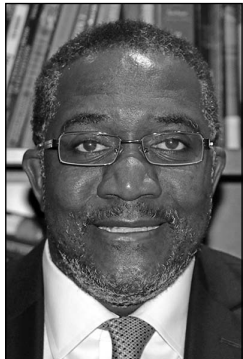


Using Texts to Nurture Reading, Writing, and Intellectual Development: A Conversation with Alfred Tatum

Tonya Perry

Alfred W. Tatum, Dean of the College of Education at University of Illinois at Chicago, studies the literacy development of African American boys. He is also the director of the UIC Reading Clinic. He has authored more than sixty publications, including chapters in edited books, monographs, and journals such as the *Harvard Educational Review*, *Reading Research Quarterly*, *Urban Education*, *Black History Bulletin*, *The Reading Teacher*, *Journal of Adolescent & Adult Literacy*, *Journal of Education*, and *Educational Leadership*. Alfred authored the award-winning book, *Teaching Reading to Black Adolescent Males: Closing the Achievement Gap* in 2005. His second book, *Reading for Their Life: (Re) building the Textual Lineages of African American Males* was published in 2009. His most recent book, *Fearless Voices: Engaging a New Generation of African American Adolescent Male Writers*, was published in 2013. His current research focuses on the roles of texts and writing to advance the literacy development of African American males.



The conversation that follows took place in 2017 and highlights some of his current work in the field developing reading and writing skills with urban youth. His work spans elementary, middle, and high school grades.

Tonya Perry: This special issue of *Voices from the Middle* has a focus on Urban Literacies. Naturally, based on your work, such as *Teaching Reading to Black Adolescent Males*, I am glad we can have this conversation today about what you are doing. You're spending a lot of time in urban contexts.

Alfred Tatum: Yes, I am still working to move Black boys to advanced levels of reading and writing and supporting others to do the same. One of my current

research projects is called Boys' College. My ultimate goal with this project and others in the works is to have our nation rethink the roles of texts and literacy development in the lives of students and challenge some of the practices that inadvertently choke many of nation's children with the rope of mediocrity, failure, or lack of consciousness. As a nation, we don't focus on creating instructional conditions that move kids to read at advanced levels and [encourage] deep thinking across a range of topics. We often talk about meeting national norms. This is a problem. As a nation, we've been fooled that we shouldn't even be paying attention to advanced levels of reading and writing. This is particularly true if we are discussing struggling readers and writers. However, advanced literacy levels will profoundly impact students' academic trajectories and their life outcomes. It's frustrating that we continue to miss the mark.

The literacy bar has been set too low. If you look at the national conversation, how schools measure accountability, and what's being authorized at the district and state levels, most of it is about reading at a proficient level, and I think we've become satisfied with that, which creates, in some ways, long-term injury for our students.

Perry: What advice do you have for teachers who teach urban middle school students, particularly Black boys, based on your experience, and what advice would you give them when it comes to literacy instruction?

Tatum: A strong conceptualization of literacy instruction is paramount. It's important that we simultaneously improve students' reading and writing while also paying attention to their intellectual development across the disciplines. This is absolutely critical. Text selection absolutely matters in the middle. Texts should do a couple

of things. One, they should engage students in ways that lead to meaningful literacy exchanges in classrooms, that inaugurate new ideas, and they should always lead to expansive writing opportunities. You absolutely have to have a lot of reading and writing in the middle grades. I often mention that reading—in the middle schools—puts young students in contact with other people and their words, but writing puts them in contact with themselves. Students are developing their own identities in middle school classrooms. Therefore, it is important to turn up the volume on both reading and writing and build their relationships with texts.

Perry: How do you increase the comprehension “volume” for students? What has been your approach? Can you give examples?

Tatum: Assess comprehension through reading and writing. For example, I have boys read across two texts during one-hour lessons. They always have two texts in front of them, and they know they have to write in ways that capture the meaning of both related texts. This multiple text approach using texts across academic disciplines is one way to turn up the volume of literacy instruction. I refer to this as an *exponential reading growth model*. This came about as I examined the writings of African American males from a sociohistorical perspective. For example, if you look at the paragraphs written by Dr. King in *Strength to Love* (1963/2010), you will find that he’s writing across multiple disciplines in one paragraph. The only way we can get young boys to read and write across multiple texts during instruction is to have them experience, at minimum, two texts during every lesson. These lessons should include texts about medicine, engineering, sociology, the humanities, law, physics, chemistry, and more. Try to find the most current texts out there that are developmentally appropriate and that stretch the boys intellectually and personally. Put these texts in front of the boys to give them contemporary awareness of what’s taking place in society. Put them at the forefront of social and scientific advances that are leading to some of the most exciting shifts in our

What we ask students to read and write should be carefully considered—placed carefully into the curriculum. How we teach them should be carefully paced and thoughtfully planned to maximize learning opportunities for students.

human experience. This is the power of reading and writing to fashion new imaginations and possibilities of addressing things we cannot yet see. Our students in the middle deserve this.

Perry: The exponential growth model sounds like an accelerated approach to learning. Can you talk more about this model?

Tatum: In the nation, we know how to achieve small upticks in achievement. For example, if a kid is reading at the fourth-grade level and he’s in fifth grade, we know how to move him closer to the fifth-grade level. What’s not clear is how to move him two to three years above grade level in a relatively short period of time or one academic school year. I call this the exponential growth model. It’s based on an understanding of how calculus works. Sometimes kids hit a stubborn curved incline in their reading and writing development. In order to move them along, you have to push harder and faster. One way we can do this is by providing the support and turning up the volume of the texts, which runs counter to a lot of things that take place.

Perry: Increasing learning exponentially for students can be a difficult task, particularly when teachers have so many students at different levels in one class. Are there any other considerations teachers should address when creating this type of accelerated learning environment?

Tatum: Instruction can either be mispaced or misplaced. Pacing really matters. We also have to make sure that students are not underserved by the texts we place in front of them. The instruction is misplaced if students are underserved by the reading and writing experience. If kids are not becoming smarter, becoming better readers and better writers, if they’re not learning new information, and if they’re not developing a new vocabulary, that’s when we miss the mark—that’s misplacement. What we ask students to read and write should be carefully considered—placed carefully into the curriculum. How we teach them should be carefully paced and thoughtfully planned to maximize learning opportunities for students.

