



Conversations: Literacy Research That Makes a Difference

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Reading Research Quarterly, Vol. 32, No. 2 (Apr. - May - Jun., 1997), 202-210.

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Literacy research that makes a difference

In 1961, David H. Russell published an article entitled, "Reading Research that Makes a Difference." In it, he chronicled 10 studies that he claimed had significantly influenced the "curriculum in reading and related areas" (p. 74). He also explained why these studies had been significant. Later, Harry Singer (1970, 1976) published two rejoinders to this article. He neither challenged Russell's original premise—that research could or should influence teaching—nor argued with the specific choices of studies. Instead, he challenged Russell's explanation of why some studies mattered. He presented two lists in support of his position: influential studies that misdirected practice, and positive studies that, though they met Russell's criteria, failed to have any discernible sway.

As we write this article, 35 years after Russell's, more than 50,000 new studies on literacy have appeared. Which studies have changed how we teach literacy? What are the fundamental characteristics of studies that make a difference? At the invitation of the Editors of *Reading Research Quarterly*, we have carried on a stimulating, and at times contentious, conversation exploring these issues. Here, we will propose a list of studies that have influenced instructional practice and consider the role of research in instruction.

How we worked

We have never written together before, though we have served together on professional committees and have become friends during the past few years. We share a deep and abiding interest in family literacy and in the

literacy learning of poor children. Susan is interested, also, in preschool development, how children's play supports learning, and the role of media—particularly television—in literacy learning. Tim's other research interests include beginning reading development, the connections between learning to read and write, and the use of classroom assessment to inform teachers' decisions.

We live and work in different regions of the U.S. so we carried on our conversation over electronic mail. Sometimes we exchanged several notes in a single day, a brief sustained conversation of a specific point. Often a single note would be sent one day with a response the next, while at other times there were long delays. In all, we exchanged more than 80 e-mail notes, some several pages long. We often disagreed about which studies mattered or even as to what should count as a study.

The discussion of the practical influence of research has been too rare in the public discourse of our field, such topics usually being relegated to the safety of graduate seminars. This is unfortunate as such discussion, we found, requires nothing less than a construction of the state of the field: power and authority, the current state of practice, the nature and source of knowledge, and even whether education is improving or declining. These issues are entailed in the imaginative narrative history of the changing classroom that each of us conjures. We believe that open discussion of these issues can expose and correct bias and illogic in our perceptions of the status of our field.

Lest readers think this to be overstated, consider one recent example from public discussions of reading achievement. Such discussions have often been based

on the premise that reading instruction has changed, and that, consequently, reading achievement has declined. As a result, more than a dozen U.S. states are exploring legislation to better regulate reading instruction, despite the fact that national achievement data do not support an achievement decline.

Although we often disagreed, the quality of discussion was high, and mutual respect was always evident. No matter how formidable the disagreement, we always assumed the possibility of persuasion through information and logic. We sometimes found to our consternation that our conversational partner wasn't the one who lacked sufficient knowledge on a particular point. We strove to agree on a single list of studies rather than to argue for two separate, personal lists, as we hoped that this approach would make it easier for others to join the conversation.

Our first task was actually the most difficult: how to define *influence*. Citation rates, we agreed, were an inadequate measure. Although they give us some idea of *impact*, they tend to reflect interest rather than importance. Tim noted the example of cloze—among the hottest research topics during the 1950s through the 1970s. Yet neither Russell nor Singer even mention cloze. Why not? “Might have been that it was a well-researched topic, but not particularly important,” Tim said.

Further, rather than one study, “isn't it a body of work, like schema theory, that really makes an influence on practice?” Susan wondered. “The body of work idea is one that we need to think about,” Tim said. “We could highlight two or three studies in a section.” Returning again to Russell and Singer's efforts, however, we decided to “bite the bullet.” Tim suggested, “Let's point to the important work done by various people in an area, but select and highlight one that stands out and explain why. If we don't point to single studies no one can argue with us, and that goes against the real idea of the article.”

