

Preface

A long time ago I entered junior high school. I arrived from the one-room country school I had attended since I began school. I was a short, chubby kid getting off the bus at the huge, and old, former high school that was now the junior high school, housing 7th and 8th grade students from both the small town and the surrounding rural areas. I was a small kid for my age and the only member of my five-student sixth-grade class who had placed in the “academic track.” So I went to school, for the first time, with strangers and with a teacher who was not Mr. DeGraw, who alone had taught me and all the other kids attending Pioneer Elementary School since second grade. I survived junior high school and later high school and college and then went back to teach elementary school in a neighboring small town (I’m talking about small towns with a total population of fewer than 1,000 folks). Today I am a professor but one who remembers teachers, classes and incidents from those junior high years. Not all these memories are pleasant but many are and every teacher, class, and incident shaped who I am today.

The early adolescent years (roughly ages 11 to 15) can be troubling years for a number of reasons. Some 11-year-olds are close to six feet tall while others are barely taller than four feet. Some have already entered puberty and many have not. Some have excellent reading and writing skills while others have developed few proficiencies in these areas that are central to school success. In many respects early adolescence is the last chance we have to shape these students into young scholars. So let’s begin by reviewing just how we are doing.

As a nation, we seem unable to make up our minds about the best way to organize instruction for early adolescents. We have K-8 elementary schools, grades 7 and 8 junior high schools, grade 5, 6, 7, and 8 middle schools, and grades 7, 8, and 9 middle schools. There are other variations but these arrangements capture the organizational scheme for educating most early adolescents. Often, it seems to me, the organizational plan for early adolescents is driven more by enrollment factors than by any other criteria. For instance, in a neighboring community the junior high school (grades 7 and 8) was turned into a middle school (grades 5, 6, 7, and 8) primarily because estimates for adding room onto six elementary schools (for increasing numbers of grade 5 and 6 students) was more expensive than simply doubling the size of the junior high school and relabeling it as a middle school.

In some schools for early adolescents all students have multiple teachers every day and in others students in grades 5 and 6 remain in self-contained classrooms with but a single teacher to provide all aspects of the instruction. In many schools educating early adolescents, the students attend multiple classes taught by multiple teachers every day. I recently had a conversation with a middle school teacher seeking assistance with struggling readers in her classes. When she told me her school had an eight-period day and that each period was 37 minutes long I told her there was little I could offer her for advice.

This unfortunate teacher works in a school where early adolescents make 9 or 10 transitions every day. Where nine 37-minute periods (8 academic classes plus lunch) bounded by 5-minute transition periods create chaos day after day. In another middle school I visited students have two periods each day, basically a morning and afternoon period. Their classes meet every other day on an odd-and-even day schedule. Their curriculum includes English language arts, mathematics, science, and social studies. I am not sure what academic content is covered in the eight periods a day school but one can bet that it is covered less well than in the two-period/four content classes middle school.

I've visited schools for early adolescents that enrolled thousands of children and other schools where barely 100 students comprised grades 5, 6, 7, and 8. I'm not sure what the best size might be for a school educating early adolescents but I am reasonably sure that whenever we put 1,000 or more early adolescents in a single building little good will happen educationally. That "huge" junior high school I attended enrolled just over 200 seventh- and eighth grade students. Nonetheless, it felt big, way big, to me, a country boy from a one-room, 30-student school.

My point is that currently in North America we educate early adolescents in schools of varying sizes, provide curricula sliced up in thin and very thin slices, and expect early adolescents to adjust, adapt, and become productive in organizational schemes that often seem to have been developed by madmen and -women.

Early adolescence is a time of great physical and emotional development. It is a time when students are most likely to need abundant personal support as well as academic support. I hope this book assists you in providing each of these types of support to your students.

I would like to thank the reviewers of this edition: Theresa Barone, Derby Middle School (Lake Orion, Michigan) and Audra Jones, Memphis, Tennessee.

The **What Really Matters** *Series*

The past decade or so has seen a dramatic increase in the interest in what the research says about reading instruction. Much of this interest was stimulated by several recent federal education programs: the Reading Excellence Act of 1998, the No Child Left Behind Act of 2001, and the Individuals with Disabilities Education Act of 2004. The commonality shared by these federal laws is that each law restricts the use of federal funds to instructional services and support that have been found to be effective through “scientific research.”

In this new series we bring you the best research-based instructional advice available. In addition, we have cut through the research jargon and at least some of the messiness and provide plain-language guides for teaching students to read and write. Our focus is helping you use the research as you plan and deliver instruction to your students. Our goal is that your lessons be as effective as we know how, given the research that has been published.

Our aim is that all children become active and engaged readers and writers and that all develop the proficiencies needed to be strong independent readers and writers. Each of the short books in this series features what we know about one aspect of teaching and learning to read and write independently. Each of these pieces is important to this goal but none is more important than the ultimate goal: active, strong, independent readers and writers who read and write eagerly.

So, enjoy these books and teach your students all to read and write.

Chapter 1

Reading Development in Grades 5 through 9: Problems and Promise

This is a book on reading and the development of reading abilities of early adolescents. We will begin by examining how well early adolescents are performing as readers. The largest evaluation of reading proficiency available for our use is the U.S. National Assessment of Educational Progress (NAEP). The initial NAEP assessments were done in 1971, over 40 years ago, but these national assessments have continued to be administered since that time.

Originally, the NAEP assessment was conducted every 4 years though more recently they have been given every other year. The initial NAEP testing simply reported the national average reading levels of children at ages 9, 13, and 17. More recently they have reported on performances in specified grade levels (grades 4, 8, and 12) that are generally associated with those age levels. The numbers of children assessed have grown larger primarily due to the decision over a decade ago to produce results on a state-by-state basis.

The NAEP reading assessment framework focuses attention on students' abilities to understand texts they have read silently and independently. Below are the three broad areas of literacy that eighth-grade students are assessed on.

- 30 percent of NAEP items ask students to *critique* and *evaluate*.
Readers are to consider all or part of the text from a critical perspective and to make judgments about the way meaning is conveyed.
- 50 percent of NAEP items ask students to *integrate* and *interpret*.
Readers are required to make connections across large portions of text or to explain what they think about the text as a whole.
- 20 percent of NAEP items ask students to simply *locate* or *recall* information from texts read.
Students are asked to focus on specific information contained in relatively small amounts of text and to recognize what they have read.

The NAEP assessments also require some “constructed responses” where students must write their responses to the questions posed. The remainder of the NAEP test uses multiple-choice test items to assess understanding. I mention this because there are so few state tests of reading that have required constructed responses, and so these state tests fail to present a demanding assessment of reading proficiency. Also, most of the NAEP items are complete articles or passages on a topic that is different from that found in state tests, which more often present information in a single paragraph prior to presenting multiple-choice questions. The new assessments that accompany the Common Core State Standards (CCSS) will also require constructed responses, although the responses will be graded using recently developed computer software rather than human evaluators.

The assessments that accompany many of the textbooks used in schools, as well as the assessments created by teachers for use to estimate understanding (or learning) after reading, are far more likely to be focused on *locate* and *recall* tasks, with most focused on recall of information read (Applebee, 2013). However, note that such NAEP items as these comprise only one of every five questions. In other words, too much of what has been tested in schools rarely gets at the

critique, evaluate, integrate, and interpret aspects of the NAEP. The new CCSS also emphasizes what the NAEP emphasizes—higher-order thinking about what has been read. If students are to perform well on the NAEP or on the new CCSS assessments, they will have to have far greater experience with the critique, evaluate, integrate, and interpret tasks than students currently do.

Teaching students to do well at tasks that require them to critique, evaluate, integrate, and interpret what they have been reading will be different from classroom instruction, assignments, and assessments focused on recalling information that has been read. I will argue that CCSS will require many teachers to acquire new ways of teaching. Given American students' lackluster performance on the NAEP (and on the international assessments), such a change should be a good thing.

What the NAEP Tells Us

If we examine recent NAEP testing for reading, we find that many eighth-grade students do not read well enough to accomplish grade-level work. Below I have provided the results of the most recent NAEP reading assessment for eighth-graders with the numbers on the left representing the percentage (rounded) of eighth-graders at each of the four NAEP reading levels (NAEP, 2009).

2	Advanced	Capable of reading texts with a difficulty level above the students current grade placement.
28	Proficient	Capable of reading at grade level and performing well on each of the NAEP tasks.
43	Basic	May be capable of reading grade-level texts but with only the ability to perform the lowest level cognitive tasks (recall). Usually teacher support is needed to accomplish this.
26	Below Basic	Unable to successfully perform any NAEP tasks with grade-level texts.

In this recent NAEP reading assessment more than two-thirds of American eighth-grade students read below the proficient level, the level needed to perform most grade-level tasks. Additionally, a quarter of all eighth-graders read at levels below the sixth-grade level and 10 percent read at levels below the average reading level of fourth-graders! Far too many students enter and leave middle schools with poorly developed reading proficiencies.

If you are lucky you may find a teaching position in Connecticut, Massachusetts, New Jersey, or Vermont where over 40 percent of all eighth-grade students score at or above the proficient level. But teaching eighth grade well will be harder in Louisiana or Mississippi, where fewer than 20 percent of students reach the proficient level and where many more students are performing at the below-basic level.

There are also differences in reading proficiency by race/ethnic group and by family socioeconomic status. In general, students are more likely to have developed strong reading proficiencies if they are white, female, and come from middle-class families. That is what the NAEP data indicate. Children from low-income families, children of ethnic minority backgrounds, and males all are more likely to exhibit difficulties with reading. The achievement gap for boys versus girls was 10 points. The achievement gap between children from low-income and higher-income families was 26 points. There was an achievement gap between white students and black students of 27 points and between white and Hispanic students of 24 points. But while these gaps are substantial, there was also a 23-point gap between the average reading levels of eighth-graders in Massachusetts and Mississippi.

NAEP reading scores for eighth-graders have remained unchanged since 1992. In other words, in the past two decades we saw no improvement in the average reading levels of eighth-grade students even though many of today's eighth-graders have spent their entire school careers under NCLB mandates and accountability schemes. This lack of growth occurred even though fourth-grade NAEP performances have been improving since 1992. However, the average reading levels of American eighth-graders is a tricky thing to compute and even trickier to interpret.

Since 1992 the proportion of Hispanic students in American schools has more than doubled. Table 1.1 shows the racial/ethnic composition of NAEP test takers in 1992 and 2009. The percentage of white test takers has dropped by 14 percent over this nearly two-decade time period from 1992 to 2009, while the

TABLE 1.1 *NAEP Student Demographics in 1992 and 2009*

	1992	2009
White	72	58
Black	16	15
Hispanic	8	20
Asian	3	5
Native American	1	1

Percentage of participants by race/ethnic group in the 1992 and 2009 NAEP assessments at grade 8.

proportion of Hispanic students has more than doubled. Only Texas, California, Arizona, and Florida had substantial populations of Hispanic students 20 years ago while today over 20 states do. When the NAEP began 40 years ago, so few schools enrolled Hispanic learners that the NAEP did not even break out scores for that subgroup. Today Hispanic students account for one of every five students in American schools.