Perry: We want all of our students to become better

readers and writers. I think this can be a challenge for the teacher, though, when we teach writing using only whole-group instruction and traditional practices.

Tatum: This goes back to a strong conceptualization by students and teachers. How do young boys conceptualize writing? In the earlier grades, there's a lot of copying of texts. By copying, I mean mimicking of words on paper from one source to another. Students can apply their new academic knowledge (copying), but they find it more difficult when we ask them to discuss how this information impacts them personally and provide their opinions or views. Why this difficulty? It is because they're just learning how to write. I found that there are several different ways to instigate the writing of Black boys in the primary grades. When they're given the definition, when they're given examples, when they're given multiple texts, when they watch a video, and when they have audio supports, they can pull from all of these different resources. We have to teach students and model how multiple resources are used while writing. I refer to these resources as "writing instigations." Ultimately, a sophisticated piece of writing often captures boys' use of multiple sources with evidence of critique, evaluation, or some extension of the information. This will definitely inform our practice for middle school students.

Perry: How do we teach students to think more critically about texts and write responses that reflect this deep thinking?

Tatum: We have to make sure that students in middle school classrooms can access lessons through one of their identities. All middle school kids bring in a minimum of six identities—cultural identity, developmental identity, gender identity, personal

identity, community identity, and national/international identity. We constantly need to think about different identity entry points when we select texts because we cannot predict which of those identities will be more pronounced in a particular lesson. I often use text starters in my work and frame them around questions that kids can enter through one or more of their identities. I might ask, for example, "Is the United States a redemption society? If so, for whom?" You can imagine how many identities can be enacted through this one question.

Perry: What else do middle schoolers need from their teachers for successful literacy practices?

Tatum: Middle school kids deserve and need quality instruction, quality texts, and they need feedback. If it's important enough to put text in front of them or give them a lesson, it should be important enough to give them feedback and responses to how they're moving forward. They also deserve teachers who do not place limits on their reading, writing, and intellectual development because of the pressure of external authorizations. Lastly and probably most importantly, they need teachers who are avid readers and writers and who want to rush in to teach them and engage in meaningful literacy exchanges that advance our humanity. Reading and writing should not be viewed as activities but as experiences that shape who we are, what we become, and how we decide to live our lives in the service of ends larger than ourselves.

reference

King, M. L. Jr. (1963/2010). *Strength to love* (Gifted.). Minneapolis, MN: Fortress.

Call for Nominations: Outstanding Middle Level Educator in the English Language Arts Award

The Outstanding Middle Level Educator in the English Language Arts Award recognizes exceptional English language arts teachers in grades 6–8 who have demonstrated excellence in teaching and inspired a spirit of inquiry and a love of learning in their students. Nomination information can be found on the NCTE website at <http://www2.ncte.org/outstanding-educator-middle/> and must be submitted by **May 1, 2018**. The award will be presented at the Middle Level Luncheon during the 2018 NCTE Annual Convention in Houston, Texas.

Building Background Knowledge Through Reading: Rethinking Text Sets

Sarah M. Lupo, John Z. Strong, William Lewis, Sharon Walpole, Michael C. McKenna

The quad text set framework can assist content teachers in building students' background knowledge, increasing their reading volume, and incorporating complex texts into instruction.

A call for continued efforts to improve literacy outcomes for adolescents is standard fare, but exactly what adolescents should read, how much, and how are less clear. As former middle and high school teachers and current university-based literacy researchers, we take the stance that increasing the amount of challenging texts that middle and high school students read has the potential to improve literacy outcomes. However, we know that teachers are often unsure about how to link texts to other curricular objectives. We present a text set framework that allows teachers to plan instruction that meets disciplinary goals while also providing opportunities for students to build their background knowledge through reading.

Starting With What We Know

We started by considering the literature behind the use of text sets. We then thought through factors that impact both comprehension and instruction, including the effects of reading volume and difficulty, and how the use of text sets may help or hinder these challenges. We also considered the actual knowledge and motivational demands on adolescent readers tasked with learning content through high-volume work with texts.

Figure 1 presents a visual depiction of the stressors that we saw that influence adolescent reading in school, potentially affecting both attitudes and achievement. We describe these factors to provide background for our decisions. Together, these research strands help

teachers consider both students' knowledge and their thinking processes during reading, keeping teachers' attention squarely on what students need to know and do to learn from text.

Finally, we developed an approach to text selection and sequencing that puts theory into classroom practice. We worked with teachers to develop texts sets and observed the implementation of our new framework in middle and high school content area classrooms.

How Have Texts Been Used Together?

The idea of using text sets is certainly not new. Beginning in the 1930s, progressive curricular reforms

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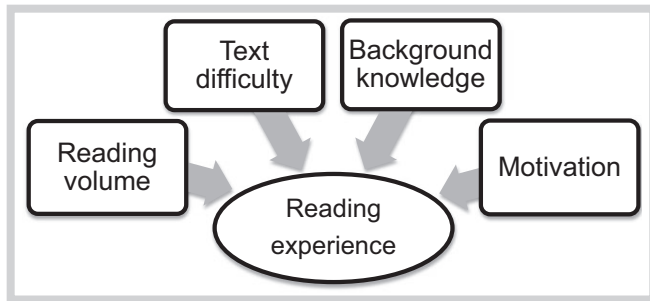
JOHN Z. STRONG is a doctoral student in literacy development and learning problems at the University of Delaware, Newark, USA; e-mail jzstrong@udel.edu.

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MICHAEL C. MCKENNA was the Thomas G. Jewell Professor of Reading at the University of Virginia, Charlottesville, USA, before he passed away in December 2016.

Figure 1
Stressors on Adolescent Text Experiences



(e.g., Weeks, 1936) sought to enrich the reading experiences of students and modernize the teaching of reading and literature. Wide reading and discussion across texts became a target early on (e.g., D.K. Hartman & Allison, 1996). A call for opportunities to make text-to-text connections required that texts be read together (Pytash, Batchelor, Kist, & Srsen, 2014).

