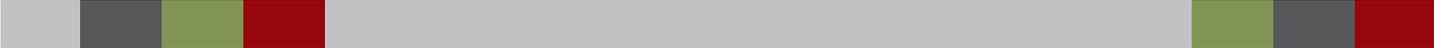# What We Know About Adolescent Reading

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**International Center for**
**Leadership in Education**
Rigor, Relevance, and Relationships for ALL Students

# What We Know About Adolescent Reading

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Reading proficiency has historically been valued as *the* fundamental enabling competency in public education in the minds of parents, educators, and the general public. The study of reading instruction and literacy has been exhaustive, so we will focus on a few broad themes that we have frequently observed in the course of our research and during our school improvement efforts with some of America's most inspiring and promising high schools and middle schools.

The school improvement process approach that the International Center for Leadership in Education has advocated and helped institute is based on three questions:

**Why?**
This first question is key to identifying the issues so we can build consensus around solutions.

**What?**
The second question allows us to suggest a plan based on data, research-based models, and successful practices.

**How?**
This final question addresses solutions by looking at proven and reliable models.

# WHY?

1.  **Reading is *the* key enabler of learning for academic proficiency across all subject areas and over all grades.** If students cannot read, they are hamstrung in all other academic areas, including math and science. They cannot deal with advanced coursework or pursue lifelong learning. While humans are "hard-wired" for oral language, reading must be taught and learned. And, the process must continue into the middle grades, high school, and beyond.

    Unfortunately, most reading instruction stops after the elementary grades, although reading development is not complete. Of the more than 16,000 school districts in the United States, fewer than one in five had high school reading specialists in 2003, according to Scholastic's Quality Education Data. Furthermore, only 58 reading coaches and 987 remedial reading teachers worked at those same high schools in 2005-06, according to the Market Data Retrieval database of buyers at school.

    The issue: Where can schools find the expertise, instructional time, and resources that many students need to become proficient in reading, because the demands on reading ability increase as students enter the secondary grades?