The changing nature of the racial/ethnic composition of school-aged children means that today many more teachers are faced with children from low-income families as well as children who are English language learners. Both of these groups of students have exhibited substantially lower reading levels, historically, than the reading levels attained by children from more affluent families and by white children. I will suggest that maintaining the same average reading proficiency level that American children exhibited in 1992 may represent progress in teaching children to read. While the reading gaps of poor and black children and of English language learners when compared to non-poor, English speaking, and white students remain far too large, the substantial changes in the pool of students being assessed by NAEP might have had the effect of lowering average reading levels had reading instruction not been improving. This addition of many lower scoring students in the NAEP testing pool and the effect that adding these low-scoring students to the sample reflects “Simpson’s Paradox” (Bracey, 2003). In other words, while the scores of every group rise, the average score of the sample does not improve because the addition of many low-scoring students hides the improvement.

Reading Proficiency before Grade 8

Over the past twenty years most federal efforts to improve reading proficiency have targeted students in the primary grades, K–3. The reason for this focus is provided by a recent report from the Annie Casey Foundation entitled “Double Jeopardy” (Hernandez, 2011). That report presents a large-scale analysis of the effects of failing to read on grade level by the end of third grade. Students who were struggling with reading in third grade were four times as likely to drop out of school as were their more successful classmates. And if the student who was struggling happened to come from a low-income family, those students were 13 times as likely to drop out as were poor children reading at grade level in third grade.

In fact, being poor substantially contributes to dropping out of school. Roughly one-third of all students from low-income families will not complete high school compared to 6 percent of the non-poor children. Difficulty with early reading acquisition is also a substantial contributor to dropping

out. The bottom one-third of readers in third grade account for two-thirds of all dropouts. It is the combination of low reading achievement and family poverty that places these children in “double jeopardy.”

The “Double Jeopardy” report tells us that early intervention seems essential if all children are to become literate and productive students and citizens. It also suggests that middle schools have not been successful in turning struggling early adolescent readers into achieving and grade-level readers. When we look at the NAEP data on reading achievement it is clear that the size of the struggling reader population remains largely the same from fourth grade through twelfth grade. So the pertinent question might be: What usually happens when struggling readers arrive at the middle school level?

Reading Instruction for Early Adolescents

Truth be told, we actually know very little about the reading instruction provided to early adolescents. Much of what we do know is focused on struggling early-adolescent readers and not on the typically developing readers. Nonetheless, a brief review of what we do know will be useful as an introduction to this book.

One change in the education of early adolescents that has occurred during my teaching career is the elimination of a separate class devoted to teaching children to read. When I arrived as a beginning teacher, the core reading programs then available were produced as K- through eighth-grade programs. In the junior high I attended we had both a reading class and an English class. So every day I had a 55-minute period devoted to improving my reading proficiency. I had seven classes each day, a day that was 7.5 hours long.

Today, many middle school students attend no reading class. In too many middle schools the academic school day is closer to 5 hours than 8 hours in length. American schools typically fit one of three patterns when it comes to the length of the school day. There are 6-, 6.5-, and 7-hour school days. Unfortunately, it is the urban schools that have the shortest school days, on average, and the suburban schools that have the longest school days. Poor students are more likely to have the shortest school day and middle class students to have the longest school day. Additionally, over 2 hours of each school day is devoted to non-academic time (homeroom, announcements, attendance, meals, lining up, bathroom, transition, cleaning up, getting ready to go home) regardless of the length of the school day (Roth, Brooks-Dunn, Linver & Hofferth, 2002). This typically leaves teachers with between 4 and 5 hours each day to provide instruction. Teachers who work in schools with a 7-hour school day have the equivalent of two additional months of class time each year compared to teachers

who work in schools with a 6-hour school day. The gap is even larger for those schools with days shorter than 6 hours.

Perhaps reading class was eliminated from the curriculum because there was too much other content that was deemed to be more critical (e.g., foreign languages, technology, art). Perhaps reading classes were lost as the school day shortened from a day close to 8 hours long to a school day that is more often 6 hours long. Perhaps reading classes were lost because it became clear, as Herber demonstrated in the 1970s, that print content is organized in ways that represent the conceptual hierarchy of the discipline. He noted that the organization of a text is the form of the ideas presented in that text. Because of this, the reading strategies/practices students experience need to provide support, or scaffolding, for engaging those ideas—support and scaffolding from all of their teachers in every content area. Perhaps an additional reading class wouldn't be necessary if middle school teachers were required to teach the disciplinary reading strategies needed to read content area textbooks successfully. However, there is little evidence to suggest that science, social studies, or foreign language teachers are currently mandated, or prepared, to provide beneficial reading lessons.

Whatever the reason, today's core reading programs are more likely to be K through fourth-grade programs than K through eighth-grade programs. Few middle schools have reading classes in which every student is enrolled. Some provide such a reading class to fifth- and sixth-grade students but then drop that class for the seventh and eighth grades. In most middle schools every content teacher does not typically consider herself or himself a reading teacher since they all teach specific subjects (such as science, history, or English). But Herber's original idea—that the best person to teach students to read science texts will be the science teacher (and so too for other content areas)—has never been actualized. And as far as the length of the school day, how can developing the reading proficiencies of early adolescents not be a subject of critical importance? In my "ivory tower" mind, we have made little progress in improving the reading proficiencies of early adolescents simply because we have rarely tried to improve their reading proficiencies.

If reading instruction in the United States largely ends at the fourth or fifth grade, is it any wonder so many of our middle and high school students struggle with the reading demands they face? As Biancarosa and Snow (2006) point out, at least 8 million students between grades 4 and 12 read below grade level and 70 percent of all readers in those grades would benefit from remediation to enhance their reading proficiency.

The general lack of reading instruction beyond grade 5 may account for the fact that only half of the high school juniors who took the American College Testing (ACT) tests read well enough to have a 75 percent chance at earning a grade of C in college history, biology, or literature classes (ACT, 2006). And not everyone takes the ACT exams, just those students intending to go to college. This group is comprised of the more academically motivated 17-year-olds, and of this

group, fewer than half will ever complete college because they do not read with sufficient proficiency to do college level reading.

One might think that with statistics such as these there would be a public outcry and federal legislation mandating access to reading instruction above grade 5. However, while there has been some recent attention to developing the reading proficiencies of middle and high school students, I see no clear consensus either politically or professionally that will cause the situation to change much in the near future.

We know providing reading instruction in middle schools and high schools improves students' reading proficiencies. Whether the class offered more self-selected reading (Showers, Joyce, Scanlon & Schnaubelt, 1998), technology-assisted reading (James-Burdumy, Deke, Lugo-Gil, Carey, Hershey, Gersten, et al., 2010), or traditional reading instruction (Biancrosa & Snow, 2006), one can observe that this instruction fostered reading growth. Typically, in these studies only a single period each day was set aside for reading instruction and the resulting growth averaged roughly 1 year's growth per year.

Of course, struggling readers need to advance their reading skills to grow more than 1 year per year if they are ever to bring their reading levels up to grade level. Imagine the difficulties faced across the school day by a sixth-grade boy who reads at a third-grade level. This student will be unable to read any of the grade-level texts he is assigned. Even if this student is lucky enough to attend a middle school that provides remedial reading instruction, he will still have a stack of textbooks he cannot read and a stack of assignments he cannot complete. That is primarily because in too many middle schools no one has paid much attention to the problem grade-level curriculum materials created for struggling readers (Allington, 2002).

It is just this concern that bothers me about the recent CCSS framework. The emphasis on increasing the difficulty, or complexity, of the texts students read seems shortsighted since so many students currently fail to meet the grade-level standards in place at the moment. I can find hope in the CCSS documents that state teachers will be left to decide how to best teach students, but some days this seems like a faint hope if publishers simply increase the difficulty of texts used with early adolescents.

Problem of One-Size-Fits-All Curriculum Plans

Chall (1983) noted that the demands of reading increase dramatically for students in the fourth grade and beyond as their schooling begins to rely more on textbooks. The vocabulary they encounter is less conversational and less familiar, with more specialized, technical terms (e.g., delta, plateau, basin) and abstract ideas

(e.g., democracy, freedom, civilization). The syntax of texts becomes more complex and demanding. The reasoning about information in texts also shifts, with a greater emphasis on inferential thinking and prior knowledge. (For example: What stance is the author taking on industrial polluters? Is there another stance that others might take?)

Many students who have been making satisfactory progress in the primary grades now begin to struggle with reading, especially content-area reading. Many never seem to recover. The other children who struggled with learning to read in the primary grades now experience real and sustained failures when it comes to reading the assigned texts. These two groups of students that experience failures in the middle grades have typically been labeled early- and later-developing struggling readers. It doesn't actually matter much which group these struggling readers are in because students in both groups need effective reading instruction and differentiated content area materials and lessons.

Schools have typically exacerbated the problem such students face every day by relying on a single-source curriculum design—purchasing multiple copies of the same science, English, and social studies textbooks for every student. This “one-size-fits-all” approach works well if we want to sort students into academic tracks, but it fails miserably if our goal is high academic achievement for all students. Even worse, research shows that many classrooms use textbooks written 2 or more years above the average grade level of their students (Chall & Conard, 1991; Budiansky, 2001). These students will struggle to keep pace with grade-level reading development.

Even students who read at grade level may have trouble learning from their textbooks. Historically, a 95–97 percent oral reading accuracy level has been considered an appropriate level of difficulty for instructional texts (Harris & Sipay, 1990). But texts of this level of difficulty are simply too hard for independent assigned content-area reading. A student reading a book at this “instructional reading level” will misread or skip as many as 5 words of every 100. In a grade-level high school science or social studies text, then, students will misread 10 to 25 words on every page! They won't misread *if*, *runs*, *locate*, or even *misrepresent*, but rather unfamiliar technical vocabulary specific to the content area, such as *metamorphosis*, *estuary*, *disenfranchised*, and *unicameral*.

Because of the way textbooks are often used—what I have called “assign and assess” usage—we might profitably consider purchasing content textbooks written at students' independent level of reading proficiency (Budiansky, 2001), where students misread just 1 or 2 words in every 100. In other words, if schools use textbooks as the key curriculum content provider, then students need textbooks that they can read accurately, fluently, and with high levels of understanding.

Unfortunately, the idea of harder textbooks has captured the attention of educators and policymakers interested in raising academic achievement, as is

evident from a review of the CCSS. But harder books won't foster the growth of content learning. Think about your own attempts to acquire new content knowledge. Imagine you want to learn about building a website. Do you reject many of the books you might use because they are too easy? People usually prefer to work with the vocabulary they know. Otherwise, they become discouraged and may give up.

Adults won't read hard texts voluntarily—not because they lack character, but because they have had too many frustrating experiences trying to learn from texts that were simply too difficult, had too many unfamiliar words, and had complicated sentences that seemed purposely tangled in an attempt to frustrate. (Consider government tax manuals, any software manual, or even the directions for programming your DVD.) Since adults use the easiest texts they can find when they want to learn about a new topic, why do they think that hard books are good for children and adolescents?

Assuming that we don't want to continue the tradition of using difficult textbooks and allowing large numbers of students to fail content courses, we have two possible solutions. We could search out texts that cover the topics at lower levels of reading difficulty (Beck, McKeown, & Gromoll, 1989), or we can provide more instructional support to help students in grades 4 through 9 develop greater reading proficiency. Observations of exemplary teachers suggest that these teachers use both approaches to produce substantial reading, writing, and thinking growth in their students (Allington, 2002).