Likewise, we chose to consider empirical studies only; that is, investigations in which the researcher collected or analyzed data. There are many integrative literature reviews, theoretical treatises, and practical recommendations available concerning literacy education. As valuable as these are, they are not primary research and, thus, were not considered. This approach required the omission of influential literature reviews such as Chall's (1967) and Adams's (1990) analyses of phonics, Hiebert's (1983) review on ability grouping, Stanovich's (1986) on phonological awareness, Hillocks's (1986) on composition instruction, and some reviews in the *Handbook of Reading Research* (Barr, Kamil, Mosenthal, & Pearson, 1991; Pearson, 1984). These syntheses used research to suggest valuable directions for instruction. However, Russell's original purpose was to show how particular

empirical studies altered practice, and we stayed true to this despite our own misgivings. Moreover, we see it as a sign of the growing sophistication of the field that accumulations of studies have become so influential.

We limited ourselves to those works published since Russell's article appeared. And, of course, there was the recency effect. “Doesn't it take time to have influence?” Susan asked. “No question about it,” Tim said. “Work done in the 1960s has a greater chance of having a stronger impact than something done in the 1990s.” But given our contrary nature and reluctance to neglect newer work, we agreed to “not hesitate to make a mistake.”

Finally, we broadened Russell's criteria to reflect the important conceptual changes that have taken place within the field. We have considered *literacy* research as opposed to reading research. Thus, work on writing and spelling, for instance, could be considered. We also did not limit ourselves to elementary and secondary school considerations. Russell noted with great satisfaction that reading research had expanded the scope of reading instruction into high school. The broader enfranchisement for literacy teaching has continued since then and now includes preschoolers and adults. These changes are reflected in our selections.

Our first approach was straightforward. We proposed studies, traded lists, and added more studies. We were not yet attempting to make our cases, so these proposals were made without explanation or challenge. As we discussed the relative merits of these, however, it became apparent that we were on the wrong track. For example, studies like Heath's (1983) *Ways with Words* or Scribner and Cole's (1981) *The Psychology of Literacy* powerfully influenced cultural theory and methodology. Susan argued that Heath popularized ethnography as a research strategy. “If you look at the *NRC (National Reading Conference) Yearbook*, it is amazing how many ethnographic or qualitative studies there are in comparison to good ol' quantitative studies. These methodological changes essentially led to a broadened definition of what literate behavior might be.” Tim responded, “You raise some interesting issues, but I think you are ranging too wide. The issue that we are revisiting is research that has made a difference to practice. Many of the studies that we have been discussing have been important in changing our research conceptions, but have they had any practical significance? We've got to stick to what made a difference in classroom practice: who is taught, what is taught, and how it is taught.”

Practical influence had to be the hallmark for inclusion. We did not consider quality, value, citation rate, or any other way of appraising research. We agreed that our list should not reveal much about changes we hope will take place or about current practices that we abhor.

Our task would have been easier if we could have focused on our favorite studies, model research, or those that have influenced our own thinking. Russell established this standard, but he failed to honor it entirely. Curiously, some of the studies that he proposed had not influenced practice, even in his own opinion. In his article, Russell included Nila Banton Smith's chronicle of U.S. reading instruction "as an example of the historical method of research" (1956, p. 75), and a study by William S. Gray "not because its impact has yet been great, but because it points the way to important future developments" (1934, p. 77). We tried to avoid such inconsistency. However, by thinking "from studies to practice," we were neglecting many important changes that had taken place in literacy instruction.

