



Pedagogies for the Poor? Realigning Reading Instruction for Low-Income Students With Scientifically Based Reading Research

by Jim Cummins

In this article, the author argues that there is minimal scientific support for the pedagogical approaches promoted for low-income students in the federal Reading First initiative. In combination with high-stakes testing, the interpretation of the construct *systematic phonics instruction* in Reading First has resulted in highly teacher-centered and inflexible classroom environments. By privileging these approaches, Reading First ignored the National Reading Panel's finding that systematic phonics instruction was unrelated to reading comprehension for low-achieving and normally achieving students beyond Grade 1. Also ignored was the significant body of research suggesting that reading engagement is an important predictor of achievement. Alternative evidence-based directions for rebalancing reading instruction for low-income students are suggested in the context of the impending reauthorization of the No Child Left Behind legislation.

Keywords: literacy engagement; low-income students; pedagogy; reading instruction; systematic phonics instruction

The debate in the United States about what constitutes scientifically based reading research has remained intense since the publication of the National Reading Panel's (NRP, 2000) report. Established by the U.S. Congress in 1997, the NRP was mandated to review the scientific research on reading instruction and to articulate the implications of that research for improving students' reading achievement. The panel analyzed the experimental and quasi-experimental research literature judged to be of central importance in teaching students to read. A major finding of the NRP was that there is "strong evidence substantiating the impact of systematic phonics instruction on learning to read" (p. 2-132). The hallmark of systematic phonics programs, according to the NRP, "is that they delineate a planned, sequential set of phonic elements, and they teach these elements, explicitly and systematically" (p. 2-99). This description is elaborated as follows:

Systematic phonics instruction typically involves explicitly teaching students a prespecified set of letter-sound relations and having

students read text that provides practice using these relations to decode words. Instruction lacking an emphasis on phonics instruction does not teach letter-sound relations systematically and selects text for children according to other principles. (p. 2-132)

The NRP also reported that systematic phonics instruction was unrelated to the development of spelling and reading comprehension for normally achieving and low-achieving students after Grade 1. Ehri, Nunes, Stahl, and Willows (2001) acknowledge this pattern as follows: "Among the older students in 2nd through 6th grades . . . phonics instruction was not effective for teaching spelling ($d = 0.09$) or teaching reading comprehension ($d = 0.12$)" (p. 418). This finding, however, has been largely ignored by policy makers in applying the NRP's articulation of scientifically based reading research to policy and practice in U.S. schools.

I argue in this article that the interpretation and application of the NRP findings in the educational policy arena has been selective and problematic. Specifically, the interpretation of the construct *systematic phonics instruction*, both by the NRP itself and (as documented by the Office of the Inspector General, 2006) in subsequent federal government policy, has exacerbated the already existing pattern of differentiated instruction across socioeconomic groups. Lower-income students are more likely to be taught in classroom environments where there is less opportunity to read extensively and less encouragement to engage in inquiry-oriented learning than was the case before the implementation of the 2001 No Child Left Behind (NCLB) legislation (McCarty & Romero-Little, 2005).

In raising these issues, my goal is to stimulate debate about (a) the extent to which there is a pedagogical divide that limits the learning opportunities of low-income students, (b) the extent to which this pedagogical divide has been exacerbated by federal and state policy directives associated with NCLB and the Reading First program, and (c) the extent to which potentially more effective approaches to literacy instruction for low-income students can be articulated on the basis of the empirical evidence. With the pending reauthorization of NCLB, it is timely to ask whether the reading instruction being implemented in schools serving low-income students is, in fact, consistent with what we know about how literacy develops and how people learn. The following section addresses the problematic way that the central construct of systematic phonics instruction was defined and operationalized in the NRP's meta-analysis.

The Construct of Systematic Phonics Instruction in the NRP Report

Debate about the NRP findings and claims has been intense (e.g., Allington, 2004; Camilli, Vargas, & Yurecko, 2003; Garan, 2001; Krashen, 2004a; Lyon & Chhabra, 2004; Pressley, Duke, & Boling, 2004; Shanahan, 2004). However, little attention has been paid to one of the key elements in the report, namely, the conceptual coherence of the construct of systematic phonics instruction.

As the NRP (2000) itself points out, a wide range of approaches to promoting decoding skills can be accommodated in its description of systematic phonics instruction. However, the construct is defined so loosely that it has very limited value for policy purposes. Does teaching a “prespecified set of letter-sound relations” (p. 2-132) refer to teaching a basic set of phonics rules or teaching virtually all the phonics rules in an invariant sequence? Does reading text that “provides practice using these relations to decode words” (p. 2-132) refer to reading high-quality children’s literature or reading decodable texts that embody the specific phonics rules that have been taught? The NRP (2000, p. 2-137) acknowledges that there is no research that specifically supports the use of decodable texts. Thus any reading that allows children to apply their knowledge of letter-sound relationships would appear to fit within the definition.