J.A. Hartman and Hartman (1994) proposed several possible alternatives to single texts: (a) companion texts that an author intended to be read as a series or collection, (b) complementary texts that explore a similar topic or theme, (c) synoptic texts that explore how a single story is told in different versions or accounts, and (d) conflicting texts that present alternative perspectives on the same topic or theme. Although no studies have compared the efficacy of these different approaches, there is no reason to question their potential utility in different content areas.

Text sets of all kinds have been gaining traction in the practitioner-oriented literature, including sets for English language arts (ELA; e.g., Pytash et al., 2014), social studies (e.g., Bersh, 2013), and science (e.g., Folk & Palmer, 2016). For example, complementary texts allow ELA teachers to explore a theme or topic in depth or science teachers to explore different facets of a topic. Conflicting texts allow social studies teachers to explore different perspectives about historical events. What they have in common is their focus on providing students the chance to look across texts and build both general and disciplinary knowledge. Along with these researchers, we embrace this opportunity, paying explicit attention to curricular challenges that teachers face and comprehension demands for students.

How Much Should Students Read?

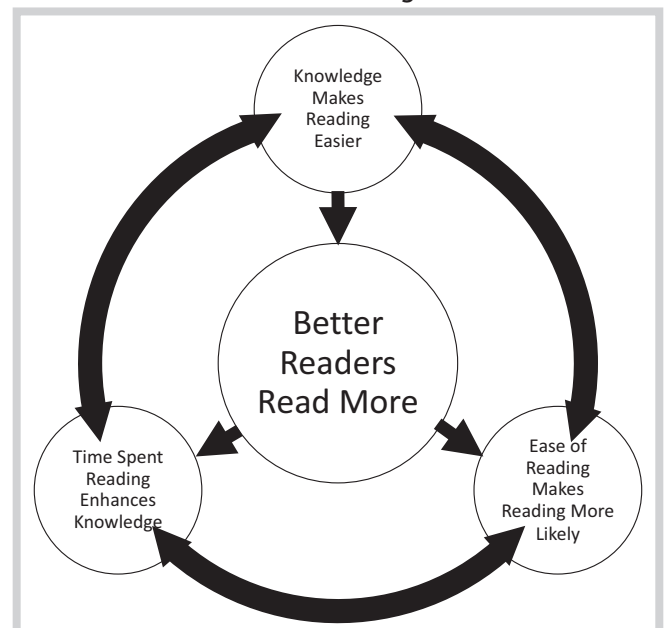
Volume is a measure of occupied space. Reading volume, then, might be estimated by multiplying the

total time spent reading by the total number of words read. Cunningham and Stanovich (1998) called time spent reading a “malleable habit” (p. 8) with the potential to develop vocabulary and background knowledge. Figure 2 models the reciprocal relations among reading volume, knowledge, and time.

These relations have been tested empirically for adolescents. Differences in students’ reading volume contribute to variability in reading comprehension, vocabulary, and general knowledge (Cunningham & Stanovich, 1997; Sparks, Patton, & Murdoch, 2014).

It makes sense that adolescents who read a lot in school would read better, but exactly how much should they read? Anderson, Wilson, and Fielding (1988) estimated that a child who reads independently for 20 minutes per day will read over 1 million more words per year than a child who reads for 10 minutes per day. Biancarosa and Snow (2006) argued that, in theory, adolescents should spend two to four hours per day engaged in literacy-connected learning across content area classes, reading many millions of words per year. However, a recent observational study (Swanson et al., 2016) identified that students read for less than 15% of observed time in social studies and ELA classes in grades 7–12. Most unfortunate was that two thirds of the “reading” time was actually spent listening to tapes, to teachers reading aloud, or to another student reading. Because of the benefits of reading volume

Figure 2
Relations Among Time Spent Reading, Reading Ease, and Likelihood of Reading



and the relative dearth of reading in secondary environments, it was imperative to design text sets that provide students with multiple opportunities to read diverse texts.

How Hard Should Students' Reading Be?

To devote more in-school time to reading, teachers must select appropriate texts. Current debates center on whether students should read more challenging texts. The argument for reading challenging texts is that this experience will make the transition to college or career reading easier (Williamson, 2008), and success in challenging texts can be motivating (T. Shanahan, Fisher, & Frey, 2012).

How can struggling readers have success with reading challenging texts? We hypothesized that we could combine knowledge building and support. With these scaffolds, struggling readers will be better prepared to read complex texts successfully and engage with them more often (Arya, Hiebert, & Pearson, 2011; Fisher & Frey, 2014). Success with one text may enable success in another (T. Shanahan et al., 2012; Wixson & Valencia, 2014).

T. Shanahan (2015) suggested providing opportunities for students to read at various levels of difficulty, including a mix of easier and harder texts across the school year. Therefore, a worthwhile start may be to strategically design text sets that include multiple texts at varying levels of difficulty and to provide opportunities for all students to engage in reading challenging texts (Elish-Piper, Wold, & Schwingendorf, 2014). Once we decided that both increased volume and text difficulty were potentially powerful targets, we turned our attention to opportunities for support.

How Does Background Knowledge Support Comprehension?

What students know influences how easily they learn. Schema theory explains how background knowledge is organized and activated. Schemata are clusters of information associated with concepts. The background knowledge that a teacher builds for students and the knowledge that they already possess influence which details they find relevant (Anderson, 2013). Thus, schema theory directs us to build knowledge before reading.

According to Kintsch's (2013) construction-integration model, comprehension is achieved in layers. The first layer, the surface level, requires students to

interpret text at a very basic level. This text base provides a foundation, which must be strengthened by background knowledge. The resulting situation model is an integration of ideas from text and reader. Because many adolescent readers fail to develop an adequate situation model (Compton, Miller, Elleman, & Steacy, 2014), we must look for ways to assist them through instruction.

