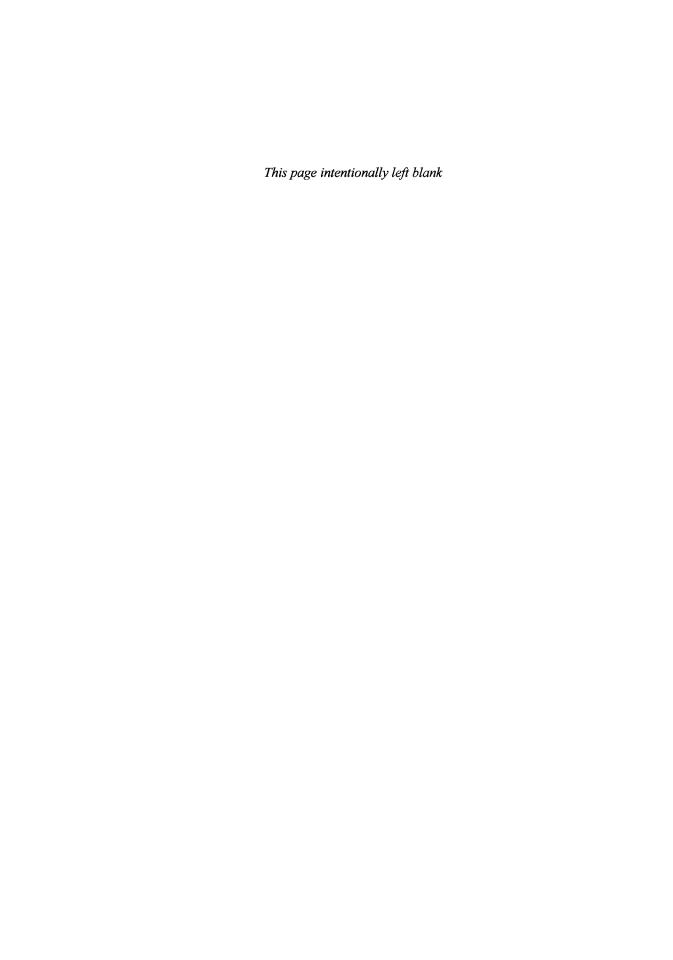
HANDBOOK OF READING RESEARCH

VOLUME III

EDITORS

Michael L. Kamil
Peter B. Mosenthal
P. David Pearson
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PREFACE

Where the telescope ends, the microscope begins. Which of the two has the grander view?

—Victor Hugo, Les Misérables (1862)

In 1893, Frederick Jackson Turner completed his momentous work, *The Significance of the Frontier in American History*. In this work, he re-directed historians' attention away from the genealogy-ridden chronicles of the Atlantic seaboard and refocused their attention on men and women taming the new western frontier. Coupled with Horace Greeley's dictum of "Go West, young man," Turner sparked our imagination in what he called the "the hither edge of free land."

This "hither edge" represented what Daniel Boorstin (1987) called a "verge," i.e., a "place of encounter between something and something else" (p. xv). Boorstin noted that America's history has been much more than just the verge between Turner's east and west; rather it has been a broad succession of verges:

America (has always been) a land of verges—all sorts of verges, between kinds of land-scape or seascape, between stages of civilization, between ways of thought and ways of life. During our first centuries we experienced more different kinds of verges, and more extensive and more vivid verges, than any other great modern nation. The long Atlantic coast, where early colonial settlements flourished was, of course, a verge between the advanced European civilization and the stone-age culture of the American Indians, between people and wilderness....

As cities became sprinkled around the continent, each was a new verge between the ways of the city and those of the countryside. As immigrants poured in from Ireland, Germany, and Italy, from Africa and Asia, each group created new verges between their imported ways and the imported ways of their neighbors and the new-grown ways of the New World. Each immigrant himself lived the verge encounter between another nation's ways of thinking, feeling, speaking, and living and the American ways. (xv-xvi)

It was Alexis de Tocqueville (1872) who noted that America's appreciation for verges was not shared by its European counterparts. At the time of his observations, the national pride of the English, French, Germans, and Italians was rooted in the grandeur of their homogeneous traditions rather than in the heterogeneous contradictions posed by proliferating verges. For these countries, national vitality was based on preserving the best of the rich past rather than pursuing the novelty of the unknown.

In contrast, America, with hardly any historical past (at least compared to that of Europe's), has always been different. Its vitality has largely been in its verges—in its

new mixtures and confusions. Yet, as Alfred North Whitehead (1935) so shrewdly observed, it is one's ability to tolerate such confusion that enables progress to occur. "The progress of man [kind] depends largely on his ability to accept superficial paradoxes to see that what at first looks like a contradiction need not always remain one." (p. 354)

In designing the third volume of *Handbook of Reading Research*, the editors were mindful of the need to preserve the continuity of the past. It is the obligation of any handbook editor to maintain the traditions of the discipline he or she represents. And so in this *Handbook*, as in Volumes I and II, the editors have included the classic topics of reading—from vocabulary and comprehension to reading instruction in the classroom. In addition, the editors instructed each contributor to provide a brief history that chronicles the legacies within each of the volume's many topics.