How Exemplary Teachers Avoid the Textbook Problem

A number of years ago I served as a member of a research team working out of a federal research center, where we carried out a large-scale research effort to understand how some of our nation's best teachers teach. The research team studied teachers across the United States who had reputations for excellence and who produced superior learning levels in their students as indicated by a variety of measures of student achievement, including standardized test scores. These excellent teachers implemented classroom instruction that combined multiple-level content texts and additional instructional support for struggling readers (Allington, 2002; Allington & Johnston, 2002; Langer, 2001; Nystrand, 1997; Pressley, Yokoi, Rankin, Wharton-McDonald, & Mistretta, 1997).

The exemplary teachers we studied were not typically familiar with the research that supported the sort of teaching that they offered. Research with early

adolescents suggests that students will be more successful at new tasks when the tasks they face are closely targeted to their academic skills, developmental stage, and the resources they bring to that task and when families and schools structure tasks in ways that provide appropriate levels of challenge and support (Roderick & Camburn, 1999). But although though none of the exemplary teachers studied were aware of the study, they provided instruction that fit Roderick and Camburn's prescription perfectly.

First and most conspicuously, exemplary teachers created a multi-sourced and multi-leveled curriculum that did not rely on traditional content-area textbooks. They didn't discard such textbooks but saw them as just one component of their total set of materials to be used in social studies, science, and English classes.

In a course on U.S history, for instance, the textbook provided a general organizing framework, but students acquired much of their historical content from trade books of multiple genres. In addition, original source materials, web-based information, and local historians (professional and amateur) all supported students' study of American history.

Second, the exemplary teachers offered students what we labeled "managed choice" as they learned content and demonstrated what they had learned. In a global studies unit, all students didn't study and color the identical map of Europe. Instead, students selected regions or nations to study on the basis of their family history or personal interest. Each student or cluster of students was responsible for learning and then teaching their peers important content about their region.

When they studied insects, each student had to capture an insect and develop field journal data on its habitat and habits. Teachers had each student draw and label diagrams of his or her own insect rather than having all students label the same ditto of an insect. The students chose from several methods of presenting their insect to peers: a two-minute "Be-the-Bug Activity" ("Hi, I'm a dragonfly. Let me tell you a bit about me and where I live . . ."); a HyperStudio presentation; or a written report. Giving students several options helped match assignments to students' abilities and learning styles, and enhanced their motivation (Allington & Johnston, 2002).

The exemplary teachers offered instruction tailored to each student's individual needs. Their classes experienced more personalized teaching and discussion and spent less time on whole-group lecture and recitation activities. Other researchers studying effective teaching at both elementary and secondary levels have reported similar findings (Langer, 2001; Nystrand, 1997; Taylor, Pearson, Clark, & Walpole, 2000).

These teachers provided students with models and demonstrations of the strategies that effective learners use when confronted with unfamiliar words or with difficult text. They demonstrated these strategies in the context of the text that the student was reading or composing. In other words, none of the exemplary

teachers used scripted one-size-fits-all instructional materials. These teachers taught students, not programs. They worried less about student performance on state-mandated tests and more about engaging students with reading and writing in the content areas.

While they worried less about state tests, they also produced students with superior achievement; these students had greater achievement gains during the school year when compared to students from typical teacher classrooms in the same building. In other words, teaching well produced higher levels of academic growth. While there is no surprise in that, the surprise was how few middle school and high school teachers actually taught effectively. In fact, as our research team moved from observing exemplary first-grade teachers to exemplary fourth-grade teachers and then to observing exemplary eighth- and tenth-grade teachers, locating effective teachers became more difficult with each increase in grade level. While we could find an elementary school where half of the first-grade teachers were exemplary teachers, at no other grade level did this occur. By eighth grade, we were too often looking for that single teacher in any content area who offered exemplary instruction. Perhaps this explains why while fourth-grade reading achievement has improved over the past 40 years, no such improvement has occurred in eighth- or twelfth-grade students!

Improving learning in content areas of the intermediate grades will require a substantial rethinking of what curriculum and instruction should look like. The exemplary teachers in our studies used practices that fostered improvements in student learning across the curriculum. However, for now, most teachers who want to teach effectively must teach against the organizational grain. Too often, teachers must reject the state and district curriculum frameworks and create their own curriculum packages, often spending their own funds to do so.

Good teaching should not be so difficult. But until more states and school districts dramatically modify their existing one-size-fits-all instructional resources and curriculum frameworks, many students won't receive the support they need to succeed in content-area learning. Think of the sixth-grader reading at the third-grade level.

What Instruction Must Look Like for Struggling Readers

The current situation in many schools is that struggling readers participate in 30 to 50 minutes of supplemental reading instruction and then spend the remaining 5 hours a day sitting in classrooms with texts they cannot read, cannot

learn to read from, and cannot learn science or social studies from (Allington, 2002). If we enter any school and select any struggling reader (remedial reader, a pupil with a learning disability, an English language learner) to observe in a general education classroom, we typically find that student has a desk (or a backpack or a locker) filled with books he or she cannot read. In other words, most struggling readers find themselves spending most of the school day in learning environments that no theory or empirical evidence suggests are likely to lead to any substantial learning.

If struggling readers are provided with appropriate instruction only 10 to 20 percent of the school day, one doesn't need to hire a consultant to determine why these struggling readers fail to exhibit the accelerated reading growth that is necessary for them to catch up with their better-reading peers (Allington, 2013). One doesn't need to hire a consultant to determine why certain students in these subgroups fail to make adequate yearly progress if a school's intervention design results in these students sitting for most of the school day in classrooms with books on their desks that they cannot read.

Worse, in too many schools even the supplemental reading instruction is designed to use classroom curriculum texts—that science book or literature anthology or trade book—that the struggling reader cannot read. The intervention design expects the reading specialists and special education teachers to use the classroom texts in the supplemental intervention lessons (O'Connor, Bell, Harty, Larkin, Sackor & Zigmond, 2002). In other words, the design calls for struggling readers to take their classroom textbooks with them when they travel to the special education resource or remedial reading room, or it expects that the specialist teachers will use these textbooks when working with struggling readers in the general education classroom.

It doesn't seem to matter that those texts are inevitably too difficult. Effective lesson design always begins with selecting texts that are of an appropriate level of difficulty given the skills and development of the learner. This design flaw prevails even though we have compelling research evidence demonstrating that using classroom texts—texts that are too difficult—in interventions produces little or no benefit. In the most recent study (O'Connor et al., 2002) we see yet another demonstration that using grade-level classroom texts with readers who are truly struggling simply doesn't work. On the other hand, O'Connor and her colleagues demonstrated that using appropriately difficult texts—books at the students' reading level—produced substantive reading growth. These findings should not be surprising; but what should be surprising is finding so many middle and high schools that still provide struggling readers with texts that are too difficult, day after day, subject after subject.

We must, as a first and most minimal step, ensure that supplementary interventions for struggling readers are designed in a manner consistent with the

scientific evidence. That means—again at minimum—we would not be expecting special education or remedial reading teachers to use the too hard general education texts that many struggling readers are provided. Instead, teachers will provide struggling readers with texts that are appropriately difficult given their level of reading development. Intervention lessons will incorporate these appropriate texts into the core intervention design.

Whenever possible we would select texts that also link to the grade-level curriculum goals and standards (Gelzheiser, 2005). If the social studies focus in the general education classroom is on ancient cultures, we can work to select texts on those topics that are written at a level appropriate for the struggling readers from that classroom. If the language arts curriculum includes the study of biography as a genre, we locate biographies of appropriate difficulty for use with those struggling readers. In many respects this should be largely the responsibility of the general education staff but in too many school districts there seems scant recognition of any responsibility for supplying appropriate texts for struggling readers. Thus, it may fall to specialist teachers to locate such texts, hopefully in collaboration with the general education teachers who teach the struggling readers.

Reading Intervention Programs Are a Necessary But Insufficient Response

Thinking that supplemental reading interventions alone are the solution to the problems exhibited by struggling readers must be reconsidered. It isn't that such interventions are unnecessary but that they are simply insufficient. Struggling readers need books they can read—accurately, fluently, and with strong comprehension—in their hands *all day long* in order to exhibit maximum educational growth.

If accelerating academic development of struggling readers is the goal of districts, they cannot continue to rely on one-size-fits-all curriculum plans with a daily supplemental intervention lasting for a single period. Districts cannot simply purchase grade-level sets of materials—literature anthologies, science books, social studies books—and hope to achieve the goal of accelerating academic development of students who struggle with schooling. There is no scientific evidence that providing all students with this single instructional material results in anything other than many students being left behind.

Likewise, districts should not develop a single intervention design for struggling readers, especially if it is one that relies heavily on a single commercial product. There is no reason to expect that any single intervention focus will

be appropriate for all students who struggle with reading. While some older struggling readers have underdeveloped decoding proficiencies, for instance, a greater number can decode accurately but understand little of what they read (Buly & Valencia, 2002; Dennis, 2013; Hock, Brasseur, Deshler, Catts, Marques, Mark & Wu, 2009; Leach, Scarborough & Rescorda, 2003; Pinnell, Pikulski, Wixson, Campbell, Gough, & Beatty, 1995). Some comprehend narrative texts far more easily than informational texts, while some exhibit dramatic limits in the number of word meanings they know. Some seem to be able to locate literal information in a text but cannot summarize the same text or synthesize it with other texts previously read. Struggling early-adolescent readers vary on many dimensions, and those schools that simply view intervention as requiring all struggling readers to spend 50 minutes each day working with a single product or material will see that many students are left behind.

This is likely the reason that only a very small handful of commercial reading intervention programs have any evidence they improve reading achievement. However, three commercial reading interventions designed for use with early adolescents were found to have a moderately positive effect on reading achievement ($ES = 0.21$ to 0.29). These three programs—Reading Edge, Read 180, and Josten’s—have demonstrated modest levels of success across several well-designed studies. At the same time, commercial reading programs with no reliable research supporting their use (e.g., Language!, Wilson, Reading System, Read Naturally) are currently used in far too many schools with little positive effect (Slavin, Cheung, Groff, & Lake, 2008).

The situation is even worse for technology-based programs used to foster reading growth. As Cheung and Slavin (2012) conclude, “The types of supplementary computer-assisted instruction programs that have dominated the classroom use of education technology in the past few decades are not producing educationally meaningful effects in reading for K-12 students.” The outcomes of the meta-analysis by Cheung and Slavin reflect the findings of a large-scale federal study of 10 popular software programs used to teach both reading and math. Basically, classrooms using any of the technology-based curricula generated no greater achievement in either reading or math than classrooms without these programs (Trotter, 2007).

Many school districts spend their often-limited money on implementing-or trying to implement-commercial programs that have not demonstrated that they improve either teaching or learning. The desire for something new has attracted many public dollars for tech-based programs whose results have not lived up to their promises. What now seems clear is that more effective teachers who are expert in teaching students are not only the best hope for improving academic achievement, but they remain the only solution for improving achievement that research supports.

Multi-Level Curriculum as the Base of an All-Day-Long Intervention Plan

I know of no evidence to suggest that effective teaching does not always involve selecting and using curriculum materials appropriate to the academic development of the student. We must work to increase the likelihood that struggling readers will have texts of appropriate difficulty in their hands all day long. Our nation's most effective teachers have routinely created "multi-sourced, multi-level" curriculum plans (Allington & Johnston, 2002; Keene, 2002; Langer, 2001) that provided struggling readers in those classrooms with books they could successfully read. That was one of the reasons that struggling readers thrived in their classrooms. I worry that in too many districts struggling readers will continue to struggle because intervention has not been planned as an all-day-long affair. I worry that too many struggling readers spend their days in classrooms using one-size-fits-all curriculum plans.

