CHAPTER ONE

Why Does Content Literacy Matter?

I have a confession to make. When the Common Core State Standards were first introduced in 2010, I was skeptical. Actually, I was more than skeptical—I wanted to find every reason I could to hate the new standards.

I was coming from the point of view that the state standards developed ten years previously, during the No Child Left Behind (NCLB) movement, were reductive and that the corresponding overemphasis (and overspending) on standardized testing was horribly misguided. In the classrooms that I worked in as a literacy consultant all over the United States, I saw the same pattern during the NCLB decade: more focus on test prep and less focus on research-based teaching methods. As a career-long educator I found this terribly disheartening, and I shared my frustration with my teacher colleagues and students alike.

So when the Common Core State Standards (CCSS) were first introduced, I was poised to attack and rip the CCSS to shreds; I felt certain that they were going to be yet another nail in the coffin of research-based, effective teaching methods. I had only made it to page 4 when I had a Jerry McGuire moment. I realized that the Common Core standards were nothing like the No Child Left Behind nonsense. Here's the part that "had me at hello":

> ***A focus on results rather than means***. *By emphasizing required achievements, the Standards leave room for teachers, curriculum developers, and states to determine how those goals should be reached and what additional topics should be addressed. Thus, the Standards do not mandate such things as a particular writing process or the full range of metacognitive strategies that students may need to monitor and direct their thinking and learning. Teachers are thus free to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for meeting the goals set out in the Standards*.
>
> (CCSS 2010, p. 4)

Hallelujah! Educators were finally being acknowledged and credited for their professional knowledge. Reading this paragraph, I felt refreshed and excited that we could finally get back to what I knew, in my head and heart, great teaching and learning should look like in a middle school or high school classroom.

As I continued to read the standards, I grew increasingly "geeked out" about what this new framework could do for our students. If you've felt similarly skeptical about the Common Core State Standards, let me give you a quick overview of some CCSS basics and explain why the new standards are a great thing for our schools.

THE STRUCTURE OF THE COMMON CORE STATE STANDARDS

For sixth through twelfth grade (at the time of press for this book) the following CCSS documents are available:

- *Common Core State Standards for English Language Arts* and Literacy in History/Social Studies, Science, and Technical Subjects
- *Common Core State Standards for Mathematics*

In this book, we are going to focus on the first document, *Common Core State Standards for English Language Arts in Science and Technical Subjects* (which include mathematics). Before we begin, I need to clarify a couple of things as they are articulated in the CCSS documents for interdisciplinary literacy. (If you need a full copy of the standards, the documents can be downloaded at www.corestandards.org.)

1. There are *four* strands in the English language arts (ELA) standards:
   Reading

Writing

Speaking and listening

Language (including grammar and vocabulary)

2. For the literacy in science and technical subjects (and, by implication, in the mathematical standards), there are *two* strands: reading and writing. Although the speaking, listening, and language strands are not included in this set of standards, strategies for these literacies are included in this book, since both are necessary for students to learn new content and to express what they know and understand about that content.

THE NEED FOR CONTENT LITERACY

As many middle school and high school teachers already know, our teenagers are struggling with their reading skills, and there are very specific reasons why. You've no doubt heard many explanations in staff development workshops. The National Assessment of Educational Progress (NAEP) data shows that a majority of American eighth-grade students aren't proficient readers. This means that most students aren't able to comprehend grade-level texts when they enter high school. The 2006 ACT, Inc., report, *Reading between the Lines*, is cited by the CCSS authors as evidence that about half of high school students who took the ACT in the 2004–2005 academic year lacked the reading and literacy skills necessary for success in an introductory, credit-bearing college course (CCSS 2010, appendix A, p. 23). In fact, it is estimated that more than 40 percent of students entering college must take remedial courses in reading and writing before they are able to enroll in college credit courses.

To address this stark reality, the Common Core State Standards authors drew from research in the field of adolescent literacy as they identified the skills in reading, writing, speaking and listening, and language that would prepare students in the twenty-first century for college and career readiness. In the introduction to the standards the authors identify what it means for students to be college and career ready.

