

# Teaching Content *Is* Teaching Reading

Language arts classes should convey key background knowledge, which is the beating heart of verbal skill. **by E.D. Hirsch Jr.**



**E**very two years the National Assessment of Educational Progress (NAEP), “the Nation’s Report Card,” reports the nation’s average reading and math scores in grades 4 and 8. Despite our strong focus on reading under the 2001 No Child Left Behind law, the recent 2009 reading scores were not statistically different from those of 2007, which had not been statistically different from previous scores back in 2002. By contrast, math scores have shown a clear upward trend in both grades 4 and 8 during the past decade. Why is it so much harder to raise reading scores than math scores?

The stakes could hardly be higher. Verbal scores are highly correlated with students’ life chances and contributions to society; Congress was right to place a strong emphasis on reading under the No Child Left Behind law. But that emphasis has often resulted in a narrowing of the language arts curriculum into little more than preparation for reading tests. This narrowing of education has occurred chiefly because we have given a narrow, process-oriented slant to what we mean by reading. We have misconceived the kind of preparation that will actually enable students to do well on reading tests.



# A Different Approach

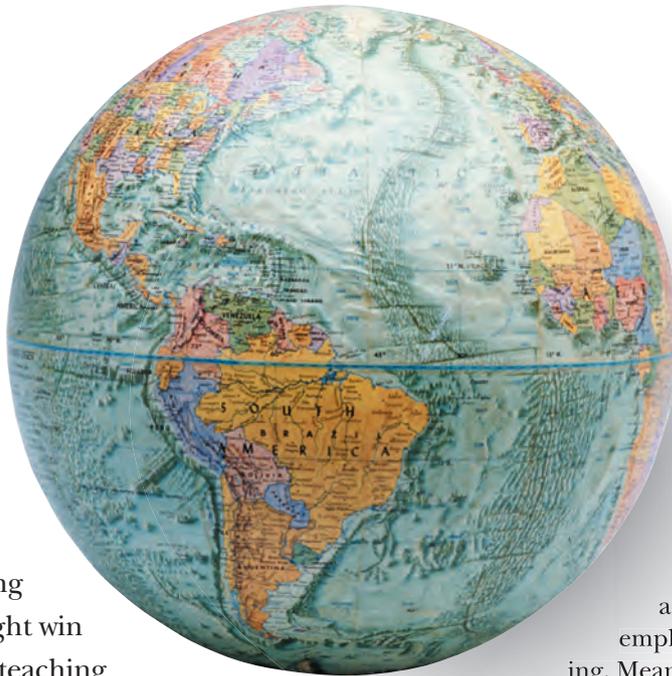
Teachers, like other people, resist change, as every principal knows. But elementary teachers as a group want the best for their students and are open to making changes if they are convinced they are not being subjected to “just another fad.” The following research findings, once understood, might win their enthusiasm for a new approach to teaching reading—an approach that, by the way, also fits in with the new Common Core State Standards for English Language Arts that have recently been approved by about three-fourths of the states.

**Prior knowledge of the subject matter of a text is more important to reading comprehension than technical reading skill.** You might want to show your teachers a wonderful 10-minute YouTube presentation by the distinguished cognitive scientist Daniel Willingham called “Teaching Content Is Teaching Reading.” Willingham’s presentation explains, among other things, why low-income students do so much worse on reading tests than middle class students. At one point in the video, Willingham describes an experiment where students who had done poorly on an ordinary reading test nonetheless did much better than high achievers when the “poor readers” happened to know more than the “good readers” about the subject matter of the passage.

The critical role of relevant background knowledge in language comprehension is one of the important findings of cognitive science in the past 50 years. If middle class students tend to do better than low-income students on a reading test, it is chiefly because more advantaged students have gained the relevant background knowledge they need to make sense of the passages in the test. Therefore, beyond the supremely important task of teaching

the mechanics of literacy, language arts classrooms should have an equally important aim: to impart to all students the background knowledge they will need to gain high verbal skill.

**Reading tests are progressively tests of background knowledge.** This fact about tests explains why an intense focus on reading strategies and a neglect of coherent content has failed to improve test scores. Professor Joseph Torgesen and his colleagues at Florida State University made an analysis of the skills reading tests are actually probing. In third grade, the emphasis is on fluency and accuracy of turning written symbols into sounds and words. In those early tests, the background knowledge required for comprehension is relatively undemanding. But as the tests progress from grade 4 up to grade 8 and beyond, decoding skill, though necessary, becomes less determinative of a student’s test score. With each subsequent grade, tests become more and more assessments of relevant background knowledge until finally by grade 8, they become de facto tests of general knowledge. This explains why there was a momentary rise in NAEP fourth-grade reading scores, when



schools placed a renewed emphasis on decoding. Meanwhile, eighth-grade scores have shown a slight decline, and a downward trend has been even more pronounced in the grade 12 NAEP scores.

These later reading scores reflect students’ knowledge accumulated over the years, built up from kindergarten and earlier, when listening, not reading, plays the chief role. Reading skill in young students never exceeds their listening skill. In fact, it’s not until seventh grade that reading catches up to listening. In kindergarten and grades 1 and 2, the activities of sounding out words take up so much of students’ mental capacity that their listening and speaking abilities far exceed their ability to read and write. Their ultimate reading ability will be limited by their listening ability, so it’s essential that we start right away in the earliest grades to improve their listening and speaking skills by enhancing their background knowledge through listening. A great deal of emphasis in kindergarten through third grade should be placed on orally imparting the knowledge that will ultimately enhance students’ language proficiency.