We began to think more about how literacy instruction has changed. Fortunately, Austin and Morrison's survey, *The First R* (1963), provides a useful baseline description of classroom practices at that time. Our perceptions of current practices, however, were still often in disagreement. Each of us is a prisoner of experience, and instructional practices can differ by grade level, socioeconomic status, recency of teacher education, district policies, and even regional concerns. The status of reading achievement has been monitored for decades, but instruction has not. The most recent national examinations of classroom instructional practice are Applebee's (1993) analysis of secondary literature instruction, and the National Assessment of Educational Progress's (NAEP) descriptions of classroom practice (Mullis, Campbell, & Farstrup, 1993). Unfortunately, the NAEP information is sketchy, and Applebee's considers only one area of instruction. Thus, there is little normative empirical data about classroom practices against which to test our own perceptions.

How has literacy instruction changed?

We, nevertheless, constructed our own shared personal portrait of the changes that have taken place in literacy instruction since the early 1960s. This rather impressionistic sketch became the basis for additional brainstorming of potential studies, and it guided our final selection. The major features of that sketch are as follows:

Literacy is taught both earlier (kindergarten and preschool) and later (adult literacy) than before. Readiness activities once so ubiquitous in kindergartens and the first half of first grade have generally disappeared and have been replaced with reading instruction. Ability grouping has probably declined, especially in the primary grades where it had been so popular. Remedial reading in the U.S. grew dramatically through Chapter/Title I programs since the mid 1960s, but these

have begun to be supplanted or supplemented with early interventions such as Reading Recovery.

Elementary instruction became increasingly eclectic, but the past decade witnessed the rise of a new factionalism with regard to instructional methods. Phonemic awareness, fluency instruction, and the use of invented spelling have all become part of the literacy curriculum. Self-selected reading in elementary classrooms is more likely to take place now. Worksheets became popular, though we discern some recent decline in their use. Management systems, in which collections of discrete skills are tested and taught, appeared, gained wide use, and have largely disappeared again. The minilesson and the literacy club have emerged as popular instructional activities.

The books used to teach elementary literacy have changed rather dramatically in content and style. Such books, whether referred to as basals or literary anthologies, are probably used less now than even a decade ago. Initially, basal stories were written specifically to be used for teaching reading. Later, these were replaced with adaptations of more widely known trade books. More recently, the mainstay of textbooks has been non-adapted original trade book selections, though publishers continue to alter the graphic aspects of these. Reading textbooks no longer use careful vocabulary controls; these have been replaced by a predictable or patterned style of writing in the beginning levels. These changes have elevated the quality of what children read but might be making it more difficult to teach and learn reading. Textbooks and trade books have become more reflective of diversity in the U.S., so minority children in 1996 read stories more reflective of their racial and ethnic heritages. Textbook use may be down, but the growth of trade book availability, both in and out of schools, has been remarkable, and this growth is reflected in the expansion of children's book clubs and bookstores. Readability controls are used less often than before in reading textbooks. This shift is particularly intriguing as such controls became commonplace around the time of Russell's article, and he praised them as an important advance.

Elementary writing instruction, after decades of neglect, has become the norm in U.S. schools. Children, even those in kindergarten, now usually receive some writing instruction. Preservice and inservice teachers learn more about the teaching of writing than in 1961, and the writing achievement of their elementary and secondary students will probably be tested now. Textbooks of all kinds now stress the value of writing activities and instruction.

There is more instruction devoted to reading comprehension than before, and certainly such instruction is

more varied than when its scope was governed mainly by the questions to be asked. Ideas like strategic comprehension and metacognition have become widespread since the mid 1970s—though still probably not the norm—and related instructional practices like ReQuest, DRTA (Directed Reading-Thinking Activity), mapping, story structure summaries, and other related techniques have greatly expanded the instructional repertoires of many teachers.

Teachers are more likely to use informal assessments such as portfolios, and student achievement now is widely and publicly evaluated with large-scale assessment tests. Parents in the 1990s receive more encouragement to help their children with academic work. Different kinds of literacy are now recognized—at least beyond the K-12 curricula—through family literacy and workplace literacy programs. The canon certainly remains, but it has broadened a bit to include more recently published pieces, especially those by women or racial/ethnic minorities. Inclusion of such authors is evident in elementary materials as well. Media and technology, still limited in most schools, are far beyond what was available in 1961. The focus of technology in literacy instruction seems to have changed, too, from machines that teach reading to teaching children to use literacy with various technological tools (word processors, CD-ROM reference materials, hypercards, Internet). Teachers are better educated with regard to reading, literature, and writing, and teacher research has grown.