When students have more content knowledge before they read, their understanding is better during reading (Arya et al., 2011). That knowledge can also make a hard text easier. For example, Recht and Leslie (1988) considered comprehension for good comprehenders with low knowledge and for weak comprehenders with high knowledge. Knowledge erased the comprehension gap. Thus, knowledge building may be key to assisting adolescents in understanding rigorous texts.

Focusing on knowledge makes sense. Knowledge can improve higher level thinking skills and content learning (Willingham, 2006) and enable inference generation and memory for details (Pearson & Fielding, 1991). Many calls to improve curricula (e.g., Hirsch, 2006) have claimed that a focus on skills limits knowledge and reading comprehension. Because of our commitment to increasing reading volume, we investigated ways to build knowledge for students through reading and, therefore, incorporated texts that build background knowledge into our text sets.

How Can Teachers Motivate Students to Read Difficult Text?

We also wondered whether we could motivate students to read through the use of text sets. We first considered one aspect of motivation: students' interest in a particular topic. Motivation theory suggests that connections between content and interests can secure the buy-in needed for adolescents to do challenging comprehension work (e.g., Guthrie & Wigfield, 1997). For our text sets, we decided to include at least one text that would serve to help hook students into our content and provide buy-in.

Second, we considered aspects of text difficulty and how they would influence students' motivation. Complicated comprehension tasks can be off-putting, especially for adolescents. Some researchers have suggested that the use of challenging texts may be demotivating for students; however, if students feel more confident, their confidence can be motivating (e.g., Kuhn et al., 2006). This led us to determine that students need to have successful reading encounters.

The use of text sets can help achieve this goal in two ways. Fulmer and Tulis (2013) found that readers' motivation was influenced by the reader's perception of text difficulty rather than the actual difficulty level of the text. Therefore, along with motivational hooks, we sought to combine challenging texts with strong instructional scaffolds that will motivate adolescents to persevere through their reading. We used a combination of both easier and more difficult texts to ensure that students have successful encounters with reading throughout the text set.

Quad Text Set Framework

Considering aspects of reading volume, text difficulty, background knowledge, and motivation, we developed a framework that we call quad text sets (Lewis & Walpole, 2016; Lewis, Walpole & McKenna, 2014). The sets require four different types of texts: one that is a challenging on- or above-grade-level text (the target text) and three other texts that build the background knowledge and motivation needed to comprehend the target text. We wanted to replace the time students spent listening to build background knowledge and improve motivation with real reading and interpretation of visuals. Figure 3 links the literature that we reviewed with our design choices.

Selecting Texts

We recommend first selecting a challenging text in terms of language and knowledge demands (T. Shanahan et al., 2012) that is consistent with curricular goals. We call that text the target text. Then, we suggest choosing three types of texts to build background knowledge and increase motivation, to assist in understanding the target text: visual or video text(s), informational text(s), and accessible text(s) (from young adult fiction, nonfiction articles, or popular culture).

Figure 3
Rationale for Choices in the Quad Text Set Framework

Goal	→ Action
Increase text volume.	→ Use a set of related texts.
Embrace complexity.	→ Select a challenging target.
Build background knowledge.	→ Include visual texts and simpler informational texts.
Target motivation.	→ Deliberately select a text to garner buy-in.

Order of Texts

Our exploratory studies of quad text sets revealed that the sequence of presenting the texts to students was important (Lupo, McKenna, & Walpole, 2015). We found that interspersing supporting texts between chunks of or repeated readings of the target text to provide timely and targeted background knowledge helped students. Figure 4 depicts that fluidity. For example, students viewed video clips about gassing and trench warfare and read the website *The Long, Long Trail: The British Army in the Great War of 1914–1918* before reading Wilfred Owen's poem "Dulce et Decorum Est." After reading through the poem once, students read "Gas Attack, 1916" on the EyeWitness to History website to further their understanding of events in the poem. Next, students reread the poem to analyze how Owen's word choice communicates the horror of gas attacks. Students and teachers reported that supporting texts, especially visual and accessible texts, motivated students to read the challenging target text. We present several possibilities for how quad text sets can be ordered to support high-volume reading next.

Implementing Quad Text Sets

Of course, we do not advocate just designing and assigning text sets. For each text, we selected from a set of instructional routines before, during, and after reading. Figure 5 provides a list of high-utility routines for middle and high school teachers that could be used to

Figure 4
The Quad Text Set Framework

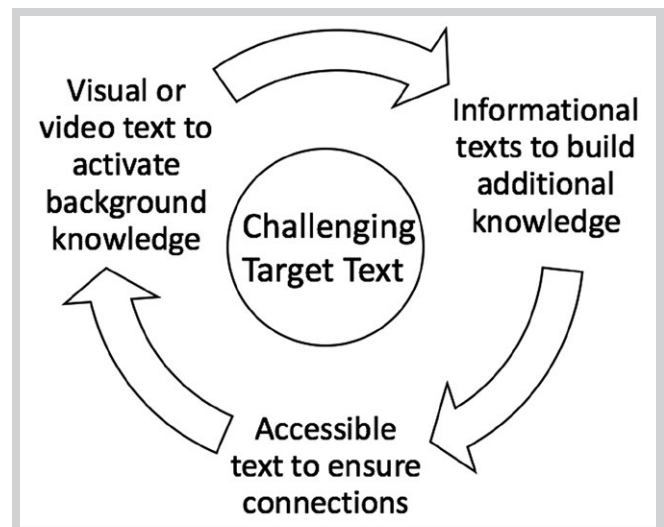


Figure 5
Routines for Before, During, and After Reading

Before reading	<ul style="list-style-type: none"> • Teach academic vocabulary (Bromley, 2007). • Provide a preview (e.g., Alvermann & Swafford, 1989). • Present a text structure graphic organizer (e.g., Alvermann, 1981).
During reading	<ul style="list-style-type: none"> • Use a reading guide (e.g., Pearson & Fielding, 1991). • Use structured, paired reading (e.g., Fuchs, Fuchs, & Burish, 2000). • Use disciplinary literacy strategies (see C. Shanahan, 2015).
After reading	<ul style="list-style-type: none"> • Engage in discussion (e.g., Zwiars, O'Hara, & Pritchard, 2014). • Write a summary (e.g., Buehl, 2009). • Write a text-based argument (Ferretti & Lewis, 2013).

read texts across content areas. Additionally, we considered disciplinary literacy strategies, designed to meet the demands of specific disciplines (C. Shanahan, 2015), which we discuss in each example. In our examples, you will see how teachers have used these general routines alongside disciplinary practices in ELA, science, and social studies classrooms.