**Instruction in reading strategies is of limited value and, beyond 10 lessons, useless.** The educational research literature is full of evidence that teaching reading strategies such as “questioning the author” and “finding the main idea” help students read better. No one doubts this. But

researchers have shown that the probable reason for the initial boost from teaching strategies is to make young students aware that the text represents a person speaking to them, thus helping them conceive of the text as a verbal communication from somebody, not as some exotic, magical object. Initially that insight—that reading is like oral communication—helps young students quite a bit. However, once that basic insight is gained, its utility is exhausted. In fact, as other researchers have pointed out, teaching young children to engage in self-conscious comprehension and self-monitoring techniques impairs student comprehension on the whole because it takes up limited mental space in working memory that would otherwise be directed to textual meaning.

**Vocabulary growth is glacially slow,** helped only modestly by explicit vocabulary study, which should be used sparingly and in connection with coherent subject matter. It's often said that young children learn 15 new words a day. That's true, but only when you start counting backward with successful students after they are 17 years old. Depending on what will count as a separate word, the vocabulary size of a good high school graduate is about 80,000 words. If you assume that word learning starts at age 2, and that the student has been acquiring words for 15 intervening years, that computes to some 15 words a day from age 2. But how misleading that math is!

The process is slow and subtle. Each day we learn a tiny bit about hundreds of words along a broad front. It takes several meaningful exposures to a word before we gain a confident awareness of its ranges of meaning. But here's a key insight: An unfamiliar word might be more quickly understood if the surrounding context is familiar. It's estimated that word learning occurs four times faster in a familiar rather than in an unfamiliar

domain of knowledge. Hence the key function of explicit vocabulary study is to explain a few critical words during the effective teaching of a knowledge domain, making the domain more and more familiar.

### From Principle to Practice

Schools have performed better in math partly because the substantive math knowledge required in state standards for grades K-8 is clearly stated, grade specific, and cumulative. In contrast, while state standards in language arts define processes, they leave to chance the development of the background knowledge necessary to build verbal skill. This contrast between standards in math and in reading suggests that states should specify the topics for each grade that will gradually impart the background knowledge needed for proficient reading. The new common core standards have recognized this supremely important principle

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and reflect it in their title: Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects. This title represents an intellectual shift of monumental and, one hopes, decisive importance. No longer is language and reading to be associated exclusively with poems and fictional stories and technical processes, though these are important topics too. But as these new standards rightly emphasize, language arts classes should convey key background knowledge, which is the beating heart of verbal skill.

What, then, can a principal do concretely to put these concepts into practice in a school? Let's assume

that every teacher in the school has come to understand that language proficiency is gradual and knowledge-dependent, and that we will need to take a systematic, multiyear approach to imparting knowledge both within language arts and in the other subjects, with each grade building upon what has been taught in the previous grades. We can't depend on current basal programs to do that work for us since they consist of rather fragmented series of stories, based on the incorrect theory that reading is an all-purpose formal skill. Some basal programs are good for teaching phonics, which is a formal skill, but experts say we should spend no more than one hour a day teaching phonics and writing to young children. With two hours typically devoted to the literacy block, that leaves more than an hour for building needed knowledge. How should we use that remaining language arts time effectively?

In the earliest grades—kindergarten and grades 1 and 2—content instruction should take place through teacher read-alouds and discussion. It is a great waste of time to confine all of early language instruction to student-decodable texts since students' listening and speaking skills far exceed their reading and writing skills. Read-alouds and discussion on a given topic should last at least two weeks so that topic familiarity is built up, with consequent speeding up of students' vocabulary gain. The aim of these teacher read-alouds should be to start building up systematically the key knowledge and vocabulary that will be needed for later language proficiency in literature, the arts, history/social studies, civics, science, and technical

subjects, as the new common core standards recommend.

This coherent focus on definite topics in literature, the arts, history, and science—at least two weeks spent

on each topic to induce the necessary topic familiarity—should continue in later grades. But as fluency of decoding

increases, reading and discussion should increasingly depend on student-read texts. The whole multiyear sequence of knowledge domains from kindergarten through eighth grade ought to be worked out in advance and coordinated with the rest of the school curriculum so that the build up of knowledge and vocabulary can be systematic and cumulative.

If teachers are given the critical research findings about the knowledge foundations of verbal skill, and

if they are given the coherent curriculum and the support materials they need, they will gain a justified confidence that they can create knowledgeable students from all backgrounds who will be able to participate in the larger world as readers, speakers, and citizens. An exciting side benefit of the knowledge-based, cumulative approach to reading described here is that it brings the whole faculty together and embraces the collective efforts of all teachers. The language skills and the knowledge that will be required to make students effective readers by eighth grade cannot be learned in a single year, but are the cumulative results of a collective and cooperative effort. We are all in this together. 

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## Principal ONLINE

Access the following web resources by visiting *Principal* magazine online: [www.naesp.org/NovDec](http://www.naesp.org/NovDec)

Watch **Daniel T. Willingham's** presentation titled "Teaching Content Is Teaching Reading."

"**There's No Such Thing as a Reading Test**" describes why a reading test is really a knowledge test.

In "The Challenge of Advanced Texts: The Interdependence of Reading and Learning," a top reading researcher explains the most recent **research on vocabulary learning and verbal skill.**

Examples of materials and methods for a knowledge-based early reading program are available on the **Core Knowledge Foundation's** website.

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