The authors identify inaccuracies and distortions in the research supporting the No Child Left Behind legislation and offer alternatives for literacy instruction.

Many educators and parents in the United States are gravely concerned about the federal government’s Reading First initiative, which was launched by the No Child Left Behind Act of January 2002. Reading First derives from an incomplete and flawed research base, the National Reading Panel Report, and from government documents and regulations that substantially misrepresent the Report’s findings. As a result, schools are now redefining their approaches to teaching and learning on the basis of inadequate research and overblown claims that promise quick fixes. In many places, teachers are required to use scripted, one-size-fits-all, commercial reading programs that are neither scientifically based nor suitable for all the children in their charge. This article addresses these concerns and offers alternatives to the limitations of the Reading First initiative through five major sections:

1. Inadequacy of the NRP Report as a Scientific Base for Reading Instruction
2. Misrepresentation of the NRP Findings in Government Documents
3. Cautions Regarding the Teaching of Phonemic Awareness and Phonics
4. Lack of Scientific Support for Commercial Reading Programs
5. Recommendations Regarding Reading First

Inadequacy of the NRP Report as a Scientific Base for Reading Instruction

The NRP did not examine an adequate range of the scientific research on reading. Congress called upon the NRP to:

1. Consider what is known about the basic processes of learning to read and
2. Examine the effects of differing approaches to teaching reading. But it did neither. The panel ignored many important topics by limiting its research to only phonemic awareness, phonics, fluency, vocabulary, and comprehension. (NRP Minority View, p. 1; NRP Subgroups, pp. 1-1, 1-2). In addition, by deciding at the outset to confine its investigation of research to experimental and quasi-experimental studies, the NRP completely eliminated correlational and observational research, two branches of scientific study long accepted by the educational research community as valid and productive. (Committee on Scientific Principles for Education Research, 2002).

The NRP did not address the integrated nature of the reading process or the complexities of teaching children to read. Each of the examined components of reading instruction was investigated in isolation, because the panel simply assumed that a discrete skills approach is the one right way to teach reading, without comparing it to an integrated, more comprehensive approach (Subgroups, p. 1-1). The panel did not examine the balances or tensions among the five components or how they might be related to each other in time. Moreover, the panel did not examine the intricacies of planning, instructing, and assessing in actual classrooms with real students (Minority View, p. 1-2). No practitioners were invited to review the subgroup reports before publication (Minority View, p. 2).

The meaning of “reading” varies within the report. The meaning of reading varied from one NRP subgroup to another and even within subgroups. Because there was no consistent definition of reading, some instructional practices were said to improve reading when they only improved test scores on isolated skills, such as reading real words in isolation or even reading made-up words (Summary Booklet, p. 5).

Overall, the research base was much smaller than the public has been led to believe. The NRP Summary booklet and the detailed Report of the Subgroups suggest that over 100,000 studies were reviewed by the NRP (Summary Booklet, p. 1; Subgroups, p. 1-1). In fact, that number is only an estimate of the number of studies published since 1966, and thousands were never even considered by the NRP because they dealt with topics that the panel chose not to investigate or that did not meet...
its criteria for inclusion. The total number of studies actually examined by all the NRP subgroups combined was 438. The conclusions of the phonics subgroup were based on only 38 studies (Subgroups, pp. 2-91, 2-131).

**MISREPRESENTATION OF THE NRP FINDINGS IN GOVERNMENT DOCUMENTS: THE NRP SUMMARY BOOKLET AND **PUT READING FIRST**

- The Summary Booklet vastly exaggerates the phonics subgroup’s conclusions on who benefits from phonics instruction. The NRP Summary Booklet claims that the analysis of 38 studies on teaching phonics “revealed that systematic phonics instruction produces significant benefits for students in kindergarten through 6th grade and for children having difficulty learning to read” (p. 9). This statement grossly misrepresents the actual findings stated in the full report. In fact, data from the subgroup report on phonics demonstrate growth only in isolated skills, and only for limited populations. The teaching of phonics facilitated progress in isolated word reading skills for “at risk” first graders and kindergartners, for a small sample of normally achieving first graders, and for a subgroup of “disabled” readers in grades 2 through 6, but not for “low achieving” readers. Moreover, the sample of normally achieving first graders was so small (only 14 comparisons) that the results can hardly be generalized to this population, much less generalized to first graders of limited English proficiency or gifted students (Subgroups, phonics, Appendix E, p. 2-160). Furthermore, the only other group for which there were more than 10 comparisons was the reading disabled group in grades 2–6 (Subgroups, p. 2-160).