The problematic nature of what constitutes systematic phonics instruction is evident in the fact that, in the NRP (2000) report, the following very different interventions are given equal billing as reflecting the construct of systematic phonics instruction: (a) scripted phonics programs that continue systematic and explicit phonics instruction for a significant part of the school day well beyond the primary grades; (b) a 15-minute program for kindergarten students, Jolly Phonics (Lloyd, 1993), involving “playful, creative, flexible teaching” (Ehri et al., 2001, p. 422); and (c) a 5- to 6-minute daily word study component introduced into a 30-minute-per-day individual tutoring program, titled Early Steps, for Grade 1 students (Santa & Høien, 1999). The other components of this last program involved book reading with an emphasis on comprehension strategy instruction (8–10 minutes), writing (5–8 minutes), and introduction of a new book, which the child was expected to read without much help the next day. The book reading, writing, and new book components of this intervention are typical of whole-language approaches to reading. Thus the NRP’s designation of this program as systematic phonics instruction implies that 5 to 6 minutes of explicit word study (phonics) injected into a broader comprehension-oriented reading program is sufficient to qualify an intervention as systematic phonics instruction.

Does the construct of systematic phonics instruction have any coherence or usefulness if it is equally reflected in a program that occupies 5 to 6 minutes of instructional time and one that occupies 90 minutes (or more) of instructional time? Why should policy makers regard 90 minutes of systematic phonics instruction as any more scientifically based than 5 to 6 minutes or 15 minutes? If the construct has little coherence, then policy recommendations based on that construct have minimal utility.

Although the NRP’s (2000) description of systematic phonics instruction lacks coherence, the panel clearly envisaged such instruction as an important, but not dominant, component of a

balanced reading program. The panel articulated a number of cautions against misapplication of its findings. It emphasized, for example, that “systematic phonics instruction should be integrated with other reading instruction to create a balanced reading program” (p. 2-136). The panel also advocated the use of high-quality literature and cautioned that phonics “should not become the dominant component in a reading program, neither in the amount of time devoted to it nor in the significance attached” (p. 2-136). The panel expressed concern about “the commonly heard call for ‘intensive, systematic’ phonics instruction” (p. 2-135) and drew attention to the possible effects of scripted programs on teachers’ orientation to instruction: “Although scripts may standardize instruction, they may reduce teachers’ interest in the teaching process or their motivation to teach phonics” (p. 2-135).

The report also cautioned against one-size-fits-all approaches because in the early grades children vary greatly in the skills they bring to school. Under these circumstances, the NRP (2000) suggests that it is desirable to place children in flexible instructional groups. However, flexible grouping may be challenging to implement given that “many phonics programs . . . present a fixed sequence of lessons scheduled from the beginning to the end of the school year” (p. 2-136).

Unfortunately, these cautions were ignored in the implementation of the Reading First program established in the context of NCLB legislation to ensure that low-income children received high-quality reading instruction in the early grades. As documented in the next section, Reading First strongly promoted intensive, uniform phonics instruction for the low-income students who were the beneficiaries of its funds.

The Interpretation of Scientifically Based Reading Instruction in Reading First

Reading First received appropriations of close to \$1 billion per year between 2002 and 2007. The program is described as follows on the U.S. Department of Education’s (2006) website:

This program focuses on putting proven methods of early reading instruction in classrooms. Through Reading First, states and districts will receive support to apply scientifically based reading research—and the proven instructional and assessment tools consistent with this research—to ensure that all children learn to read well by the end of third grade. (“Program Description” section, para. 1)

Applications for Reading First funding were reviewed by expert panels that determined whether the proposed interventions were founded on scientifically based reading research. Numerous applications were rejected because they were judged to be not scientifically based. For example, to receive \$34 million in Reading First funding, New York City in 2004 was forced to abandon its preferred reading curriculum in 49 elementary schools to adopt a “scientifically based” program that taught phonics in a more highly structured way (Goodnough, 2003; Herszenhorn, 2004). The program of choice for New York City was Month-by-Month Phonics (Cunningham & Hall, 2003), which according to its publisher’s website, “includes detailed, easy-to-follow activities that assist students in developing phonemic awareness, enhance letter and sound recognition (phonics), and increase vocabulary” (“Overview” section, para. 1; <http://www.carsondellosa.com/nyc/overview.htm>). It

also, however, included an active focus on writing and the use of classroom libraries. Although the program clearly conformed to the NRP's description of systematic phonics instruction, it was judged by Reading First to be insufficiently grounded in scientifically based reading research. Herszenhorn (2004) described the conflict as follows:

Schools Chancellor Joel I. Klein has consistently argued that the city's choice of reading curriculum is superior to the more rigid programs endorsed by the Bush administration. . . .

. . . He said that recent national testing data showed that New York, Boston and San Diego—cities that use a so-called balanced literacy approach—were making better progress than cities using programs preferred by Washington as “scientifically proven.” . . . New York City's current balanced literacy curriculum uses books from classroom libraries instead of basic readers and encourages students to read and write on their own level. (para. 2–7)

The criteria used by Reading First to judge the scientific acceptability of proposed reading programs were subjected to intense scrutiny by the Office of the Inspector General (2006). The Inspector General's report documented how panels that reviewed applications from states for Reading First funds were stacked with advocates of direct instruction (Carnine, Silbert, Kame'enui, & Tarver, 2003) and how funds were withheld from states and school districts that proposed to use instructional approaches or programs deemed to be “balanced” or tainted by whole-language assumptions. Among the approaches that were explicitly targeted as not being scientifically based were Reading Recovery and the reading programs published by Rigby and the Wright Group. The aggressiveness with which those programs were targeted is illustrated in an e-mail exchange between the Reading First director and a staff member regarding the Wright Group, in which the director wrote:

Beat the [expletive deleted] out of them in a way that will stand up to any level of legal and [whole-language] apologist scrutiny. Hit them over and over with definitive evidence that they are not SBRR [scientifically based reading research], never have been and never will be. They are trying to crash our party and we need to beat the [expletive deleted] out of them in front of all the other would-be party crashers who are standing on the front lawn waiting to see how we welcome these dirtbags. (Office of the Inspector General, 2006, p. 24)

The lack of scientific credibility of these programs, from the perspective of Reading First, derived primarily from the judgment that they did not incorporate systematic phonics instruction in a way that reflected the findings of the NRP (2000). By contrast, most programs judged to meet the criterion of scientifically based reading research incorporated an intensive focus on sequential phonics instruction where all the major phonics rules were taught systematically and explicitly throughout the primary grades (K–3) and frequently throughout elementary school. Decodable texts were used to reinforce students' acquisition of phonics rules.

It is clear that the cautions articulated by the NRP in relation to the interpretation of systematic phonics instruction were ignored by Reading First. The report by the Office of the Inspector General (2006) makes clear that, in Reading First,

balanced reading instruction was viewed as equivalent to whole-language approaches; only intensive programs that taught phonics in a fixed sequential order were judged to be scientifically based; scripted programs involving predominantly whole-class instruction were viewed more favorably than nonscripted programs; and the incorporation of high-quality children's literature was regarded as contributing little to the scientific credibility of a program.

In the next section, I explore the extent to which Reading First may have contributed to differentiated reading instruction for low-income students.

Reinforcing the Pedagogical Divide

Differentiated educational experiences according to social class have been extensively documented (e.g., Anyon, 1980; McQuillan, 1998; Neuman & Celano, 2001; Warschauer, Knobel, & Stone, 2004). For example, based on 1992 National Assessment of Educational Progress (NAEP) data, McQuillan reported that teachers in poor states were considerably more likely than those in more affluent states to use phonics rather than whole-language instruction in teaching reading. Neuman and Celano reported that students from middle-income communities had significantly greater access to print in their schools than did students from lower income communities. Funding inequities and differential teacher qualifications and experience clearly contribute to differences in the educational experience of lower income as compared with higher-income students (e.g., Kozol, 2005; Ladson-Billings, 2006).

These existing trends appear to have been significantly reinforced by the combined impact of the high-stakes assessment mandates of NCLB legislation and the Reading First imposition of direct instruction programs on schools serving low-income students. Whereas the NCLB testing mandates were largely based on an empirically unsupported belief that extensive testing improves achievement, Reading First focused on *pedagogy*, claiming that the instructional mandates it imposed for low-income students were scientifically proven.

Although large-scale studies examining pedagogical differences between schools serving lower- and higher-income students have not been undertaken, observations from numerous educators and researchers have highlighted the impact of the pedagogical changes implemented in recent years in low-income schools. McCarty and Romero-Little (2005), for example, documented the changes in pedagogy and test performance that followed the introduction of an intensive scripted phonics program at Beautiful Mountain School (a pseudonym) on the Navajo reservation. Before the passage of NCLB, the school had implemented a Navajo bilingual, bicultural program that used a process-oriented, literature-based approach to English and Navajo reading and writing. Subject matter instruction was organized around culturally relevant themes. McCarty and Romero-Little point out that program evaluations from 1988 through the 1990s showed that Beautiful Mountain elementary students consistently improved their oral English and English reading scores, as measured by standardized tests, student portfolios, and a locally developed reading assessment. Beautiful Mountain students also significantly outperformed a comparison group on locally developed and standardized tests of English reading comprehension

and vocabulary. In addition to developing English academic skills superior to those of the comparison group, the students in the Navajo bilingual program were also strengthening their oral and literacy skills in Navajo. McCarty and Romero-Little describe the pedagogical changes and test score decline that Beautiful Mountain students experienced between 2002 and 2005:

By 2002–03, funding for the bilingual program ended and the impact of the No Child Left Behind Act was beginning to be felt. Beautiful Mountain School was labeled “underperforming” on the basis of students’ performance on English standardized tests (the Stanford 9), a classification that automatically subscribed the school to the prescriptive phonics programs mandated under NCLB’s Reading First provisions. . . . The troubling fact . . . is that there is no evidence that student achievement is improving as a result of the direct reading instruction prescribed by NCLB; to the contrary, test scores have actually *declined*. Stanford 9 reading comprehension scores for LEP [limited English proficient] students . . . were higher in 1999 than they were in 2003; non-LEP elementary students’ scores dropped by as much as 50 percent over this four-year period. . . . Sixth and eighth graders’ NCE scores on total reading dropped from 53 to 29 during this period. (pp. 6–7)

Observations from teachers and other educators also highlight the impact of the pedagogical approaches implemented in low-income schools in recent years. For example, Gensburger (2005), a California teacher, notes: “Just this week I was told that all non-adoption/non-core reading books were to be removed from my classroom—perfectly sound readers for reading-starved children that were paid for by parents, PTA, school and teachers over the years.” Jaeger (2006), another California teacher, describes the impact that the introduction of Open Court, “a scripted reading program that tells teachers what to say and do at every moment” (p. 39) has had on patterns of classroom interaction:

In kindergarten and 1st grade, teachers now taught the least meaningful aspects of literacy—letters and sounds—and postponed emphasis on meaning for nearly two years. These children faced a steady diet of so-called decodable texts (“The cat sat on the mat. The cat is fat. Where is the cat?”). Teachers presented the lessons to all students at the same time, limiting the opportunity to differentiate instruction. . . . The district shackled teachers of poor children with generally lower achievement to a curriculum that did not let them modify their teaching. Teachers in more affluent schools could enrich the curriculum to emphasize higher-level thinking and aesthetics. (p. 40)

Kozol (2007) discusses the frustration of teachers of low-income students who are “pressured to conform to teaching methods that drain every bit of joy out of the hours that their children spend with them in school” (para. 5). In the words of one first-grade teacher,

I didn’t study all these years . . . to turn black babies into mindless little robots, denied the normal breadth of learning, all the arts and sciences, all the joy in reading literary classics, all the spontaneity and power to ask interesting questions, that kids are getting in the middle-class white systems. (para. 6)

Pease-Alvarez (2006) describes the experience of her California teacher education students who observed very different instructional practices in affluent and low-income schools:

As they discussed the assignment, it also became quite evident that there was a pedagogical divide. That is, teacher education students working in classrooms and districts where European American students comprised the majority population observed that the students in their placement classrooms had access to literacy curricula that tended to be less scripted. The teachers in those classrooms utilized instructional practices that drew on the needs and interests of learners. In contrast, teacher education students assigned to student teaching placements with predominantly low-income bilingual students were working in schools and districts where teachers were required to use state adopted curriculum. In addition, because students in these classrooms did not do well on the [California Standards Tests], teachers working in these classrooms told student teachers that they were being pressured to teach in ways that contrasted markedly with the progressive and critical pedagogical approaches that teacher education students were reading about in their coursework at [the University of California, Santa Cruz]. (“Finding My Focus” section, para. 3)

The observations of Jaeger (2006) and Pease-Alvarez (2006) suggest that in states such as California, where only scripted reading programs with an intensive focus on sequential phonics are approved for use (in California’s case, The Nation’s Choice [Houghton-Mifflin] and Open Court [Science Research Associates]), these programs are implemented in a more flexible way in higher-income schools.

These accounts of differentiated instruction across social class are simply observations. Empirical research has not been carried out to document in a definitive way the extent of such differentiated instruction. Yet these accounts gain credibility from the fact that they are entirely consistent with the approaches advocated by Reading First for low-income students and incorporated into the programs that Reading First designated as scientifically based. In New York City, for example, only 49 low-achieving (and presumably low-income) schools were required to use the “scientifically based” phonics program approved by Reading First.

If low-income students were benefiting from the instructional approaches imposed by Reading First (and in some states prior to Reading First), we would expect to see gains in reading scores, particularly at the elementary school level, where Reading First funds were targeted. Unfortunately, despite the significantly increased time that many low-income students spend in reading instruction, often at the expense of subjects such as social studies, science, art, and music, and even recess (Center on Education Policy, 2007), there is little evidence that these students have benefited from the reforms instituted by Reading First and NCLB. Lee (2006), for example, analyzed NAEP trends before NCLB (1990–2001) and after NCLB (2002–2005). He found no evidence that NCLB had improved reading achievement or exerted an impact on closing the racial and socioeconomic achievement gap. Fuller, Wright, Gesicki, and Kang (2007) similarly noted that fourth-grade NAEP “test score growth has largely faded since enactment of NCLB. . . . Progress seen in the 1990s in narrowing achievement gaps has largely disappeared in the post-NCLB era” (p. 268).

It would be easy to attribute the gaps between Reading First policies and NRP findings and recommendations to the excessive zeal and pedagogical bias of individual Reading First administrators. However, there is a deeper issue here that should be of concern to the educational research community. Why was it so easy

to hijack the label *scientifically based reading research* to promote programs whose research support was limited at best? Why did policy makers and researchers largely ignore the NRP finding that, after Grade 1, systematic phonics instruction did not benefit reading comprehension among low-achieving students, the target group for Reading First funds (Shanahan, 2004)? In reflecting on these questions, it is instructive to revisit the NRP meta-analysis and to explore the kinds of scientific inferences that were made on the basis of quasi-experimental research and also those that could have been made on the basis of qualitative research. The two studies reviewed in the next section illustrate both the fragility of scientific inference in the NRP report¹ and also the failure to appreciate how qualitative studies can contribute to both theory and policy.

Scientific Inference: A Tale of Two Studies

The two studies reviewed in this section are very different. One is a quasi-experimental evaluation of a reading intervention program; the other is a longitudinal study of children's literacy development in the primary grades in a Spanish-English bilingual program. In the first, discussed earlier, Santa and Høien (1999) documented the impact of the Early Steps program (Morris, 1992) on children's reading development. In the second, Reyes (2001) documented the "spontaneous biliteracy" of four low-income working-class Mexican/Latino children in a bilingual program, two of whom were taught to read initially only in Spanish and two only in English, according to their language dominance on entry to the program. I will examine what inferences can legitimately be drawn from these two studies and how each might inform the debate about what constitutes scientifically based reading instruction for low-income students. These studies represent just two examples of the many quantitative and qualitative studies that have investigated instructional influences on the development of reading ability. Space constraints prevent a more complete analysis. However, the illustrative analysis of these studies highlights the kinds of inferences about reading instruction that can be drawn in the context of a more inclusive analytic framework than that employed by the NRP (2000).

