the Common Core standards differ in their use of terms, concepts, and language?

Once they have discussed the above questions, teachers might continue working together, taking one or more of these approaches:

- Unpacking the language of the Common Core, including finding examples that make connections to concepts in current state standards and providing a glossary when the two sets of standards use different terminology for similar ideas; examining similarities and differences between the language in the state standards and the language in the Common Core standards.
- Classifying current lessons and activities according to rough categories, including
  - Those that will continue to be useful;
  - Those that will need some level of adaptation—for example, to address differences in performance expectations; and
  - Those that should be dropped and are no longer appropriate, either because the content has been moved to a different grade or because it is not addressed.
- Identifying current assessments that will continue to work (usually performance-based); discussing common assessments that may serve the Common Core; and addressing any current weak points in the current assessments (e.g., how an assessment may not capture the full scope of a Common Core standard).

The Longer View: Making a Districtwide Plan

The crosswalk and transition documents provide relatively quick and effective ways to introduce the Common Core within the context of the state standards. These documents also provide the basis for discussions about the implications of the new standards. Of course, making such significant changes requires a systemic approach. At the district level, staff will need to focus on a broader agenda and take on a number of tasks, such as the following:

- Developing a plan for communicating with staff, parents, post-secondary institutions, and the community about the Common Core.
- Ensuring that leadership, including teacher leaders and administrators, knows how to explain the rationale for the standards and understands their benefits.
- Getting clarity about the state's expectations for the district and sharing that information with schools.
- Developing a transition plan between 2011 and 2014 that accounts for curriculum, instruction, assessment, and accountability.
- Connecting with like-minded districts to share resources.
- Identifying the resources that are coming online each day and establishing a means for evaluating their quality.
- Developing milestones in each area in the district plan, working backward from the Common Core assessment year, 2014.

A crucial goal throughout the planning process will be to cope with the most challenging aspect of the next few years: continuing to administer current state standards and assessments while transitioning to a new system. Ideally, every time new content or expectations are added to the standards, something should be removed. Here are three approaches to consider:

1. Identify strands for "early adoption" that can be substituted for state content immediately. Districts might start with the following:

- Topics in the Common Core that have clear affinity with current state standards.
- Topics that already receive special focus in the classroom because of poor student performance. The Common Core standards could provide a valuable, more specific perspective.
- The Standards for Mathematical Practice. These are an essential aspect of the Common Core and can more easily be adapted for K–12 and form the basis for critical discussions about their application in the mathematics classroom.
- Topics within the Language and Literacy standards that align with current state standards. Take a close look at whether or not the reading

materials currently available to teachers and in use at each grade across the curriculum align with the level of text complexity specified within the Common Core standards.

2. Start kindergarten in fall 2011 with the Common Core, assuming that students in that grade will never be subject to the current state assessments. If your state does not support a full-day kindergarten, you should begin lobbying for it now.

3. Cut content that is neither currently assessed nor included in the Common Core. Consider the absence of this content from both the Common Core and state assessments as evidence that it may be sacrificed without harm.

Most of all, keep in mind that the Common Core developers were tasked with describing *what* to teach, not *how* to teach. Just as states participated in the review and development of these standards, the standards themselves aim to create a foundation for the states to pool resources and expertise to create common curricular tools, professional development, and assessments.

Conclusion: Looking Ahead

There was a time, somewhere in the 2000s, when the word *standards* no longer meant what students should know and be able to do. Rather, standards had become synonymous with *assessments*—specifically, state-administered high-stakes assessments. Given the number of tests administered in the name of standards and accountability, and the kinds of sanctions attached to test results, it's not surprising that the standards movement became inextricably linked to what captured everyone's time and attention. The No Child Left Behind Act (NCLB), the federal legislation that spurred this drive to accountability, did receive widespread support for one of its principal goals. Although the K–12 system served students who came to it with every advantage, too many students who needed help were failing. The nature of this achievement gap could not be understood without information on who was failing and how bad the problem was. Requiring that student performance be reported out by subgroup, NCLB had the virtue of shining a light on underserved students.

Unfortunately, however, the pressure of grade-by-grade assessments that were not tied to ongoing instruction had a distorting effect on the curriculum. At the system level, any subject besides reading, writing, and math lost time and attention (although science recovered once state assessments were added for that discipline). Teachers, especially

those whose state standards were "over-identified," had to decide which subjects to focus on and which could be safely ignored.

Of course, there were bright spots. More state assessments are now aligned to well-written standards and designed to further student learning; these can provide useful diagnostic information. Still, external assessments are now rarely seen as much more than interruptions in the school day that carry more clout than they've earned.

Two state consortia—the Partnership for Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium (SBAC)—have won grants totaling some $360 million from the U.S. Department of Education to create common state assessment systems for the Common Core State Standards for grades 3–8 and high school. Each consortium received an additional $15.8 million grant to support the implementation of the standards.

A state may join a consortium as a governing state or as a participating (or in SBAC, an advisory) state. A governing state is part of the decision-making process and must commit to one of the consortia, but a participating or advisory state may join and advise both consortia before choosing one by 2014–2015, when it must commit to statewide implementation of the consortium's assessment to remain a member.

