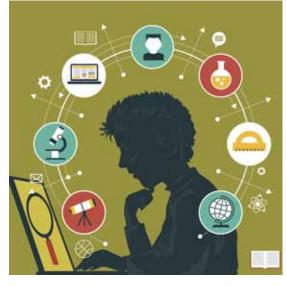


Restoring Wonder and Excitement to the Classroom

Top Three Takeaways

- 1. In reading, the best indicator of whether a student is college ready is the ability to understand complex texts.
- 2. Texts assigned in high school tend to be only a little harder than those assigned in middle school and significantly less complex than those assigned in college.
- 3. To give all children a real shot at being college ready, we have to start building knowledge and vocabulary, and immersing students in academic language with sophisticated syntax, from the very first day of school.

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Complex Text: The Hidden Key to College Readiness

By David Liben, Silas Kulkarni, and Lisa Hansel

tep back a few moments in time, to just before you read the title of this paper, and ask yourself: What's the key to college-level reading: (a) the ability to answer a variety of inferential questions (addressing theme, author's purpose, main idea, etc.) or (b) the ability to comprehend complex text? Given the overwhelming emphasis in professional development, instructional materials, and assessments on pushing students beyond literal questions to inferential ones, this should be a no-brainer for everyone involved in education.

But we'd all be wrong.

Data from the ACT Reading Test¹ show that along the whole spectrum of scores —from low performing to high performing—student performance on literal test questions is the same as on a wide variety of inferential items. The results may be shocking, but they're also perfectly clear: Virtually without fail, if a student can answer a literal question on a passage, he or she can also answer an inferential one *on that same passage*. So, the key to being ready for college-level reading *might* be something that increases ability with literal and inferential questions—but it won't be anything special to drawing inferences.

Seeking what does distinguish those who are ready for college texts from those who are not, ACT examined its test passages through multiple lenses. The only one that mattered was text complexity.



After categorizing its passages as uncomplicated, more challenging, or complex, it found a striking pattern. Across the achievement spectrum, students do almost as well on more-challenging texts as they do on uncomplicated texts. But on complex texts, that can only be said of the highest-performing students. Despite the fact that the ACT is taken by students intending to go to college, nearly half scored only a little above chance on complex texts. Among the other half, there's a steep growth curve, with only students at the very top performing as well on complex texts as on the other texts. As the ACT summed up its findings, "Performance on complex texts is the clearest differentiator in reading between students who are likely to be ready for college and those who are not. And this is true for both genders, all racial/ethnic groups, and all family income levels." ²

To grasp the importance of this finding, we need to know what the ACT means by "ready for college." With data from more than 90,000 students at 98 institutions of higher education (weighted to be nationally representative), ACT researchers determined how well a student had to perform on the ACT Reading Test to be likely to do well in college. Students who attain this "College Readiness Benchmark for Reading" are more likely than students who don't attain it to:³

- Enroll in college (74 percent vs. 59 percent);
- Earn a grade of B or higher (63 percent vs. 36 percent) or C or higher (85 percent vs. 64 percent) in first-year college U.S. History courses;
- Earn a grade of B or higher (64 percent vs. 39 percent) or C or higher (85 percent vs. 68 percent) in first-year college Psychology courses;
- Earn a first-year college GPA of 3.0 or higher (54 percent vs. 33 percent) or 2.0 or higher (87 percent vs. 76 percent); and
- Return for a second year of college at the same institution (78 percent vs. 67 percent).

Clearly, the ability to comprehend complex texts has a major impact on students' futures. But just how complex are these texts?

How Complex Are the Texts that Distinguish College Readiness?

In distinguishing among uncomplicated, more-challenging, and complex texts, ACT looked at several criteria. Summing up ACT's rubric, complex text can be characterized as having more subtle relationships among ideas or characters, including sophisticated information, using an elaborate or unconventional structure and intricate style, containing lots of context-dependent and demanding vocabulary, and having an implicit and/or ambiguous purpose.

Perhaps more useful than these descriptors are examples of more-challenging and complex passages used in the ACT Reading Test. Here are the opening paragraphs from two ACT sample test passages on the natural sciences.

More Challenging⁴

After years of close scientific observation in the wild and in captivity, the spotted hyena, long regarded as one of nature's more loathsome creations, is getting a fresh image. But if anything, the new portrait is even more chilling than the old. To their credit, we now know that spotted hyenas hunt as often as they scavenge, so they're not the cowards we had believed them to be. On the other hand, in one of the most startling findings to



date, researchers now know that infant cubs often try to kill each other, only moments after birth, and they think the mother may play a biased role in determining the outcome of the battles. How she does this remains a mystery.

