



## Reading First's Impact

Reading First did not improve student reading comprehension in grades 1, 2, or 3. But it did improve first grader's skills in decoding unfamiliar words. And it produced changes in several instructional practices, such as the amount of time spent on five essential components of reading instruction and the amount of professional development in reading instruction.

### The program

The No Child Left Behind Act of 2001 created the Reading First program to help ensure that all students could read at or above grade level by the end of grade 3. The program promotes practices recommended by the National Reading Panel for early reading instruction, highlighting five essential components of reading instruction (see the box).

The program invested about \$1 billion a year in classroom reading instruction over FY2002-07 and \$393 million in FY 2008). Reading First funding has been used for:

- Reading curricula and materials for the five recommended components of reading instruction.
- Professional development on practices recommended for teaching struggling readers.
- Diagnosing and preventing early reading difficulties through student screening, working with struggling readers, and monitoring student progress.

### The impact study

As required by the legislation, the Reading First impact study examined instruction and student reading outcomes in 248 schools (about half Reading First and half not) in 17 districts and 1 statewide program to address three main questions:

- What is the impact of Reading First on student reading achievement?
- What is the impact of Reading First on classroom instruction?
- What is the relationship between the degree of implementation of scientifically based reading instruction and student reading achievement?

The study collected observational data on reading instruction in grades 1 and 2 and assessed student reading comprehension in grades 1 through 3 over three school years: 2004-05, 2005-06, and 2006-07. The study also assessed students' decoding skills in grade 1 and surveyed school personnel about their reading programs in spring 2007.

### Five components of reading instruction

The Reading First legislation highlights five essential components of reading instruction.

#### Phonemic awareness—manipulating speech sounds

Phonemic awareness instruction teaches students to distinguish and manipulate the sounds in words.

#### Phonics—mapping sounds and printed words

Phonics instruction helps children learn and understand the

relationships between the letters of written language and the sounds (phonemes) of spoken language.

Instruction in phonics helps children understand that there are predictable relationships between letters and sounds, helps them recognize familiar words, and allows them to “decode” unfamiliar printed words.

#### Fluency—speed and accuracy in reading aloud

Fluency is the ability to read text accurately and smoothly. The more automatically students can read individual words, the more they can focus on understanding the

meaning of whole sentences and passages.

#### Vocabulary—learning new words

Oral vocabulary refers to words used in speaking or recognized in listening. Reading vocabulary refers to words that are recognized or used in print.

#### Comprehension—deriving meaning from different types of text

Comprehension refers to understanding what is being read. Students will not understand text if they can read individual words but do not understand what sentences, paragraphs, and longer passages mean.

### The study's findings

The study compared two groups of schools: those selected to receive Reading First funding and those that were not. It used an analysis model to account for the variables that states and districts used to make Reading First funding decisions (predominantly indicators of school poverty and student reading achievement).

The average year 1 grant for Reading First schools in the study sample ranged from \$81,790 to \$708,240, with a mean of \$188,782 and an average of \$601 per Reading First student.

Here are the key findings:

#### *Student reading comprehension and decoding skills*

Reading First did not improve student reading comprehension test scores in grades 1, 2, or 3 (figure 1) but it did improve student skills in decoding unfamiliar words.<sup>1</sup>

- For first graders, Reading First students scored 4.7 points higher than other students on the test of reading comprehension (not statistically significant). For both groups of students, this was equivalent to the seventh month of grade 1 (in a nine-month school year).

- For second graders, Reading First students scored 1.7 points higher than other students on the test of reading comprehension (not statistically significant). For the Reading First group, this was equivalent to the fifth month of grade 2, and for the other students, the fourth month of grade 2.
- For third graders, Reading First students scored 0.3 points higher than other students on the test of reading comprehension (not statistically significant). For both groups of students, this was equivalent to the third month of grade 3.
- For first graders, Reading First improved average scores on a measure of skills in decoding unfamiliar words, equivalent to 2.5 scale score points (statistically significant) (figure 2). The average score in the Reading First group was equivalent to the seventh month of grade 1 (in a nine-month school year). The average score in the non-Reading First group was equivalent to the fourth month of grade 1.