> *As students advance to the grades and master the standards in reading, writing, speaking, listening, and language, they are able to exhibit with increasing fullness and regularity these capacities of the literate individual.*
>
> *They demonstrate independence*
>
> *They build strong content knowledge.*

They respond to the varying demand of audience, task, purpose, and discipline.
They comprehend as well as critique.
They value evidence.
They use technology and digital media strategically and capably.
They come to understand other perspectives and cultures.

(CCSS 2010, p. 7)

As you read through this list, I'm sure you'll agree that these literacy skills are integral to the development of content knowledge and competency.

At the sixth through twelfth grade levels, the literacy standards for English language arts are divided into two sets. There are standards that focus on **English language arts classrooms**, and there are **interdisciplinary literacy standards**. The latter were created to address the literacy needs of adolescent students in subject areas other than English. This doesn't mean that content area teachers are English teachers! It **does** mean that the interdisciplinary literacy standards are designed "*to complement the specific content demands of the disciplines, not replace them*" (CCSS 2010, p. 60).

WHAT DOES THIS FRAMEWORK MEAN FOR CONTENT AREA TEACHERS?

The ELA standards and the literacy standards for science and technical subjects share the same anchor standards in reading and writing. The ELA standards also embody anchor standards in speaking, listening, and language. This book contains strategies for speaking, listening, and language, since these are necessary for college and career readiness, although not included in the literacy in science and technical subjects standards.

Common Core State Standards

Looking at the standards from a more macro-level view, one can see that particular emphasis is placed on reading and writing in content area classes. Students are expected to develop their literacy skills as they learn content, with a particular emphasis on reading informational texts and argumentation in writing.

The emphasis on content literacy as articulated in the CCSS is not a new idea for middle school and high school teachers. The difference is that the CCSS emphasize that all content area teachers are responsible for developing student literacy skills; this effort is not the responsibility solely of English language arts

teachers. Learning and integrating literacy strategies and skills in the teaching of content are pedagogies for effective instruction. **This is the focus of this book: to provide specific strategies that content area teachers can use to boost students' literacy and deepen their understanding of content area material**.

A Close Reading

When students read to develop content knowledge, they're often working with complex texts. In order to develop knowledge in a specific content area, students need to be able to **analyze and synthesize** literary and informational texts.

> *Reading is critical to building knowledge in history/social studies as well as in science and technical subjects. College and career ready reading in these fields requires an appreciation of the norms and conventions of each discipline, such as the kinds of evidence used in history and science; an understanding of domain specific words and phrases; an attention to precise details; and the capacity to evaluate intricate arguments, synthesize complex information, and follow detailed description of events and concepts. In history/social studies, for example, students need to be able to analyze, evaluate, and differentiate primary and secondary sources. 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. Students must be able to read complex informational texts in these fields with independence and confidence because the vast majority of reading in college and workforce training programs will be sophisticated nonfiction. It is important to note that these reading standards are meant to complement the specific content demands of the disciplines, not replace them.*
>
> (CCSS 2010, p. 60)

Although these goals are embedded within the literacy standards there are clear implications to the development of content knowledge. Specifically, students need to know how to read **content-specific text** like charts and graphs in science, math, and technical subjects. Teaching and developing specific literacy skills facilitate content learning, including science and mathematics.

Up for Debate

Another important feature of the literacy standards is the emphasis on argumentation. For college and career readiness, students need to be able to demonstrate

what they know and understand through written text. Specifically, students should be able to make a claim, provide evidence, and make counterarguments. The introduction to the interdisciplinary writing standards articulates these expectations:

> *For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college and career ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline and the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and long time frames throughout the year.*
>
> (CCSS 2010, p. 63)

The CCSS authors identify argumentation and writing as essential skills for developing content knowledge and being able to express what a student knows and understands in any given content-based discipline.

The interdisciplinary literacy standards are consistent with the K–12 ELA anchor standards; close reading, technology integration, and text complexity are all referenced. The strategies in this book specifically address these areas to support the development of students' literacy skills while also developing content knowledge. Although there are many similarities between these sets of standards, there are a few differences to note. For example, writing anchor standard 3, which emphasizes narrative writing ("*Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences*"), is not included in the interdisciplinary writing standards. It is expected that narrative writing is more suited for the English content curriculum, although the CCSS authors note that students do need to develop their narrative voice in writing argumentation.

> *Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments*

> *and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historical import. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work so that others can replicate them and (possibly) reach the same results.*
>
> (CCSS 2010, p. 65)

In addition to narrative writing, reading literature is included in the English content area standards but not in the interdisciplinary standards. This is logical, since literature is the primary content text for English courses.