This brief sketch became the basis for considering a wider range of studies in our conversation. For some changes, it was easy to select an appropriate influential investigation, while others did not seem to develop directly from research findings.

The role of research in instructional change

In fact, many changes that have occurred in literacy instruction have been due less to research than other factors. Worksheet use in reading is a case in point. We could find no research antecedent to this. It occurred more because of the development of the photocopier and decline of bulk paper prices than because of research. Similarly, many of the changes noted in large-scale assessment or textbook design have been due to economic, political, and social factors. This is not to say that research has not been used to develop such measures or that these tests have not been used to generate worthwhile data. The point is simply that large-scale assessments are not used *because* some influential research study found this to be helpful. Accountability is a politi-

cal issue, not an educational one, and this has driven the expanded use of large-scale assessments. Similarly, the growth in availability of children's trade books has been fueled more by demographic and economic changes outside of school than by school actions instigated by research.

Research does play a role in educational change, but it might be more like the view of history implied by Singer than by Russell. Russell apparently subscribed to so-called "Great Man" theories of history (or, in this case, a "great study" theory). According to such views, history is determined by the actions of a particularly forceful individual. For Russell, simply designed, well-written, utilitarian studies are influential by dint of their quality, utility, and simplicity. Singer made it clear that more is going on here than just well-executed research. The features of research highlighted by Russell are more important than the methodology used, but possibly no study will have much impact if it does not match the *Zeitgeist*. Certainly, it is rare that research sets or reverses major practical trends in education. The idea is not that studies are just material objects in space with no force, but that this force is necessarily mediated by other, possibly more fundamental, forces.

In both Russell and Singer, there is a strong sense that research can and should influence instructional practice. Certainly, such views are held by many researchers and policymakers. Our view is more conflicted. We hope our studies will influence practice, but we recognize the real limits on the applicability of most findings. Research is complicated, and the results of a single study can be woefully wrong and misleading. Attempts to apply research too quickly can do harm. Also, as valuable as research can be, there are important epistemological, social, and economic forces at work in determining the nature of instruction in schools and how research is used.

Our previous examples of economic and social forces should suffice, though the value of teacher autonomy and professionalism deserves note. How research findings are applied must be determined, in part, by the professional who has to apply them. Views of research as *the* determining factor in educational history supposes a hierarchical field in which researchers, at the top of the pyramid, make decisions about how teachers, lower in status, will conduct their work. Teaching is difficult, and research is only one source of information used along with teacher lore, community values, and experience (Shanahan, 1994).

Research findings should be viewed as a powerful, but partial, form of rhetoric. The idea that any study can provide sufficient perspective on which to determine practice is naive. Research is one of our most useful