- The Summary Booklet overstates the benefits of phonics for comprehension and spelling. Only at-risk and normally achieving first graders showed greater effects for comprehension when phonics was taught systematically. Even then, the results are not impressive—not only because there were so few studies at the first-grade level, but because standardized comprehension measures at the first-grade level are usually limited to short, one-sentence passages (Subgroups, p. 2-115). Systematic phonics instruction produced no significant benefits above first grade in comprehension or overall in conventional spelling (Subgroups, p. 2-116). For example, for second graders in the one study involving the Open Court program, results for comprehension and spelling were actually negative in comparison with whole-language students in that yearlong study. The negative findings show a large drop from the first-grade results (Subgroups, phonics, Appendix G, p. 2-170; regarding the currently popular Open Court, see also Moustafa and Land, 2002).

- The Department of Education—sponsored booklet Put Reading First falsely claims that children must become aware of how the sounds in words work before they learn to read print. This claim that children must develop phonemic awareness before reading is not supported by the NRP data or by any other research. The NRP subgroup on phonics observes that many children learn phonemic awareness while learning to read, even if they are not taught phonemic awareness (Subgroups, p. 2-33). The Put Reading First claim about the need for phonemic awareness first is contradicted by a great deal of other independent research.

- Put Reading First misrepresents the status of research on silent reading. The booklet claims boldly that “No research evidence is available currently to con-

There is, in fact, no evidence—in the NRP Report or elsewhere—that children must develop phonemic awareness or phonics before they begin to read print.

However, “No research” simply means no body of experimental research; the panel found only 14 studies that met their criteria (Subgroups, p. 3-24). As the NRP noted, there are hundreds of correlational studies showing a connection between independent reading and reading ability (Summary Booklet, p. 12).

**CAUTIONS REGARDING THE TEACHING OF PHONEMIC AWARENESS AND PHONICS**

- The National Reading Panel did not find that phonemic awareness and/or phonics must be taught first, before children begin to read and write. There is, in fact, no evidence—in the NRP Report or elsewhere—that children must develop phonemic awareness or phonics before they begin to read print. The panelists simply found that phonemic awareness and phonics training had the most effect if children had not already developed that knowledge through reading (Subgroups, pp. 2-33, 2-43, and 2-133).

- The National Reading Panel did not find that phonemic awareness and/or phonics should be taught in isolation. Repeatedly, the point is made that phonemic awareness is best learned when taught in conjunction with letters (Subgroups, pp. 2-33 and 2-34). Furthermore, phonemic awareness training is more effective when children are taught how to apply PA skills to reading and writing tasks (Subgroups, p. 2-40). With regard to phonics, the
NRP did not find evidence to conclude that teaching phonics in isolation is better than teaching it systematically in context (Subgroups, p. 2-132).

- The NRP did not find that the benefits for teaching phonemic awareness and phonics are lasting. With regard to teaching phonemic awareness, there was no long-term evidence from the studies considered. Krashen (1999) also finds no long-term effects. With regard to teaching phonics systematically, the slight advantage for scores on comprehension disappeared after first grade, when the comprehension passages are standardized tests became longer than one sentence (Subgroups, phonics, Appendix G, pp. 2-169 through 2-176). Furthermore, teaching phonemic awareness does not ensure that children will learn to read and write (Subgroups, p. 2-43).