The Santa and Høien Study

Santa and Høien (1999) reported highly significant effects of the Early Steps program for high-risk Grade 1 children on a variety of outcome measures, including reading comprehension. The study is described as follows by Ehri et al. (2001):

Santa and Høien (1999) modified the RR [Reading Recovery] format to include more systematic phonics instruction. In their study, at-risk first graders received tutoring that involved story reading, writing, and phonological skills. . . .

The control group received small-group guided-reading instruction. Students practiced reading and rereading books in 30-minute lessons but did not receive any word study activities. It is important to note that the control group here was not one that received RR unenriched by phonics. Rather it received a different form of instruction that did not involve tutoring. Results showed that the phonics word study program produced much better performance in reading than did the guided reading program, $d = 0.76$. The phonics group significantly outperformed the control group in reading comprehension ($d = 0.73$) as well as word reading

($d = 0.93$). These findings demonstrate the effectiveness of larger-unit phonics instruction added to an RR format. (p. 426)

This interpretation of the data is at variance both with Santa and Høien's interpretation and with normal scientific conventions for research design and elimination of confounding variables. The data certainly suggest that the Early Steps program was more effective than the comparison program, but there is no way that the impact of its various components can be disaggregated. Ehri et al. (2001) repeatedly describe the experimental program as a "phonics program" despite the fact that less than 20% of the intervention focused specifically on the phonics aspect of word study. This would not pose a problem for interpretation if the comparison group had received an identical intervention program except for the phonics component. The effect of phonics instruction could then be isolated from the effects of the other 80% of the intervention (comprehension-focused book reading, writing, and introduction of a new book). However, this is clearly not the case. Santa and Høien certainly do not attribute the effectiveness of Early Steps to the phonics component alone. They note that "every aspect of the Early Steps lesson undoubtedly promoted word recognition performance" (p. 70).

Another confounding variable is the fact that the experimental Early Steps group received one-on-one tutoring, whereas the comparison group received instruction in small groups of two to four students. Santa and Høien note this confound, pointing out that it is "also difficult to tease out the effects related to one-to-one tutorials" (p. 71).

In contrast to Santa and Høien's cautious and appropriate discussion of the findings, Ehri et al. (2001; see passage quoted on this page) reference the confounding variables ("It is important to note . . .") but promptly ignore their own caution by interpreting the data as unequivocal support for the positive effect of phonics instruction. The three final sentences in the same quoted passage explicitly attribute a *causal* role ("the phonics word study program produced much better performance") to the phonics instruction, ignoring completely the potential impact of the other components that constituted 80% of the intervention. Similarly, no discussion is provided regarding the confounding of one-on-one tutoring with small group instruction. Instead, the authors repeatedly attribute the effects to the impact of phonics alone.

In short, Santa and Høien's findings suggest that a balanced intervention, one that includes an explicit focus on language as an aspect of word study, combined with text comprehension strategy instruction and encouragement to read and write extensively, works better than a more unidimensional intervention consisting simply of guided reading.

The Reyes Study

Reyes's (2001) study was conducted in the context of a Spanish-English bilingual program close to a large urban center in Colorado. The program served largely low-income students, 45% of whom were of Mexican origin. Spanish and English were used as the language of instruction on alternating days. In kindergarten through Grade 2, literacy instruction was provided for students only in their primary or dominant language. The literacy development of four focal students was documented over a 4-year period from kindergarten through Grade 3. Two of the students

were taught literacy only in Spanish and two only in English through Grade 2. The students received structured phonics instruction (in English or Spanish) in kindergarten but only minimal phonics instruction in first and second grades. Reyes documented how all four students spontaneously transferred their literacy skills from the initial language to their second language without formal instruction. Their “natural, spontaneous, and uncomplicated approach to bilingualism and biliteracy” (p. 117) was supported by their interest in writing in both languages and also by their social play, where they challenged each other to read in the language in which they had received no formal reading instruction. We get some insight into the students’ learning process from Reyes’s description of the kinds of classroom interactions that contributed to their acquisition of biliteracy:

Each morning the reading block began with journal writing, followed by a free reading time. It ended with Writers’ Workshop where students were asked to respond in writing to what they had read, sharing it with the whole class under the direction of the teacher. . . . One day (in second grade) I heard Brittany and Ileana taking turns reading a bilingual book. Brittany would read the English page, and then Ileana would read the Spanish page. And, “just for fun,” as they told me, they would switch again; this time Brittany reading Spanish and Ileana reading English. As they took turns, each one would read over the other’s shoulder and help her if she got stuck. (p. 116)

Reyes points out that students’ ability to read in two languages led them to attempt writing in two languages, and she documents this writing across languages with many concrete examples.