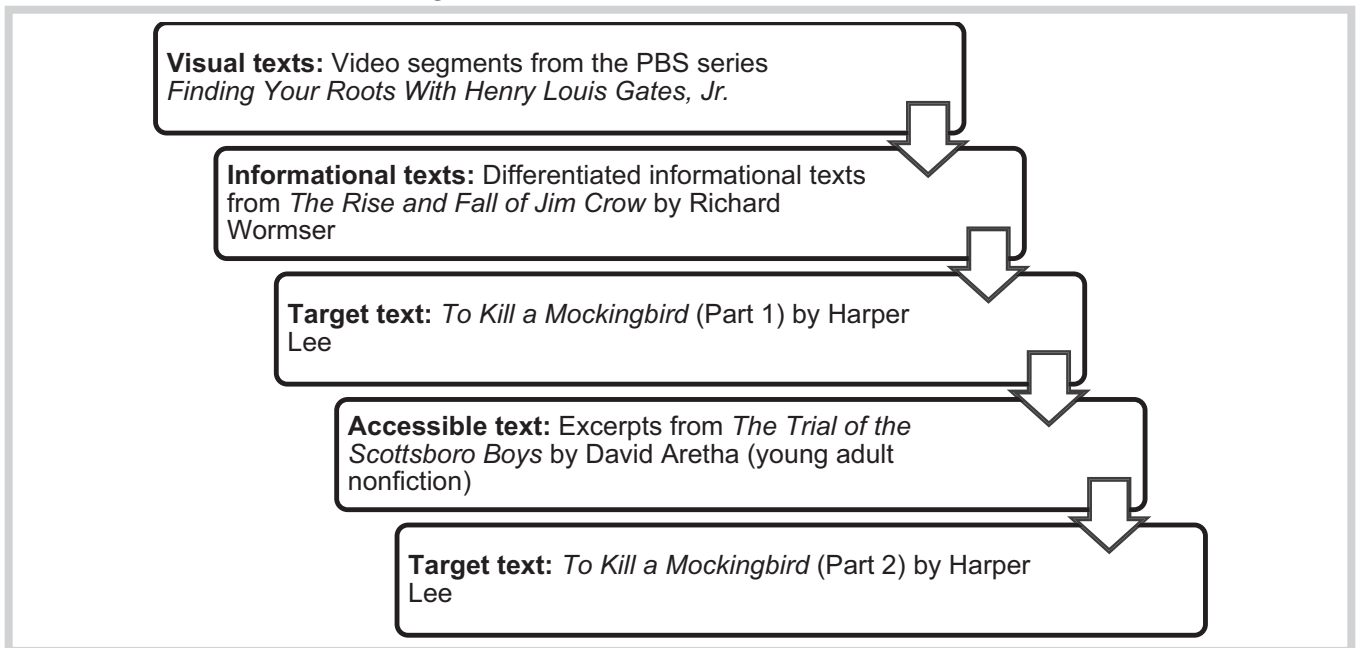
ELA

As we designed quad text sets for ELA, we considered disciplinary demands of this content area. ELA teachers emphasize analysis and interpretation of literature, skills that push students to look well beyond plot summary. Scholars of literary criticism have identified specific patterns that experts use to analyze literature (Fahnestock & Secor, 1991). Recognizing these patterns is the critical knowledge that students need to interpret literature (Lewis & Ferretti, 2011), and the patterns are reflected in instructional approaches to close reading in which students are taught to link the patterns to theme and character development (see Beers & Probst, 2013).

For ELA, we considered using multiple texts to build background knowledge that would assist students in interpreting themes in a literary work. Strong (second author), a former high school ELA teacher, taught Harper Lee's *To Kill a Mockingbird* using the quad text set framework during a thematic unit on courage. Figure 6 shows the progression of our quad text set in the order it was used.

Two texts were selected to build student understanding of racial discrimination in the U.S. South in the 1930s. First, students viewed video segments from the PBS series *Finding Your Roots With Henry Louis Gates, Jr.* about various peoples' childhood experiences

Figure 6
Quad Text Set for *To Kill a Mockingbird*



growing up under Jim Crow laws, while completing a comparison/contrast viewing guide (C. Shanahan, 2015) to corroborate points of view.

Next, students were assigned to homogeneous groups to read a set of differentiated informational texts from *The Rise and Fall of Jim Crow* by Richard Wormser. Groups were assigned an article about the Great Depression, the Scottsboro Case, or the Ku Klux Klan to build their background knowledge and then wrote a magnet summary (Buehl, 2009).

Afterward, students worked together to synthesize information from all three texts. After students increased their background knowledge about the setting, they read Part 1 of *To Kill a Mockingbird*, a challenging canonical work, in pairs using Peer-Assisted Learning Strategies (Fuchs et al., 2000), a framework that uses three general reading strategies during reading.

We also considered discipline-specific strategies for literary analysis to use alongside the target text. For literary analysis, students used a Notice & Note reading guide (Beers & Probst, 2013) to assist in recognizing patterns and making connections between the setting of the novel and the climate of race relations under Jim Crow laws.

To prepare students to read Part 2 of *To Kill a Mockingbird*, they read excerpts from the young adult

nonfiction book *The Trial of the Scottsboro Boys* by David Aretha using reciprocal teaching (Palincsar & Brown, 1984). After reading, students engaged in a discussion about the courage the Scottsboro Boys displayed in their fight for justice. The discussion scaffolded students' understanding of the fictional trial of Tom Robinson in *To Kill a Mockingbird* and motivated students by providing relevant connections to the text.

Finally, students finished reading the target text using a character change chart to recognize themes (C. Shanahan, 2015). After reading, students used a discipline-specific strategy to write a literary argument called DARE (develop a stance, add evidence, rebut arguments, and end by restating your stance; De La Paz, 2001). This assisted students in constructing an interpretation about who they believed to be the most courageous character in Lee's novel. Figure 7 shares additional quad text sets that we made for ELA.