Knowledge Matters

The spotted hyenas are the only mammals known to habitually commit what researchers call siblicide, says zoologist Laurence G. Frank of the University of California at Berkeley, who discovered the practice during his study of a captive hyena colony in California. Scientists speculate that this form of sibling rivalry may be nature's way of ensuring a healthier adulthood for one cub.

Complex⁵

We tend to think of our selves as the only wholly unique creations in nature, but it is not so. Uniqueness is so commonplace a property of living things that there is really nothing at all unique about it. Even individual, free-swimming bacteria can be viewed as unique entities, distinguishable from each other even when they are the progeny of a single clone. Spudich and Koshland have recently reported that motile microorganisms of the same species are like solitary eccentrics in their swimming behavior. When they are searching for food, some tumble in one direction for precisely so many seconds before quitting, while others tumble differently and for different, but characteristic, periods of time. If you watch them closely, tethered by their flagellae to the surface of an antibody-coated slide, you can tell them from each other by the way they twirl, as accurately as though they had different names.

Fish can tell each other apart as individuals, by the smell of self. So can mice, and here the olfactory discrimination is governed by the same H2 locus which contains the genes for immunologic self-marking.

From knowledge and vocabulary to style and structure, the complex text on the ACT test—which predicts college readiness—is very demanding. But there's no reason to believe it's out of reach for most students. While there is no set of comprehension or test-prep strategies that will enable students to grasp complex texts, there is much we can do to better prepare students for such texts. We'll explore solutions soon. First, we need to see why it is that half of students seriously considering college are so far from ready for college reading.

The Invisible Gap

Take a moment to reread the complex text sample from the ACT. Now ask yourself: How often do you encounter texts that challenging? And how often do high school students encounter such complexity? They won't see such complexity on popular websites or in the typical newspaper article. And sadly, research shows, they won't see it in most textbooks either.

Studies examining texts' Lexile scores (which is a widely used measure of how challenging texts are) show that books for grades 9–12 are shockingly similar to those for grades 7–8.⁶ Worse, there is a large gap between texts used at the end of high school and the beginning of college. For example, research⁷ published in 2008 (shortly before the Common Core) found a Lexile gap of 260, on

average, between texts for grades 11–12 and texts for university freshmen and sophomores. The table⁸ below provides results for texts at the 25th and 75th percentiles; note that the 75th percentile high school textbook is easier than the 25th percentile community college textbook:

Texts for Grades 11–12 vs. Texts for College Freshmen and Sophomores	
Grades	Textbook Levels, 25th to 75th Percentiles
High School	1070L to 1180L
Community College	1200L to 1368L
University	1300L to 1480L

We can put these gaps into perspective by examining research on students and texts across grades 1 to 12. Looking again at the 25th and 75th percentiles, the table and line graph below provide Lexile ranges for typical students and textbooks. Three findings are especially noteworthy. First, even though this assessment was conducted by a different group of researchers, the range found for grades 11-12 texts (1070L to 1220L) was almost identical to the range found in the 2008 study noted above (1070L to 1180L). Second, as the grade levels go up, growth in Lexile scores slows. Among students and texts, there's very little growth in high school. On these trajectories, students would need at least another four years to reach the 1300L to 1480L range demanded by university texts for freshmen and sophomores. (In contrast, the texts recommended in Appendix A of the Common Core standards address this problem by gradually becoming more complex throughout K-12.¹⁰ By grades 11-12, they reach 1185L to 1385L, 11 bringing students to a college-ready level of complexity.) Third, students' reading levels track text complexity levels, indicating that students are rising to the challenges they are given. These data suggest that if students were given opportunities to work with more complex texts, they would succeed.¹²



at the 25th and 75th Percentiles, Table Grade Student Reading Levels, Textbook Levels, 25th to 75th Percentiles 25th to 75th Percentiles Up to 300L 230L to 420L 1 2 140L to 500L 450L to 570L 3 330L to 700L 600L to 730L 4 445L to 810L 640L to 780L 565L to 910L 730L to 850L 5 6 665L to 1000L 860L to 920L 7 735L to 1065L 880L to 960L 8 805L to 1100L 900L to 1010L 855L to 1165L 960L to 1110L 10 905L to 1195L 920L to 1120L

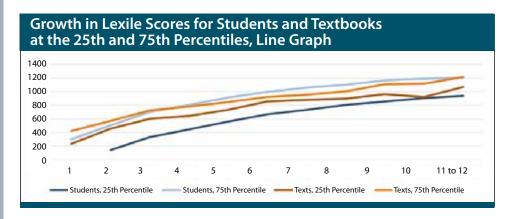
1070L to 1220L

Growth in Lexile Scores for Students and Textbooks

940L to 1210L

11-12

Only students in the most rigorous science classes are being prepared for the type of reading that the average citizen ought to engage in every day.