Reading the Framework

As mentioned previously, the CCSS include anchor standards, which are consistent skills statements for grades K–12. These are macro-level expectations that students are to meet at the conclusion of twelfth grade. Under each anchor statement, there are grade-level articulations. These grade-level articulations are year-end goals and must be broken down into smaller lesson-level and unit-level goals (see figure 1.1).

THE BIGGEST CHANGES WITH THE COMMON CORE

The architects of the Common Core State Standards examined the recommendations of the National Reading Panel, data from the National Assessment for Educational Progress, and research-based methodology for literacy skill development. In the chapters that follow we'll examine each of the strands, the associated standards, and activities and strategies that you can immediately use in your classroom. Right now, we're going to look at the big picture and the overall major shifts that are embedded in the CCSS.

As we look at the CCSS reading strand, we'll notice that there is a much greater emphasis placed on high-level comprehension skills. Whether you've been teaching for quite some time or are new to the profession, you've surely already noticed that middle school and high school students lack the more sophisticated and developed reading skills that can support their understanding of related texts in our content areas, specifically science and mathematics. If students are to become college and career ready, they must be able to tackle increasingly complex texts. Highly developed reading comprehension skills are part of the "secret sauce" for college and career readiness.

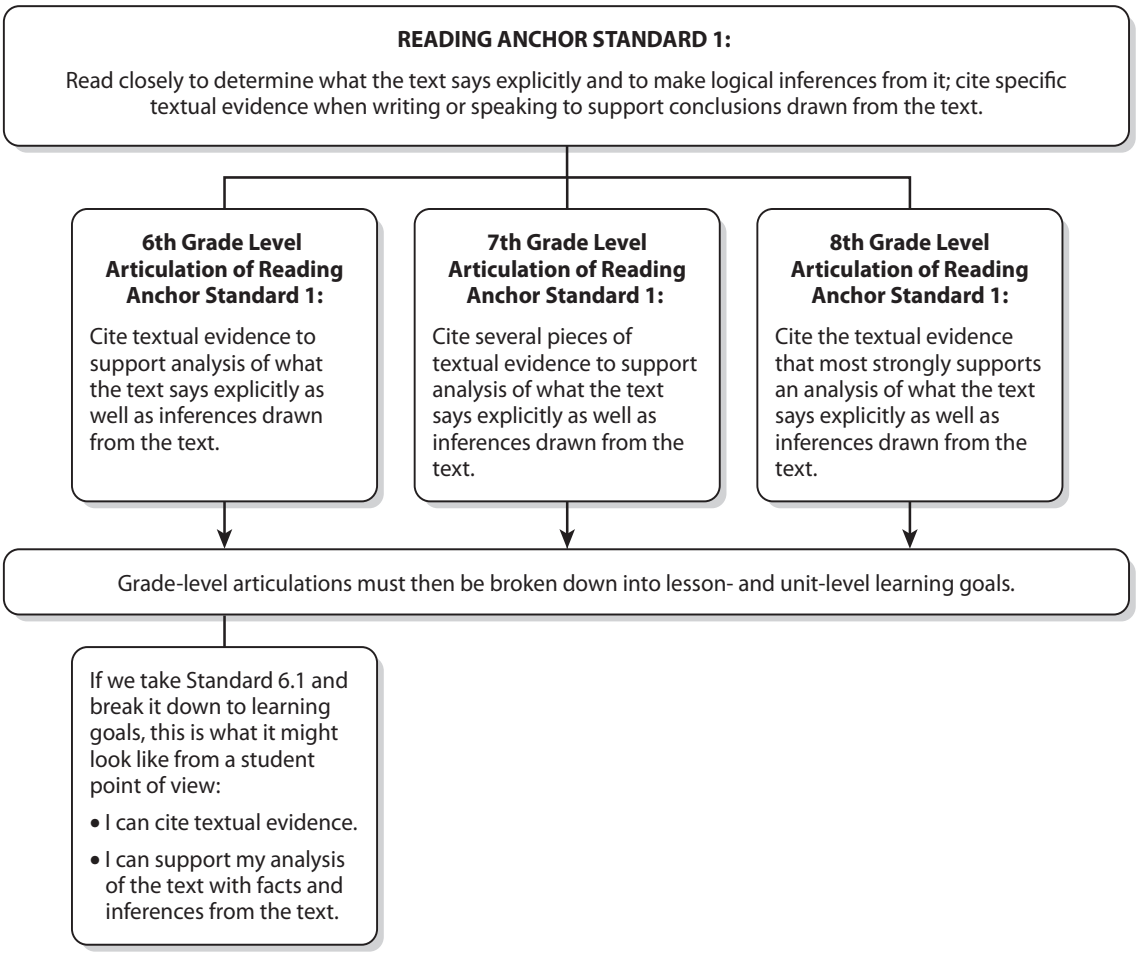

Figure 1.1 Anchor Standards and Grade-Level Articulations of Those Standards

Text Complexity

Although I'll go into greater detail about text complexity in chapter 2, we'll look at it briefly here. Text complexity is discussed in great detail in the CCSS document and articulated through reading anchor standard 10 for ELA and through the interdisciplinary literacy standard in history/social studies. In reading anchor standard 10, readers are expected to "*read and comprehend complex literary and informational texts independently and proficiently*." What this means for middle school and high school teachers is that we must provide our students with a wide variety of texts that can develop students' reading skills, specifically in comprehension. We will discuss that in greater detail in chapter 2, and I'll provide some specific strategies for science and mathematics content.

Close Reading and Textual Analysis

Before you picked up this book, you'd probably already heard about close reading in discussions about the new standards. Close reading, or analytical reading of text, is valued as a means to develop high-level comprehension and interpretive skills. In chapter 2 I'll give you many strategies for developing close reading skills in your students, specifically science and mathematics word problems.

Argumentation in Writing