Science

As we developed quad text sets for science, we considered disciplinary literacy practices related to scientific inquiry (Lee, Quinn, & Valdés, 2013). These practices are identified in the Next Generation Science Standards

Figure 7
ELA Quad Text Sets

Visual text	Informational text	Accessible text	Target text
<i>The Haunted Mansion</i> movie cover	"Why Horror Is Good for You (and Even Better for Your Kids)" by Greg Ruth	<i>The Bad Beginning</i> by Lemony Snicket (pen name of Daniel Handler)	"The Fall of the House of Usher" by Edgar Allan Poe (short story)
Excerpt from the film <i>The Ringer</i>	"Down Syndrome Misconceptions vs. Reality" by the Global Down Syndrome Foundation	"Teens With Intellectual Disability Have It Harder" by Marie Hartwell-Walker on the PsychCentral website	<i>Flowers for Algernon</i> by Daniel Keyes (novel)
"By the Numbers: World-Wide Deaths" by the National WWII Museum (graph)	"Veterans Day: Nation Gives Thanks With Parades, Obama Lays Wreath" by Michael Muskal in the <i>Los Angeles Times</i>	"The Bracelet" by Yoshiko Uchida (short story)	"For the Unknown Enemy" by William Stafford (poem)
Excerpt from scenes 1 and 2 of the film version of <i>Macbeth</i> (see Lupo, 2017)	"Shakespeare's Sources for <i>Macbeth</i> " by Amanda Mabillard on the Shakespeare Online website	"Why We're Still Not Over the Tonya Harding and Nancy Kerrigan Scandal" by Sara Coughlin on the Refinery29 website	<i>Macbeth</i> by William Shakespeare (play)

(NGSS Lead States, 2013) and include discipline-specific literacies such as constructing explanations and designing solutions, engaging in evidence-based argument, and obtaining, evaluating, and communicating information. We also considered the language demands that students face while reading texts in the science discipline, which includes challenging vocabulary (C. Shanahan, 2015).

Figure 8 displays a quad text set that Lupo (first author), a former high school literacy coach, created with a high school biology teacher (Lupo, 2017). The lesson assisted students in reading a series of texts about genetics that led to reading a challenging research article.

Keeping the vocabulary demands of our target text in mind, we selected two texts, a video and an informational text, to build students' knowledge of genetics, targeting key vocabulary (e.g., *genes*, *heredity*, *traits*). Students first watched a short video entitled "How Mendel's Pea Plants Helped Us Understand Genetics" and then read a short article written in student-friendly language about Mendel's original work. After reading, students used a general strategy for vocabulary called list-group-label, in which they grouped key vocabulary together and identified a label for each group (Readance & Tierney, 2005).

We also considered science-specific literacy practices as we developed our quad text set and activities, such as being able to explain scientific procedures in layman's language, writing lab reports for a sci-

entific audience, and using note-taking to evaluate with methods and accuracy in mind (see C. Shanahan, 2015). Students then read an article about the pros and cons of gene editing and the ethics behind allowing people to alter the genes that their offspring may inherit. They read independently and completed a pro/con graphic organizer to help them prepare for an evidence-based argument (NGSS Lead States, 2013). After reading, the teacher led students in a class debate. Next, students viewed a short video of a teen's experience with sickle cell anemia. Finally, students read the target research article using a note-taking sheet to evaluate the methods used in the complex research article (C. Shanahan, 2015). After reading, students evaluated the methods and results of the target text. See Figure 9 for additional sets for science.

Social Studies

Historians have their own set of literacy practices, including sourcing, contextualizing, and corroborating (Wineburg, Martin, & Monte-Sano, 2011; Wineburg & Reisman, 2015), which we considered as we developed quad text sets and accompanying activities for social studies.

The quad text set framework allows social studies teachers to build the background knowledge needed to tackle challenging primary-source documents. The

