

Reading

One of the key requirements of the Common Core State Standards for Reading is that all students must be able to comprehend texts of steadily increasing complexity as they progress through school. By the time they complete the core, students must be able to read and comprehend independently and proficiently the kinds of complex texts commonly found in college and careers. The first part of this section makes a research-based case for why the complexity of what students read matters. In brief, while reading demands in college, workforce training programs, and life in general have held steady or increased over the last half century, K-12 texts have actually declined in sophistication, and relatively little attention has been paid to students' ability to read complex texts independently. These conditions have left a serious gap between many high school seniors' reading ability and the reading requirements they will face after graduation. The second part of this section addresses how text complexity can be measured and made a regular part of instruction. It introduces a three-part model that blends qualitative and quantitative measures of text complexity with reader and task considerations. The section concludes with three annotated examples showing how the model can be used to assess the complexity of various kinds of texts appropriate for different grade levels.

Why Text Complexity Matters

In 2006, ACT, Inc., released a report called *Reading Between the Lines* that showed which skills differentiated those students who equaled or exceeded the benchmark score (21 out of 36) in the reading section of the ACT college admissions test from those who did not. Prior ACT research had shown that students achieving the benchmark score or better in reading—which only about half (51 percent) of the roughly half million test takers in the 2004–2005 academic year had done—had a high probability (75 percent chance) of earning a C or better in an introductory, credit-bearing course in U.S. history or psychology (two common reading-intensive courses taken by first-year college students) and a 50 percent chance of earning a B or better in such a course.¹

Surprisingly, what chiefly distinguished the performance of those students who had earned the benchmark score or better from those who had not was not their relative ability in making inferences while reading or answering questions related to particular cognitive processes, such as determining main ideas or determining the meaning of words and phrases in context. Instead, the clearest differentiator was students' ability to answer questions associated with complex texts. Students scoring below benchmark performed no better than chance (25 percent correct) on four-option multiple-choice questions pertaining to passages rated as “complex” on a three-point qualitative rubric described in the report. These findings held for male and female students, students from all racial/ethnic groups, and students from families with widely varying incomes. The most important implication of this study was that a pedagogy focused only on “higher-order” or “critical” thinking was insufficient to ensure that students were ready for college and careers: what students could read, in terms of its complexity, was at least as important as what they could do with what they read.

The ACT report is one part of an extensive body of research attesting to the importance of text complexity in reading achievement. The clear, alarming picture that emerges from the evidence, briefly summarized below², is that while the reading demands of college, workforce training programs, and citizenship have held steady or risen over the past fifty years or so, K-12 texts have, if anything, become less demanding. This finding is the impetus behind the Standards' strong emphasis on increasing text complexity as a key requirement in reading.

College, Careers, and Citizenship: Steady or Increasing Complexity of Texts and Tasks

Research indicates that the demands that college, careers, and citizenship place on readers have either held steady or increased over roughly the last fifty years. The difficulty of college textbooks, as measured by Lexile scores, has not decreased in any block of time since 1962; it has, in fact, increased over that period (Stenner, Koons, & Swartz, in press). The word difficulty of every scientific journal and magazine from 1930 to 1990 examined by Hayes and Ward (1992) had actually increased, which is important in part because, as a 2005 College Board study (Milewski, Johnson, Glazer, & Kubota, 2005) found, college professors assign more readings from periodicals than do high school teachers. Work-place reading, measured in Lexiles, exceeds grade 12 complexity significantly, although there is considerable variation (Stenner, Koons, & Swartz, in press). The vocabulary difficulty of newspapers remained stable over the 1963–1991 period Hayes and his colleagues (Hayes, Wolfer, & Wolfe, 1996) studied.

Furthermore, students in college are expected to read complex texts with substantially greater independence (i.e., much less scaffolding) than are students in typical K-12 programs. College students are held more accountable for what they read on their own than are most students in high school (Erickson & Strommer, 1991; Pritchard, Wilson, & Yamnitz, 2007). College instructors assign readings, not necessarily explicated in class, for which students might be held accountable through exams, papers, presentations, or class discussions. Students in high school, by contrast, are

¹In the 2008–2009 academic year, only 53 percent of students achieved the reading benchmark score or higher; the increase from 2004–2005 was not statistically significant. See ACT, Inc. (2009).

²Much of the summary found in the next two sections is heavily influenced by Marilyn Jager Adams's painstaking review of the relevant literature. See Adams (2009).

rarely held accountable for what they are able to read independently (Heller & Greenleaf, 2007). This discrepancy in task demand, coupled with what we see below is a vast gap in text complexity, may help explain why only about half of the students taking the ACT Test in the 2004–2005 academic year could meet the benchmark score in reading (which also was the case in 2008–2009, the most recent year for which data are available) and why so few students in general are prepared for postsecondary reading (ACT, Inc., 2006, 2009).