On the whole, however, this volume of the *Handbook of Reading Research* is not about tradition. Rather, it is a book that explores the verges of reading research from the time chapters were written for Volume II in 1989 and the research conducted after this date. During this decade, the fortified borderlands and imperial reigns of reading research of old have given way to border crossings and new participants in the reading research of new. In this time, "we" (i.e., the common collective of reading researchers) have replaced the orthodoxy of research with the need to secure a voice for validating our own individual experiences and opinions. We, in essence, have established a new self-awareness of who we are as individuals, how we think, and what we value.

Moreover, we have become more receptive to novelty and change. In this regard, we have come to embrace the idea of "what is possible" than fixate on the idea of "what is." We have come to realize that not only can things be different but we, as researchers and reading educators, can make that difference happen. In Northrop Frye's words (1954), we have come to realize that we "can enlarge upon the imagination" to raise new options that never before existed. In so doing, we must not only envision change, but we must act to realize it.

And perhaps most important, we have become more community-conscious. As part of creating new possibilities and exploring the unfamiliar, we have set about transforming not only ourselves but the very research community that sustains us. It is a community that, in becoming more inclusive, offers greater reassurance that difference and similarity both have their merits.

For the past decade, these three prevailing characteristics of the reading research community have created a bounty of new verges. In conceptualizing this volume of the *Handbook*, the editors contemplated long and hard on how to best address these minglings of the margins. In some instances, the editors adopted the strategy of asking contributors of this handbook to address these verges using the lens of a telescope, tracing the trends of reading research across entire countries and continents. In other instances, the editors invited contributors to address these verges using the lens of a microscope, focusing on the complexities and patterns inherent within a single topic of reading research. In the process, it is the editors' hope to have spanned the verge between the breadth and depth of new developments in the field.

The editors also realized that they needed to do more than simply pass the responsibility to the *Handbook's* contributors of discerning verges. New verges suggested the need to rethink what topics should be included in the *Handbook of Reading Research* that ushers in a new millennium. In undertaking this responsibility, the editors began by extensively reviewing the reading research literature from 1989 to 1995 from a wide array of research and practitioner-based journals and books. Based on this review, the editors identified two broad themes that appeared to represent the myriad verges that have emerged since Volumes I and II were published. Based on particulars of these themes, new topics for Volume III were identified. These themes are briefly discussed below.

THEME 1: BROADENING THE DEFINITION OF READING

In Volumes I and II of the *Handbook*, reading was largely defined in terms of the social-science discipline of psychology. The new view advanced in the 1980s was that reading was no longer a single product that varied according to properties inherent in written text. Instead, reading was now viewed by many as a process involving cognitive construction. As this view advanced, the number of reading studies in psychology journals increased exponentially. However, with the publication of Volume II of the *Handbook* in 1991, a new verge emerged. Reading researchers began to draw from a variety of social-science disciplines—most noticeably, sociology and anthropology. In the process, reading took on social, cultural, and multicultural dimensions.

Moreover, reading researchers began to interpret reading in terms of critical literary theory, as well as in terms of the politics of the times (thus uniting reading and political science). Concomitantly, with new devices for observing brain activities, interest was rekindled in understanding the neurological bases of reading. In these shifts, the verge of reading has become one that stretches between the highly reductionist belief that reading is a matter of brain chemistry to the largely constructivist belief that reading is a constitutive process. To address this verge, the editors saw the need to present reading from the perspective of multiple social-science disciplines, as well as from the perspectives of neurology and critical literary theory.

In Volume II of the *Handbook*, chapters were included on reading-writing relations and response to literature. The inclusion of these chapters attempted to address the observation that, in responding to text, readers often do more than speak or write in simple one-word or short-phrase responses. Rather, readers may construct elaborate, open-ended responses that may involve readers reading multiple passages at different points in time. Within the past decade, many researchers have come to view reading as but one part of the classroom communication continuum that involves complex meaning exchanges between students and teachers operating from different social and political stances.

In this shift, the verge of reading has become one that stretches between viewing reading as the primary modality for learning to viewing reading as but one aspect of how teachers and students communicate in classrooms. To address this verge, the editors saw the need to expand reading-writing relations to include reading as part of a much broader dimension of communication including all four modalities of speaking, writing, listening, and reading.

In Volume I, the editors included a chapter on quantitative experimental design in reading research as well as one on ethnographic approaches to doing reading research. In Volume II, no specific chapters reflecting innovations in reading research methodology were included. In assessing the advancements in educational research methodology writ large since Volume II, the editors found extensive development straddling the verge between quantitative and qualitative research.