Making matters worse, the difficulty of scientific journal articles is even greater than that of college texts, ¹³ and college professors are far more likely to assign such readings than high school teachers. ¹⁴ No wonder placement in remedial courses in college is so high—50 percent for students entering two-year colleges and 20 percent for those entering four-year colleges. ¹⁵

Of course, these findings matter for everyone, not just college students. Whether to pursue their personal interests, be responsible voters, or prepare for career advances, all adults should be able to comprehend international newspapers and Wikipedia entries—but their Lexile scores are, on average, a little higher than those of university textbooks. According to one especially comprehensive study, high school students can only find sufficiently complex text in Advanced Placement science courses. Think about that: Only the relatively few students in the most rigorous science classes are being prepared for the type of reading that the average citizen ought to engage in every day.

For My Sixth-Graders, Knowledge Unlocks 250-Year-Old Texts

By Michelle Bonneau

Michelle Bonneau is a fourth- through sixth-grades humanities teacher at Brownington Central School in Brownington, Vermont. She is a sixth-year teacher and currently pursing a master's degree at Lyndon State College.

Like most teachers, there are certain moments in my classroom that I'll never forget. One happened just a few months ago when Juan*—a sixth-grader with dyslexia—proclaimed, "This complex text work isn't so bad after all!" He had just finished reading *Ackowanothie*, a *Delaware*, *Speaks*, a text many adults would struggle with and many teachers might assume is beyond even the most precocious of middle schoolers. But Juan could handle it, as could the rest of his class, because we had spent the past two months immersed in a unit on the French and Indian War. With his deep knowledge of the subject and weeks of combing through progressively harder texts, Juan was well prepared—and thrilled with his success. Along the way, he learned that complex text took time for everyone to understand, not just him. He also grew to see that if he knew the topic—if he learned the concepts and the vocabulary—that he was on a level playing field with the other students in his class.

(Continued on page 11)

* Juan is a pseudonym.



The more knowledge

and vocabulary

children have, the

more they are able

to understand and

thus learn.

While they are in high school, students have no way of knowing that the texts they are being asked to read are not preparing them for the future. But not long after they graduate, many young adults realize that something was amiss in high school. Surveys of recent high school graduates conducted in 2004 and 2014 found that they realized that expectations were too low and their courses were not challenging enough:18

In both surveys, only one in five respondents reported that their high schools set high academic expectations. Whether they went on to college or the workplace, more than half reported gaps in preparation for life after high school. And knowing what they know now, approximately 60 percent in the 2014 survey said that they would have worked harder, and 72 percent of students who went to college and 65 percent of those who did not would have taken higher-level or more challenging courses.

If high school courses routinely used complex texts, courses would be more challenging and expectations would be higher. More importantly, high school graduates would be well prepared. Let's not wait for the 2024 survey. Our children, and our nation, need us to act now.

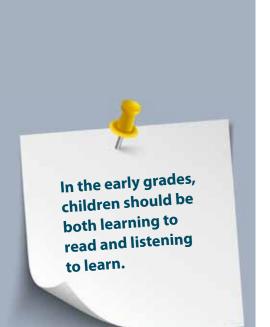
Rising to the Challenge of Complex Texts

While it's tempting to see this as a high school problem, preparing students to read college-level complex text is actually a challenge for our whole school system, K-12. Only a rigorous K-12 education that teaches broad knowledge and skills, and thoughtfully includes a range of texts in every grade and every subject will get the job done.

As the examples above illustrate, comprehending complex text requires fluent reading, the ability to parse complex syntax, appropriate vocabulary, and wide academic knowledge. 19 For many years, teachers have been told that children begin with learning to read and then transition to reading to learn. If all goes well, that means devoting the first few years of school to developing fluency, and then starting on vocabulary, knowledge, and syntax in third or fourth grade.