Figure 8
Quad Text Set for Genetics

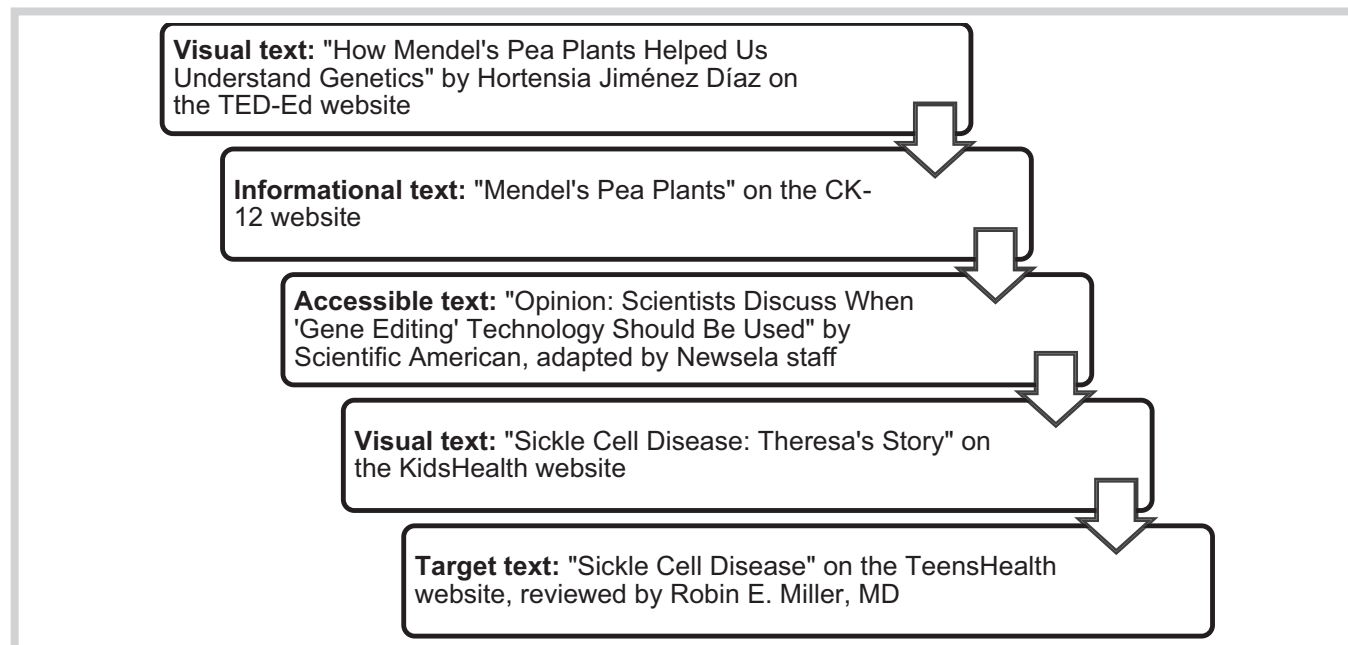


Figure 9
Science Quad Text Sets

Visual text	Informational text	Accessible text	Target text
"Arctic Methane Study: Emissions Significantly Increased Since 2014" by Climate State (YouTube)	"The Sometimes Frost" transcript of an interview with Kevin Schaefer, a scientist at the National Snow and Ice Data Center, on the Living on Earth website	"Chew on This: Study Finds Meat Tax Would Lead to Climate, Health Benefits" by Damian Carrington, The Guardian, adapted by Newsela staff	"Aquatic Plants May Accelerate Arctic Methane Emissions" by Rebecca Heisman on the Eos website
"The Double Helix" by Discovery Science (YouTube)	"CRISPR-Edited Mouse Genes Help Us Understand How Snakes Lost Their Legs" by Ryan F. Mandelbaum on the Scientific American website	"Fewer Ebola Cases So Far This Year, but the Virus Is Still a Threat" by Scientific American, adapted by Newsela staff	"Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid" by J.D. Watson and F.H.C. Crick in <i>Nature</i>
"How a Virus Works" by NPR (YouTube)	"Viruses: The Sixth Kingdom?" on the KidsBiology.com website	Excerpt from <i>Fever 1793</i> by Laurie Halse Anderson (novel)	"Viruses and Bacteria" in <i>Biology: The Dynamics of Life</i> (textbook chapter)
A picture depicting the various body systems referred to in the target text	"The Kids Guide to Global Warming" on the Kidzworld website	"How Fossil Fuel Use Threatens Kids' Health" by Elizabeth Grossman on the Science News for Students website	"Human Health Effects of Air Pollution" by Marilena Kampa and Elias Castanas in <i>Environmental Pollution</i>

framework also allows the textual space needed to help students practice historiography, the skill of analyzing competing historical accounts and synthesizing them into a plausible interpretation of a historical event, an intellectual pursuit crucial to thinking like a historian (Wineburg et al., 2011).

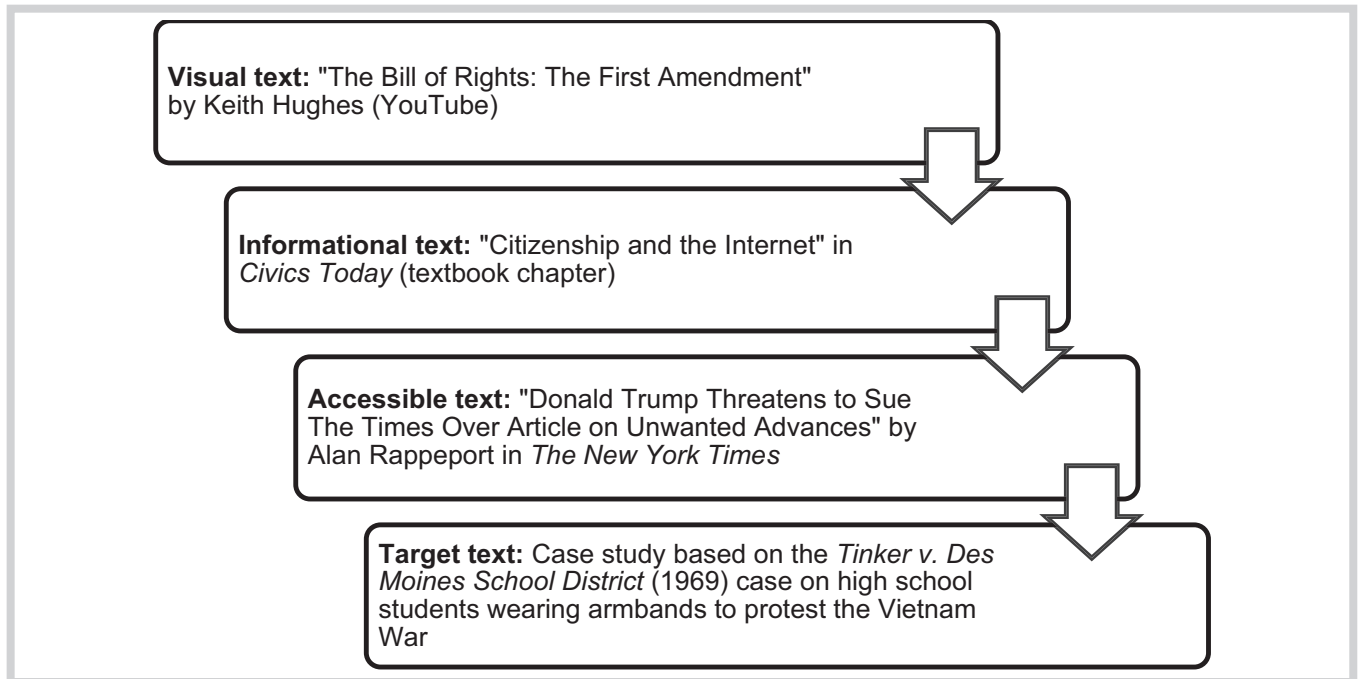
The quad text set in Figure 10 was adapted from a set designed by one of Lewis's (third author) preservice teachers to explore the protections guaranteed under the First Amendment to the U.S. Constitution. The set builds the background knowledge needed to engage students in a challenging case study that includes excerpts from competing Supreme Court opinions about an important First Amendment case.