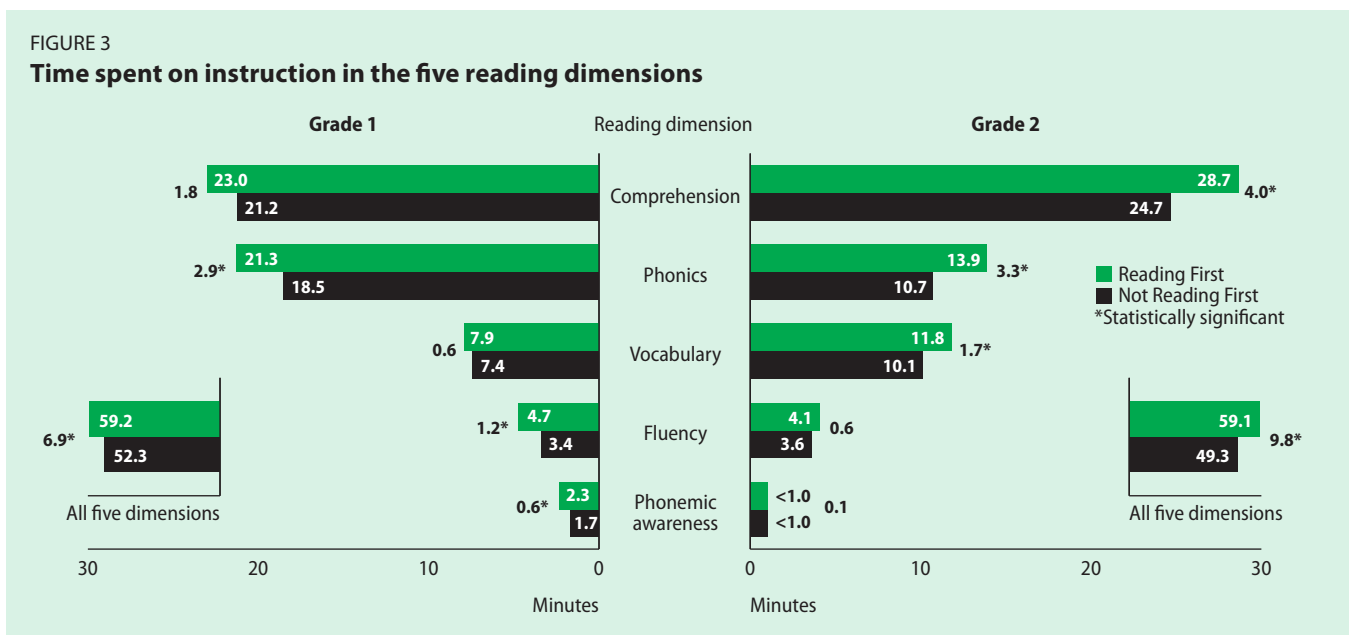
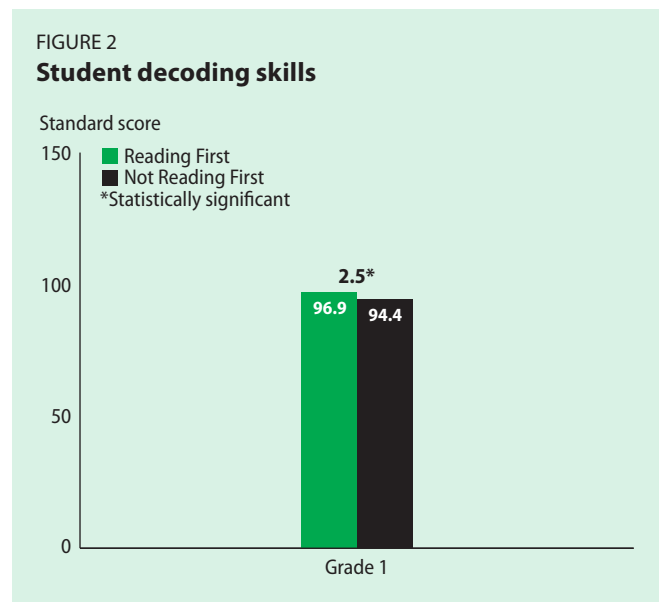
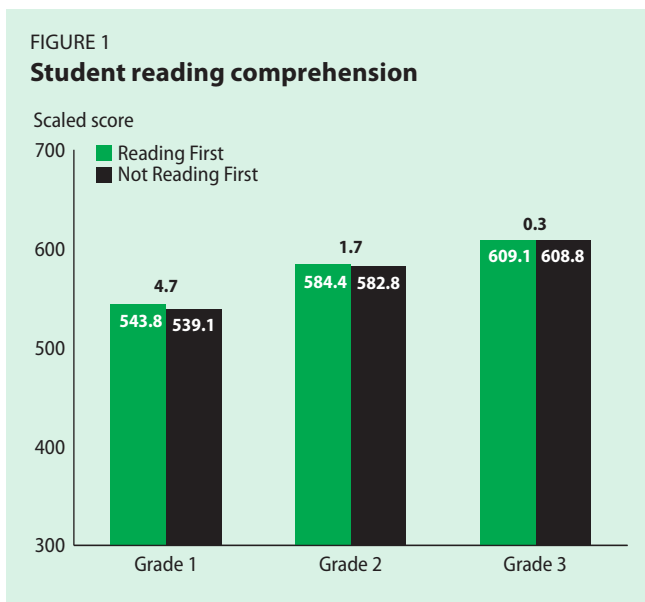
#### *Classroom practices and professional development*