2.  **Reading requirements for the workplace are at a higher level than and different from the requirements for higher education.** Studies by the International Center and other groups have shown that employability and career success in an increasingly competitive global economy depend on reading to a far greater extent than previously required. The ability to find, analyze, and synthesize written information provides access to lifelong learning in a rapidly changing world. Other studies
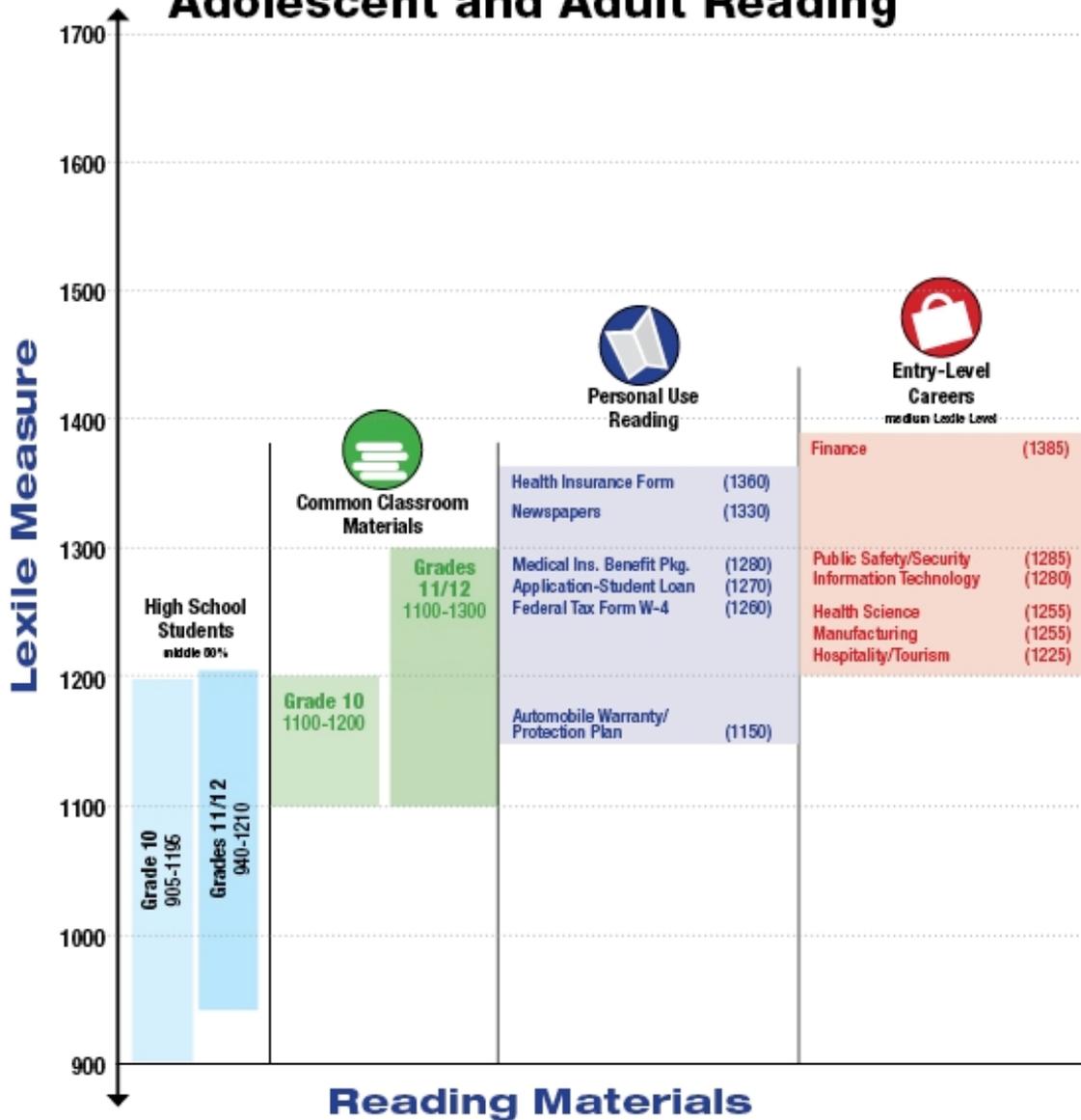
show what many educators already know from experience -- both graduates and dropouts with poor reading and literacy skills are statistically:

- less likely to find employment, even in low-paying jobs
- more likely to have jobs that do not pay well enough to allow the wage earner to support a family
- more likely to require public assistance
- more likely to serve time in a correctional facility.

People who cannot read with confidence and efficiency are socioeconomically at risk in most adult roles as consumers, as citizens, and as parents — but especially as wage-earners in an increasingly literate global economy. Reading and the ability to process documents and text in all forms allow for the trainings and multiple re-trainings that today's students will encounter in the workforce during their careers.

A 2006 study by the International Center has shown that reading requirements for entry-level jobs may be much higher than was ever expected (see Table).

## Lexile Requirements for Adolescent and Adult Reading

**Lexile Measure** (y-axis: 900 to 1700)

**Reading Materials** (x-axis)

**High School Students** (middle 80%)
- Grade 10: 905–1195
- Grades 11/12: 940–1210

**Common Classroom Materials**
- Grade 10: 1100–1200
- Grades 11/12: 1100–1300

**Personal Use Reading**
| | |
|---|---|
| Health Insurance Form | (1360) |
| Newspapers | (1330) |
| Medical Ins. Benefit Pkg. | (1280) |
| Application-Student Loan | (1270) |
| Federal Tax Form W-4 | (1260) |
| Automobile Warranty/ Protection Plan | (1150) |

**Entry-Level Careers** (median Lexile Level)
| | |
|---|---|
| Finance | (1385) |
| Public Safety/Security | (1285) |
| Information Technology | (1280) |
| Health Science | (1255) |
| Manufacturing | (1255) |
| Hospitality/Tourism | (1225) |

Sources: Meta Metrix and International Center for Leadership in Education

In this study, the Lexile Framework® for Reading, created by MetaMetrics, was used to assess the readability of representative samples of reading materials — handbooks, manuals, forms, standard

business documents. The framework is a computer-based analysis of the semantic difficulty and syntactic complexity of text, measured in equal increments on a scale of 200-2000L (Lexiles). A Lexile measure also can be used to indicate a student's reading ability.