In interpreting the spontaneous biliteracy development of the four students, Reyes emphasizes the centrality of affective dimensions related to students’ identity. She notes that the learning environment legitimated children’s bicultural identity:

There is no doubt that these students felt their languages and their culture affirmed. . . . Although each of the girls received [reading] instruction in only one language, all their learning from kindergarten to second grade took place in classrooms where the teachers supported and nurtured their cultural and linguistic resources. Each day they heard their teachers and peers use Spanish and English. Their teachers also made great efforts to treat English and Spanish as equally as possible, valuing both languages for personal, social, and academic purposes. (p. 116)

Reyes’s study contributes to scientific knowledge primarily by documenting phenomena that require explanation. The reality of the phenomena described is established by the detailed and long-term observations of the study, together with the fact that they are consistent with patterns observed in bilingual programs in countries around the world.²

The fact that students acquired literacy in a language in the absence of formal systematic phonics instruction in that language challenges two of the theoretical propositions underlying the implementation of Reading First. Specifically, the findings refute the proposition that intensive, sequential phonics instruction conducted over several years is *required* for low-income students to attain strong literacy skills in a language. Reading First policies explicitly reflected this belief, and such a belief is incorporated

at least implicitly in the reading programs it designated as scientifically based. The focal students in Reyes’s study, building on the phonics instruction they received in kindergarten, developed strong literacy skills not only in their dominant language but also in their second language. The classroom conditions under which this happened included a rich literacy environment that strongly encouraged extensive reading and writing for real audiences, together with an affective context that affirmed students’ identities as bilingual and bicultural.

Reyes’s findings also refute the more general proposition that children can learn only what has been explicitly taught. This proposition underlies the insistence, reflected in Reading First and many of the programs it promoted, that all the major phonics rules must be taught in an invariant sequence. The students in Reyes’s study were not explicitly taught decoding skills in their second language, yet they acquired those skills as a result of their motivated engagement with literacy in both languages.

In short, Reyes’s documentation of the biliteracy development of these students is just as much in the mainstream of scientific inquiry as the quasi-experimental studies considered by the NRP. In most scientific disciplines, knowledge is generated by constantly testing theory-based predictions against observed phenomena (consider, for example, climatology). Systematic observations, such as those reported by Reyes, contribute directly to the testing of hypotheses. In this case, they refute central hypotheses underlying the “scientifically based” reading instruction promoted by Reading First. It is worth noting that both the Santa and Høien (1999) and Reyes (2001) studies provide supportive evidence for a balanced approach to literacy instruction that combines explicit phonics teaching with the promotion of sustained engagement with reading and writing.

Rebalancing Literacy Instruction for Low-Income Students

Although the NRP endorsed a balanced approach to reading instruction, its meta-analysis said very little about the importance of literacy engagement. Reading First deemphasized this construct even further and actively discouraged states and school districts from adopting balanced programs that promoted active engagement with reading and writing (Office of the Inspector General, 2006). There is considerable evidence that, in contrast to systematic phonics instruction, literacy engagement is strongly related to the development of reading comprehension (Guthrie, 2004).

Thus I conclude this analysis with two modest proposals for consideration by policy makers, educators, and researchers who are engaged in reshaping Reading First and NCLB. First, funding criteria should ensure that classroom instruction for low-income students is based on empirically supported pedagogical principles that are applied equivalently in schools serving both low-income and higher-income students. An empirical and theoretical basis for these principles can be found in Bransford, Brown, and Cocking’s (2000) volume *How People Learn* and in Ladson-Billings’s (1994) concept of culturally relevant teaching. Bransford et al.’s synthesis of the research on learning highlights the centrality of students’ preexisting knowledge, the importance of deep rather than superficial cognitive processing, and the necessity for students to develop metacognitive awareness as a means of taking active control over their own learning. Ladson-

Billings emphasizes that cultural validation promotes engagement with instruction and is particularly important for students whose culture is devalued in the wider society.

Second, funding criteria should require schools to implement a balanced approach to reading instruction that would combine an explicit focus on developing awareness of how language works with strong promotion of literacy engagement. In the early stages of reading instruction the focus on language would ensure that students are developing phonological awareness and knowledge of letter-sound correspondences. At later stages, the focus would shift toward linguistic dimensions of comprehension strategies (e.g., understanding the function of cohesive devices), vocabulary knowledge, and grammatical and discourse features of language.³

The significance of active engagement with reading and writing is supported by research showing strong relationships between the development of reading comprehension and the extent to which students read (e.g., Elley, 1991; Guthrie, 2004; Krashen, 2004b; Organisation for Economic Cooperation and Development [OECD], 2004). This relationship reflects the fact that low-frequency and academic vocabulary is found almost exclusively in written text rather than in conversational interactions (Corson, 1997); therefore, students need to read to gain access to this vocabulary. Nation and Coady (1988) make the point as follows: "In general the research leaves us in little doubt about the importance of vocabulary knowledge for reading, and the value of reading as a means of increasing vocabulary" (p. 108).