The set begins with a short video, "The Bill of Rights: The First Amendment" by Keith Hughes, to introduce students to the First Amendment and how it protects individual liberty. Students used a graphic organizer that highlights key vocabulary. They completed the graphic organizer with a reading from their civics textbook, which provides more specific information. The accessible text used was an article in *The New York Times* by

Alan Rappaport that describes Donald Trump's attempt to sue the paper for its reporting on his alleged sexual assaults of women. Students read the article independently using SOAPStone (speaker, occasion, audience, purpose, and tone), a disciplinary strategy for sourcing and contextualizing when reading historical texts (C. Shanahan, 2015).

After reading, we asked students to summarize the merits of Trump's case considering First Amendment freedom of the press protections to assist students in contextualizing the issue. Students then engaged with a challenging case study that explored the seminal *Tinker v. Des Moines School District* freedom of speech case. They read background information and excerpts from the majority and dissenting opinions in pairs. Before being told who won the case, students engaged in mock oral arguments about who should win the case based on their understanding of First Amendment protections. Finally, students wrote historical arguments about the case using a DBQ (document-based question) essay as a model. Figure 11 displays additional quad text sets for social studies.

Figure 10
Quad Text Set for the First Amendment to the U.S. Constitution



What Have Teachers Said About Quad Text Sets?

We have worked with teachers to develop and implement quad text sets through professional development with inservice teachers and through our teaching of preservice teachers. We have asked teachers to provide feedback on the usefulness and feasibility of the quad text set framework. They have told us that our framework has helped their students build relevant content knowledge and identify the themes of challenging texts. Teachers have reported that the use of quad text sets has increased the amount of time that students read in their classroom and motivated students to read more challenging texts. Finally, teachers have revealed that the quad text set framework has changed how they viewed incorporating challenging texts into their curriculum, especially for struggling readers.

Additionally, we have conducted observational pilot studies to gather information about the implementation, planning process, and feasibility of quad text sets in secondary classrooms. Our results have revealed that both the texts themselves and the scaffolds that a teacher provides before, during, and after reading are

essential in assisting students in comprehending and learning from texts (Lupo et al., 2015).

Our work has also revealed challenges for the use of quad text sets. Teachers have struggled to find easier texts that are appropriate for adolescents. We included some resources in the More to Explore sidebar at the end of this article to assist teachers in finding such texts. Additionally, teachers have reported that it is time consuming to put together a quality text set. We recommend that teachers can work in teams to distribute the time it takes to put together a quality set.

Our framework marries two perspectives that are often at odds: increasing the amount of time for reading challenging content area texts and providing opportunities for students to read relevant, accessible texts. Our experience with implementing quad text sets with teachers and our pilot studies (Lewis et al., 2014; Lupo et al., 2015) have demonstrated that these two perspectives have the potential to complement each other. Further research is needed to explore how text sets build background knowledge that students need to comprehend challenging texts. However, our framework serves as a promising way for teachers to plan with texts in mind to increase reading volume and assist students in reading more challenging texts.

Figure 11
Social Studies Quad Text Sets

Visual text	Informational text	Accessible text	Target text
Excerpts from the film <i>All Quiet on the Western Front</i>	The Long, Long Trail: The British Army in the Great War of 1914–1918, a website by Chris Baker	“Gas Attack, 1916” on the EyeWitness to History website	“Dulce et Decorum Est” by Wilfred Owen (poem)
“Fall of the Roman Empire...in the 15th Century: Crash Course World History #12” (YouTube)	“Fall of the Roman Empire” by Donald L. Wasson on the Ancient History Encyclopedia website	“For America, the Fall of the Roman Empire Is the Best Case Scenario” by Kurt Schlichter on the Townhall website	“Is America the New Rome?—United States vs. the Roman Empire” by Michael Lewis on the Money Crashers website
“Demon Sheep Ad! FCINO: Fiscal Conservative in Name Only” (YouTube)	“FBI Docs Show Only 12 of 14 Boxes of Hillary’s Emails Found, Whereabouts of Two Unknown” by Warner Todd Huston on the Breitbart website and “Is the Latest Hillary Clinton Email Scandal Really a Scandal?” by Josh Voorhees on the Slate website	Noam Chomsky on propaganda in an interview with Andrew Marr from the BBC series <i>The Big Idea</i> (YouTube)	“News Coverage of the 2016 General Election: How the Press Failed the Voters” by Thomas E. Patterson on the Shorenstein Center on Media, Politics and Public Policy website
“Birmingham 1963” by PBS (YouTube)	Excerpts from <i>Remembering Jim Crow: African Americans Tell About Life in the Segregated South</i> edited by William H. Chafe, Raymond Gavins, and Robert Korstad	“The Truth of ‘Black Lives Matter’” by the Editorial Board of <i>The New York Times</i>	“Letter From Birmingham Jail” by Martin Luther King Jr.

TAKE ACTION!

1. Choose a target text for achieving instructional objectives.
2. Select a visual text to build background knowledge needed to comprehend the target text.
3. Select informational text(s) to build additional background knowledge.
4. Select an accessible text to help students make connections to and find relevance in the topic.
5. Consider the order of implementation of the texts to allow students to build understanding of the topic and texts strategically.
6. Select from a set of instructional routines and disciplinary literacy strategies to use before, during, and after reading for each text.

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MORE TO EXPLORE

Learn more about quad text sets:

- Quad Text Sets module: <http://comprehensivereadingsolutions.com/2013/12/17/quad-text-sets/>

To find texts:

- Arabo, M., Budd, J.S., Garrison, S., & Pacheco, T. (2017). *The right tool for the job: Improving reading and writing in the classroom*. Washington, DC: Thomas B. Fordham Institute. Retrieved from <https://edexcellence.net/publications/the-right-tool-for-the-job>
- National Geographic Kids for science and social studies texts written for kids: <http://kids.nationalgeographic.com/>
- Student Science website for science texts written for adolescents: <https://student.societyforscience.org/>
- Time for Kids website for social studies texts written for kids: <https://www.timeforkids.com/>