

Achieving Reading Proficiency for All

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The importance of all students achieving reading proficiency, as well as the new federal requirements to set proficiency standards and monitor progress across subgroups of students, continues to influence policymakers, educators, and the American public. *No Child Left Behind* (NCLB) requires that all students be “proficient” in reading by 2013-14 and demands that all schools make adequate yearly progress (AYP) toward that end. Proficiency is a truly worthy goal, but the practical realities of meeting it present some major challenges.

In our work at the International Center for Leadership in Education with schools that have achieved substantial progress in the area of reading proficiency, we have learned some important lessons.

First, while some schools have made great strides, success on a broad scale has remained elusive. Many schools and districts continue to struggle.

Secondly, even where genuine successes have been realized, schools have recognized an important limitation: Bringing all students to proficiency using the same strategies is highly unlikely, no matter how many times the strategies are repeated. As Albert Einstein remarked, “Insanity is doing the same thing over and over but expecting different results.”

Lastly, some of the more successful districts have improved reading proficiency by developing and implementing K-12 literacy plans. Surprisingly few school districts have such plans. At best, they have a K-6 reading program.

Most literacy plans begin with the posing of three questions:

1. What is reading proficiency?
2. How shall we set reading proficiency standards?
3. What new approaches/techniques are needed to achieve reading proficiency for all?

What Is Reading Proficiency?

The International Center has done extensive work recently with several state departments of education and many individual school districts to answer the question: What is reading proficiency? Developing a clear definition of proficiency is not easy. Most schools use grade equivalents or passing certain tests. Those numbers or scores relate only to academic benchmarks and norms that are unconnected to any observable external standards.

The International Center sought a common measurement tool to determine what students need to be able to read, what they *can* read, and what various assessment instruments measure. The Lexile Framework for Reading provides such a tool.

The Lexile Framework, developed by MetaMetrics in conjunction with several leading U.S. universities, uses a computer program called the Lexile Analyzer[®] to examine and analyze the readability of a *whole* text, not just samples from it. The Lexile Analyzer measures such characteristics as sentence length (a highly reliable proxy for syntactic complexity) and semantic difficulty (recognized vocabulary measured

against high frequency word lists) — traditional and widely accepted characteristics that are highly related to overall reading comprehension — and then reports a Lexile measure for the text.

Documents that have been analyzed using the Lexile Analyzer receive a score on a scale from 200-2000L. (Very simple documents, such as early literacy materials that would score below 200L, are deemed unsuitable for Lexile analysis because they do not contain a sufficient amount of text.) For example, Lexile measures for some well known works of literature are: *Frog and Toad Are Friends* – 400L; *War and Peace* – 1200L; and *The Scarlet Letter* – 1400L. For comparison, the middle 50 percent of students in grade 4 have Lexile measures between 445L and 810L; in grade 8, between 805L and 1100L; and in grade 11, between 940L and 1210L.

Unlike grade equivalent (GE) measures of readability, the Lexile scale is based on uniform increments from 200 to 2000L, i.e., an increment of 100L is constant in terms of increase in semantic and syntactic complexity. A one-grade difference expressed in grade equivalents, however, is not. For example, the difference in reading difficulty between 3.2 and 4.2 may be much greater than the “one-grade” difference between 9.2 and 10.2. Moreover, Lexile measures avoid the problem of labeling reading expectations for a particular grade level. Referencing Lexile measures also reinforces the notion that reading abilities differ broadly within any grade.

Publishers of educational tests, such as CTB/McGraw-Hill and Northwest Evaluation Association, use Lexile measures for their readability measures and testing reports. By equating Lexile measures with test scores, Lexile equivalent measures have been determined for more than one million students and continue to be reported on widely administered achievement tests used across the nation. As a result, MetaMetrics has established Lexile measures for students in each K-12 grade level. For example, the following table shows the Lexile measures for the middle 50 percent of students in grade 10 and grades 11/12. For example, students in grades 11-12 at the 25th percentile read with mastery (defined as 75 percent comprehension) at approximately 940L; the 75th percentile reads with mastery at approximately 1210L.

Working with a wide variety of educational publishers, MetaMetrics has also analyzed the readability levels of textbooks and numerous other instructional materials. The table indicates the Lexile levels of these materials.

The table shows a gap between students’ reading levels and the readability level of the texts they must read in school. Note, too, that 25 percent of 11/12 graders read below 940L, and 25 percent read above 1210L. Yet, typical instructional materials range from a low of 1100L to a high of 1300L.

This Lexile research points out what teachers already know. Students in the same classroom have different levels of reading proficiency, yet all of them are typically reading the same materials. The result is a mismatch for many students, who cannot learn enough from textbooks they cannot read. For them, this means lower comprehension, lower test scores, and less progress on attaining proficiency, not just in reading, but across the curriculum in math, science, social studies, and all other subjects.