While this may work for children who come from book-filled homes and have well-educated parents, it is not working for other students. By third or fourth grade, less-privileged children are far behind their luckier peers in vocabulary, knowledge, and syntax.20 As explained in great detail in Too Many Children Left Behind: The U.S. Achievement Gap in Comparative Perspective, children from lower-income homes arrive at school behind and fall further behind throughout their years in school.²¹ Research on language and comprehension development points to an exponential growth trajectory; the more knowledge and vocabulary children have, the more they are able to understand and thus learn. Researchers refer to this as the Matthew effect, in reference to the Biblical passage about the rich getting richer.²²

For educators, the takeaway is clear: Provide as rich an education as possible, starting as early as possible. To give all children a real shot at being college ready, we have to start building knowledge and vocabulary, and immersing students in academic language with sophisticated syntax, from the very first day of school.²³



On Our Terms: How My History Course Changed from Test Prep to Citizenship Prep

By Christina Suarez

Christina Suarez holds a master's degree in secondary education from the University of Vermont and is the social studies department chair at Lake Region Union High School in Orleans, Vermont, where she has taught and served in a variety of district instructional leadership roles for 13 years. Christina frequently works on professional learning teams with the Vermont Agency of Education, in addition to serving as a core advocate for Student Achievement Partners, and as co-chair for the 6–12 Social Studies Development Committee with the College Board.

My first teaching job was in a rural school district in the "Northeast Kingdom" of Vermont, a bastion of poverty caused by the decline of the family farm. When I walked in, I was given a textbook, a list of historical terms, and a set of low-level cause and effect questions that my students would be tested on at the end of the year. That was it. We had to cover a chapter a week out of a 900-page textbook on U.S. History from Reconstruction to the present.

(Continued on page 13)

In the early grades, children should be both learning to read and listening to learn. With teacher read-alouds, even preschoolers and kindergartners can discuss and learn from challenging texts drawn from the sciences, social studies, and arts. If students are going to be able to read independently about "motile microorganisms" and "flagellae" in 12th grade, they need to hear and talk about germs in the beginning of elementary school, and read about bacterial cell structures in the middle grades.

Throughout the elementary and middle grades, and as far into high school as necessary, teachers should carefully select a range of texts for students to read—including some they can read fluently and others they find challenging—and then also read aloud some texts that are beyond students' current abilities. Such engagement is necessary for students to increase their independent reading levels.

To maximize students' fluency, academic vocabulary, knowledge, and syntax, teachers in all grades and subjects should also build text sets.* Text sets are quickly growing in popularity. They are a great way to immerse students in a topic, giving them time to build knowledge, acquire new vocabulary, and progress quickly from introductory to complex texts. In a well-designed text set, the later readings will draw on the content of the earlier ones and extend what was learned in the initial readings.²⁴ This is especially helpful for struggling readers, who see that what they learn in the initial texts enables them to comprehend the later, more difficult texts.

Although there's no one formula for text sets, they usually contain 5 to 10 texts on a single topic—such as 19th-century impressionist painters, the planets in our solar system, or the unique features of wetland habitats. Text sets provide

^{*} For more on text sets, including model text sets for elementary and middle grades, see the Text Set Project.



opportunities to mix independent reading with teacher read-alouds (especially for the younger grades). A teacher may decide to read aloud the initial text in the set, for example, so as to foster a discussion that will interest students in reading the rest of the set and begin building knowledge. Or a teacher may have students work through several texts on their own or in groups, and only read aloud one or two texts in the set that are beyond students' reading abilities. A crucial feature of text sets (as opposed to widely used thematic units) is that they are focused enough to ensure that key concepts and topic-specific vocabulary will be repeated and extended across the texts. As students' knowledge and vocabulary on the topic increases, so does their reading level (and listening level); with the more difficult texts that come late in the set, students draw on their overall understanding of the topic and the text to infer the meanings of unfamiliar words.²⁵

One great benefit of text sets is that they help equalize opportunities to learn. If students read—or are read to—about the Milky Way one day and the Wright Brothers the next, then only the students who already knew a little about those things are likely to learn from those texts. Acquiring new vocabulary and knowledge takes time. Unlike a single text, a text set on the Milky Way would give children who are just starting to learn about our universe the time they need to grasp the concepts and would also have material to challenge all students. (For an excellent example of a series of text sets on the human body, see the sidebar on p. 9.)

Another great benefit of text sets is that they can be developed to address weaknesses in textbooks. As we've seen, high school textbooks are nowhere near as challenging as they need to be to prepare students for college. High school teachers in all subjects could create text sets to fill knowledge and complexity gaps—they could even select some articles from a variety of online sources, including international newspapers and journals, so students have experience with the types of texts they will be expected to read independently in college and in the workplace.

Being able to read complex text with understanding and insight is essential for high achievement in college and the workplace. Moreover, if students cannot read complex expository text, they will likely turn to sources such as tweets, videos, podcasts, and similar media for information. These sources, while not without value, cannot capture the nuances, subtlety, depth, or breadth of ideas developed in complex text. Consequently, these practices are likely to lead to a general impoverishment of knowledge, which in turn will accelerate the decline in ability to comprehend challenging texts, leading to still further declines.