All-day-long intervention designs begin by focusing on the match between the student and curriculum material throughout the entire school day. The traditional intervention design often allowed the district to adopt a single eighth-grade social studies textbook—a book almost always too difficult for struggling readers to learn social studies from (Chall & Conard, 1991). And with the adoption of a single text, we almost always see whole-class instruction, which is the least effective method of teaching. However, when districts begin to consider an all-day-long intervention design, we see an emphasis on the adoption of multi-level texts as the basic curriculum. Then we more often see small-group instruction becoming more common on a daily basis. When districts emphasize intervention all day long we see an increase in side-by-side teaching as teachers spend more time instructing and monitoring individual students. Using multi-level texts in a multi-sourced curriculum plan literally requires a move away from whole-class lesson designs.

While most teacher education students learn the basics of planning and organizing multi-level instruction during their teacher preparation, most then go to work in schools where effective teaching is not the norm. In too many of these schools, effective instruction is viewed as the "ivory tower" approach, which means, I suppose, an approach to teaching that is largely unlike the way most teachers employed in a particular school actually teach. Beginning teachers are subtly and not so subtly indoctrinated into a career of teaching that is far less effective than they are capable of (Valencia, Place, Martin, & Grossman, 2006). They simply accept the one-size-fits-all approach as "the way we do things here" and no longer plan differentiated lessons, even though they know how to

do so. They no longer press for a budget to purchase multi-level materials so they can provide multi-level lessons. In short, they become typical, rather than effective, teachers.

How teachers actually teach is the most important factor in predicting student learning. The more effective classrooms have a distribution of whole-class, small-group, and side-by-side instruction (Langer, 2001; Pressley, 2006; Taylor et al., 2000). The more effective schools simply have more classrooms where whole-class lessons do not dominate. The proportion of the school day allotted to whole-class instruction is a predictor of a school's academic achievement. The more whole-class teaching that is offered, the lower the academic achievement in that school. Unfortunately though, in most early-adolescent classrooms it is far more likely that you will observe what research has demonstrated to be ineffective practice rather than effective teaching. Lack of student learning in these classrooms has more to do with instruction than with the students themselves, their parents, or the community they come from, although they are often blamed for it.

Looking at Your School's Instructional Responses to Struggling Readers

We know a lot about effective instruction for struggling readers. To see how well some of the most basic evidence-based principles have been implemented in your school, I've developed two simple data-gathering tools. The first provides data on whether struggling readers in your school have books in their hands that they are able to read: books that allow struggling readers to learn science and social studies content and that also foster reading growth. The data you can gather using this tool will provide insight on how well your school is responding to the needs of struggling readers.

The second tool provides a snapshot of how lessons are organized in your school. Basically, this tool allows you to examine the distribution of whole-class, small-group, and side-by-side lessons in general education classrooms. The organization of instruction is another important factor in how responsive the general education classroom lessons are to the needs of struggling readers.

These tools are described below.

Reader/Text Matching

To gather the information you will need:

- A notebook folder with a pad of paper
- A ruler
- A #2 pencil
- A pad of sticky notes
- A small calculator
- A timer that can be set to signal when 1 minute has expired

Reader–Text Match Tool

Begin by gathering the materials listed in the Reader/Text Matching box. Now create a list of all of the struggling readers that attend the school. This list would include those pupils with disabilities, English language learners who exhibit reading difficulties, and any student enrolled in a remedial reading program. Once you have created the list of struggling readers, select a 10 percent random sample from the struggling readers attending your school. The easiest method is simply to print out a list of the struggling readers and then select every tenth student on that list.

Table 2.1 provides an example from a fictional middle school in one small town with approximately 50 struggling sixth-grade readers. I developed the data around a fictional school I've labeled Monroe Middle School. Although fictional, it is a portrait of reality, illustrating the problems we've observed in schools where we have completed the data collection. I made the tally worksheet you see in Table 1.2. This is where the ruler comes in. I simply created five columns of roughly equal width for recording data for each student using the ruler as my

TABLE 1.2 *Text Difficulty for Five Struggling Sixth-Grade Readers at Monroe Middle School*

Student	WCPM	Accuracy %	Fluency	Appropriate
Devon	91, 82, 101, 78	92, 88, 93, 82	P,P,P,P	0
Darnell	96, 121, 88, 101	91, 96, 88, 92	P,F,P,P	25
Ricardo	67, 73, 78, 83	91, 87, 92, 88	P,P,P,P	0
Lakeisha	88, 94, 67, 91	89, 93, 86, 91	P,P,P,P	0
Maria	105,101,97,119	93, 92, 90, 95	P,P,P,F	25

guide. The goal is a representative sample of struggling readers. The sixth-grade students at Monroe Middle School were selected from those who were receiving Title I remedial reading and resource room special education services.

Once the five sixth-grade students had been selected (10 percent of 50), I met with each student and spent 10 to 15 minutes with each one collecting words correct per minute (wcpm), accuracy, and fluency data using instructional texts found in each student's backpack and locker. I selected four texts from each student's desk (e.g., a core literature anthology, science book, social studies book, and so on).

Following the general guidelines for collecting wcpm data, I then had the student read aloud for 1 minute from each text. I selected where they began to read and marked that spot with a light slash mark. At the end of the minute I placed a slash mark at that point where the student was when the 1-minute timer sounded. Later, I counted the total words read during the 1-minute period and then subtracted all the words that were mispronounced (creating the wcpm data).

While the student read aloud, I kept track of the number of misreadings on my fingers. What is recorded is how many words are misread or simply skipped. When the reading was finished, I put that number on the sticky note and stuck it on the page the student read. I also indicated the fluency rating on the sticky note. Fluency ratings follow a simple scheme: *Good* means the student read in phrases with expression. *Fair* means the student read mostly in phrases but without much expression. *Poor* means the student read word-by-word, with little phrasing or expression.

I used the total number of words read in each book and the errors recorded for each text to calculate the wcpm and accuracy data and entered them, along with the fluency rating, on the worksheet (see Monroe Middle School example).

Once these data for each student were gathered, calculated, and entered onto the sheet, I was able to complete the final column on the worksheet. The key question this procedure tries to answer is: How many of the struggling readers have classroom texts appropriate to their level of reading development?

On the Monroe Middle School worksheet I derived the percentage data in the final column by looking at how many books could be read at 120 or greater wcpm, the average rate for a typical sixth-grade reader, and with a 97 percent-plus accuracy and with *Fair* to *Good* fluency. This is the traditional independent level of difficulty at which students can typically be expected to read a text and understand, or learn, its content with little teacher support. This accuracy level may seem high but consider that a typical middle school novel, such as *The Ransom of Mercy Carter* (Cooney, 2001), or historical informational texts, such as *When the Plague Strikes: Black Death, Smallpox, AIDS* (Giblin, 1995), will have between 250 and 300 running words on each page. A 3 percent error rate (97 percent accuracy) means that 7 to 9 words will be misread or unreadable on every page! In a 20-page chapter the student would encounter 140 to 180 words he or she cannot read. And typical

middle school textbooks have twice as many words per page, creating the possibility that a reader reading at 97 percent accuracy would be unable to correctly read 14 to 20 words per page, or 250 to 400 words per chapter.

As illustrated in Table 1.2, struggling sixth-grade readers at Monroe Middle School are in trouble. Only two of the five students have even one book that would be considered to be at an appropriate level of complexity. In other words, almost all of the texts these students were given are simply too hard for them to learn to read or to learn content from. Few of these struggling readers are likely to exhibit accelerated reading development, regardless of the nature of the supplemental reading intervention programs they participate in. Few of them are likely to acquire much science or social studies knowledge. These struggling readers have books in their hands that no one should ever have ordered for them. These are books they cannot learn to read from and books they cannot learn social studies or science or literature from.

Next we gathered data on general education classroom lesson organization and delivery. To do this I prepared a second data sheet (see Table 1.3) using some

TABLE 1.3 *Classroom Lesson Organization at Monroe Middle School*

Room	Whole Group	Small Group	Side-by-Side	% WG
6a	XXXXXXXXXX	X		90
6b	XXXXXXXXXX			100
6c	XX	XXXX	XXX	20
6d	XXXX	XXXX	XX	40
6e	XXXXX	XXXXX		50
6f		XXXX	XXXXXX	0
7a	XXXXXXX	XXX		70
7b	XXXX	XXX	XXX	40
7c	XX	XXXXXXXXXX		20
7d	X	XXX	XXXXXX	10
7e	XXXXXXXXXX			100
7f	XXXXXX	XXX	X	60
8a	XXXXXXX	XXX		70
8b	XXXXXXXXXX			100
8c	XXXXXXXXXX			100
8d	XXXXXX	XXXX		60
8e	XXXXXXXXXX			100
8f	XXXXXXXXXX			100

of the same materials used to create the Reader/Text Matching tool. This sheet has five columns. The first column is a listing of each of the general education classrooms at Monroe Middle School. The second column is where we will mark our observations of a whole-class lesson, and the third column is where we will note our observations of a small-group lesson. In the fourth column we will indicate our observations of side-by-side teaching (when the teacher is working alongside an individual student). The final column lists the percentage of observations for whole-class lessons.

The data display in Table 1.3 was developed from twice daily quick classroom observations done over the period of a week. I asked the assistant principal to walk through the building twice each day while varying the time of day the walk-through occurred. On each walk-through she simply entered each classroom and observed the lesson delivery. Then she placed the tally mark in the appropriate column (WG, SG, SxS). At the end of the week it was obvious that too many teachers delivered too many lessons in whole- group formats.

In other words, little balance in lesson organization was observed in many classrooms. However, other classroom teachers did vary the instructional delivery and the research indicates that all students, but especially the struggling readers, benefited greatly from this balanced instructional delivery approach (Allington & Johnston, 2002; Pressley, 2006; Taylor et al, 2000).

The Sad Case of Monroe Middle School

It would be tough to be a struggling reader at Monroe Middle School. It would be tough regardless of how effectively designed the intervention programs might be. And it would be tough because the best most struggling readers can hope for is one period a day of effective instruction offered in the intervention programs (and five periods a day where texts that are too difficult will limit the possibility of learning content or learning to read). Given the focus on whole-class lessons with everyone using the same grade-level text, struggling readers at Monroe spend most of their school day (4 to 5 hours) sitting in instructional environments that neither theory nor empirical evidence suggests will advance their academic development.

Unfortunately, no intervention product or package will much alter the outcomes for the struggling readers at Monroe Middle School. And Monroe Middle School will continue to fail to meet the federal Adequate Yearly Progress goals for both their economically disadvantaged students and their pupils with disabilities. The situation may only get worse as schools move to a CCSS instructional plan and accompanying assessments. In many schools, there will be protests that it is not reasonable to expect all students to achieve. Many instructors and administrators will be reluctant to embrace new research and practices that hold teachers, rather than the students themselves, accountable for struggling readers.

The staff at Monroe Middle wonder why struggling readers, who they feel are lucky to be participating in a daily very-small-group reading intervention class, will never seem to catch up with their achieving peers. No one seems to notice that it is only during that single period each day that the struggling readers are provided with texts and lessons that theory and research support. The other 5 hours each day are largely comprised of texts and lessons that go over their heads, offering lessons that work best for the highest achieving students but don't work at all for those students who struggle.