Each consortium's approach is different. PARCC calls for "through-course" assessments and an end-of-year assessment. The through-course assessments occur roughly at the first, second, and third quarters of the year and contribute to the student's final score. Data from these computer-scored tests will be returned quickly enough to provide teachers with some diagnostic information. The primary intent of the assessments is to identify whether students are on track to be college- and career-ready by graduation. In the language arts, an additional through-course assessment in the spring that incorporates speaking and listening is scored by the teacher and does not contribute to the student's final score, although it may be used in determining course grades.

SBAC includes a required summative exam. This online exam will use adaptive-testing technology and be offered twice each year,

administered during the last 12 weeks of the school year in grades 3–8 and high school. Benchmark exams, called interim assessments, are optional and may be given at locally determined intervals during the year. They will be available to cover specific content clusters or to be more comprehensive. Termed formative assessments, these require a significant teacher role in developing and scoring constructed-response items and performance tasks. These tests do not contribute to the student's final score but are designed to provide a better understanding of students' strengths and limitations through tailored online reports that are linked to instructional and professional development resources.

Both consortia are committed to using technology to produce quick turnaround times for test results and to develop interactive, enhanced test items. They are working together to address common challenges, such as the technological capacity of schools and districts. In addition, both consortia will provide an indication of students' readiness for college or career.

Because both consortia plan to administer the assessments multiple times during the year, such feedback should be more specific and timely than the information currently made available through state tests, which is typically not provided until the following school year. As of this writing, both consortia are still in the design phase, so it is difficult to identify how these plans will be realized, but the intention is to provide an assessment system that supports and reflects high-quality instruction.

Change Is Coming

It is still possible to find schools and districts across the United States existing in the world before standards-based education, where textbooks drive the curriculum. In these systems, the state assessment is viewed as a standardized test disconnected from day-to-day instruction. Other districts, by contrast, exist in the world of present-day standards-based education, developing and identifying curriculum and resources that align to their standards and seeking professional development to

support teachers where student achievement is faltering. Still other districts exist in a world that explores the possible. In these districts, student advancement is defined by mastery of content, not by seat time. Students who are succeeding may move forward at an accelerated pace. At the same time, these districts ensure that students who are not doing as well are not dragged by the calendar into the next grade unprepared.

It is safe to say that such a variable landscape will persist in the Common Core era, but far fewer districts are likely to stay as they are, for economic, social, and political reasons. On the economic side, the Common Core State Standards represent significant savings in curriculum resources, not only because publishers will focus their efforts on one set of standards rather than 43, but also due to the likely explosion of shared resources that will emerge once state boundaries are porous. The assessment consortia are designed to help states leverage value for every dollar they spend in what has heretofore been a very costly enterprise.

On the social front, the Common Core will dominate dialogue in the United States; the number of states that have signed on represents a critical mass. It will be difficult to work as a teaching professional and be part of the dialogue of education without sharing the context of the Common Core. And in a fully implemented system, no district that sends students ignorant of the Common Core to other districts and states will escape the notice of its peers.

On the political front, the growth of minority populations in the United States—increasing at such a pace that soon there will be no "majority"—ensures continued and growing attention to equitable opportunities for all. Many more schools and districts will find that their once homogeneous and often high-achieving groups are now heterogeneous populations that present a variety of instructional challenges.

Where's That Silver Bullet?

Education is a complex and challenging enterprise. Within K–12 education are found the hopes of parents, the promise of children, and, ultimately, the future of a society. The challenges are as significant as

the consequences for failure. We do know a few things. We know that the teacher has the single greatest influence on student learning in the school, and that the backgrounds and experiences students bring to the classroom have an enormous effect on the degree to which those students flourish or struggle to succeed. We also know that holding students to high standards drives them to work to meet what is expected of them.

Standards-based education during the last 20 years has shown both strengths and weaknesses. The Common Core State Standards Initiative has shown a readiness to seize on what is best about standards-based education and at the same time offers hope that the lessons we've learned won't need to be learned again.

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About McREL

Mid-continent Research for Education and Learning (McREL) is a nationally recognized nonprofit education research and development organization, headquartered in Denver, Colorado, with offices in Honolulu, Hawai'i, and Omaha, Nebraska. Since 1966, McREL has helped translate research and professional wisdom about what works in education into practical guidance for educators. Our 120-plus staff members and affiliates include respected researchers, experienced consultants, and published writers who provide educators with research-based guidance, consultation, and professional development for improving student outcomes.

In June 2010, the Common Core State Standards Initiative released *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects* and *Common Core State Standards for Mathematics*. The goal of these shared national standards? To identify for all stakeholders the knowledge and skills that students must acquire to succeed in college, career, and the global economy.

Now that the Common Core standards are coming to 43 states, the District of Columbia, and Puerto Rico, it is essential to understand their content and implications. *Understanding Common Core State Standards* tells you everything you need to know about the standards, including

- The goals and criteria of the standards and why they are a promising alternative to the old standards-based education model;
- The organization and key aspects of the two overarching sets of standards;
- The benefits of implementing the standards, including intentional instruction, a greater pool of resources, increased collegiality and professionalism, customized learning and multiple pathways, and a more consistent, equitable learning experience;
- What schools can do to transition to the new standards; and
- How the common state assessment systems are being developed to provide interactive, enhanced test items; produce specific, timely test results; and provide an indication of students' readiness for college or career.

This book is an invitation to think about the possibilities that the Common Core standards offer for strengthening teaching and learning across the United States—and what you can do to make the most of this opportunity for change.

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