A chronological list of the 13 most influential literacy studies since 1961

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- Goodman, K.S. (1965). A linguistic study of cues and miscues in reading. *Elementary English*, 42, 639-643.
- Durkin, D. (1966). *Children who read early*. New York: Teachers College Press.
- Bond, G.L., & Dykstra, R. (1967). The cooperative research program in first-grade reading instruction. *Reading Research Quarterly*, 2, 5-142.
- Children's Television Workshop. (1969). *Sesame Street*. New York: Public Broadcasting System.
- Freire, P. (1970). *Pedagogy of the oppressed* (Trans. M.B. Ramos). New York: Herder & Herder.
- Read, C. (1971). Preschool children's knowledge of English phonology. *Harvard Educational Review*, 41, 1-34.
- Sticht, T.G., Caylor, J.S., Kern, R.P., & Fox, L.C. (1972). Project REALISTIC: Determination of adult functional literacy skill levels. *Reading Research Quarterly*, 7, 424-465.
- Pichert, J.W., & Anderson, R.C. (1977). Taking different perspectives on a story. *Journal of Educational Psychology*, 69, 309-315.
- Stein, N.L., & Glenn, C.G. (1977). An analysis of story comprehension in elementary school children. In R. Freedle (Ed.), *New directions in discourse processing: Vol. 2. Advances in discourse processing* (pp. 53-120). Norwood, NJ: Ablex.
- Durkin, D. (1978-79). What classroom observations reveal about reading-comprehension instruction. *Reading Research Quarterly*, 14, 481-533.
- Clay, M.M. (1979, 1985). *The early detection of reading difficulties*. Auckland, New Zealand: Heinemann.
- Graves, D.H. (1981). *A case study observing the development of primary children's composing, spelling, and motor behaviors during the writing process*. Final report. NIE Grant No. G-78-0174. Durham, NH: University of New Hampshire. (ERIC Document Reproduction Service No. 218 653)
- Atwell, N. (1987). *In the middle*. Portsmouth, NH: Boynton/Cook, Heinemann.
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tools for constructing knowledge. However, a basic part of the research process is to conduct multiple studies of the same phenomenon using different conceptualizations of the problem, samples of participants, measures of success, and so on. Practitioners and policymakers are frustrated by the messiness of this process, as it often leads to conflicting results. However, research discourse through which such differences are analyzed, argued over, and, eventually, understood is a major part of what research brings to practice. To us, the determinants should not be individual studies, but the accumulation of knowledge across lines of research.

Educational research can be thought of as a process that develops transportable technologies that can be applied easily and homogeneously. Alternatively, it can be seen as a reasoning process in which empirical data are used to help formulate more useful conceptualizations of the world. Though we have disagreed about the premises underlying these fundamental notions, we both are aware that individual studies influence practice, and we both hope for an application process that would be considered, deliberate, and reliant on larger collections of studies.

The studies that have influenced practice

By these different approaches we actively considered about 40 studies. We narrowed the field, from there, by logical discussion. In a number of cases, the process was easy, and one interchange sufficed. Other

times we argued. Which studies have influenced practice the most? Russell proposed a top 10, but our conversations led us to what we hope is a "thoughtful 13." Although a top 10 list would have been more consistent with Russell's original plan, we allowed the list to grow a bit longer as we were reviewing a larger and more varied corpus of studies that had been produced over a shorter period of time. Descriptions of the 13 most influential studies since 1961 follow and appear chronologically in the accompanying list.

Most research usually ends up as a paper or book, but in the case of our first selection the research culminated in an ongoing television program for children. Now more than a quarter of a century old, *Sesame Street* (Children's Television Workshop, 1969), the educational and entertainment program for preschoolers, is an exemplar of a successful research experiment: the collaboration of educational advisors and professional researchers with TV production. Susan had to argue strenuously for this one. "But is it research?" Tim had challenged. Her response, and, indeed, the history of the project, proved persuasive. "Research usually ends up as a paper or book, but here the 'treatment' and the 'effect' is actually a TV show for children." From its inception—under the brilliant leadership of Joan Ganz Cooney along with her colleagues, Director of Research Ed Palmer and Chairperson of the Board of Advisors Gerry Lesser—the show was designed as an experimental research project. Together, this team refined child watching to an art form. Prior to broadcasting, researchers estimated what children knew about a topic; program materials were

created and tested on target audiences for appeal, comprehensibility, and educational value; researchers then reported back to producers who modified or discarded materials based on these continuous reports from the field. This approach proved highly beneficial for the beginning literacy development of Sesame Street viewers as revealed in summative analysis (Ball & Bogatz, 1970) and led to the creation of a new model for **educational television production**. This innovative experiment proved beyond doubt, the potential of television as an educational asset in the lives of young children. As a result of Sesame Street, beginning reading curricula in schools began to assume greater literacy knowledge among young children.