Such a devastating downward spiral has serious implications for the ability of our citizens to participate wisely in our democracy and for the ability of our nation to strive for equality of opportunity. Students arriving at school from less-educated families disproportionally struggle with complex text. The stakes are high for everyone, but they are even higher for students who are largely disenfranchised from academic text prior to arriving at the schoolhouse door.

Having students listen to informational readalouds in the early grades helps lay the necessary foundation.

Building Comprehension in the Elementary Grades: An Example from the Common Core

Whether your state adopted the Common Core standards or not, your students still need to develop the fluency, academic vocabulary, knowledge, and syntax demanded by complex text. The Common Core literacy standards provide an excellent example of how to give students a strong foundation in elementary school—but it seems that very few teachers or administrators have ever seen it.

Titled "Staying on Topic Within a Grade and Across Grades: How to Build Knowledge Systematically in English Language Arts K-5," this example begins with practical advice derived from the same body of research discussed in this article:

Building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will form one big picture.... Within a grade level, there should be an adequate number of titles on a single topic that would allow children to study that topic for a sustained period. The knowledge children have learned about particular topics in early grade levels should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics....

Preparation for reading complex informational texts should begin at the very earliest elementary school grades. What follows is one example that uses domain-specific nonfiction titles across grade levels to illustrate how curriculum designers and classroom teachers can infuse the English language arts block with rich, age-appropriate content knowledge and vocabulary in history/social studies, science, and the arts. Having students listen to informational readalouds in the early grades helps lay the necessary foundation for students' reading and understanding of increasingly complex texts on their own in subsequent grades.

It then has a table with suggested texts on the human body for K-5. On the next page, we show the suggestion for kindergarten and first grade—and we hope that elementary teachers will explore the complete example. Notice how focused the texts are on the topic within each grade, and how carefully the first grade texts extend what children learned in kindergarten.

Accelerate Learning with Well-Sequenced Texts

KINDERGARTEN: The five senses and associated body parts:

- *My Five Senses* by Aliki (1989)
- Hearing by Maria Rius (1985)
- Sight by Maria Rius (1985)
- Smell by Maria Rius (1985)
- *Taste* by Maria Rius (1985)
- Touch by Maria Rius (1985)

Taking care of your body: Overview (hygiene, diet, exercise, rest):

- My Amazing Body: A First Look at Health & Fitness by Pat Thomas (2001)
- Get Up and Go! by Nancy Carlson (2008)
- *Go Wash Up* by Doering Tourville (2008)
- Sleep by Paul Showers (1997)
- *Fuel the Body* by Doering Tourville (2008)

FIRST GRADE: Introduction to the systems of the human body and associated body parts:

- Under Your Skin: Your Amazing Body by Mick Manning (2007)
- *Me and My Amazing Body* by Joan Sweeney (1999)
- *The Human Body* by Gallimard Jeunesse (2007)
- *The Busy Body Book* by Lizzy Rockwell (2008)
- First Encyclopedia of the Human Body by Fiona Chandler (2004)

Taking care of your body: Germs, diseases, and preventing illness:

- *Germs Make Me Sick* by Marilyn Berger (1995)
- *Tiny Life on Your Body* by Christine Taylor-Butler (2005)
- *Germ Stories* by Arthur Kornberg (2007)
- *All About Scabs* by Genichiro Yagyu (1998)



(Continued from page 5, "For My Sixth-Graders, Knowledge Unlocks 250-Year-Old Texts")

While I'm proud of Juan, I share responsibility for his great progress with all of my colleagues. At our school, we have a carefully planned spiral curriculum in which the history content we teach builds coherently and cumulatively. Students master key concepts and facts, developing a great understanding of each era. None of the teachers has to spend time reteaching content—and that's why I get to devote two full months to the French and Indian War. During the unit, students work their way from relatively easy introductory texts up to challenging primary sources, as well as fully understand the impact of the war. In eighth grade, when our students return to American history after a year of world history, students are able to start off at the Revolutionary War because they have had a strong dose of the content leading up to it.

My French and Indian War unit is structured around several essential questions. The goal is not just to understand the outcome and impact of the war, but to also have a sense of why wars in general start and to examine the historical impact that human interactions have during wartime. The most important questions are:

- What causes groups of people to declare war?
- How can misunderstandings lead to conflict?
- How can people's actions change others' perceptions of them?
- How can different perspectives lead to groups of people being outcast?
- How can the ways people treat each other have both positive and negative effects on history?