Almost all the reading requirements for entry-level jobs were higher than the reading ability level of about 75 percent of America's 11th grade students. To be specific, entry-level reading requirements fell across a range of between approximately 1200L to 1500L, while the 75th percentile of 11th grade students fell at just over 1200L. Moreover, the reading requirements for entry-level jobs are higher than for many intermediate- and advanced-level jobs because of the technical nature of the reading done in many entry-level jobs. Perhaps even more surprising, entry-level job reading requirements exceed the reading requirements of all but the most technical college coursework.

The issue: The disconnect in reading expectations between school and the workplace indicates that many high school and college graduates will have difficulty performing effectively in the entry-level jobs into which they will be hired. Additionally, while our current high school graduation standards in English language arts may be daunting for many students, they appear to be not high enough to prepare students for beginning-level job requirements.

3. **Adolescent literacy remains a critical problem and a major contributor to low achievement in high school.** Low reading ability is a social stigma that can breed feigned or actual indifference to learning. Lack of reading proficiency undermines self-image and self-confidence throughout life.

   People who cannot read efficiently generally have difficulty becoming engaged in learning. Most educators know this experientially. In addition, the Alliance for Excellent Education reports that students with below-level reading skills are twice as likely to drop out of school as those who read at or above the appropriate level of reading proficiency. Most of the 3,000 secondary students who drop out of school every school day in the U.S. are poor readers.

   The National Assessment of Educational Progress (NAEP) has found that within the last few years, 68 percent of 8th graders read below the proficient level and one quarter below the most basic level (Grigg, Daane et al, 2002). A closer look at those numbers shows that only 13 percent of African-American and Hispanic 8th graders read at or above the proficient level, compared to 41 percent of white 8th graders. In the most recent NAEP reading assessment for 8th grade, both male and female students' average scores showed decreases between 2003 and 2005. No state's 8th grade students had a higher average score in 2005 than in 2003, and seven states had lower scores. The percentage of students performing at or above the *basic* level increased in one state and decreased in six states.

   The issue: Too many students fall through the cracks in reading instruction during the elementary grades and face a major literacy gap even before they reach high school. Reading must become a K-12 responsibility.

4. **Not every student's ability to read will develop in the same way, but all of our students need equal access to effective reading instruction to develop proficiency.** Every child has a right to learn to read and almost every child can do so *to some measure*, given the opportunity and the correct instruction. President Bush's Commission on Excellence in Special Education (2002) estimated that one-third of the nation's six million students with significant physical and emotional challenges, as defined by the Individuals with Disabilities Act, have been designated as "special education students" because of the lack of reading proficiency. Furthermore, not all children (or adults) learn to read in the same way, at the same time, at the same pace, with the same content, or using the same set of prior experiences or support mechanisms.

The issue: We must find ways to provide differentiated instruction for individual students and to encourage them to develop a love for reading. We need to do this in the interest of students at many levels.

5. **Prose literacy (fiction, nonfiction, drama, and poetry) continues to be an important part of a student's education, but other forms of literacy also need to be taught.** Reading proficiency must be viewed more broadly as information-getting and information-processing. The increased use of technology is leading to higher and different reading requirements for success in life than existed in the past, especially in the areas of document literacy, quantitative literacy, and technological literacy (See, for example, the International Center's *Redefining Literacy in Grades 7-12 — Strategies for Document, Technological, and Quantitative Literacy*.) This trend will continue for the foreseeable future. We need to balance continuity and change with respect to literacy skills.

   The issue: We can no longer define literacy just in terms of traditional forms of print text. While reading and literacy are about alliteration, adjectives, and allusion, they are also as much about:

   - information location and retrieval
   - information processing
   - information application, evaluation, and synthesis.