But at Monroe Middle School the blame for low achievement is placed on the students and not on the ineffective instructional plan. Teachers and administrators at Monroe complain that their students do not pay attention, that parents don't help their children at home, that their community has too many students from homes where English is not the language of the home, and so on. These comments are, unfortunately, not uncommon.

Summary

There has been much concern for a focus on “scientific” reading instruction as the best path to ameliorating the inequities in reading achievement typically observed in American schools. I support that focus. But little of the guidance provided thus far has focused on the critical factors of reader-text matches and the organizational delivery of classroom instruction. We have had evidence for some 60 years about the importance of these aspects of instructional design (Betts, 1946). Yet, as I walk through middle schools, even those with substantial federal funding, I too often see classrooms stocked with textbooks that are simply too difficult for some, if not most, of the students. I too often observe a steady reliance on whole-class interrogation sessions using these one-size-fits-all curriculum materials. I walk through schools where the only appropriate reading instruction struggling readers receive is that single period each day that offers supplemental reading instruction. And in these schools no one seems to have noticed that most struggling readers spend most of their school day in instructional environments where no theory would predict they would learn very much.

We need to reconceptualize interventions for struggling readers as something that must occur all day long. Intervention cannot just be that few minutes working with a specialist teacher. All students need texts of an appropriate level complexity all day long to thrive in school. In too many schools the texts in students' hands are appropriate for the highest achieving half of the students. In too many schools we have a curriculum plan that ensures the rich get richer because it is only the

best readers who have books in their hands that they can read accurately, fluently, and with understanding.

When we redesign schools so all students have backpacks (or lockers) full of books they can read accurately, fluently, and with comprehension, we will have schools where fewer students struggle. Only when students have books in their hands all day long that they can read will we be able to expect supplemental interventions to make any difference.

Once we have a more differentiated set of curriculum materials, we might expect a better balance of whole-class, small-group, and side-by-side lessons. While all students benefit from small-group and side-by-side teaching, it is the struggling readers who seem to benefit most. Perhaps this is because these students have the greatest need for explicit teaching and scaffolded instructional support. It is the struggling learners who are the most instructionally needy and thus benefit the most from the more personalized instruction.

Federal legislation (No Child Left Behind Act) has placed new accountability pressures on American schools. The main purpose of these new accountability schemes is an evaluation to see whether the instruction in your school benefits all students relatively equally. Most schools work better for higher achieving students than for lower achieving students. In other words, some students grow more academically each year and others grow less. In most schools struggling readers fall further behind each year. These schools work better for the higher achieving students because the curriculum materials and instructional plans are best suited to the needs of these students. Unless that trend ends many schools will face federal sanctions for failing to create schools that work well for every student.

For too long we have focused our attention primarily on the nature and effects of supplementary intervention programs as one way to address the needs of struggling readers. For too long we have labeled struggling readers and focused on their weaknesses as the root of the problem. Until we recognize that appropriate instruction has to be available to struggling readers all day long, it is unlikely we will meet the challenges of the legislation and the moral obligation to end the struggles of our struggling readers. Until schools are organized in ways that ameliorate the struggles students face, rather than in ways that create those struggles, too many students will be left behind.

Chapter 2

Decoding Is Not the Problem (But That Is What Most Remediation Targets)

Decoding is the ability to use your knowledge of letter-sound relationships to figure out how to pronounce a word you've never seen before. Consider the word *electrotherapies*. I just found this word in the dictionary, and I cannot recall ever having seen this word in print before today. Yet, I didn't need to look at the phonetic respelling in the dictionary to know how to pronounce it. The same is probably also true for you.

So how did you figure out the pronunciation? Did you sound out each letter in isolation, then blend all those sounds into a continuous stream of sounds and say the word? It is doubtful any reader engaged in such a process if only because the word has too many letters. Too many letters means that the initial letter sounds get dumped out of short-term memory before you ever get to the end of the word.

You might have used a single letter sounding strategy in conjunction with a recombining strategy. In this case as you sounded the first three or four letters out, you stopped and combined them into the first syllable or word chunk (*e lec*), then you went on to sound out a few more letters (*tro*) and then recombined them with the first syllable (*electro*), and so on until you reached the end of the word. You then pronounced the whole word and were satisfied with the results.

Or you might have used a strategy where you pronounced the word syllable by syllable without ever having sounded each letter (*e lec tro ther a pies*). The syllables in the word are fairly easy to identify and each syllable appears in many other English words. So while you have never before seen this word, you have seen all of the syllables repeatedly in reading. If you used this strategy, though, it is unlikely you were recalling the syllabication rules you know to identify the syllables.

Alternatively, you might have recognized the root word (*therapy*), pronounced it, then added the prefix (*electro*), pronouncing it again before adding the suffix (*es*), coming, finally, to recognizing the whole word. You might have used some sort of root word strategy but it is unlikely you actually thought about the root word, the prefix, or the suffix as you determined the pronunciation.

Truth is, many readers who never saw the word before simply pronounced it on first sight. Any thinking going on was more likely hypotheses about the word's meaning rather than about its pronunciation.

I've taken you down this road for a reason. My basic point is this: Well-developed decoding abilities, as most readers of this book possess, work most of the time in a manner very different from how those with few decoding abilities work out a word's pronunciation. One reason some folks have well-developed decoding abilities and others do not lies largely in the amount of reading they have done. Beginning readers have no background of reading experiences to draw on when they encounter a word for the first time. Beginning readers would unlikely be able to figure out the word you so easily just decoded.

In part that is because they don't know much about decoding yet. If they are first-grade students they probably haven't yet encountered any word in their reading material as long as *electrotherapies*. They probably are still working on that single letter sounding strategy you didn't use. That strategy works well for short and familiar words like *fan*, but that same strategy does not work so well for a word like *fantastically* because the word is longer and its appearance in written English is much rarer than *fan*.

All words can be placed on a scale of easy-to-difficult to pronounce. One way to think about this is on a scale from “clear” to “opaque.” Below are two lists of words, one list where the pronunciation is clear and the other where the pronunciation of the words is opaque.

<i>Clear</i>	<i>Opaque</i>
rat	was
save	some
clear	opaque
romantic	equivocal

Pronouncing words correctly from the “Clear” list is relatively straightforward. The words from the “Opaque” list require something beyond simple decoding rules. If we could just apply simple decoding rules to these words, *was* would be pronounced *waz* or as rhyming with *gas* with a short vowel sound for the *a* and the sibilant *s* at the end. But, of course, that word is pronounced *wuz*.

With the second word, *some*, the application of our phonics rules would give us a word that would be pronounced *sohm*, and so on. In the case of each of these opaque words some knowledge other than letter-sound relationships must be applied to deduce the pronunciation. This is part of what makes English a difficult language to read. Nonetheless, all good readers can read the words on both lists and most don’t even notice the opaque pronunciation quality of words on the second list.

However, if you don’t read well and don’t read much you may be stymied by words on the second list. Having a teacher tell you to “sound it out” will simply frustrate *you*. Learning the basics of decoding is essential in becoming a skilled reader. But all the decoding skills in the world will not help you pronounce many English words. Students have to acquire other skills if they are to become able to read many words their textbooks.

Consider what this struggling early adolescent said about her reading experiences:

When I went to seventh grade we took a test to see where we were and I was at a third-grade reading level. They put me in class with five other people with the same problem. We were in there one period every day. They taught me how to sound out words better. I still have hard times with some words now. I sound them out and most of them I get but there’s a lot of big words that I still don’t even know. Sometimes I will just sit there for hours trying to figure out what the word is instead of asking. I don’t ask all day. I don’t know why, I am embarrassed I think. (Mueller, 2001, p. 21)

This young woman is still struggling and, perhaps, that is because she has been taught that all words can be sounded out using the phonetic skills that she had

been taught. What seems missing here is the fact that every word cannot be sounded out. Words that occur relatively rarely, or words with a low frequency of use, are harder to pronounce, generally, because we have rarely encountered those words in print. One overlooked aspect of decoding success is producing a word that sounds like a word you've heard but never seen. This is called "cross-checking" and it is a skill that readers need.

This ability is one reason few reading researchers have paid much attention to studies of non-word (or pseudo-word) pronunciation. Attempting to pronounce a non-word restricts the ability to cross-check the pronunciation against what you already know. The argument that non-word proponents give is something like this.

If we want a pure measure of decoding ability we cannot use words because the person we are testing might have already seen that word. With non-words you can be reasonably sure no one has seen the non-word before. Also, you can be sure that the person is relying solely on decoding ability because he cannot cross-check the pronunciation with his listening vocabulary.

Because pronouncing non-words involves a different set of resources, about the only thing you can learn from such tests is how well children can pronounce non-words. This may be the reason that researchers have reported limited correlations between the accuracy and rapidity of pronunciation of non-words and reading achievement (Pressley, Hilden, & Shankland, 2006; Mathson, Solic, & Allington, 2006; Walmsley, 1979).

There is a reason why the most common mispronunciation of the non-word *tox* are *tax* and *fox*. The cross-checking mentioned above is exhibited in such responses. When shown a non-word most readers expect the non-word to be a real word. Thus, *tax* and *fox* are offered because they share the most phonetic features with the non-word *tox* (Walmsley, 1979).

Nonetheless, American elementary schools have gone on a non-word testing binge since the inception of the No Child Left Behind Act. What few educators seem to be aware of, however, is that the federal Inspector General's office found that this reliance on non-word testing was part of the corruption found in the federal office in charge of monitoring the NCLB program (Office of the Inspector General, 2007). That report led to the removal of all federal staff from the federal Reading First program office and the removal of every director of the federal Reading First technical assistance centers. What we seem to know today, after a decade of non-word testing, is that while we can teach children to pronounce non-words, it has no positive effect on their reading achievement. That was the primary finding of the federal evaluation of the Reading First component of NCLB (Gamse, Jacob, Horst, Boulay, & Unlu, 2009).

Investigators found that first-grade students in Reading First schools could pronounce non-words more accurately than students in non-Reading First schools, but they found no differences in reading achievement in the two sets of schools. Personally, I am not surprised by this finding, although the Reading First schools offered a larger daily amount of reading instruction. Some portion of the roughly \$1 billion a year that was given to Reading First schools went to support the teaching and testing of non-word pronunciation. It was \$1 billion each year squandered on educational activities that wasted the time of both teachers and students, time that could have been spent teaching children to read. And even with the negative results reported by Gamse et al. (2009), non-word testing still continues in schools across the country. The federal evaluation of Reading First, the Inspector General's report, and first-hand experiences of students still failing to read authentic texts any better than they were able to read them a decade ago all point to the need for a different reading intervention program.

The National Reading Panel (2000) reviewed the experimental research on decoding and concluded that spending time in kindergarten and first grade teaching decoding produced both a small positive effect on reading comprehension in later grades and a larger positive effect on the ability to decode real words in isolation. They also found no evidence of positive effects on reading achievement for phonics instruction at grade 2 and above. Their advice was to ensure that kindergarten and first-grade teachers provide a small amount of explicit phonics instruction each day. They suggested only small amounts of phonics because the research suggests that when more than 10 minutes per day is spent on phonics, there is no greater benefit.

It may surprise you that the panel found no positive effects for decoding lessons above first grade. I was not surprised because decoding problems seem rarely to be the primary problem older struggling readers face. Several recent studies explain why.

Hock and Brasseur (2009) assessed the reading development of 436 urban ninth-grade students. They found that the struggling readers performed better on decoding and word reading tasks than they did on vocabulary, comprehension, and fluency tasks. In other words, most older struggling readers exhibited strengths in decoding and reading words in isolation, strengths in relation to the vocabulary and world knowledge. Their primary problems stemmed from the smaller number of words they knew the meanings for, and an inability to read with understanding and fluency.

