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Essential Reading

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The Florida Center for Reading Research has unparalleled intellectual and scientific resources for various aspects of reading instruction—except for those that are connected with the systematic acquisition of the broad background knowledge needed for reading comprehension. Imparting such knowledge is a necessary step to making significant progress in reading in Florida and in the nation. Consequently, after praising Florida for the significant progress it has made, and the strong effort it has directed to reading, this chapter will focus on students' attainment of the background knowledge necessary to reading proficiency.

The state's supplemental reading program, "Just Read, Florida!," has done much to enhance reading instruction, first in the elementary grades, then in middle school, and, more recently, at the high school level. It now requires that any students in grades six through twelve that have phonological problems enroll in an intensive reading course. As it continues to implement these policies, Florida should seek stu-

dent mastery of phonological skills (through 12th grade, if needed) and the acquisition of appropriate knowledge at each grade level, an aim that is not currently emphasized in the “Just Read, Florida!” guidelines, but which is an essential element in enabling students to read at grade level. The provisions of “Just Read, Florida!” are carried out at the district level, with each district submitting a plan that is required to follow sound instructional principles. These principles should be expanded to diagnose and rectify lacunae in students’ knowledge as required for proficient reading comprehension. The current exercises in comprehension strategies and vocabulary study could well be relinquished in favor of coherent instruction in content as needed. There is a growing consensus in cognitive psychology that comprehension and vocabulary are best enhanced best by subject-matter knowledge.

Some of the promise of “Just Read, Florida!” may now be showing. Begun in 2002, the initiative has channeled money and resources into research, training, and monitoring systems for a comprehensive statewide reading program, and created linkages between schools, communities, and families in support of its goal. While initially focusing on the elementary grades, it has been expanded over four years to serve students in grades K–12. The initiative has established reading academies and provided coaches, free reading diagnostic assessments, and, for middle school students, oral reading fluency probes. In 2006, the earlier reading gains at the elementary levels began to appear at the 7th and 8th grade as well, and 10th grade performance in reading ticked upward, reversing in part the previous decline. Since enhanced knowledge is fundamental to enhanced reading scores, these gains in the later grades will remain marginal unless Florida’s reading initiatives add a focus on subject-matter knowledge.

Since Florida has made use of its excellent technical resources, it is no surprise that, relative to other states, Florida has improved reading performance in the early grades, a fact that shows up on NAEP 4th-

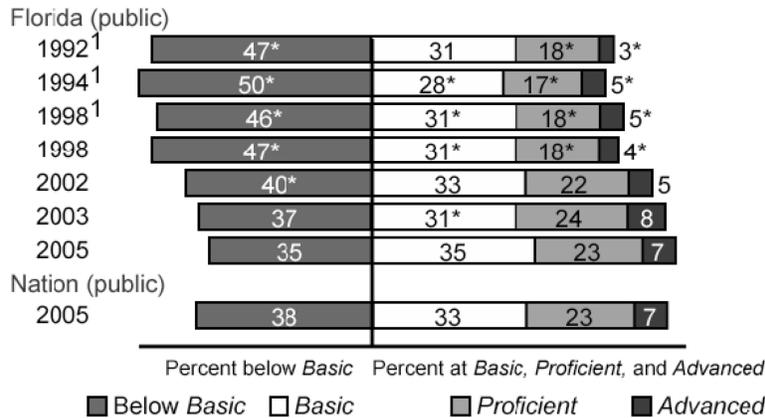


Figure 1. Fourth Grade NAEP

¹Accommodations were not permitted for this assessment.

*Significantly different from 2005.

Note: The NAEP reading achievement levels correspond to the following scale points: Below *Basic*, 207 or lower; *Basic*, 208–237; *Proficient*, 238–267; *Advanced*, 268 or above.

grade reading scores. (While the FCAT seems to be a good reading test compared to other state tests, I prefer, like many researchers, to rely on NAEP scores in analyzing reading achievement.)