6. **A persistent gap exists in students' reading abilities along the racial and poverty divide.** Disproportionately large numbers of minority students, second-language students, and students from lower socioeconomic families are at risk. The Urban Institute, an economic and social policy research organization, estimates that the below-basic achievement group is twice as large among African-American and Hispanic students as in other groups. Furthermore, by comparison— if not as a direct result — only half of these minority students will have graduated after four years of high school (Swanson, 2004).

   There also is, of course, a direct connection between the increased likelihood of low literacy and family income below the poverty level. For example, NAEP results in 1998 showed that 68 percent of the nation's poorest students in 4th grade failed to attain basic levels of literacy. Studies as far back as the mid-1980s have warned that as many as one in five of our 17-year-olds were functionally illiterate (Walberg, 1983). That number may have increased since then, based on the downward scoring trend of lower-performing 12th grade students in 1998 compared to 1992 (NCES, 1999).

   The issue: Communities must join with schools to provide more support to students who may be at risk from the outset.

# WHAT?

The next steps in reading and literacy instruction involve planning.

1. **Develop a shared, conceptual model of reading and literacy.** The International Center has a conceptual model of knowledge and application called the Rigor/Relevance Framework. ™ The framework maps learning and instruction onto a simple grid that consists of Quadrants A, B, C, and D. Quadrant A is awareness level of knowledge. Quadrant D is the highest levels of knowledge, blended with the most complex levels of application of that knowledge to solve interdisciplinary, real-world problems in which the outcome or solution is not predictable. (See *Using the Rigor/Relevance Framework for Planning and Instruction*, 2005.)

Reading ability also follows a hierarchy of processes and abilities. These range from letter and sound awareness, vocabulary, and simple comprehension in the early years to fluent applications of comprehension that culminate in analyzing, synthesizing, evaluating, and applying what is read across disciplines to create new understandings and to solve problems as a mature, capable reader.

2. **Expand the reading curriculum to reflect today's broad text sources.** An "on-demand" information environment requires that we deal with a blizzard of information, knowing quickly what is important and what is background noise. Students still need to learn basic grammar. However, they now need to know the timing, purpose, and context of the information to analyze and apply processed information efficiently.

   We continue to look at where we have been to decide where to go. We must alter that approach and also look to the future to see what students will need to know and be able to do. We need to think beyond prose literacy to include document, technological, and quantitative literacies.

   **Document literacy** is the ability to access, synthesize, evaluate, and use information in a diverse array of forms and formats, from driver's license application forms, newspapers, and legal documents to online research and manufacturer disclaimers on consumer products.

   **Technological literacy** includes the ability to comprehend, use, and create interactive Web pages with multi-dimensional, multimedia, layering, links, and animations that replace conventional sequential print.

   **Quantitative literacy** is the ability to access, synthesize, evaluate and use information that is numerical, diagrammatic, or statistical. Reading and filling out an order form is an example of a task that requires document literacy.

3. **Use proven, research-based instructional technology tools based on sound pedagogy.** Studies have confirmed the efficacy of digital technologies to improve and enhance classroom instruction and learning. Researchers (Hasselbring and Goin, 2004) have also reported on the effectiveness of technology for improving reading in at-risk students and students with special needs, in part because of the ever-improving capacity of instructional technology tools to individualize, customize, adapt, monitor, and engage.

   One source that has paved the way to advancing instructional technology is the Peabody Literacy Lab, developed at Peabody College of Vanderbilt University in Nashville. Its program provides instruction in phonics, word recognition, spelling, and comprehension using video-based contextual "anchors" that provide background knowledge to allow learners to establish "mental models" (McNamara, Miller, and Bransford, 1991). These anchors become focal points for a subsequent series of computer-managed labs.

   Research, classroom testing, and validation of this model have taken place from 1985 to 1999 at numerous schools in Florida and Tennessee. Results have consistently demonstrated that the Peabody system yields significant growth on multiple measures of student reading comprehension. Such proven and research-based instructional technology, grounded in sound pedagogy and classroom practice, offers solutions to improving reading and literacy skills and should be embraced.