Extensive reading can usefully be incorporated into the construct of literacy engagement (Guthrie, 2004; Guthrie & Alvermann, 1999). This construct, as described by Guthrie, incorporates several components, including the amount and range of reading and writing, the application of cognitive strategies for deep processing of textual meanings, and the positive affect associated with reading and writing. Drawing on both NAEP and the OECD's (2004) Program for International Student Assessment (PISA) data, Guthrie notes that students

whose family background was characterized by low income and low education, but who were highly engaged readers, substantially outscored students who came from backgrounds with higher education and higher income, but who themselves were less engaged readers. Based on a massive sample, this finding suggests the stunning conclusion that engaged reading can overcome traditional barriers to reading achievement, including gender, parental education, and income. (p. 5)

The PISA study (OECD, 2004), which included data on the reading achievement of 15-year-olds in 27 countries, led to the conclusion that "the level of a student's reading engagement is a better predictor of literacy performance than his or her socioeconomic background, indicating that cultivating a student's interest in reading can help overcome home disadvantages" (p. 8). The authors point out that "engagement in reading can be a consequence, as well as a cause, of higher reading skill, but the evidence suggests that these two factors are mutually reinforcing" (p. 8).

Although modest in scope, these evidence-based proposals have the potential to bring about significant changes in the classroom experiences and literacy development of low-income

students. Within the scope of these proposals, policy priorities would address factors that exacerbate the pedagogical divide, such as (a) inequities in funding that reduce the incentives for highly qualified teachers to work in schools serving low-income students (Kozol, 2005); (b) restricted access in these schools to books and other print materials, limiting the extent to which students can become actively engaged in reading and writing (Neuman & Celano, 2001); and (c) assessment requirements that narrow the curriculum (Center on Education Policy, 2007) and discourage teachers from implementing instructional approaches that reflect how students learn (Bransford et al., 2000). A policy focus on literacy engagement as key to sustained growth in reading and writing skills would encourage schools serving low-income students to showcase the literacy accomplishments of their students in ways that extend far beyond the scope of what standardized tests can measure. For example, school and class websites might showcase the creative writing and investigative work of students in ways that invite feedback and evaluation from policy makers, educators, and community members (see Cummins, Brown, & Sayers, 2007, for examples).

A commendable feature of NCLB is its insistence that all children have the potential to succeed academically regardless of linguistic and ethnic background or economic circumstances. Educators and policy makers can reclaim the spirit of this initiative by implementing literacy instruction that engages *all* students in rigorous academic inquiry and imaginative literary production.

NOTES

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¹A reanalysis of National Reading Panel (NRP) data, using more sophisticated meta-analysis techniques, conducted by Camilli, Vargas, and Yurecko (2003), showed an effect size for systematic phonics instruction only one half as large as that reported by the NRP.

²Confidence in the reality of the findings is increased by the fact that similar phenomena have been extensively documented in Canadian French immersion programs (e.g., Geva & Clifton, 1993; Lambert & Tucker, 1972) and in U.S. dual language programs (Lindholm-Leary, 2001). In these programs, students whose first language is English typically are introduced to reading through their second language (French in Canada and usually Spanish in the United States) but quickly transfer their reading skills to English and acquire fluent English reading skills with no systematic instruction in English phonics.

³Use of scripted lessons to support instruction can be accommodated within the scope of these two proposals under certain conditions. The scripts would need to be illustrative rather than mandatory to enable teachers to activate students' prior experience and connect the content to their cultural knowledge and intellectual curiosity. The scripts would also need to have significant gaps to accommodate discussion of texts that students have read and would need to allow teachers to provide individual guidance for students on their writing projects. Such illustrative scripts may provide useful guidance to new or inexperienced teachers, but clearly they would serve a pedagogical function very different from that of the mandatory scripts incorporated in the programs promoted by Reading First.