Reading First increased the amount of instructional time spent on reading and on the five essential components of reading instruction.

- Teachers in Reading First schools reported an average of 106 minutes a day spent on reading instruction, which represents an impact of 19 minutes of additional reading instruction.
- Based on classroom observations, teachers in Reading First schools spent, on average, 59 minutes of the daily reading block on the essential components of reading instruction in both grades 1 and 2 (figure 3). This is an impact of about 7 minutes a day (35 minutes a week) in grade 1 and 10 minutes per day (50 minutes a week) in grade 2.

Survey responses from teachers, reading coaches, and school principals show that Reading First improved several practices promoted by the program, including professional development in reading instruction and support from full-time reading coaches:

- Teachers in Reading First schools reported receiving 25.8 hours of professional development, an impact of 13.7 hours.
- Teachers in Reading First schools reported receiving professional development on an average of 4.3 of the 5



essential components of reading instruction, significantly more than would have been expected without Reading First (3.7 components).

- Eighty-three percent of teachers in Reading First schools reported receiving coaching from a reading coach, an impact of 20 percentage points.
- Reading coaches in Reading First schools reported spending 91.1 percent of their time in this role, an impact of 33.5 percentage points.
- Reading First did not improve the availability of special instructional materials for struggling readers or teachers' reported use of assessments to inform classroom practice for grouping, diagnosing, and monitoring.

### The exploratory findings

The exploratory analyses examining hypotheses about factors that might account for the observed patterns of impacts provide no consistent or systematic insights about the primary findings. Here are the findings from the exploratory analyses:

#### *Impact of reading instruction over the study's three years.*

There was no consistent pattern over the study's three years in the impact estimates for reading instruction in grade 1—or for reading comprehension in any grade. There appeared to be a systematic decline over the three years in reading instruction impacts in grade 2.

*Length of exposure to Reading First.* There was no relationship between reading comprehension and the number of years a student was exposed to Reading First.

*Site to site variation.* There was no statistically significant site-to-site variation in impacts, either by grade or overall, for classroom reading instruction or student reading comprehension.

*Time spent on the five components of reading instruction.* There was a positive association between reading comprehension and the time spent on the program's five essential components of reading instruction. (But these correlational findings are sensitive both to the details of the estimation method and to the sample used to estimate the relationship.)

These analyses are considered exploratory because they are based on correlational analysis. The study was not designed to provide a rigorous test of these hypotheses, so the results must be considered as suggestive.

### Note

1. Student reading comprehension was assessed with the Stanford Achievement Test, 10th Edition (SAT – 10). Student decoding skills were assessed with the Test of Silent Word Reading Fluency (TOSWRF) for grade 1.

### For the final report on the Reading First impact study, please visit:

<http://ies.ed.gov/ncee/pubs/20094038.asp>

Gamse, B.C., Jacob, R.T., Horst, M., Boulay, B., and Unlu, F. (2008). *Reading First Impact Study Final Report* (NCEE 2009-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

NCEE developed the Evaluation Briefs to offer short synopses of complex technical evaluation reports. This brief was not prepared by the study authors.