4. **Help all teachers in all subjects assist their students to become competent readers.** If a student cannot read the information pertinent to the subject being taught, can any teacher really claim that he or she is teaching that student? Consider the following:

- Most subject-area teachers have not taken coursework in reading theory or reading instruction.
- Subject-area teachers use academic vocabulary in their content areas. This vocabulary needs to be targeted explicitly.
- Subject-area teachers can reinforce key reading strategies and comprehension in their classrooms, including separating fact from fiction, making inferences, and making critical judgments. They need support from coaches or other staff developers so that these strategies are taught explicitly for their content areas.
- Reading is only one aspect of literacy and is closely connected to writing, listening, speaking, observing, and presenting. All subject-area teachers are engaged in these expressive literacy skills, but they need support to provide for a coordinated, focused effort so these literacies are taught in a more systematic way.

# HOW?

Reading and literacy improvement requires individualized solutions for schools and districts. However, administrators and teachers do not have to invent it from scratch or manage the process single-handedly. Research-based reading intervention models, tools, and metrics are available. Most of these resources have data-based, quantified, and proof statements that attest to their effectiveness.

1. **Examine Successful Models.** For 15 years, the International Center has sought out and shared models and best practices from the schools with which the International Center has partnered. The International Center has been particularly impressed by the efficacy (research bases, results, ease-of-implementation and usage, and successful practices) demonstrated by a number of schools in the International Center's Successful Practices Network. The International Center also has been impressed by the schools involved in its ongoing study of successful high schools undertaken with the Council of Chief State School Officer*s* and with the support of the Bill & Melinda Gates Foundation. There are other notable model schools that share their stories and best practices at our annual Model Schools Conference and annual symposium.

2. **Establish a School or Districtwide Literacy Plan.** Many successful schools start with a commitment to literacy and then create a schoolwide literacy plan. Most of these schools have discovered that a systematic and inclusive approach to developing a comprehensive literacy plan works best. (See, for example, the International Center's resource kits: *Strategic Reading in the Content Areas for Grades 7-12*, *Reading Strategies for Career Academies and Career-Technical Education*, and *Strategic Writing Across the Curriculum in Grades 7-12*.) In addition, these schools have realized that certain key steps in devising and implementing such a strategy improve the odds for success (see *Leading With Reading in Grades 7-12*, published by the International Center).

3. **Define Specific Steps in the Literacy Plan.** Specifics of the literacy plan will vary from situation to situation as will the order of implementation, but the planning process typically requires leaders to do the following:

   - Confront the issue and reach consensus that there is a need for change, which requires a collaborative effort.
   - Be inclusive in seeking input. Involve teachers, administrators, parents, students, and community partners in the process.
   - Don't expect every participant to be committed 100 percent. Some participants will embrace and champion the issue, some will help, and others will resist.

- Research and study relevant tools, resources, models, and best practices.
- Use data to define the problem and to set measurable goals to help participants picture what success will look like.
- Adopt common language, assessments, and rubrics.
- Brainstorm solutions, select strategies that will guide the planning process, and devise specific plans that can be implemented.
- Be flexible regarding changes that may need to be made to the master schedule, the school day, length of classes, and use of time during, before, and after school.
- Seek solutions that address all aspects of reading and literacy – phonics, word recognition, fluency, vocabulary, and comprehension – and offer individualized learning tools that employ the latest instructional technologies to engage students. Two research-based and proven commercial tools, the Lexile Framework for Reading and Scholastic's *READ 180* are discussed in sections 4 and 5.
- Use a common measurement tool, such as the Lexile Framework for Reading, to establish a quantifiable yardstick to talk about readability and reading ability.
- Document plans and integrate them into existing curriculum, instruction, and assessment guidelines. Assign responsibilities and establish timeframes.
- Launch the initiative with fanfare. Include a communications plan and a timeframe. Keep the initiative front-and-center in the minds of staff and students.
- Review progress regularly. A manageable, teacher-friendly, real-time tracking and student progress management component is essential. Share successes and measure progress with supportive data.
- Adjust the plan as needed and recognize that success will not happen overnight.
- Provide ongoing professional development to support the teaching staff. Consider using a provider of instructional resources and tools to do professional development. Some providers offer online training and time-of-use assistance for teachers.