K–12 Schooling: Declining Complexity of Texts and a Lack of Reading of Complex Texts Independently

Despite steady or growing reading demands from various sources, K–12 reading texts have actually trended downward in difficulty in the last half century. Jeanne Chall and her colleagues (Chall, Conard, & Harris, 1977) found a thirteen-year decrease from 1963 to 1975 in the difficulty of grade 1, grade 6, and (especially) grade 11 texts. Extending the period to 1991, Hayes, Wolfer, and Wolfe (1996) found precipitous declines (relative to the period from 1946 to 1962) in average sentence length and vocabulary level in reading textbooks for a variety of grades. Hayes also found that while science books were more difficult to read than literature books, only books for Advanced Placement (AP) classes had vocabulary levels equivalent to those of even newspapers of the time (Hayes & Ward, 1992). Carrying the research closer to the present day, Gary L. Williamson (2006) found a 350L (Lexile) gap between the difficulty of end-of-high school and college texts—a gap equivalent to 1.5 standard deviations and more than the Lexile difference between grade 4 and grade 8 texts on the National Assessment of Educational Progress (NAEP). Although legitimate questions can be raised about the tools used to measure text complexity (e.g., Mesmer, 2008), what is relevant in these numbers is the general, steady decline—over time, across grades, and substantiated by several sources—in the difficulty and likely also the sophistication of content of the texts students have been asked to read in school since 1962.

There is also evidence that current standards, curriculum, and instructional practice have not done enough to foster the independent reading of complex texts so crucial for college and career readiness, particularly in the case of informational texts. K–12 students are, in general, given considerable scaffolding—assistance from teachers, class discussions, and the texts themselves (in such forms as summaries, glossaries, and other text features)—with reading that is already less complex overall than that typically required of students prior to 1962.³ What is more, students today are asked to read very little expository text—as little as 7 and 15 percent of elementary and middle school instructional reading, for example, is expository (Hoffman, Sabo, Bliss, & Hoy, 1994; Moss & Newton, 2002; Yopp & Yopp, 2006)—yet much research supports the conclusion that such text is harder for most students to read than is narrative text (Bowen & Roth, 1999; Bowen, Roth, & McGinn, 1999, 2002; Heller & Greenleaf, 2007; Shanahan & Shanahan, 2008), that students need sustained exposure to expository text to develop important reading strategies (Afflerbach, Pearson, & Paris, 2008; Kintsch, 1998, 2009; McNamara, Graesser, & Louwense, in press; Perfetti, Landi, & Oakhill, 2005; van den Broek, Lorch, Linderholm, & Gustafson, 2001; van den Broek, Risden, & Husebye-Hartmann, 1995), and that expository text makes up the vast majority of the required reading in college and the workplace (Achieve, Inc., 2007). Worse still, what little expository reading students are asked to do is too often of the superficial variety that involves skimming and scanning for particular, discrete pieces of information; such reading is unlikely to prepare students for the cognitive demand of true understanding of complex text.

The Consequences: Too Many Students Reading at Too Low a Level

The impact that low reading achievement has on students' readiness for college, careers, and life in general is significant. To put the matter bluntly, a high school graduate who is a poor reader is a postsecondary student who must struggle mightily to succeed. The National Center for Education Statistics (NCES) (Wirt, Choy, Rooney, Provasnik, Sen, & Tobin, 2004) reports that although needing to take one or more remedial/developmental courses of any sort lowers a student's chance of eventually earning a degree or certificate, "the need for remedial reading appears to be the most serious barrier to degree completion" (p. 63). Only 30 percent of 1992 high school seniors who went on to enroll in postsecondary education between 1992 and 2000 and then took any remedial reading course went on to receive a degree or certificate, compared to 69 percent of the 1992 seniors who took no postsecondary remedial courses and 57 percent of those who took one remedial course in a subject other than reading or mathematics. Considering that 11 percent of those high school seniors required at least one remedial reading course, the societal impact of low reading achievement is as profound as its impact on the aspirations of individual students.

Reading levels among the adult population are also disturbingly low. The 2003 National Assessment of Adult Literacy (Kutner, Greenberg, Jin, Boyle, Hsu, & Dunleavy, 2007) reported that 14 percent of adults read prose texts at "below basic" level, meaning they could exhibit "no more than the most simple and concrete literacy skills"; a similarly small number (13 percent) could read prose texts at the "proficient level," meaning they could perform "more complex and challenging literacy activities" (p. 4). The percent of "proficient" readers had actually declined in a statistically significant way from 1992 (15 percent). This low and declining achievement rate may be connected to a general lack of reading. As reported by the National Endowment for the Arts (2004), the percent of U.S. adults reading literature dropped from 54.0 in 1992 to 46.7 in 2002, while the percent of adults reading *any* book also declined by 7 percent

