HOW DO researchers resolve scientific controversies in the area of early reading instruction? Leafing through a 2005 *Kappan* special section on reading research, one might conclude pessimistically that even distinguished scholars are unable to agree on the scientific consensus about best practices in beginning reading instruction. Indeed, I was struck by the continued scholarly debate about the implications of the National Reading Panel Report of 2000 nearly five years after its publication and by the heated exchange between researchers about the efficacy of using decodable texts, sustained silent reading, and other instructional strategies for improving children’s reading skills. A cursory reading of these articles might suggest that the reading wars are alive and well in the 21st century.

However, I recently reached a more optimistic conclusion. In reviewing major research syntheses on reading since the publication of Jeanne Chall’s 1967 classic, *Learning to Read: The Great Debate*, I concluded that a broad consensus about effective reading instruction has evolved slowly over four decades. In this article, I describe how researchers have historically addressed controversies about reading instruction and explain why good research seems to have a delayed and limited impact on reading policy and practice. To conclude, I offer ideas for accelerating the communication of research to practitioners and empowering teachers to establish norms of excellent practice.

RESEARCH AND EARLY READING INSTRUCTION

In *Learning to Read: The Great Debate*, Jeanne Chall captured the essence of the reading wars. She noted that the many controversies about reading instruction in first grade boiled down to one question: “Do children learn better with a beginning method that stresses meaning or with one that stresses learning the code?”

In her synthesis of experimental studies conducted during the 20th century, Chall found that an early code emphasis produced better outcomes in word recognition in the early grades and helped children read with better comprehension up to fourth grade than did instructional practices in which children were taught to read whole words and whole sentences.

Following the publication of Chall’s findings, Ken-
neth Goodman argued that reading was a “psycholinguistic guessing game.” In other words, good readers used context clues and background knowledge to predict, confirm, and guess at the identification of new words. Reading scholars Timothy Shanahan and Susan Neuman noted that Goodman’s study on oral reading miscues shaped the whole-language movement. Eventually, Goodman and his colleagues also influenced practice by challenging “phonics drills, word lists, and other skills-based approaches that take words out of context.”

In the 1970s and 1980s, the novel psycholinguistic theory of reading sparked the interest of cognitive psychologists seeking to understand the processes underlying skillful and fluent reading. Some researchers used eye movement technology to see if children skipped letters and words while reading text; others began to conduct experiments to understand whether context facilitated or impeded word recognition. Cognitive psychologist Keith Stanovich points out that the accumulation of research findings from the 1970s to the 1990s led to a “Grand Synthesis” of the processes underlying skillful reading. In Toward a Literacy Society, a 1975 publication sponsored by the National Institute of Education (NIE), Chall argued that neither phonics nor sight-word approaches were sufficient to help children become skilled readers. Instead, she reminded educators and the general public that an inflexible approach “may fail with a child if in the long run it plays down either of these aspects of learning to read. What is important is a proper balance between them.” A second NIE publication in 1985, Becoming a Nation of Readers, encouraged researchers to undertake multidisciplinary studies of reading, to examine the efficacy of diverse approaches to instruction, and to extend inquiry beyond decoding and early literacy instruction. One federal policy maker noted that the 1985 NIE report “shifted the entire agenda for research” by encouraging scholars to have a broader focus on reading comprehension and language development.

By the late 1990s, there was a sufficiently large body of basic research findings to forge a scientific consensus over the processes underlying skillful reading and the instructional practices that facilitated reading competence. In 1998 the National Reading Council (NRC) issued Preventing Reading Difficulties in Young Children, which recognized convergent findings from diverse scientific disciplines and provided an intellectual foundation on which to base evidence-based reading instruction. The editors of the NRC report noted that the consensus about how early reading developed and how instruction facilitated reading ability was “not difficult to reach.” In the preface, they underscored that teachers should “integrate attention to the alphabetic principle with attention to the construction of meaning and opportunities to develop fluency.”

Like previous reports by expert panels, the NRC report offered a new way of thinking about effective reading instruction and concluded that “research toward increasing the efficacy of classroom reading instruction in kindergarten and the primary grades should be the number one funding priority.” The National Reading Panel (NRP) report of 2000 focused squarely on the question of efficacy by reviewing empirical studies on different instructional strategies. The NRP’s review of nearly three decades of research indicated that children needed to apply letter/sound relationships to decode new words, to develop fluency through guided oral reading activities, and to use multiple strategies to improve their reading comprehension.

The findings of the NRP report directly influenced the goals of the Reading First portion of the No Child Left Behind Act, which requires eligible Title I schools to adopt scientifically based research practices in five areas of reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The five pillars of good reading instruction have encouraged practitioners to focus on a broad set of instructional strategies and reading outcomes. As Peggy McCarrdle and Vinita Chhabra noted in their 2005 Kappan article, the five pillars of scientifically based reading instruction should replace the “artificial dichotomy” between phonics and whole language. According to McCarrdle and Chhabra, the best science in reading suggests that “students need an integrated approach that includes instruction in all of these five key areas.”