4. **Adopt the Lexile Framework.** The Lexile Framework for Reading allows schools and teachers to match any reader with reading material of an appropriate readability level. The framework also provides a common rubric for assessing, discussing, comparing, and forecasting reading ability and readability. Many states use the Lexile Framework to evaluate commercially published instructional materials. Most of the major commercial assessment and testing services publishers can provide student data measured in Lexiles. Many schools have successfully adopted the Lexile Framework; Plant City High School in Florida and Graves County High School in Kentucky are just two examples of effective deployment of the framework in curriculum and instruction. Visit www.lexile.com for more information.

5. **Implement a Research-based Intervention Program.** Scholastic's *READ 180* is the third-generation successor of the previously described Peabody Literacy Lab. It is a comprehensive reading intervention program that directly addresses individual needs through adaptive and instructional software, high-interest leveled literature, and direct instruction in reading and writing skills. *READ 180* incorporates six crucial elements of reading intervention, including:

- Scientific Research Base –Dr. Hasselbring's research around anchored instruction and fluency form the backbone for the instructional software and ensure that each student navigates a unique path through the software based on his or her own strengths and weaknesses.
- Proven Results – Students who enter *READ 180* unable to read proficiently experience success and become readers. In 36 separate studies, measurable gains in reading comprehension have been shown with English language learners, students with special needs, and at-risk general

education students in elementary, middle, and high schools and with adult students in Job Corps, community college, and alternative/corrections settings.

- Comprehensive Instruction - *READ 180* includes a teaching system that equips – and trains – educators to deliver effective reading, writing, and vocabulary instruction to struggling readers. Teachers receive a rich and engaging curriculum of skills instruction, point-of-use professional development, a variety of assessment tools, and reports that link to resources for differentiating instruction.
- Purposeful Assessment – A variety of instruments, both explicit and embedded in the software, accurately assess students to identify their most urgent needs, enabling the program and teacher to adjust instruction accordingly.
- Data-Driven Instruction: A computer-managed student assessment and record-keeping system pinpoints the placement and progress of every student with on-demand reports that allow teachers to adjust instruction and monitor growth.
- Professional Development – Scholastic has designed comprehensive implementation training, online professional development and teaching materials that integrate professional development into daily instruction. This comprehensive professional development provides educators with the background, teaching routines, and instructional support they need, when they need it.

## School Success Stories

Hundreds of schools across the country have successfully deployed *READ 180*. Emery Secondary School in Emery Unified School District in California, Conrad Ball High School in Thomson School District in Colorado, Glendale High School in Glendale Union High School District in Arizona, and Selbyville Middle School in Indian River School District in Delaware are just a few of the schools where students have experienced significant improvement in reading proficiency with *READ 180*.

At Selbyville Middle School, for example, 24 percent of 8th grade students receiving special education services met proficiency goals in reading on the 2003 Delaware Student Testing Program. One year after piloting and implementing *READ 180*, 55 percent of the same demographic met the state proficiency standard. Strong administrative support and the championing of the program by one educator are given credit for the quick turnaround. Teachers have observed the approach's special ability to meet the needs of individual students and to keep all of the learners on task. Students claim that the program has given them confidence and a far more positive attitude toward reading and learning.

Glendale High School targeted students entering 9th grade in a small learning community whose reading and writing skills were identified as deficient. These literacy gaps negatively impacted not only the students' English language arts achievement, but also their content area learning. The school turned to *READ 180.* After one year, 84 percent of the students enrolled showed improvement on the SRI (Scholastic's Reading Inventory) assessment, the average gain being an increase of 206L. Moreover, 98 percent of the students indicated they felt much more confident in their own reading ability after participating in the program. The student population is 59 percent minority and 62 percent economically disadvantaged. Ample planning, staff training, adequate technical support, not cutting corners, and ongoing communication and collaboration among *READ 180* teachers were described as key ingredients in the program's success. The program now is used in every high school Title 1 class.

This sampling of effective models, best practices, successful working and workable processes, and research-based instructional tools provides a ready repertoire of specific approaches that school leaders

and stakeholders can use and draw from to implement their own school improvement initiatives in reading and literacy proficiency.

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