REFERENCES

- Allington, R. L. (2004). Setting the record straight. *Educational Leadership*, 61(6), 22–25.
- Anyon, J. (1980). Social class and the hidden curriculum of work. *Journal of Education*, 162, 7–92.
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
- Camilli, G., Vargas, S., & Yurecko, M. (2003). Teaching children to read: The fragile link between science and federal education policy. *Education Policy Analysis Archives*, 11(15). Retrieved May 4, 2005, from <http://epaa.asu.edu/epaa/v11n15>
- Carnine, D. W., Silbert, J., Kame'enui, E. J., & Tarver, S. G. (2003). *Direct instruction reading* (4th ed.). Upper Saddle River, NJ: Pearson Education.
- Center on Education Policy. (2007). *Choices, changes, and challenges: Curriculum and instruction in the NCLB era*. Retrieved August 20, 2007, from <http://www.cep-dc.org>
- Corson, D. (1997). The learning and use of academic English words. *Language Learning*, 47, 671–718.
- Cummins, J., Brown, K., & Sayers, D. (2007). *Literacy, technology, and diversity: Teaching for success in changing times*. Boston: Allyn & Bacon.
- Cunningham, P., & Hall, D. (2003). *Month-by-month phonics*. Greensboro, NC: Carson-Dellosa.
- Ehri, L. C., Nunes, S., Stahl, S., & Willows, D. (2001). Systematic phonics instruction helps students learn to read: Evidence from the National Reading Panel's meta-analysis. *Review of Educational Research*, 71, 393–447.
- Elley, W. B. (1991). Acquiring literacy in a second language: The effect of book-based programs. *Language Learning*, 41, 375–411.
- Fuller, B., Wright, J., Gesicki, K., & Kang, E. (2007). Gauging growth: How to judge No Child Left Behind? *Educational Researcher*, 36(5), 268–278.
- Garan, E. M. (2001). What does the report of the National Reading Panel really tell us about teaching phonics? *Language Arts*, 79, 61–70.
- Gensburger, A. (2005). Leaving the teacher behind. *No Child Left*, 3(2). Retrieved March 31, 2005, from <http://www.nochildleft.com/2005/feb05departing.html>
- Geva, E., & Clifton, S. (1993). The development of first and second language reading skills in early French immersion. *Canadian Modern Language Review*, 50, 646–667.
- Goodnough, A. (2003, April 5). More intensive reading program is added for struggling pupils. *New York Times*, pp. D1, D3.
- Guthrie, J. T. (2004). Teaching for literacy engagement. *Journal of Literacy Research*, 36, 1–30.
- Guthrie, J. T., & Alvermann, D. E. (Eds.). (1999). *Engaged reading: Processes, practices, and policy implications*. New York: Teachers College Press.
- Herszenhorn, D. M. (2004, January 7). For U.S. aid, city switches reading plan in 49 schools. *New York Times*. Retrieved April 23, 2006, from <http://www.nytimes.com/2004/01/07/education/07READ.html?ex=1189742400&en=09f99a689e717a74&ei=5070>
- Jaeger, E. (2006). Silencing teachers in an era of scripted reading. *Rethinking Schools*, 20(3), 39–41.
- Kozol, J. (2005). *The shame of the nation: The restoration of apartheid schooling in America*. New York: Crown.
- Kozol, J. (2007, September 10). Why I am fasting: An explanation to my friends. *Huffington Post*. Retrieved September 13, 2007, from http://www.huffingtonpost.com/jonathan-kozol/why-i-am-fasting-an-expl_b_63622.html
- Krashen, S. D. (2004a). False claims about literacy development. *Educational Leadership*, 61(6), 18–21.
- Krashen, S. D. (2004b). *The power of reading: Insights from the research*. Portsmouth, NH: Heinemann.
- Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African American children*. San Francisco: Jossey-Bass.
- Ladson-Billings, G. (2006). From the achievement gap to the education debt: Understanding achievement in U.S. schools. *Educational Researcher*, 35(7), 3–12.
- Lambert, W. E., & Tucker, G. R. (1972). *Bilingual education of children: The St. Lambert experiment*. Rowley, MA: Newbury House.
- Lee, J. (2006). *Tracking achievement gaps and assessing the impact of NCLB on the gaps: An in-depth look into national and state reading and math outcome trends*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Lindholm-Leary, K. J. (2001). *Dual language education*. Clevedon, UK: Multilingual Matters.
- Lloyd, S. (1993). *The phonics handbook*. Essex, UK: Jolly Learning.
- Lyon, G. R., & Chhabra, V. (2004). The science of reading research. *Educational Leadership*, 61(6), 12–17.
- McCarty, T. L., & Romero-Little, M. E. (2005, April). *Accountable to whom? NCLB, English-only, and Native American learners*. Paper presented at the annual meeting of the American Educational Research Association, Montréal, Canada.
- McQuillan, J. (1998). *The literacy crisis: False claims, real solutions*. Portsmouth, NH: Heinemann.
- Morris, D. (1992). *Case studies in teaching beginning readers: The Howard Street tutoring manual*. Boone, NC: Fieldstream.
- Nation, P., & Coady, J. (1988). Vocabulary and reading. In R. Carter & M. McCarthy (Eds.), *Vocabulary and language teaching* (pp. 97–110). London: Longman.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institute of Child Health and Human Development.
- Neuman, S. B., & Celano, D. (2001). Access to print in low-income and middle-income communities: An ecological study of four neighborhoods. *Reading Research Quarterly*, 36, 8–26.
- No Child Left Behind Act of 2001, Pub. L. No. 107–110 (2001).
- Office of the Inspector General. (2006). *The Reading First program's grant application process. Final inspection report* (Report No. ED-OIG/I13-F0017). Washington, DC: U.S. Department of Education.
- Organisation for Economic Cooperation and Development. (2004). *Messages from PISA 2000*. Paris: Author.
- Pease-Alvarez, L. (2006). *Negotiating pedagogy in the current policy context*. Retrieved August 30, 2007, from <http://www.cfkeep.org/html/stitch.php?s=69609704026589&id=75966125797449>
- Pressley, M., Duke, N. K., & Boling, E. C. (2004). The educational science and scientifically based instruction we need: Lessons from reading research and policy making. *Harvard Educational Review*, 74, 30–61.
- Reyes, M. L. (2001). Unleashing possibilities: Biliteracy in the primary grades. In M. L. Reyes & J. Halcón (Eds.), *The best for our children: Critical perspectives on literacy for Latino students* (pp. 96–121). New York: Teachers College Press.
- Santa, C. M., & Høien, T. (1999). An assessment of Early Steps: A program for early intervention of reading problems. *Reading Research Quarterly*, 34, 54–79.
- Shanahan, T. (2004). Critiques of the National Reading Panel report: Their implications for research, policy, and practice. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 235–265). Baltimore: Paul H. Brookes.
- U.S. Department of Education. (2006). *Reading First. Program at a glance*. Retrieved August 22, 2007, from <http://www.ed.gov/programs/readingfirst/gtepreadingfirst.pdf>

Warschauer, M., Knobel, M., & Stone, M. (2004). Technology and equity in schooling: Deconstructing the digital divide. *Educational Policy*, 18, 562–588.

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