Ask any teacher. Students need textbooks they can read – especially in middle school and high school where there is a heavy reliance on textbooks as the primary instructional resource and source for learning.

Lexile Measure	High School Students middle 50% at midyear	Classroom Materials middle 50%	Personal Use Reading	Newspapers	Career Clusters Entry-level 75 th percentile
1700L					Law & Public Safety (1740)
1600L					
1500L					Ag./Natural Resources (1510)
1400L			Safety Manual for Spa (1390) Aetna Health Discount Form (1360)	Reuters (1440) New York Times (1380) Washington Post (1350) Wall Street Journal (1320) Chicago Tribune (1310) Associated Press (1310)	Education & Training (1370) Transp./Distr./Log. (1350) Arch./Construction (1340) Manufacturing (1310) Business and Admin. (1310) Health Science (1300) Retail/Wholesale (1270) Hospitality & Tourism (1260) Scientific Res./Engr. (1250)
1300L			Medical Ins. Benefit Pkg (1280) Application-Student Loan (1270) Federal Tax Form W-4 (1260)		
1200L	Grade 10 905-1195	Grade 10 1100-1200 Grades 11/12 1100-1300	G.M. Protection Plan (1150)	USA Today (1200)	Human Services (1200) Arts/AV Tech/Comm. (1190)
1100L	Grades 11/12 940-1210				
1000L					
900L					

For the past several decades and almost certainly to accelerate with NCLB, schools have placed a great deal of importance on preK-6 reading initiatives. Little attention and few resources have been focused on students in grades 7-12. Yet, these upper grades are exactly where, according to recent international studies, emphasis is needed. The studies show that reading achievement of U.S. 4th graders ranks among the best in the world. By 8th grade, U.S. student performance declines to around the international average, and by 12th grade, our students rank even lower. (Allington, 2001; National Center for Educational Statistics, 2001)

The basic question to ask is why? Reading demands increase dramatically for students around 4th grade, when learning relies more on the textbooks. (Chall, 1983) The vocabulary encountered is less familiar because it contains more specialized or technical terms. Syntax becomes more complex. Greater reliance must be placed on inferential thinking and prior knowledge. More independent learning is expected than in lower grades.

When reading becomes the primary vehicle for learning, the demands on readers and the strategies they need to use in reading change. Unfortunately, just when the reading load increases and students shift from learning to read to reading to learn, no corresponding instruction in reading is provided to students. The scaffold of systematic and focused reading instruction diminishes or disappears altogether. Student performances in reading begin to widen, and increasingly, schools begin to use more single-source instructional materials (textbooks, teacher handouts, etc.) for all students. (Baumann & Duffy, 1997)

Thus, a gap emerges between the overall reading ability levels of students and the readability levels of the materials they are expected to read. We must match students to instructional materials for more learning to occur. The table shows we are *not* doing that!

Standards-based Reading Proficiency vs. Real-world Reading Requirements

While a gap exists in secondary school between some students' reading levels and the instructional materials used, an even more alarming disconnect can be found between student levels and real-world reading requirements. The table lists just a few of them under Personal Use Reading, Newspapers, and Career Clusters.

The greatest gap occurs between the reading requirements of the workplace and students' present reading levels. The International Center has done a detailed study of the readability levels of a wide array of print materials encountered in the workplace. These occupational reading materials were linked to the 16 Career Clusters defined by the U.S. Department of Education at three job levels: entry, intermediate, and advanced.

The International Center's Lexile analysis reveals that a large number of entry-level jobs have higher reading requirements than are required for high school graduation. The table shows the 75th percentile measures for entry-level occupations in the 12 Career Clusters for which we had adequate samples of reading materials. The third quartile was used because we believe that employees need to be able to read at least 75 percent of workplace documents to be successful on the job.

Entry-level jobs today often have higher reading requirements than many of the more advanced positions in the same field. Moreover, while white-collar workers may do more reading on the job, the material that many blue-collar workers must read is both complex and extremely critical to job performance. Poor comprehension of technical manuals and installation instructions, for example, can have disastrous results.

By comparison with the entry-level – repeat: *entry*-level – occupational reading requirements, consider again the reading ability levels of our mid-range students in grades 10-12. There is clearly a disparity between high school students' reading skills and the reading proficiency levels they need for work and for much of the reading they will do in their personal lives. The appendix contains additional information on the Lexile measures for reading related to K-12 education and to the world beyond school.

Moving from Defining to Solving the Problem

The table summarizes the reading challenge: The real world requires substantially higher levels of reading proficiency than most students possess. States need to be sure that the reading proficiency levels they set under *No Child Left Behind* reflect not just traditional academic measures of reading competence, but also the larger picture of what individuals will need for employability and success in life after graduation. This broader view of reading competency is an example of the academic proficiency that must become part of program improvement under NCLB.

Can schools close the gap? The answer is yes. The International Center has had the opportunity to work with selected schools that have experienced substantial success in closing the gap, and we have learned much from them. Among the lessons:

- Schools need to share with educators, parents, and the general public easy-to-understand data (such as in the table) that explains the gap between where students are and where they need to be.