Likewise, Cutting and Scarborough (2006) found that only 14 percent of students exhibiting poor reading comprehension also had decoding problems. Dennis (2013) found that roughly 10 percent of the urban students who failed the eighth-grade state reading achievement exam exhibited decoding

problems as their most serious weakness. Like the Hock and Brasseur study, she found vocabulary and comprehension proficiency were the most common problems these students exhibited.

Finally, Adloff, Perfetti, and Catts (2010) note that specific decoding difficulties declined from second grade to eighth grade while specific comprehension difficulties increased. At second grade, 32.3 percent of struggling readers exhibited specific decoding difficulties while at eighth grade only 13.3 percent of struggling readers exhibited this deficit. Specific comprehension difficulties, on the other hand, were exhibited by 6.3 percent of second-grade struggling readers but by 30.2 percent of the eighth-grade struggling readers.

I cite these studies in explanation of why the NRP found no positive effects of decoding instruction above the first grade. If we create intervention programs for early adolescent struggling readers that focus on fostering their decoding skills, we shouldn't be surprised to see few positive effects on their ability to read. I think the research we have points to the actual sources of most middle school struggling readers and that problem is not a problem with decoding. This is not to say that these struggling readers are strong decoders, since many are not, but their decoding proficiency outstrips the problems they have with vocabulary and comprehension. Yet, too often efforts to strengthen struggling readers, especially in middle school and high school, are focused primarily on developing decoding skills.

Efforts to accelerate the reading development of early adolescent struggling readers requires an intervention very different from what is most commonly found in remedial and special education classes. As Leach, Scarborough, and Rescorda (2003) noted:

Reading disabilities in children beyond the primary grades appear to be heterogeneous with regard to the nature of their reading skill deficits . . . some children have comprehension problems only, some have just word-level difficulties, and some exhibit across the board weaknesses. . . . Hence both assessment and instruction must be aligned with this reality. Most important, intervention programs need then to be selected on the basis of children's deficit type(s) rather than overall grade level. (p. 222)

The seeming preference in middle and high schools for the use of a one-size-fits-all reading remediation curriculum may explain why so little progress is made in accelerating reading development after grade 4 (Allington & McGill-Franzen, 1989; Vaughn & Linan-Thompson, 2003; Ysseldyke, Thurlow, Mecklenburg & Graden, 1984).

What the research suggests is that if you have 10 struggling sixth-grade readers, you will need ten different interventions to address the needs of those 10 students. I'm reasonably sure that if the research studies emphasizing decoding

instruction had limited that instruction to the 10 to 15 percent of early-adolescent struggling readers who exhibit substantial decoding difficulties, the outcomes would have been more positive. Schools need to attend to the specific problems that struggling readers present if only because the time in the school day available for reading intervention is short for early adolescents and we cannot waste any time on misguided instruction.

What We Know about Fostering Improved Decoding in Early Adolescents

It seems that around grade 4 and onward, children who are developing reading proficiency will normally exhibit decoding proficiencies that begin to operate in what we could call the skilled reader model. By grade 4 children who have been developing their reading proficiency so that they are considered good readers have had much experience with reading, writing, and spelling and have encountered most of the words in print that they will most commonly be reading for the rest of their lives. By the end of fourth grade, good readers have developed a large “sight vocabulary,” a large number of printed words they recognize immediately with no sounding out stage. This occurs primarily because by now they have read these words so many times that word recognition is automatic.

Struggling readers by the end of fourth grade are millions of words behind good readers in reading practice. Unless we do something about it, this “practice gap” will simply continue to grow larger and larger with every additional year. When we begin to worry about how best to assist early adolescents who are struggling readers, we must consider how best to expand the volume of reading that they engage in every day. Torgeson and Hudson (2006) argue:

The most important factor appears to involve difficulties in making up for the huge deficits in accurate reading practice the older children have accumulated by the time they reach later elementary school. . . . One of the major results of this lack of reading practice is a severe limitation in the number of words the children with reading disabilities can recognize automatically, or at a single glance. . . . Such “catching up” would seem to require an extensive period of time in which the reading practice of the previously disabled children was actually greater than that of their peers. (p. 147)

Note that they do not mention work in developing decoding proficiencies here, but instead focus on dramatically expanding what I have called “high-success” reading activity (Allington, 2013). It is the research that is available that has

led them to draw this conclusion. In general, decoding interventions improve children's ability to decode words correctly but they have little effect on reading comprehension performances.

As an example, in a large-scale study comparing the effects of four different commercial reading intervention programs, each of which incorporated explicit and systematic decoding instruction, Torgeson and his colleagues (2007) found little to cheer about. The fifth-grade students they worked with (in some 50 schools) were poor readers with reading scores below the thirtieth percentile and vocabulary scores above the fifth percentile. They found that none of the four programs they tested (Corrective Reading, Wilson Reading, Failure Free Reading, and Spell Read P.A.T.) had any positive effects on student reading comprehension. In fact, they report that instruction provided by "the four interventions combined lowered the reading and mathematics scores" (p. xiv). In other words, using any of these commercial reading interventions led students to learn less than did the control group students who were not provided the instruction! Nor did using any of these programs improve student scores on the state reading assessment.

In considering the common word decoding focus of intervention efforts, perhaps these limited outcomes on reading comprehension is not surprising. I say this because the research evidence demonstrates that word reading accuracy decreases as a factor in defining struggling readers. In other words, as students age, how well they pronounce words (or non-words) becomes a far less significant influence in defining reading proficiency. Adlof et al. (2010), in summarizing their work on the relationship between word reading accuracy and reading comprehension, note the substantial change that takes place over time. "Word reading by itself accounted for 94% of the variance in reading comprehension in second grade, whereas it accounted for only 38% of the variance in eighth grade, and all of that was shared with language comprehension" (p. 189).

The findings of these large-scale randomized field experiments largely reflect what other studies have shown. Developing early adolescent decoding abilities alone does not foster better reading or better reading achievement test scores. As Torgeson and Hudson (2006) noted, while the typical decoding intervention did raise decoding performance (from the third percentile to the thirty-ninth percentile) that same intervention had virtually no effect on reading comprehension performance (from the third percentile to the fifth percentile).

Many schools have decided to use one of these commercial reading intervention programs, which are not supported by research. Although commercial programs are often accompanied by appealing advertising campaigns, they are not as often developed by using research and practices that have proved successful in real classrooms. "Buyer beware" is the best advice for all commercial

educational products but especially for commercial products advertised for reading interventions.

Pitcher, Martinez, Dicembre, Fewster, and McCormick (2010) take a different approach to the study of struggling readers. They describe the cases of Tamika, a sixth-grade student with on-level word reading proficiencies and a second-grade level of reading comprehension, and Kathy, an eighth-grade student again with on-level word reading proficiencies and first-grade reading comprehension. Tamika is enrolled in an intervention class where the curriculum material being used is the Language! program that focuses on decoding, grammar, and spelling development but has no focused work on vocabulary development or comprehension strategy development. They note, “Comparing her needs with the school’s instruction, there seems to be a disconnect between the two. The school’s reading program focuses on decoding strategies, grammar, and spelling, whereas she needs vocabulary development and comprehension” (p. 638).

In Kathy’s case, she is enrolled in an intervention program again focused on decoding proficiencies, primarily SRA Corrective Reading, when her needs are in vocabulary development and comprehension strategies development. In both cases, and in too many similar cases across the nation, early-adolescent struggling readers are participating in interventions that are largely a waste of their time—interventions focused on all of the wrong aspects of the reading process.

Pitcher and her colleagues (2010) also present the cases of several students with reading problems who were receiving no assistance from their schools but were participating in a curriculum that required them to read with understanding. What they found was what may be the most common deficiency found in middle schools—ignoring the reading problems students present.

So why then are so many reading intervention programs for early adolescents focused primarily on developing decoding skills? Perhaps many of the administrators in charge of deciding what sort of intervention design should be offered do not know the current research or are attracted by the advertisements that accompany every commercial intervention program. Perhaps they do not realize that improving word decoding abilities has little positive influence on improving reading achievement. In other words, they are impressed by the data showing improved decoding and mistakenly think that working on improved decoding represents something worth doing. In truth though, we want the early-adolescent struggling readers to be better able to read their school texts with understanding, and decoding interventions have a research record that indicates they provide no help toward this goal of improving reading with understanding.

There is one other possibility to explain the fascination with these commercial intervention programs: Most middle schools and high schools have few, if any, reading specialists on their faculties. Thus, someone who is not an expert in teaching struggling readers is teaching the reading intervention classes. In such

a case it might make sense to purchase a “teacher proof” commercial product, if there were such a product—but there are no such products. All commercial programs work as well as the teacher can make them work and when the teacher is inexpert and the program is narrowly focused we get intervention efforts that rarely succeed in improving reading achievement.

In middle schools, the most commonly used commercial reading intervention programs are typically narrowly focused on something other than improving students’ abilities to read with understanding. This is true whether the struggling readers have been labeled as learning disabled, whether English is their second language, or whether they are just “garden variety” struggling readers, often children from low-income families. In fact, there are literally no commercial reading intervention programs with a focus on improving reading comprehension. Again, I have no idea why this is so but it may simply be that it is easier to create a scripted curriculum focused on decoding development than it is to create a program focused on improving reading with understanding.

Finally, the focus on decoding development may be related to the most obvious signs of reading difficulty, the inability to accurately read all of the words. That is, when early adolescent struggling readers read aloud, especially when someone asks them to read aloud from a grade-level text, they sound terrible. Their reading is often expressed in a herky-jerky manner with many segments read literally word-by-word and often with many misreadings of words, especially long and relatively rare words of academic content vocabulary. Without even assessing reading comprehension we can tell that this reader is struggling. Perhaps, someone thinks, if I improve her ability to pronounce those words correctly, her reading will improve. Unfortunately, research suggests something very different. It is not so much that *decoding* is the problem; it is that *reading* is the problem. If we never get past the explicit initial feature of trouble pronouncing *some* of the words correctly, we may never develop an intervention that actually addresses the problem in front of us.

It is the narrow focus on decoding that is the larger problem with many, if not most, commercial reading intervention programs. Consider for a moment that not a single state reading proficiency test asks students to pronounce either non-words or real words in isolation. State tests of reading achievement generally assess how well the student understands the test material he or she has read. Much of what is tested on too many state tests is low-level literal recall of what the text said, the lowest form of comprehension. But state tests will be changing as almost all states (45 so far) have adopted the Core Curriculum Standards and accepted the challenge of developing new tests that measure “deeper” learning. My point is, skill in the rapid and automatic decoding of words and non-words will become even less important in the future.

What Might Help Struggling Early Adolescent Readers?

Struggling early-adolescent readers need to engage in a lot of high-success reading to improve both their decoding proficiencies and their ability to read with understanding (Allington, 2013; Ivey & Johnston, 2013; Miller, 2009). What has been largely overlooked in considering the development of decoding abilities is the role of “self-teaching.” Self-teaching, though, seems central to accurate decoding. One key proficiency largely self-taught is self-monitoring. Self-monitoring is being aware that what you are reading makes sense—makes sense semantically, syntactically, and in terms of content knowledge. Look at the example below:

Original sentence: “The Third Cavalry Division was attached to the Army of the Potomac prior to the great battle at Gettysburg.”