If one looks at the NAEP trend lines in the 4th-grade reading scores for Florida, there is good reason for the state to be proud of the progress made. The percentage of 4th-grade students reading below the basic level has steadily declined from 50 to 35 percent. On the other hand, the percentage of students reading at or above proficient has stayed fairly constant since 2002, at about 30 percent. That improvements in basic levels do not accompany significant improvements in more advanced levels is an anomaly that I shall try to explain.

Unfortunately, the NAEP scores for grade 8 (like those in the nation as a whole) do not show even this modest progress of improvement at the basic level. The percentages have stayed flat for almost a decade, with about a third reading below basic, and about 25 percent reading at or above proficient.

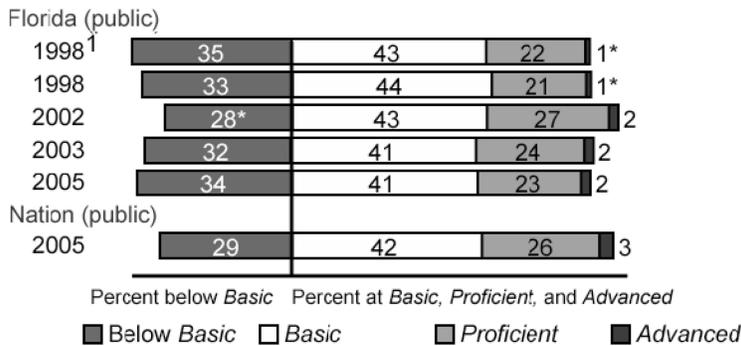


Figure 2. Eighth grade NAEP

¹Accommodations were not permitted for this assessment.

*Significantly different from 2005.

Note: The NAEP reading achievement levels correspond to the following scale points: Below *Basic*, 242 or lower; *Basic*, 243–280; *Proficient*, 281–322; *Advanced*, 323 or above.

This pattern is unlikely to change unless the excellent accountability and other structural reforms that the state has put in place are accompanied by curricular reforms that will be enormously difficult to achieve politically. There are many reasons why significant curricular improvements are difficult in the United States, but I see my job in this chapter to ignore these political realities in order to state the *educational* realities and necessities that need to be applied in order to achieve significant improvement in reading in the later grades.

The later reading scores are the ones that count. These are the reading scores of students who are about to enter high school, the workplace, and become citizens. Improvements in 4th-grade reading will make little difference to Florida or the nation if they are not followed by improvements in 8th-grade reading. In 2002 (and presumably in 2001), Florida did show improvements in 4th-grade reading, but that same cohort four years later did not show improvements. This pattern has occurred throughout the nation: reading improvement in grade 4 is *not* followed four years later by a similar improvement in grade 8. An adequate explanation of this phenomenon will point the

way to a solution to the reading problem in Florida and in the nation. If Florida decided to put that solution into effect, it could become the bellwether for the nation in curricular reform as it has been in structural reform.

The current understanding of reading proficiency, according to a consensus of cognitive scientists, holds that general reading ability is dependent upon general knowledge. Reading scores in grade 8 and later are increasingly dependent upon a students' background knowledge. Professor Torgesen and his associates have made a useful contribution by confirming this theoretical prediction with precise data.¹

The most likely explanation for the anomaly that improvements in the mechanics of reading do not foreshadow significant improvements in reading comprehension is the dependency of reading comprehension upon general knowledge, an acquisition that is distinct from decoding skill. Expertise in decoding does not automatically lead to the knowledge that is needed for proficient reading. Consider the following passage which I take from the internet, from the sample FCAT reading test for grade 10:

THE ORIGIN OF COTTON is something of a mystery. There is evidence that people in India and Central and South America domesticated separate species of the plant thousands of years ago. Archaeologists have discovered fragments of cotton cloth more than 4,000 years old in coastal Peru and at Mohenjo Daro in the Indus Valley. By A.D. 1500, cotton had spread across the warmer regions of the Americas, Eurasia, and Africa. Today cotton is the world's major nonfood crop, providing half of all textiles. In 1992, 80 countries produced a total of 83 million bales, or almost 40 billion pounds. The business revenue generated—some 50 billion dollars in the United States alone—is greater than that of any other field crop. Most of the five billion pounds that U.S. mills spin and weave into fabric each year ends up as clothing. "Cotton is a wonderful classic," says Adrienne Vittadini, a New York designer of women's sportswear, who uses cotton in 65 percent of