- The amount and complexity of reading that students must do increase dramatically at the secondary level. Educators need to initiate a preK-12 literacy plan for all students with a strong emphasis on reading in the content area in grades 7-12.
- Schools need to match students to instructional materials at appropriate reading levels.
- Schools need to provide comprehensive, well-focused, and sustained staff development on the need for reading instruction that involves all teachers, with particular emphasis on grade 7-12 teachers and the inherent benefits to their students' performance in the content area.
- Schools need an ongoing reading assessment system to measure students' continuous progress (AYP) in reading.
- Schools need a way to compare where students are in reading and where they need to be to fulfill their educational and real-world goals and obligations. The Lexile Framework for Reading is an excellent metric to do this.
- Parents need to become active partners in reading initiatives.

Summary

Our information-based society demands high reading proficiency levels. We have data that defines what those demands are, and successful practices have been created to address them. Schools must use the resources available and address this critical area. We believe that K-12 literacy may be the best investment of energy and resources that schools can make. The human and economic consequences of not closing the gap – for our students and our country – are too severe to ignore.

Appendix

Lexile Measures of Readers and Classroom Reading Materials

Grade	Lexile Reader Measures (middle 50% of students-the interquartile range-at mid-year)	Lexile Text Measures (middle 50% of materials found in a typical grade-level classroom)
1	up to 300L	200 to 400L
2	140 to 500L	300 to 500L
3	330 to 700L	500 to 700L
4	445 to 810L	650 to 850L
5	565 to 910L	750 to 950L
6	665 to 1000L	850 to 1050L
7	735 to 1065L	950 to 1075L
8	805 to 1100L	1000 to 1100L
9	855 to 1165L	1050 to 1150L
10	905 to 1195L	1100 to 1200L
11 and 12	940 to 1210L	1100 to 1300L

Lexile Measures of Selected National and State Examinations

Grade	SAT-9	NAEP	One State's Competency Tests
3	580L		680L (reading/writing test)
4	760L	820L	
5	810L		
6	850L		790L (reading/writing test)
7	900L		
8	930L	990L	
9			980L (literacy test)
10	1100L		
11			
12		1150L	

Text Measures of Entry-level Occupational Reading Materials*

Career Clusters <i>in alphabetical order</i>	Lexile Text Measure (3 rd Quartile Range)
Agriculture/Natural Resources	1270 – 1510L
Architecture/Construction	1210 – 1340L
Arts/AV Technology/Communications	1100 – 1190L
Business and Administration	1210 – 1310L
Education and Training	1320 – 1370L
Health Science	1260 – 1300L
Hospitality and Tourism	1230 – 1260L
Human Services	1050 – 1200L
Law and Public Safety	1420 – 1740L
Manufacturing	1200 – 1310L
Retail/Wholesale Sales and Service	1180 – 1270L
Scientific Research/Engineering	1190 – 1250L
Transportation, Distribution and Logistics	1170 – 1350L

* for the 13 Career Clusters for which there were adequate text samples

Lexile Measures of Newspapers

Newspaper/Wire Service	Lexile Measure
Arkansas Democrat Gazette	1230L
Associated Press	1310L
Charlotte Observer	1120L
Chicago Tribune	1310L
Los Angeles Times	1330L
Miami Herald	1200L
New York Daily News	1230L
New York Times	1380L
Raleigh News & Observer	1220L
Reuters	1440L
San Francisco Examiner	1230L
UPI	1370L
USA Today	1200L
Wall Street Journal	1320L
Washington Post	1350L

Lexile Measures of Personal Reading

Citizen Reading Material	Lexile Measure
Form W-4 Employee Withholding	1260L
Employee's Withholding Exemption Certificate [Arkansas Form AR4EC]	1350L
U.S. Dept. of Justice (INS) - Employment Eligibility Verification	1340L
Safety Notice for Spa Owner	1390L
Prospectuses 2002 - College Retirement Equities Fund, TIAA Real Estate Acct.	1460L
Connections – Health Coverage	1400L
Medical Insurance – Proposed Benefit Package [Airtherm]	1280L
Provider Directory [Aetna U.S. Healthcare]	1520L
Vision One Discount Program [Aetna U.S. Healthcare]	1360L
Open Choice PPO [Aetna U.S. Healthcare]	1280L
Pharmacy Directory [Aetna U.S. Healthcare]	1180L
GM Protection Plan/Warranty	1150L
2002 Cadillac Eldorado Brochure	1150L
Privacy Act Notice to Students [Empire State College]	1780L
Entry to the Teaching Profession - How to Get Certification [Empire State College]	1270L
Academic Policy [Empire State College]	1250L
Empire State College Student Handbook	1320L
Arkansas Driver's Manual	1020L
State Employment Application [Arkansas]	1410L

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