Student’s misreading: “The Third Calvary Division was attacked by the Army of the Pot-o-mack prior to the great battle at Gettysburg.”

Consider the different nature of these misreadings:

1. *Cavalry* and *Calvary* are visually similar words and for many Christian church-attending students the word *Calvary* is far more familiar than the word *cavalry* (semantic/word frequency).
2. *Attacked* makes some sense because this piece is about the Civil War. *Attached* makes less sense unless you know what *attached* means here (semantic/content knowledge).
3. Reading *by for to* indicates attention to making sense since *attached to the army of . . .* just doesn’t sound right (syntactic).
4. *Pot-o-mack* is a reasonable phonetic pronunciation of the word *Potomac*—reasonable but wrong (content knowledge).

The sort of knowledge the student would need to correctly pronounce the misread words or to self-correct an initial mispronunciation is shown parenthetically. The point here is a simple one: Almost none of the mispronunciations were solely initiated by a lack of decoding abilities. Prior knowledge, familiarity, and background content knowledge all contributed to these misreadings. Closer attention to the letter sequence in the word *cavalry* might have helped but if *Calvary* is a known word, that fact alone will likely interfere with pronunciation. The same goes for *attached*. But again if the reader knows she is reading about the Civil War era, then that will also interfere with

Elementary Level Historical Texts on the Civil War Era

Thunder at Gettysburg, by Patricia Lee Gauch published by Random House.

A Ballad of the Civil War by Mary Stolz published by HarperCollins.

Pink and Say by Patricia Pollaco published by Penguin.

The Boys' War by Jim Murphy published by Houghton Mifflin Harcourt.

Across Five Aprils by Irene Hunt published by Penguin.

How I Found the Strong by Margaret McMullan published by Houghton Mifflin Harcourt.

Soldier's Heart by Gary Paulsen published by Random House.

Turn Homeward, Hannalee by Patricia Beatty published by HarperCollins.

Bull Run by Paul Fleishman published by HarperCollins.

the correct pronunciation of the word. And for *Potomac*, she did sound it out, incorrectly but legally. The only way one can figure out the correct pronunciation is to already know the word.

The solution for this reader is, first, developing her background knowledge about the Civil War era, including developing knowledge of the meanings of key academic content vocabulary. No student can self-monitor without the relevant and necessary content knowledge. In order to self-monitor, the student must not only know this content but also must accept the responsibility for self-monitoring.

In too many cases, hundreds of hours of oral reading of texts that are too difficult and accompanied by frequent teacher interruptions has created a struggling reader who expects others to monitor his or her reading. To foster self-monitoring and eventually self-teaching, you will need to begin providing this reader with texts he can actually read with a high level of accuracy. In this case I would begin with one of the many historical fiction novels set in the Civil War era. These texts range in difficulty down to primary-grade reader levels

with literally hundreds of Civil War era texts written at the third- and fourth-grade levels. (See the feature box.)

Remember that getting early-adolescent struggling readers actually reading has to be a central goal if they are ever to become achieving readers. It is through engagement in reading, particularly reading something that the readers finds interesting, that self-teaching occurs. As Clay (2005) wrote: "It is most helpful to think of the learner (who is successfully solving reading problems) as building a neural network for working on written text and that network learns to extend itself. It is the successful strategic activity called up by the learner that creates the self-extending system" (p. 103).

That neural network Clay refers to includes white matter observable in human brains. It is the white matter that transfers signals from one area of the

brain to another. The stronger the white matter, the better the transfer and the learning. Keller and Just (2009) recently reported on an intensive reading intervention with early-adolescent struggling readers. The intervention improved the quality of the white matter and the amount of white matter improvement predicted reading proficiency growth. Perhaps if more interventions for struggling early adolescent readers emphasized dramatic increases in high-success reading volume as Keller and Just did, a greater number of those struggling readers would become achieving readers.

Readers are only likely to self-monitor if they are reading something that is both interesting and important to them. They must also be able to accurately read the text. All of these factors, plus a long history of failure in reading, works against self-monitoring in early-adolescent struggling readers. There are useful routines teachers can use to promote better self-regulation. Next we will discuss some potentially powerful routines you should be using to support struggling readers and to foster the development of their self-monitoring abilities and attitudes.

Model the Word Structure of Important Academic Words in Each Unit

There are instructional routines that all teachers can add to their repertoire that will foster better word recognition and better word analysis by struggling readers in the middle school and high school, if only by improving readers' abilities to self-monitor. Each of these routines can be adapted to fit any classroom instructional plan, each will require only a few minutes each day, and each will improve word reading accuracy in content area materials.

Model the Word Structure and Pronunciation

On the chalkboard (or white board or smart board) present a listing of the key academic vocabulary in any readings being assigned that seems likely to give struggling readers difficulty. (Limit the list to four or five words that appear in the reading the students will be doing on that day.) Now,

1. Read the first word on the list to your students.
2. After you have pronounced the word aloud, write the word in syllables right next to it. Now pronounce each syllable separately, then blend the syllables and pronounce the whole word again.

3. If there is a root word, write that next to syllable breakdown of the words. Pronounce the root word.
4. Now add any prefix or suffix that is part of the word and pronounce it one more time. (Below is a daily sample academic word list with these steps illustrated.)

<i>Write/Pronounce</i>	<i>Write/Pronounce</i>	<i>Root</i>	<i>Pronounce with students</i>
Fort Donelson	Don el son		Donelson
Confederate	Con fed er ate		Confederate
ammunition	am mu ni tion		ammunition
preparation	prep a ra tion	prepare	preparation
insurrection	in sur rec tion		insurrection

These five words are from a middle school social studies unit on the first Union victories in the Civil War. There may be other words in the assigned reading that are also likely to be problematic but the goal isn't to introduce every such word. Instead, the goal is to introduce the academic content words that are central to understanding the text.

The premise here is that by showing the syllable structure you will aid students later in either recalling the pronunciation or aiding in later sounding out the word themselves. Early-adolescent struggling readers need all the help they can get in reading and learning the content knowledge so central to schooling. Taking 3 minutes or so every day to assist them in their pronunciation of key content vocabulary is an important first step.

Using Words They Know

Using words they know to teach the pronunciation of unknown words is another useful strategy and another one that takes but a few minutes to teach. In Cunningham's (2011) discussion of this strategy, she points out that all readers have some words they already know but often fail to use when attempting to pronounce new words. Early-adolescent struggling readers typically can read many—hundreds or more—small, frequent words but struggle with word pronunciation of infrequent and longer words.

Infrequent words often share a word structure with higher frequency words. Consider the words listed below. The first word in the list is a frequent and short word that struggling readers are likely to be able to pronounce. Beneath that frequent word is a list of infrequent and often longer words that share word structure with the frequent words.

ice	cool	say	bug
lice	tool	pray	smug
splice	drool	slay	shrug
device	stool	payable	struggled
sacrifice	whirlpool	betrayal	juggernaut

As outlined by Cunningham, the usual routine for using known words as you introduce new words should follow this general plan:

1. Model the activity with an example or two. Say, “If *ice* is spelled *i-c-e* then the second word on the first list must be *lice* because it is spelled *l-i-c-e*. So the second word on the first list is *lice*.”
2. Model again with the second word on the list, in this case, *splice*. So if *i-c-e* spells *ice* and *l-i-c-e* spells *lice*, then *s-p-l-i-c-e* must be *splice*. The third word on the first list is *splice*.”
3. Model with the fourth word on list one last time. “Look at the fourth word on the first list. Underline the word *ice*. What other letters begin the word? Right, *d-e* followed then by *v-i-c-e*. If we pronounce the *d-e* as *dee* and then add the *v* to *ice* we get *device*.”
4. Now turn their attention to the second list, under *cool*. You don’t need to go through every word on the list as we did with the first list. You might have students pair up as teams to pronounce to each other the remaining words on the lists.

(For a far more detailed discussion of a similar strategy, along with fully developed lessons you can use, see Cunningham and Hall [2009].)

This routine helps students develop their ability to use what they already know to figure out what they do not yet know. Too many early-adolescent struggling readers are too ready just to skip over words they don’t know at first glance. One way to change this into a more positive behavior is by working with them to develop alternatives that work for them. Using what you know is just such a strategy!

Glass Analysis

One commercial decoding program that might be considered is Glass Analysis (Glassanalysis.com). I mention this older program for several reasons. First, like the other routine mentioned here it is designed to help student see the similarities in spelling (and pronunciation) patterns in English words. It uses a sequence of

real words to help students begin to acquire larger-unit decoding strategies. As designed, it is also a quickly paced routine that should occupy perhaps 3 to 7 minutes per lesson. The design is largely failure proof for students and requires a fast-paced set of decoding activities. Many teachers use this as an opening activity for each class period. It is basically an every-pupil-response activity, and it literally elicits whole-class involvement.

Conclusion

These various instructional routines all work to teach decoding using the patterns one can see in the words and by using analogy. In each routine you guided struggling readers through a process that focused their attention on units of each word that are larger than the single letter as well as helpful in decoding. Too often struggling readers, even older struggling readers, have only a single decoding strategy, letter-by-letter sounding. It isn't that letter-by-letter sounding is a bad strategy but it works far better in first and second grades when few words students encounter are either rare or long. By sixth grade most of the words that present difficulty for many readers are both rare and long. By rare I mean words the child most likely has never heard or perhaps heard once in a trade book read-a-loud, words such as *scurvy* or *delta*.

Using In-Text Aids

A final activity you need to consider is the use of in-text pronunciation tools. Content area textbooks differ in the sorts of tools they offer students as aids for correct word pronunciation. Some textbooks contain glossaries, usually at the end of the text. The glossaries provide a list of words the authors have decided are important for readers to know. In addition to the pronunciation guide, a glossary usually also provides a specific definition of the word (the definition being the one central to the text). Other textbooks provide sidenotes with pronunciation and meaning information. These sidenotes appear in the side margins of the page and are typically printed in a different font or color to set them off as different from the primary text. Other textbooks provide pronunciation information in the running text, often in parenthetical form.

All of these different forms of pronunciation support indicate that textbook authors understand that many of the words they have used are unfamiliar to the students, many are long, and many are difficult to know how to pronounce. However, these pronunciation tools are only helpful if students know how to use them. And too many early-adolescent readers have neither noticed the glossary in their textbook nor used the sidenotes to assist in pronunciation.

Another reason these pronunciation tools are not used is because students have no idea how to use them. Different textbooks use different techniques to assist in pronunciation. Some use a phonetic respelling of the word, much like a standard dictionary. (Example of a phonetic respelling, *es p̄ē enahz*. Can you tell me what the original printed word was? It was *espionage*.) Unfortunately, students who cannot read the original word often cannot do any better at reading the phonetic respelling of the word. Phonetic respellings involve specialized markings for long versus short vowels, accent marks, special symbols for special vowel sounds (such as the *schwa*), and so on. Learning all these specialized symbols is more than a bit much to ask struggling readers to master. Other textbooks use a simplified respelling to show a word's correct pronunciation (e.g., *Treaty of Versailles—Treaty of Ver-sigh*). No matter what technique you may find in your textbook, take the time to ensure students at least are familiar with the tool and familiar with how to use it.