1. C. Schatschneider, J. Torgesen. et al., "A Multivariate Study of Individual Differences in Performance on the Reading Portion of the Florida Comprehensive Assessment Test: A Preliminary Report, 2004, Florida Center for Reading Research," http://www.fcrr.org/TechnicalReports/Multi_variate_study_december2004.pdf.

her collection. “It takes color beautifully. You can achieve a lot of different textures just by knowing what sort of cotton to use. You have combed cotton, with a dull finish; high twist cotton, with a crepey finish; all sorts of cotton bouclés for hand knitting. For any reputable company, cotton signifies quality. It’s our bread and butter.” But cotton spins its way into much more than apparel. It makes book bindings, fishnets, handbags, coffee filters, lace, tents, curtains, and diapers. Few other fibers endure tough conditions as well as cotton, perhaps the main reason it figures so prominently in the medical supply industry. “Cotton is used for bandages and sutures for exactly the same reason it’s used in textiles: It’s durable in a lot of different environments,” says Dr. Thomas Stair, head of emergency medicine at Georgetown University Hospital in Washington, D.C. Such attributes may explain why firefighters once preferred cotton fire hoses: The fibers soaked up enough water to keep the hose wet and protect it from flames. Modern fire hoses are usually made from synthetics, which are less expensive and last longer than cotton. But U.S. armed forces still use cotton hoses on their ships, where scorching, sunbaked decks melt the man-made material. Scientists have found that cotton may even clean up oil spills better than polypropylene fibers.

I will not attempt to analyze even a significant fraction of the tacit knowledge needed to understand this test passage from the FCAT. I’ll just look at the first sentences. The main subject—cotton—is not explained. You must already know what it is to grasp what is being said. It also helps to have an idea of how it grows, and how it is harvested and put into bales. (What’s a bale?) Then consider the little throw-away statement that people “domesticated separate species of the plant thousands of years ago.” To domesticate a species of a plant is not an action that is self evident from everyday street knowledge. Ask a sampling of young people what it means to domesticate a plant species, and chances are that many will not know. Of course they SHOULD know. Domestication of plants is fundamental to human history. But many don’t know. And that means that many will simply not understand that part of the test passage no matter how well they can sound out words and perform other tasks currently taught in language arts classes.

The writer of this passage, which was taken from *National Geo-*

graphic, clearly expected his readers to know what cotton is, and what plant-domestication is. He expected them to know that the Indus Valley is not part of, or near, Peru. That is the way reading comprehension always works in the real world, in magazines, and newspapers and books. The writer assumes that the readers know some things but not others. In this case, they were expected to know some geography and history, and agriculture, but they were not expected to know how long human beings have used cotton. That's the new information that is being supplied. Similarly, in a textbook that this 10th grader is expected to learn from, the new information to be learned will be embedded in a mountain of already-assumed, taken-for-granted knowledge.

This raises a commonsensical question. If a writer for *National Geographic*, or the maker of a test for the State of Florida, or the writer of a newspaper article for the general public, all know what specific knowledge may be taken for granted in writing directed to the general public, why do not the makers of state content standards also know what that specific knowledge is? If the ability to read proficiently means being able to supply the unspoken knowledge that readers in the United States are assumed to have, why do our schools, which are eager to produce good readers, not offer their students the specific knowledge that is needed for proficient reading? If plant domestication and the major crops are things we need to know about in order to read, why don't these topics appear in the curricula taught to our students? This is a question that can be asked of all the current state standards in the nation, not just those of Florida.