My seventeen-year-old daughter's English teacher, Mr. Gunning, began the first day of the senior English class with the following statement: "Everything is an argument." College- and career-ready students can make a claim about a text and then support it with evidence. That evidence is not always text-based. For the English class, the evidence probably would be text-based, but in social studies we would probably use text, visual documentation, graphs, charts, or lab data as evidence to support a claim. In mathematics, we would use numerical data to support a claim. There are many careers in which this kind of argumentation is relevant. For example, scientists make claims and must use data to support them. There are also many examples where numerical data, such as statistics, are used to support a claim. When adolescent students are able to establish a claim and support it with rich evidence, they are college and career ready. Appendix C in the CCSS document provides writing exemplars for your reference.

Greater Emphasis on Research

The CCSS writing standards also emphasize research. In order to be college and career ready, students should be able to analyze and synthesize a wide variety of resources, including technology or media-based resources, and present a cogent argument.

Speaking and Listening

Although the literacy standards for science and technical subjects do not include the speaking and listening strand, it is in my view a core part of the balanced literacy program and needs to be addressed, so this strand is included in the discussion in this book. Like the writing standards, the speaking and listening

standards emphasize a student's ability to present an argument through speaking. Science and mathematics teachers are certainly familiar with this expectation and skill. The speaking and listening standards also emphasize a student's ability to engage in active listening in small and large group discussion. I don't know why the speaking and listening strand was not included in the interdisciplinary standards, but all content teachers—not just those in ELA—develop these skills in their students.

Language

Like the speaking and listening standards, the language standards are included only for the ELA and not for the interdisciplinary standards. I believe the CCSS language expectations also deserve attention in content areas. The ELA language standards focus on grammar and vocabulary; science and mathematics teachers are surely already addressing grammar in student written work and in speaking. If students are going to improve their overall literacy skills so that they are better able to learn content in our particular disciplines, then all of us must address grammatical issues when appropriate and needed. In addition, vocabulary is also a focus of the language standards. All content areas are vocabulary rich. Chapter 5 will provide a number of strategies for helping students develop vocabulary content knowledge.

SOME FINAL THOUGHTS

My purpose in writing this book is to provide content area teachers with ideas and resources for students to develop their literacy skills while learning content. This should be an easy process—as students learn new content, they should become more literate in that content area simultaneously and seamlessly—but, of course, it's not always that straightforward. Therefore my aim in the pages that follow is to make this process easier for you, the content area teacher. And please remember that Common Core implementation is a journey. Good teachers tinker, and this book provides tools, strategies, and ideas that will support your classroom tinkering!