³As also noted in "Key Considerations in Implementing Text Complexity," below, it is important to recognize that scaffolding often is entirely appropriate. The expectation that scaffolding will occur with particularly challenging texts is built into the Standards' grade-by-grade text complexity expectations, for example. The general movement, however, should be toward *decreasing scaffolding* and *increasing independence* both within and across the text complexity bands defined in the Standards.

during the same time period. Although the decline occurred in all demographic groups, the steepest decline by far was among 18-to-24- and 25-to-34-year-olds (28 percent and 23 percent, respectively). In other words, the problem of lack of reading is not only getting worse but doing so at an accelerating rate. Although numerous factors likely contribute to the decline in reading, it is reasonable to conclude from the evidence presented above that the deterioration in overall reading ability, abetted by a decline in K-12 text complexity and a lack of focus on independent reading of complex texts, is a contributing factor.

Being able to read complex text independently and proficiently is essential for high achievement in college and the workplace and important in numerous life tasks. Moreover, current trends suggest that if students cannot read challenging texts with understanding—if they have not developed the skill, concentration, and stamina to read such texts—they will read less in general. In particular, if students cannot read complex expository text to gain information, they will likely turn to text-free or text-light sources, such as video, podcasts, and tweets. These sources, while not without value, cannot capture the nuance, subtlety, depth, or breadth of ideas developed through complex text. As Adams (2009) puts it, “There may one day be modes and methods of information delivery that are as efficient and powerful as text, but for now there is no contest. To grow, our students must read lots, and more specifically they must read lots of ‘complex’ texts—texts that offer them new language, new knowledge, and new modes of thought” (p. 182). A turning away from complex texts is likely to lead to a general impoverishment of knowledge, which, because knowledge is intimately linked with reading comprehension ability, will accelerate the decline in the ability to comprehend complex texts and the decline in the richness of text itself. This bodes ill for the ability of Americans to meet the demands placed upon them by citizenship in a democratic republic and the challenges of a highly competitive global marketplace of goods, services, and ideas.

It should be noted also that the problems with reading achievement are not “equal opportunity” in their effects: students arriving at school from less-educated families are disproportionately represented in many of these statistics (Bettinger & Long, 2009). The consequences of insufficiently high text demands and a lack of accountability for independent reading of complex texts in K-12 schooling are severe for everyone, but they are disproportionately so for those who are already most isolated from text before arriving at the schoolhouse door.

The Standards’ Approach to Text Complexity

To help redress the situation described above, the Standards define a three-part model for determining how easy or difficult a particular text is to read as well as grade-by-grade specifications for increasing text complexity in successive years of schooling (Reading standard 10). These are to be used together with grade-specific standards that require increasing sophistication in students’ reading comprehension ability (Reading standards 1-9). The Standards thus approach the intertwined issues of what and how student read.

A Three-Part Model for Measuring Text Complexity

As signaled by the graphic at right, the Standards’ model of text complexity consists of three equally important parts.

(1) Qualitative dimensions of text complexity. In the Standards, *qualitative dimensions* and *qualitative factors* refer to those aspects of text complexity best measured or only measurable by an attentive human reader, such as levels of meaning or purpose; structure; language conventionality and clarity; and knowledge demands.

(2) Quantitative dimensions of text complexity. The terms *quantitative dimensions* and *quantitative factors* refer to those aspects of text complexity, such as word length or frequency, sentence length, and text cohesion, that are difficult if not impossible for a human reader to evaluate efficiently, especially in long texts, and are thus today typically measured by computer software.

(3) Reader and task considerations. While the prior two elements of the model focus on the inherent complexity of text, variables specific to particular readers (such as motivation, knowledge, and experiences) and to particular tasks (such as purpose and the complexity of the task assigned and the questions posed) must also be considered when determining whether a text is appropriate for a given student. Such assessments are best made by teachers employing their professional judgment, experience, and knowledge of their students and the subject.

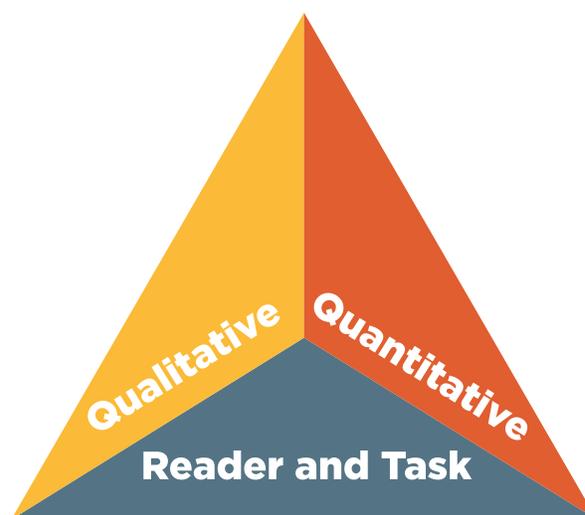


Figure 1: The Standards’ Model of Text Complexity