As we discuss these questions, we stay firmly grounded in the historical content, so students also master the key players, participants, and roles that each group played in the war.

Throughout the unit I use a four-part documentary series by PBS called *The War that Made America* to help students better understand the French and Indian War. Before we watch the first video, titled *A Country Between*, I have students read a lower-level article that is accessible to all students, titled "George Washington and the First War for America." This article outlines Washington's role in the war as well as the major points of the war, including why it was called the French and Indian War and the ultimate outcome. Once students have a basic idea of the war, we watch the video and pause at important moments for discussion. This video reinforces important points on George Washington, the three main groups involved, and their reasons for fighting.

Next, students read an on-grade level article titled "What Were They Fighting For?" This article more deeply explains the French and British dispute and highlights the role Native Americans played, even though they would have preferred to stay neutral.

Once my students have had several exposures to articles of increasing complexity and have had instruction around the content, we try our



first primary source document. Primary sources from the 1700s are challenging—students think they will never be able to read them. For the first primary source document, I walk the students through it, providing lots of practice in dissecting the text. I also explain that by the end of the unit, they will be reading these primary source documents on their own.

At first, students are skeptical, to say the least. They look at me as if I were crazy because they are unsure how they will ever be able to understand, let alone independently read, a document with such dense language. When we get started, my mission is to show students that they can read anything they set their minds to, if they know how to properly attack the text and if they take the time to build up their knowledge and vocabulary. From the first video and introductory texts, students have enough background knowledge to engage in some analysis. They know that Native Americans will play an important part in the war even though they are not the ones directly fighting each other. Still, I walk them slowly through "Building Forts in their Hearts," written by Edmond Atkin, a member of the South Carolina Governing Council, in 1755. Atkin advises the British on how they should interact with Native Americans and describes how the French were treating the Native Americans. I lead my students in breaking down this first document line by line. The first thing my students notice is that the article is only one page; I ask students if they think the article will be difficult to understand or not, and most of them think it will be easy because it is so short. Students then try to read the article. When I ask them to discuss the questions at the end, they quickly realize just because something is short doesn't make it easy. Finally, they are ready for me to teach them how to unpack complex text.

They first recognize that they don't know several of the words, so I explain that knowing key vocabulary is the first step in understanding text. I model how to go through a text and look up unfamiliar words as the students watch me write my own understandable definitions. We then discuss the time period, which is especially important in this case because apostrophes are put into words to replace letters and often words are spelled wrong. Students need to recognize if a word is misspelled because they won't know how to read it or find its meaning if they can't recognize that it is misspelled.

Next, I tell them that the key to understanding complex documents is to break them down. Don't try to read an entire page—read a small chunk like a few sentences or a paragraph and make meaning out of that first. By breaking the text into small chunks, students don't put their energy into reading two pages without understanding a thing. I assist the students with the first few primary source texts completely and then gradually—as their knowledge of the subject and their comfort with addressing challenges grow—I release responsibility. By the end of the unit, students have detailed knowledge of the French and Indian War and are tackling primary source documents on their own. Students are amazed that, by the end of the unit, they are able to read and understand text that they thought they would never be able to grasp. Both the history they learn and the understanding that as their knowledge grows, so does their reading ability, are great motivators. As Juan said, "This complex text work isn't so bad after all!"



(Continued from page 7, "On Our Terms: How My History Course Changed from Test Prep to Citizenship Prep")

My first few years were spent figuring out which terms were most heavily covered on the test so I could lecture and read the textbook with my students to help them be successful at the end of the year. Not surprisingly, they performed moderately, not well, and we could never make it past the Nixon era. With such a plethora of events and people to memorize, we did little analysis. My students hardly ever asked questions about how those people and events created the world we live in today; they had few opportunities to dig deeply into the subject, much less to try to analyze primary sources like historians do.

Things started to change about a decade ago, when our consultant David Liben arrived. He suggested that we switch our focus to building content knowledge and learning relevant vocabulary (and yes, some terms) by being immersed in essential historical concepts. Not who all the generals were from World War II, for example, but what isolationism was and why the American people did or didn't support it. The textbook switched from our focal point to one of many tools; we were able to draw on its strengths such as a clear chronology and larger context—without suffering from its weaknesses. Instead of marching through the textbook, we focused our studies of each major concept around an anchor text, such as Andrew Carnegie's "On the Gospel of Wealth." This way, kids could build an understanding of the foundational arguments, and of the language used, to grasp the nuances of the progressive movement and related legislative actions. To show how historical events shape current events, we paired this anchor text with current policy briefs and positions, and newspaper articles around income inequality today. My students began to ask questions! They began to make connections! We used highlighters and sticky notes to discuss the meaning of academic vocabulary like "progressive" and find examples of actions that were or were not progressive. We made lists and maps of claims and counter-claims. We used authentic historic primary and secondary texts and income data to build our knowledge in response to higher-level questions like, "To what extent has Carnegie's declaration that the unequal distribution of wealth would be 'temporary' turned out to be true?"