No study has so successfully influenced remedial reading instruction as Marie Clay's *Reading Recovery* program, described in her book, *The Early Detection of Reading Difficulties* (1979, 1985). In a series of studies conducted over a 5-year period, Clay examined the effects of her innovative **one-on-one tutorial program to intervene early in reading failure**. Up to then, remediation was usually delayed until students were in the fourth grade, as it was assumed that they might catch up on their own. Clay intervened, often successfully, after only 1 year of instruction. Unlike traditional remedial programs, Clay emphasized instruction in the context of real reading, observation as a key assessment technique, high-quality teacher education as a fundamental part of the intervention, and individualized instruction that would raise student achievement to the average level of class performance. The program began in New Zealand but rapidly spread to Australia, England, Canada, and the United States.

Another influential study of early literacy learning was conducted by Charles Read (1971). Read studied how young children understood the phonemic aspects of English as related to the spelling system. His analysis of the attempted spellings of preschool children showed that they were able to use their tacit knowledge of phonological relations and could make sense of highly abstract principles of spelling even without formal instruction. Initially, this work exerted little impact on instruction as it was assumed that Read's subjects were particularly gifted. However, work by Carol Chomsky (1971) and Ed Henderson and his students at the University of Virginia (Henderson & Beers, 1980) showed the relevance of Read's findings to more typical school settings. As a result, we no longer assume that children enter school with little knowledge of the phonological-orthographic features of language, and **invented spelling** has become a popular instructional activity that allows earlier writing and provides children a venue to explore the orthography of their language.

Paulo Freire's (1970) concept of literacy for liberation, beautifully articulated in *Pedagogy of the Oppressed*, is another highly influential study. Working with Brazilian peasants, Freire recognized that literacy was not merely a technical skill, but one that was rooted in the histories, cultures, and day-to-day experiences of learners. His notion of **emancipatory literacy** argued against a *banking* concept of education in which teachers simply deposited information into learners. In its place, he successfully tried a *problem-posing education* in which ideas take shape and change as the learners critically think about their lives and the conditions of state and society. For Freire, literacy was essentially a political act in which individuals assert their rights and responsibilities not only to read, but also to restructure their relationship with society. His work has had a transforming influence in adult literacy education. Today, programs using a Freirian approach focus on collaborative relationships among learners and teachers and involve participants in curriculum development that is centered on their own characteristics, aspirations, backgrounds, and needs.

Another influential study in adult literacy is Tom Sticht's work on literacy in work training and job performance (Sticht, Caylor, Kern, & Fox, 1972). Working with military personnel, he developed an innovative approach that continues to influence **workplace literacy**. He reasoned that effective reading strategies could be taught using job-related materials so that students would learn both skills and the technical content of the job. He based his approach on a functional-context principle—that new knowledge must build on old knowledge, and that literacy instruction could be made more meaningful by using *real life* situations, tasks, and materials. Intertwining transferable processing skills and situation-specific job and career knowledge, his research on functional contexts for literacy and technical training evolved into the concept of workplace literacy used in industry training programs across the U.S. This approach has been extended conceptually into other functional approaches such as family literacy and health literacy.

One of the most ambitious ventures in reading research, the U.S. Cooperative First-Grade Studies, remains a classic in research collaboration as well as literacy education. Written by Guy Bond and Robert Dykstra (1967), the study represented a compilation of data from 27 individual studies examining the effects of instructional approaches on beginning reading and spelling achievement. The study was set up by Donald Durrell, and the list of project directors reads like a Who's Who of Reading Research (Jeanne Chall, Donald L. Cleland, Edward B. Fry, Albert J. Harris, Arthur W. Heilman, Thomas D. Horn, John C. Manning, Helen Murphy, Olive