**Virtually every major synthesis on reading rejected the simple dualism between phonics and whole language and encouraged instruction that focused on helping children master the alphabetic principle and acquire meaning from text.**

**LESSONS LEARNED FROM THE READING WARS**

With the benefit of hindsight, we can learn several lessons about the influence of scholarship on reading
policy. First, researchers contributed to the debate about reading instruction by raising new questions, reframing issues, and articulating new definitions. Virtually every major synthesis on reading rejected the simple dualism between phonics and whole language and encouraged instruction that focused on helping children master the alphabetic principle and acquire meaning from text. In many ways, the key contribution of research to debates about early reading instruction lies not in a particular empirical finding but in a new grammar of schooling that redefines and broadens definitions of good and effective teaching.

Second, attempts to end the reading wars have typically relied on retrospective interpretations of existing research. For example, the NRP report applied selection criteria for reviewing only experimental and quasi-experimental studies published in peer-reviewed journals. Such explicit selection criteria imposed order on a morass of findings that had accumulated over three decades. However, critics of the NRP argued that the panel selectively excluded rigorous studies that might have altered some findings. Although the NRP found few experiments that examined whether encouraging children to read improved reading comprehension, Stephen Krashen and other scholars have suggested that the inclusion of a broader set of studies would have shown the positive impact of free reading activities on reading achievement. Making sense of a body of research as large and diverse as that associated with elementary reading instruction is a difficult task, and scholars from diverse disciplinary backgrounds are likely to place greater weight on different types of methodologies, studies, and results.

Prospective studies, however, would require adversaries to agree on basic design issues and research questions before conducting the study and before disseminating the findings. A 2001 article in Psychological Science provided an example of "adversarial collaboration," a formal protocol for adjudicating disputes between scholars and disseminating findings quickly to avoid controversy. The procedure requires antagonists to collaborate on a prospective study and agree on an arbiter who imposes the rules of engagement over the entire process. The arbiter helps adversaries decide on the design of the experiment, controls the data, determines the final venue for publication, and can even declare in the final publication if an uncooperative participant failed to comply with the agreed-upon protocol. One goal of adversarial collaboration is to speed up the dissemination of evidence that can potentially change the minds of skeptics. As James Cunningham has argued in his critique of the NRP report, "best science has the power to change the thinking of those who previously disagreed with its conclusions but who are fair-minded enough to admit they were wrong once the case has been made." Ideally, encouraging adversaries to collaborate on prospective studies would accelerate the resolution of conflicts in the research community and provide more timely and relevant recommendations for educators.

Third, expert panels on reading research have had a conspicuous absence of teachers and a preponderance of university researchers. Without being represented on these expert panels, teachers and their allies have frequently argued that external mandates by federal lawmakers and university researchers threaten the professional autonomy of K-12 teachers. Convening professionally eclectic panels on reading, however, might give more teachers power to influence policy.

The use of a professionally balanced consensus panel can be seen in the United Kingdom’s response to a perceived literacy crisis in the late 1990s. When faced with the challenge of improving reading achievement in underperforming schools, leaders in the Labour Party formed a Literacy Task Force to review the research on teaching reading. One-half of the members of the task force were teachers, and none of the members of the task force had a national reputation for scholarship or for academic expertise in teaching reading.

Two important consequences flowed from the U.K.’s decision to include an even mix of teachers and non-teachers on the Literacy Task Force. First, the task force recommended a “literacy hour” that prescribed instruction on word-, sentence-, and text-level comprehension skills, and these recommendations were richly
informed by actual observations of classroom instruction. The need for a mandatory literacy hour was prompted by inspections of classroom instruction in high-poverty schools, which revealed too much free reading time, too little teacher intervention, and insufficient attention to the teaching of phonics. Second, using a consensus panel with an equal number of teachers and researchers broadened the scope of research that informed national policy. The Literacy Task Force recommended improving reading instruction by incorporating what was a gold standard of “evidence from survey, experimental, and observational research; analyses and discussions from literary scholarship; and reports from curriculum development projects in school inspections.”

The Literacy Task Force provided a voice to classroom teachers in setting national policy.

Speeding up the process whereby scientific controversies are resolved and giving classroom teachers more power to set policy are two simple strategies for making research more relevant to educators. To date, however, such strategies have been largely missing from our ongoing efforts to resolve debates in reading. As our nation faces new challenges in ensuring universal literacy for all children, my hope is that the research community will provide answers more quickly, that academic adversaries will agree to collaborate on prospective studies of reading instruction, and that expert teachers will participate in policy-making bodies. If these things happen, I am optimistic that we will be able to establish norms of excellent practice rooted in scientific research and governed by a community of peers. Ultimately, teachers must have access to truth and power if they are to create professional norms that nurture effective instruction and support efforts to help children become proficient readers.

6. Ibid., p. 15.
10. Ibid., p. 343.
14. Barbara Mellers, Ralph Hertwig, and Daniel Kahneman, "Do Frequency Representations Eliminate Conjunction Effects? An Exercise in Adversarial Collaboration," Psychological Science, July 2001, pp. 269-75. This paper was received on 26 July 2000 and accepted for publication on 25 August, an extraordinarily fast review process for a peer-reviewed journal.