Later in the year, with a piece by Joseph McCarthy, we engaged in a 10-minute conversation about the meaning of "a red herring." They'd heard the phrase from a Phineas and Ferb cartoon and finally gave it real-life meaning. My students started to see that history is worth knowing because it is still with us.

After this work—unlike in prior years—they could write their own arguments using internalized vocabulary and textual evidence. And the next time they watch Phineas and Ferb, or any other show, they get more of the references and know to question terms that they haven't yet learned. More importantly, over time they will become responsible citizens who are able to recognize more and more references in political media.

By the way, they were also successful on that summative test, which now, as department chair, my team and I are re-working to assess historical concepts and analysis, not just a drill-and-kill of terms.

Endnotes

- ¹ Reading Between the Lines: What the ACT Reveals About College Readiness in Reading. Report. College Readiness. Iowa City: ACT, 2006, available at http://achievethecore.org/content/upload/act_reading_between_the_lines_research_ela.pdf.
- ² Ibid., 16–17.
- ³ Ibid., 11.
- ⁴ Ibid., 40.
- ⁵ Ibid., 20.
- ⁶ Jeanne S. Chall, Sue S. Conard, and Susan H. Harris, *An Analysis of Textbooks in Relation to Declining SAT Scores*, New York: College Entrance Examination Board, 1977; Gamson, D. A., Lu, X., & Eckert, S. A. Challenging the Research Base of the Common Core State Standards A Historical Reanalysis of Text Complexity. *Educational Researcher*, (2013): 42(7), 381-391; and Hayes, D. P., Wolfer, L. T., & Wolfe, M. F. Sourcebook simplification and its relation to the decline in SAT-Verbal scores. *American Educational Research Journal*, (1996): 33, 489–508.
- ⁷ Williamson, Gary L. "A Text Readability Continuum for Postsecondary Readiness." *Journal of Advanced Academics 19*, no. 4 (2008): 602-32, available at http://files.eric.ed.gov/fulltext/EJ822324.pdf.
- ⁸ Williamson, Gary L. "A Text Readability Continuum for Postsecondary Readiness." *Journal of Advanced Academics 19*, no. 4 (2008): 602-32, table 3, available at http://files.eric.ed.gov/fulltext/EJ822324.pdf.
- ⁹ "Lexile-to-Grade Correspondence." Lexile. 2016, available at https://lexile.com/about-lexile/grade-equivalent/grade-equivalent-chart/.
- ¹⁰ Supplemental Information for Appendix A of the Common Core State Standards for English Language Arts and Literacy: New Research on Text Complexity, available at http://www.corestandards.org/assets/E0813
 https://www.corestandards.org/assets/E0813
 https://www.corestandards.org
- ¹¹ "Lexile-to-Grade Correspondence." Lexile. 2016, available at https://lexile.com/about-lexile/grade-equivalent/grade-equivalent-chart/.
- ¹² Shanahan, Timothy. "Rejecting Instructional Level Theory." Shanahan on Literacy. August 21, 2011, available at http://www.shanahanonliteracy.com/2011/08/rejecting-instructional-level-theory.html and Shanahan, Timothy. "Six Pieces of Advice on Teaching with Complex Text." Shanahan on Literacy. March 20, 2016, available at http://www.shanahanonliteracy.com/2016/03/six-pieces-of-advice-on-teaching-with.html.
- ¹³ Donald P. Hayes, "The Growing Inaccessibility of Science," *Nature* 356, no. 6372, (1992): 739–740.
- ¹⁴ Milewski, Glenn B., Daniel Johnsen, Nancy Glazer, and Melvin Kubota. *A Survey to Evaluate the Alignment of the New SAT* Writing and Critical Reading Sections to Curricula and Instructional Practices*. Report no. 2005-1. New York: College Board, 2005, available at https://research.collegeboard.org/sites/default/files/ publications/2012/7/researchreport-2005-1-evaluate-alignment-new-sat-writing-critical-reading-curricula.pdf.
- ¹⁵ Remediation: Higher Education's Bridge to Nowhere. Report. Complete College America, 2012, available at https://www.insidehighered.com/sites/default/server_files/files/CCA%20Remediation%20ES%20FINAL.pdf
- ¹⁶ Stenner, A. Jackson, Ph.D, Eleanor Sanford-Moore, Ph.D, and Gary L. Williamson, Ph.D. *The Lexile* Framework for Reading Quantifies the Reading Ability Needed for "College & Career Readiness"*. Issue brief.
 MetaMetrics, 2012, available at https://dljt5u2s0h3gkt.cloudfront.net/m/cms_page_media/135/LF%20%26%20
 CCR%20Research%20Brief Final 1.pdf.
- ¹⁷ Hayes, D. P., Wolfer, L. T., & Wolfe, M. F. Sourcebook simplification and its relation to the decline in SAT-Verbal scores. *American Educational Research Journal*, (1996): 33, 489–508; and Adams, M. J. The challenge of advanced texts: The interdependence of reading and learning. *Reading more, reading better: Are American students reading enough of the right stuff*, 2009, 163-189.
- ¹⁸ Closing the Expectations Gap. Report. Mountain View: Achieve, 2015, 38, available at http://www.achieve.org/files/Achieve-ClosingExpectGap2014%20Feb5.pdf.
- ¹⁹ Liben and Liben. 'Both And' Literacy Instruction K-5: A Proposed Paradigm Shift for the Common Core State Standards ELA Classroom, available at http://achievethecore.org/content/upload/Both%20And%20Literacy%20 Instruction%20K-5%20%20A%20Proposed%20Paradigm%20Shift%20for%20CCSS%20ELA%20and%20 Literacy.pdf.