S. Niles, Robert B. Ruddell, William D. Sheldon, George D. Spache, Russell G. Stauffer, and others). Programs studied included phonics, linguistic readers, basals, initial teaching alphabet, individualized reading, the language experience approach, and various grouping schemes and combinations of instruction. These studies found that no instructional method was superior to the others for students at either high or low levels of readiness. Susan was troubled by this choice, as she felt that much of its influence was based upon false warrants—it had not actually found that teachers made a difference, only that instructional method had not. Tim was able to win the argument by noting that this study did more than highlight “teacher effects”; it also demonstrated that although no single method proved best, combinations of methods were associated with the highest achievement. In other words, it encouraged greater **methodological eclecticism** in elementary instruction than had previously existed. Although no study has successfully challenged these basic findings, eclecticism has been under renewed attack recently. Increasingly rancorous arguments about the superiority of various instructional approaches are evident, and some members of the research community have again become involved in the search for best method. An enduring legacy of this study has been a greater focus on teacher and learning situation characteristics rather than on methods and materials.

The next two classic studies, both conducted by Dolores Durkin, have powerfully influenced reading instruction. Recognizing the incongruity between what early precocious readers knew and what first-grade programs offered, Durkin’s studies of *Children Who Read Early* (1966) raised questions about reading readiness. Both of us thought this belonged on the list, but we were concerned that the findings of the study did not line up with the outcome we have attributed to it. Durkin conducted longitudinal studies of precocious readers in California and New York and reported findings that challenged the prevailing view that early readers would suffer problems in school. She found quite the opposite. Early readers maintained their achievement lead. Children who read early typically showed early interest in reading, were read to regularly by parents or siblings, and their parents believed themselves to be their young children’s teachers. Although in this study Durkin did not show benefits of earlier school instruction—she hadn’t even studied that—she did show that children could learn to read successfully without delay, and this was a critical reason for the eventual **demise of reading readiness programs**. More than any other study, this highlighted the role of parents in literacy learning and set the stage for later emergent literacy views.

Durkin (1978–79) also helped to focus needed attention on reading comprehension. Relatively little work on reading comprehension was done until the 1970s. Durkin, on the basis of a carefully conducted observational study that examined classrooms under nearly ideal conditions, concluded that virtually no reading comprehension instruction was taking place in U.S. classrooms. Her findings indicated that most comprehension instruction took the form of questioning students about what they had read. Durkin’s unflattering portrait of instructional neglect set off a series of efforts in research, material development, and teacher training. After Durkin’s stark portrait of **reading comprehension instruction** appeared, it became increasingly difficult to ignore this critical area of concern.

This was not the only major influence on reading comprehension instruction, however. Pichert and Anderson (1977) demonstrated convincingly that a reader’s perspective influences comprehension and recall. Although they worked from a framework first proposed by Bartlett in 1932, and other notable researchers were conducting similar studies (such as John Bransford’s fine work), this study was particularly persuasive because of its ingenious design. They asked participants to read a complete story from one of two perspectives, that of a home buyer or a thief, and found that these pretend perspectives affected what was remembered. This study became a cornerstone in the literature on schema theory and led to a **greater emphasis on instructional techniques that activate prior knowledge** as part of the comprehension process.

Cognitive psychologists wondered what makes a story a story, and how people remember and create narratives; the idea of **story grammar** emerged from this work. A story grammar is a set of tacit rules that determines the essential parts or structures of a story and how these parts relate. Researchers such as Mandler and Johnson (1977) and Stein and Glenn (1977) developed story construction rules, on the basis of analyses of children’s recall of story elements and experiments that showed what readers do when particular elements are omitted or disorganized. This was a difficult choice. Susan pointed out that Mandler and Johnson seemed to be cited most often by researchers, but Tim suggested that “if you look at teacher journals, basals, or magazines, they propose activities that are more like the Stein and Glenn’s categories.” Thus, though both grammars have been widely used by the research community, we think Stein and Glenn’s work has been more directly influential on instructional practice. Their grammar, probably as a result of its simpler categories and more parsimonious description of relationships, has become the basis of a number of story mapping and summarizing

techniques that are now a mainstay of narrative instruction in U.S. schools.