If we look at the Sunshine State Standards, and the grade-level expectations for all grades, we find that plant domestication and crops are nowhere mentioned in any subject area—a fact that is quickly determined from the excellent search web site run by the University of Central Florida. To be fair to Florida, it may well be that students will have learned about plant domestication in the course of their school studies. Some may have, some may have not. But, on the other

hand, to be fair to the *students*—they are being given a test which assumes knowledge about plant domestication that they have not necessarily been offered. I use this example to illustrate the faulty theory of reading under which language-arts instruction is being given in Florida and throughout the nation, and the lack of specificity in Sunshine State Standards and curricular guides that result from this faulty theory.

The theory of reading upon which Florida instruction is based is that reading is a kind of formal skill not unlike typing. Once you know the techniques, and have an everyday knowledge that everybody picks up somehow, you can read anything. This theory explains why so much stress is placed upon formal techniques in the Florida language-arts reading standards. The student is supposed to ferret out meaning by the use of clues and formal techniques. For grades pre-K–2, the student: “predicts what the passage is about based on its title and illustrations,” and “determines the main idea.” Then for grades 3–5, the student “uses table of contents . . . to predict content,” and “determines the main idea.” For grades 6–8: the student “uses background knowledge of the subject and text structure knowledge to make complex predictions of content,” and “determines the main idea in a text.” Note the new term introduced here in these later grades: “uses background knowledge.” This is a concession to the consensus in cognitive psychology that relevant background knowledge is essential to reading comprehension. But note the completely unwarranted assumption that this relevant knowledge is something that the student already possesses. An insouciance with regard to the *specifics* of knowledge offered to students, and an oversimplified, formalistic conception of reading comprehension have combined in Florida and throughout the United States, to hinder progress in reading proficiency—a skill which is deeply dependent upon broad general knowledge, and not just upon any knowledge, but the specific knowledge that is taken for granted by writers and speakers within our national speech community.

This is the specific knowledge that Florida schools must impart to students if they are to become proficient readers. Without this array of specific, taken-for-granted knowledge they cannot be proficient readers. The formalistic theory of reading upon which the current language-arts standards and modes of instruction are based is faulty at its root. With the best of intentions, it has failed students and the wider community, the evidence of this being that reading proficiency—real proficiency—has not advanced significantly. It cannot advance significantly until the schools impart more systematically and coherently the knowledge that students need to be proficient readers.

I said that the political difficulties in doing this are great. True. But having been forthright in analyzing the problem, I shall continue to be so in analyzing the solution, despite its political difficulty. The foregoing analysis implies a radical shift in the character of state standards. Florida is currently revising its standards. This presents a big opportunity. The results of such revisions in other states have not been promising, because the committee process by which the standards are produced and revised tend to place a premium on vague formal modes like “uses table of contents.” Language-arts in the new revision should mention, grade by grade, certain specific texts and specific bodies of knowledge that will over several grades build up the background knowledge that is the most helpful for reading in the United States today. Grade-by-grade content specificity is essential to real progress in reading. Absent grade-by-grade content specificity, the teacher lacks guidance regarding what to teach, and the student is left with huge gaps and boring repetitions.

Wherever a core of specific content has been taught by grade, reading scores have risen dramatically over time. Wherever specific content has been left to fend for itself, under the faulty how-to theory of reading, reading scores in the later grades have remained stagnant. In fact, there is some evidence that the recent single-minded, time-consuming focus on the techniques of reading under the stimulus of the No Child Left Behind law has caused a decline in reading profi-

ciency among 17-year-olds, especially among minority students. A plausible explanation of this is that when 120 minutes per day is spent on reading in schools, and that time is spent practicing reading techniques rather than building general knowledge, the result is likely to be a decline in general knowledge and thus in reading proficiency.

In chapter 7, my colleague Diane Ravitch spells out the need for greater specificity in Florida's curricular standards, a policy change with which I am in complete agreement. My recommendation to Florida is that it survey the general knowledge needed for reading proficiency, and that it set specific, grade-by-grade content standards across all subjects including language arts that will cause that needed knowledge to be imparted to all students.