- ²⁰ See, for example, Fletcher, J. M., & Lyon, G. R. Reading: A research-based approach. *What's gone wrong in America's classrooms*, 1998, 49-90; Hernandez, D. J. Double jeopardy: How third-grade reading skills and poverty influence high school graduation. *Annie E. Casey Foundation*, 2011; Lesnick, J., Goerge, R., Smithgall, C., & Gwynne, J. Reading on grade level in third grade: How is it related to high school performance and college enrollment. *Chicago: Chapin Hall at the University of Chicago*, 2010; and Snow, C. E., Burns, M. S., & Griffin, P., (Eds.). *Preventing reading difficulties in young children*. National Academies Press, 1998.
- ²¹ Bradbury, Bruce, Miles Corak, Jane Waldfogel, and Elizabeth Washbrook. *Too Many Children Left Behind: The U.S. Achievement Gap in Comparative Perspective*. Russell Sage Foundation, 2015, available at https://www.russellsage.org/publications/too-many-children-left-behind.
- ²² Stanovich, K. E. Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 1986, 360-407.
- ²³ Cervetti, G.N., Jaynes, C.A., & Hiebert, E.H. (2009). "Increasing opportunities to acquire knowledge through reading," in E.H. Hiebert (Ed.), *Reading more, reading better: Solving Problems in the Teaching of Literacy* (pp. 79-100). NY: Guilford, available at http://textproject.org/assets/library/papers/Cervetti-Jaynes-Hiebert-increasing-opportunities.pdf.
- ²⁴ Adams, M. J. The challenge of advanced texts: The interdependence of reading and learning. *Reading more, reading better: Are American students reading enough of the right stuff,* 2009, 163-189.
- Landauer, T. K., & Dumais, S. T. A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological review*, (1997): 104(2), 211; Cervetti, G. N., Wright, T. S., and Hwang, H. (2016). "Conceptual coherence, comprehension, and vocabulary acquisition: A knowledge effect?" Reading and Writing, 29(4), 761–779, available at http://link.springer.com/article/10.1007%2Fs11145-016-9628-x;; and Cervetti, G., Hiebert, E.H. (2014) *Knowledge, Literacy, and the Common Core*, Santa Cruz, CA: TextProject, Inc., available at http://textproject.org/assets/library/papers/Cervetti-Hiebert-in-press-Knowledge-literacy-and-the-common-core.pdf.
- ²⁶ Closing the Expectations Gap. Report. Mountain View: Achieve, 2015, available at http://www.achieve.org/files/Achieve-ClosingExpectGap2014%20Feb5.pdf and Reading Between the Lines: What the ACT Reveals About College Readiness in Reading. Report. College Readiness. Iowa City: ACT, 2006, available at http://achievethecore.org/content/upload/act_reading_between_the_lines_research_ela.pdf.
- ²⁷ Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects. PDF. Common Core State Standards Initiative, 33, available at http://www.corestandards.org/wp-content/uploads/ELA_Standards.pdf.

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