- The NRP found that a small amount of phonemic awareness training is better than a lot. The NRP found that transfer to reading was most successful when a program of phonemic awareness was taught for fewer than 20 hours, with sessions lasting no more than 30 minutes (Subgroups, p. 2-42). In fact, effect sizes were more than twice as large for shorter programs than for the longest-lasting programs” (Subgroups, p. 2-42). Furthermore, teaching that focused on only one or two ways of manipulating sounds was more effective than teaching that focused on more (Subgroups, p. 2-28). Regarding phonics, the NRP made no determination about how much teaching of phonics was maximally effective.

Lack of Scientific Support for Commercial Reading Programs

- There is no independent research to support the use of a commercial reading program—nor does the NRP recommend any commercial programs. The NRP did not investigate any commercial programs in their entirety and did not reach a conclusion about how much phonics instruction was optimal (Subgroups, p. 2-137).

- In general, the commercial programs promoted by government agencies managing the Reading First initiative are far from research-based. In addition to putting a greater emphasis on phonemic awareness and phonics than can be justified by the results of the NRP report, these commercial programs provide instructional designs that are not based on research at all. Important features of such programs—balance among instructional components, time allocated to different skills, and sequencing—have been subjectively determined by publishers. In some instances, the sequencing of program components is actually contraindicated by the NRP research, as happens when phonemic awareness is taught prior to and separate from phonics.

Indeed, the rigid use of a commercial reading program may crowd out silent reading, literature, writing, and discussion from the curriculum, with harmful effects on children’s literacy development.

Recommendations Regarding Reading First

In designing literacy programs for schools and school districts, educators should keep in mind the many flaws and inadequacies of the NRP Report. They should also keep in mind the inaccuracies and distortions in the documents that claim to represent the findings of the Report. To develop classroom literacy programs that are keyed to the needs of students, educators are well advised to draw upon the actual findings of the NRP report, along with evidence from other high-quality research. Educators responsible for teaching children to read should:

1. Develop comprehensive literacy programs that include more than
just the five components identified in the Reading First initiative. Writing enhances reading, reading enhances writing, and listening and discussion enhance both. In fact, all of the language processes and arts are interdependent, and each supports the others (Pressley, Allington, Wharton-McDonald, Block & Morrow, 2001; Braunger & Lewis, 1997).

2. Teach comprehension strategies from kindergarten onward. The NRP found positive results for seven different comprehension strategies when taught separately (Subgroups, p. 4-42). But multiple-strategy instruction in naturalistic classroom settings was found to be most promising. The Report notes that discussing texts in naturalistic settings tends to increase motivation to read and thus to encourage students to read more. The NRP further noted that motivation and increased reading may be important factors in the success of multiple strategy instruction (Subgroups, p. 4-46). Other researchers have concluded that an emphasis on comprehension is an essential element of early reading instruction (Snow, Burns & Griffin, 1998; Metsala & Ehri, 1998; Pressley, 1998).

3. Include silent, independent reading as a classroom activity. There is no evidence that independent reading fails to promote reading ability, and a great volume of research—literally hundreds of correlational studies—suggests that independent reading does promote fluency, vocabulary, and comprehension (Summary Booklet, p. 12). This correlation is documented by government-funded studies and other research summaries, including Neuman, 2001; Neuman & Celano, 2001; Snow, Burns & Griffin, 1998; NAEP 1998 Reading Report Card; NAEP 1994 Cross-State Data Compendium [National Center for Education Statistics, 1995]; Krashen, 1993; Anderson, Wilson & Fielding, 1988).

4. Help children to expand and refine their vocabularies through both direct and indirect methods. Children develop and refine vocabulary through reading. Studies have long suggested that most of a literate adult’s vocabulary has been acquired through reading (Snow, Burns & Griffin, 1998; Smith, 1994; Nagy & Anderson, 1984; Nagy, Anderson & Herman, 1987), and the NRP’s review of research found, indeed, that vocabulary is learned incidentally, through reading and from listening to the reading of others (Subgroups, pp. 4-4; 4-21 and 4-22; 4-26). In addition, the NRP report found benefits for several ways of directly helping children acquire vocabulary (NRP Subgroups, p. 4-4).