Before Donald Graves's research (1981), elementary writing, if taught at all, was dominated by grammar, spelling, and usage. Influenced by Donald Murray, Graves, along with his students Lucy Calkins, Mary Ellen Giacobbe, and Susan Sowers, carefully observed what children did within the writing process. Graves's thoughtful instructional recommendations and keen observations of elementary school writers showed that children could successfully engage in writing activities similar to those used by professional writers. His **writing conference method** of instruction emphasized revision processes especially, in which students would write and rewrite drafts with teacher and peer feedback. At a time when many teachers were wondering what to do with this long neglected aspect of the curriculum, Graves's research dramatically created an attractive approach to elementary writing instruction. Although Graves's research has been criticized in terms of methodological adequacy, the effects of his work are seen widely in classrooms throughout the U.S., as well as in many other countries.

Graves helped to bring about another trend, best exemplified by the influential work of Nancie Atwell (1987). Atwell's *In the Middle* describes how the writing workshop in Boothbay, Maine, developed into a complete, and very progressive, approach to the teaching of middle school literacy. Using yearlong case studies, logs of observations, and portfolios, this classic of teacher research demonstrated how a responsive classroom literacy context could be created. Together, she and her students tried out and tested their beliefs about written language, creating solutions grounded in their particular experiences and not in a prescribed curriculum. Her **full-immersion approach to reading and writing**, including minilessons and status reports, has been used in classrooms across the U.S. Most enduring, perhaps, will be the possibilities that her work suggests to future teacher researchers. Written from the inside, Atwell's compelling research details the principles, complexities, and practicalities that define literacy teaching.

Kenneth Goodman's (1965) study of oral reading miscues has been central to what eventually became known as the **whole language** movement. At the time of his study, instructional practices in reading often emphasized word recognition in isolation from meaningful contexts. Goodman argued, from a psycholinguistic perspective, that reading involves the use of multiple cue systems rather than only the cues within printed words. Investigating the role of decoding skill in isolation and context, he examined primary students' ability to read words in lists and texts. He found that children could recognize words in context that they could not in isolation,

and that this ability increased with age. Children had used syntactic and semantic cues to better anticipate and recognize unfamiliar words. From this, Goodman and his colleagues challenged oral reading, phonics drills, word lists, and other skills-based approaches that take words out of context. The findings of this study have been severely challenged and certainly much of what has been inferred from it exceeds the actual limits of the study. Nevertheless, there is little doubt that it has been influential on instructional practice.

A summing up

What are the common bonds of these studies? First, they tend to address what could be characterized as *important* issues—all of them set out to answer genuine questions rather than simply to add items to somebody's vita. They often reflected efforts to reconsider current practices or views of learning in new, refreshing, and unique ways. Second, these studies were strongly driven by theory. In some, the authors proposed new theoretical principles, while in others there were clear attempts to extend theory into issues of practice; in each case, it meant that the fruits of the studies could be brought to bear on a set of issues that exceeded those directly addressed by the single investigation alone. Third, each was rhetorically powerful, and simply—perhaps even elegantly—executed. Finally, the researchers were not timid; they boldly speculated on broad issues of learning, teaching, and instruction, drawing fully on the implications of their findings.

Nevertheless, though we were able to arrive at a single list, we could not entirely agree on the true source of power that these studies exerted. Research is influential, according to Susan, when it is creative, tied to important ideas, and sensible to practitioners. Consequently, the researcher is in the saddle and can choose, to some extent, whether or not to be influential. Contrarily, Tim noted that each of these studies somehow matched the social, political, and economic tenor of its times. In other words, studies that demonstrate something that the field or society apparently wanted to believe at a given moment are the ones that matter. According to this view, research will be most influential not necessarily when it provides the right answers, but the answers that we most hope to hear. This disagreement has not been resolved. Let the conversation continue....

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Received February 12, 1996

Final revision received March 1, 1996

Accepted March 6, 1996