Teachers, too, should use these tools, especially if some of the academic content vocabulary is unfamiliar to them. As I wrote the preceding section, the Versailles example popped into my mind. This word was pronounced, or should I say mispronounced, as *ver-say -lees* by my eighth-grade basketball coach and European history teacher. Worse yet, the textbook had a glossary with the correct pronunciation indicated. Someone who was more confident in their basketball playing abilities than I was pointed out that the glossary indicated the correct pronunciation was *Ver-sigh*. “Yes,” said the teacher, “that’s how they pronounce it in France, but here we call it the *Treaty of Ver-say-lees*.” Enough said.

Anxiety and Word Reading

Years ago, back when I was a new assistant professor, Florence Roswell and Gladys Natchez (1977) published a revision of their book on reading disabilities. They noted that older struggling readers, whom they identified as students in grades 4 and above, suffer from a form of performance anxiety situated in their longstanding problems with reading. A decade later Peter Johnston (1985) published similar findings about adult struggling readers. These authors noted that after years of failure and years of frustration every marker of anxiety went off the scale when these older struggling readers were asked to read aloud.

These anxious readers also often exhibited word reading difficulties when called upon to read aloud in class. However, the words they stumbled on when asked to read aloud were words they could pronounce correctly when assessed in isolation and in a less anxious one-on-one testing situation. In other words, being

asked to read aloud in front of peers created anxiety and that anxiety triggered a sort of panic that led these students to be unable to read words that they were able to read in a less-anxious setting. When reading aloud, these anxious students often slurred over words they didn't know at first glance. They often simply uttered some words, often a word with some visual similarities, and went on reading. Whether it was the anxiety, or the fact that slowing down to sound out a word made their reading sound less capable, we don't know. But what we do know is that asking struggling early-adolescent readers to read aloud in class is a bad idea because it undermines their ability to read as well as they can.

This decrease in reading performance when reading aloud may be the reason that early attempts to establish optimum levels of text difficulty for learning (Betts, 1946) allowed readers the opportunity to read the text silently before reading it aloud. Somewhere in educational history we seem to have lost the silent prereading aspect of assessing reading ability with oral readings of texts. The potential of engaging in a prior silent reading of a text before reading it aloud seems understood by students today. That is the reason many of my graduate students can recall times in earlier schooling when a class was being asked to read aloud from a text and they along with everyone else seemed to be reading some part of the text they hadn't yet reached. My students, like me, could remember practicing the upcoming text so that if we were the next ones to be called upon to read aloud, we would be ready.

Of course that meant we were paying no attention to the classmate who was now reading the text aloud. Learning what the text said was less important to me than sounding good when I was asked to read. So much for the efficacy of having students read textbooks aloud in class!

One of the mysteries of schooling is that struggling readers are the ones called upon to read aloud most often (Allington, 1984). Even in first grade, good readers are asked more often to read silently than to read aloud. But in sixth grade, poor readers are still assigned more oral than silent reading. Reading aloud, often from a grade-level text, simply requires struggling readers to make public their reading difficulties. The result is performance anxiety (and too often misbehavior).

As anxiety builds, the students not only are no longer able to demonstrate the same competencies they had when unstressed, but also are paying little attention to what is being read. The other students are being exposed to a flawed and incompetent oral reading of assigned material, and in the worst-case scenarios these other students begin to interrupt the reader with corrections or comments. (Interruptions are most likely to come from those students who have already completed their turn to read aloud since the others are too busy to interrupt because they are reading ahead silently, preparing for their turn to read aloud.) The interruptions, when they come, add to the stress the struggling reader faces.

In addition, faced with a steady supply of interruptions from other students, or from the teacher, struggling readers now often adopt a self-survival strategy. This strategy involves slowing the reading pace down, often to a word-by-word pace (Allington, 1980). This slow pace makes it easier to know which word the interruption concerns. At the same time struggling readers begin to demonstrate an intonation pattern I've called the "query" pattern. This pattern is exhibited when the reader produces a rising intonation when reading words. This intonation pattern almost invites interruption because when used it suggests an "I'm not really sure about this word" to listeners. This then fosters "help" from other students and often from teachers.

Far too many early-adolescent struggling readers now always read aloud in a word-by-word mode that demonstrates the query intonation pattern. This is true even when they can read the material accurately—accurately but not fluently.

Reading Fluency

Fluent oral reading has exhibited rising popularity during the NCLB era largely as a result of having reading fluency named as one of the five "scientific pillars" of reading by the National Reading Panel (2000). Reading fluency should rightly be of concern with beginning readers. As children learn to read they move from a word-by-word stage to the phrase reading stage, which occurs almost naturally for most readers. However, some readers never develop the ability to read fluently, which is the ability to read accurately, in phrases, with appropriate intonation and understanding.

Why some readers never develop fluent reading behaviors is the dilemma. Much current thinking suggests that the problem is with substandard decoding proficiencies. In fact, most routines and programs available target fostering faster and more accurate decoding as the keys to fostering fluent reading behaviors. Personally, I think that the weak decoding hypothesis is only part of the story. (I've written about my alternative hypothesis fairly extensively in another book in the What Really Matters series: *What Really Matters in Fluency*.)

My hunch is that many struggling readers never developed fluent reading abilities because they have often been fed a steady diet of texts that are simply too hard. These are texts they cannot read accurately, and they have little understanding of what they do read. Couple these factors with an interruptive reading environment and you create readers who read word by word with little appropriate intonation or expression. Now provide this sort of instruction for 5 or 6 years and you get struggling word-by-word readers in the middle school.

The most powerful instructional framework for fostering fluent reading in early-adolescent struggling readers seems to be primarily an engagement of struggling readers in large amounts of high-success reading

(Kuhn, 2006; Kuhn, Schwanenflugel, Morris, Morrow, Woo, Meisinger, Sevcik, Bradley & Stahl, 2006; 2010). In these studies extensive independent reading activity was contrasted with comparable amounts of repeated readings of texts. While repeated readings had been shown to foster fluency growth, the independent reading condition worked to foster more fluency growth faster.

The independent reading was high-success silent reading. In other words, it seems that the additional reading practice involved in the independent reading condition was the factor that led to the fluency improvement. It wasn't just fluency that improved. The students who were engaged in the independent reading lessons also acquired a greater number of new vocabulary words and increased their reading comprehension more than the students in the repeated reading condition.

The research now available suggests several things about the development of fluency:

1. Most struggling readers do not read aloud fluently.
2. Many early-adolescent struggling readers have a long history as struggling readers and a long history of being assigned to reading texts that were simply too difficult for them.
3. In too many cases early-adolescent struggling readers have experienced primarily oral reading of these too-hard texts.
4. During these oral reading events other students and the teacher were likely to make the oral reading an interruptive reading experience.
5. In response to the anxiety produced by both too-hard texts and constant interruptions, struggling readers then began to adapt their oral reading performance to better fit the interruptive reading environment, primarily by slowing their rate of reading and by providing a query intonation pattern as they read.
6. Word-by-word reading then became habituated and "normal" reading practice.

The longer the reader has struggled with school reading, the more firmly entrenched the word-by-word reading becomes. We can foster fluent reading behaviors, though not typically through lessons designed to foster decoding proficiencies (Torgeson & Hudson, 2006). Instead, what seems most powerful is expanding the volume of high-success reading for struggling readers. This means primarily working to locate high-success texts for them to read in every class, all day long.

I'll argue, based on our experience, that if you have worked on fostering fluency with a struggling reader for more than 3 weeks and have not yet had

success, then the plan in place is simply somehow flawed. Fluent reading is not a difficult ability to foster, but to be successful four aspects of reading lessons must be present:

1. There must be easy access to texts that can be read accurately and texts that the student is interested in reading.
2. There should be substantial opportunities for the student to engage in reading the high-success texts silently.
3. The reading environment must be non-interruptive. Neither other students nor the teacher should interrupt (or help) the struggling reader.
4. Each reading lesson involves some literate conversation about what was read.

We can help early-adolescent struggling readers become fluent readers but to accomplish this will require substantial shifts in the way that texts for early adolescents are selected and used.

Summary

Too often schools have assumed that decoding was the problem experienced by struggling early-adolescent readers. While some struggling early-adolescent readers do have deficiencies in their decoding skills, many more have decoding skills that far outstrip their levels of vocabulary development, inferential comprehension abilities, and world knowledge. We also have substantial research showing that improving decoding abilities of early adolescents has little if any effect on their understanding of what they read or on their reading abilities as generally measured.

Virtually every learning theory begins by noting that after deciding what is to be taught, the next step is selecting appropriate instructional materials. That means selecting texts that students can read, accurately, fluently, and with understanding. There seems to be neither a theory nor any research evidence supporting the practice that is all too common of assigning struggling readers texts that are too difficult. Yet, that is precisely what most schools have done. Such a plan may make planning lessons easier but the same text makes it unlikely that the lesson will be equally effective for students who present different levels of reading proficiency. Struggling readers often fail in their courses simply because no one has planned a lesson based on either theory or evidence. They fail in science class because they cannot read the text assigned. Such a failure is more a system failure than a student failure but, nonetheless, it is the student who receives the failing grade and pays the cost of being assigned an inappropriate text.

You may be surprised to learn that the reading level of the average sixth-grade student is somewhere between the middle fourth- and eighth-grade reading levels. The bottom quarter of the sixth-grade class reads below the fourth-grade level and the top quarter reads at the high school level. You can observe the range of reading achievement found in many classrooms by examining Table 2.1. That table presents the range of reading levels for a national sample of early adolescent readers.

You read Table 2.1 this way. The section on the far left and up until the first bracket represents the reading grade levels of the bottom quarter of all students at that grade level. The area of the line between the brackets represents the reading level range of the middle half of the students and the area of the line to the right of the second bracket represents the reading levels of the top quarter of readers at that grade level. In other words, at seventh-grade level a quarter of the students read somewhere between the second-grade and mid-fifth-grade levels. Half of the seventh-grade students, the middle group, have reading levels between the mid-fifth-grade and the mid-ninth-grade reading levels. A quarter of the seventh graders read between the mid-ninth-grade level and the twelfth-grade level. The range of reading levels at every grade level represents one challenge for teachers of early adolescents. Planning lessons so that students of very different reading levels can succeed is not easy, but it is doable.

Teachers can do many things to facilitate struggling readers' ability to correctly read key academic words. But teaching decoding skills in isolation is unlikely to be the effective choice a teacher might make. Helping students see the syllable structure, fostering their use of words they know so they can decode longer and rarer words, and using the various text tools that are typically available are all necessary routines that teachers of early adolescents must consider.

In the end, though, all teachers need to return to that "ivory tower" lesson planning model they learned in college. In that traditional lesson planning

TABLE 2.1 *Reading Levels of Early Adolescents*

Grade	Range of reading levels											
9 (.....)											
8 (.....)											
7 (.....)											
6 (.....)											
5 (.....)											
RL	2	3	4	5	6	7	8	9	10	11	12	

Source: From Hargis, 2006, Table 1, p. 394. Reprinted with permission of Phi Delta Kappan International, www.pdkintl.org. All rights reserved.

event, the second step, the one that follows choosing what you are going to teach, requires you to locate “appropriate” instructional texts. *Appropriate* means texts that meet students where they are developmentally in content learning and developmentally in terms of how well they have developed their reading proficiencies.

Always remember that no research and no theory supports one-size-fits-all instruction. Children differ and because of that much of what makes teaching effectively lies in the ability of the teacher to provide a multi-level and multi-sourced lesson that achieves the learning goal. Effective teaching is always both difficult and rewarding. When teaching becomes “easy,” too many pupils fail to learn much because not enough effort went into designing effective instruction.