5. Assess even the youngest children with a wide variety of measures that emphasize comprehension and the ability to use ideas from texts in writing and discussion. Single measure assessments cannot uncover all the literacy strengths and needs of children. In assessing children’s oral reading competency, we need to examine their ability to summarize, interpret, and identify the important ideas of texts through written and oral expression (Subgroups, pp. 4-4; 4-29; Braunger & Lewis, 1997; Cunningham & Allington, 2003). Of course, such assessment is appropriate only if the curriculum has been broadened to include the reading, writing, and oral discussion of real texts.

6. Make high-quality literature and informational books a central feature of literacy programs and ensure that children have continual and easy access to books of the same quality for independent reading (Neuman, 1999; Pressley, 1998; Braunger & Lewis, 1997; Krashen, 1993). Children are not motivated to read by fill-in-the-blank workbooks or “fat-cat-sat-on-a-mat” primers. They need to be introduced to books that are worth reading—through teacher read-alouds, instruction, and independent reading (Allington, 2002; Snow, Burns & Griffin, 1998). 7. Integrate the teaching of phonemic awareness and phonics with reading real books and with written and oral expression. There is no evidence in the NRP Report—or anywhere else—that phonics and phonemic awareness should be taught separately from each other or from general literacy development activities. In fact, the report itself emphasizes the greater effectiveness of teaching sounds along with letters (Subgroups, pp. 2-33, 2-34, 2-40, 2-41).

The NRP report did not examine the effectiveness of decodable texts, and, indeed, there is no research to support their use.

The report also finds research supporting the practice of having children use their knowledge of letter–sound relationships in their everyday writing and reading—from the very beginning (Subgroups, p. 2-137). Braunger and Lewis (1997) demonstrate that this conclusion is supported by numerous researchers and reading authorities.

8. Use texts that capture children’s interest and satisfy their curiosity, whether they are predictable, decodable, or even a little beyond the children’s technical abilities. The NRP report did not examine the effectiveness of decodable texts, and, indeed, there is no research to support their use (Subgroups, pp. 2-98; Allington & Woodside-Jiron, 1998). In contrast, there are several research studies showing that decodable texts are harder to read than predictable texts.
(Kucer, 1985; Rhodes, 1979). Reading books to children that they could not read on their own increases their vocabularies and stimulates their desire to read.

9. **Promote fluency in conjunction with comprehension.** Don’t assume that fluency guarantees comprehension (Pressley, 1998). Comprehension does not necessarily require fluency, either. Even on timed, standardized tests, non-fluent readers may succeed if they have been taught to use meaning-making strategies. Many of the same activities that promote comprehension can promote fluency as well (Allington, 2001).

10. **Do not treat children’s continuing reading difficulties as evidence that they need more of the same type of instruction they have been receiving.** If children have difficulty demonstrating skills like phonemic awareness, phonics, and fluency, don’t persist in giving them more of the same instruction. In discussing the data that show little or no positive effect from phonics instruction on older poor readers, the NRP Report suggests that different instructional strategies need to be tried (Subgroups, p. 2–138; Boder, 1973). Other researchers concur, most frequently substituting real reading and writing for drill in discrete skills (Allington & Walmsley, 1995).

11. **Don’t allow phonics, phonemic awareness, and fluency to become gatekeepers for children’s advancement through the grades.** There is no evidence that children must develop any of these skills before reading and writing texts. Instead of holding children back for lack of such skills, guide and support the children in writing and reading as needed. (Pressley, 2002; Allington, 2001; Allington & Walmsley, 1995; Shepard & Smith, 1990). Keep in mind, too, that the NRP Report found that helping children invent spellings is one of the best ways to teach phonemic awareness and phonics (Subgroups, pp. 2–34, 2–39).

12. **Provide professional development for teachers in all aspects of literacy instruction, not just the five components of reading instruction that are required in the Reading First initiative.** There is more to developing literacy than simply teaching five isolated kinds of reading skills. Many researchers have found that the key factor in developing competent readers and writers is a high-quality teacher (Allington, 2002; Pressley, Allington, Wharton-McDonald, 2001; Pressley, 1998).

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**Critiques of the National Reading Panel Report**


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**References**


Author Biographies

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