On the quantitative side, new advances have been made in such areas as hierarchical regression, path analysis, and item response theory. On the qualitative side, many new advances have been made in the areas of discourse analysis, single subject design, case study, and narrative analysis. In the editors' review of reading research over the past 9 years, they saw the field incorporating many of the new advances in qualitative methodology. In contrast, they saw the field incorporating few such advances in its use of quantitative methodology. For Volume III the editors chose to include the qualitative aspect of the methodological verge because of the greater impact that qualitative methodologies have had. The lack of similar impact of quantitative methodologies, in turn, led to the decision to forego such a review for Volume III.

A final area where the expansion of the definition of reading has brought with it the proliferation of verges has been in the areas of media and technology. In Volume I, reading was largely defined as "reading the printed page." In Volume II, reading was extended to include the "reading of diagrams," consideration of "page typology," and "the use of computers in reading instruction." In the past decade, the verge between reading a single instance of print to reading as the exploration of all forms of representation in multi-media and hypermedia formats has become as prominent as the one between Turner's eastern homefront and the prairie frontier. To address this verge, the editors included several chapters on media and technology in this volume. In addition, many of the contributors took it upon themselves to consider the implications of this verge in light of developing their respective topics.

THEME 2: BROADENING THE READING RESEARCH AGENDA

Agendas are plans of actions. They include goals to be achieved (i.e., ideal outcomes) or problems to be solved (i.e., removing blocks to ideal outcomes). They are set for the purpose of benefiting some, often at the neglect of others. In any arena, certain individuals or groups are granted the authority to set agendas; others are not. In order to achieve goals (or solve problems) in a way that is beneficial for intended individuals or groups, agenda setters prescribe actions to be taken. In implementing these agendas, prescribed actions become the blueprint for actions actually taken, and assessment, or evaluation, is conducted to determine the extent to which actions taken match the actions prescribed. Moreover, an assessment may be conducted to determine whether the outcomes actually achieved from implementing an agenda correspond with the ideal outcomes originally proposed in setting the agenda.

Over the past decade, the editors have found a variety of verges arising due to changes in the nature of *who* sets the reading research agenda and *how* this agenda is set. Until the end of the 1980s, it was largely university professors who conducted reading research, sat on editorial boards, and oversaw grant RFPs. In sum, university professors were the "acknowledged authorities" who set and implemented reading research agendas. In this scenario, the teachers' primary role was, with the help of researchers, to translate research findings into practice. In the process, the goal of the researcher became the unspoken goal of the teacher: If the goal of the reading researcher was to increase automaticity of word recognition this, too, became the goal of the reading teacher.

Over the past 9 years, this unwritten rule has been challenged as teachers have begun to engage in their own research associated with the goals and problems of their particular instructional agendas. Moreover, teachers' representation on editorial boards and RFP review boards at state and national levels has increased significantly. Such changes have created an important verge between "practitioner research" and "academic research."

An added dimension to this verge of who sets reading agendas has arisen as policy makers have also begun to significantly influence the reading research agenda. In part, they have accomplished this by funding selective research that most closely supports their view of what constitutes the best reading-instruction agenda. And in part, they have accomplished this by organizing research review panels that tend to promote their view of what reading research "should be." Taken together, academicians, teachers, and policy makers constitute competing elements of this verge as they each lay their claim as the legitimate diviners of what the reading research agenda should be and how this agenda should relate to the reading instruction agenda. To address this

verge, the editors saw the need to include a new chapter on action research, as well as build into several chapters the issue of how policy merges as a verge with academic research and classroom practice.

Between Volume I and Volume II of the *Handbook*, researchers began to realize that just as research informs practice, practice informs research. This partnering was supposedly accomplished by first, deciding what the goal of reading should be; second, deciding whose goal this was and who would most benefit by its attainment; and third, how this goal might best be realized through the careful prescription of strategic actions. The assumption here was that researchers would set the research agenda, then implement it, and finally assess its effectiveness as it played out in various instructional settings.

In recent years, an alternative approach to setting reading agendas has been identified, creating yet another verge. In this approach, policy makers at the state level begin by arguing the need for performance standards. They create assessment instruments that are then administered to students. They then receive the results of these assessments and set a political cut point that distinguishes those who "have met the standards" versus those who "have failed the standards." Given the high consequences for failing to meet the standards, teachers and school districts revise their instructional agendas by aligning them with the state assessment. In this manner, teachers end up teaching to the assessments that policy makers create, thus prompting local school districts to bring their instructional curricula more in line with the agenda of state policy makers, regardless of whether or not research supports those changes.

This strategy on the part of state policy makers has created yet another verge in the reading agenda. Instead of agenda setting proceeding at local levels with assessment following the determination of local instructional goals, agenda setting in reading now also must proceed at state levels with instructional goals following assessment criteria. To address this verge, the editors have included several chapters on assessment with due consideration of the assessment-instruction relation.

Indeed, in reviewing the reading research over the past two decades, the editors of the three handbook volumes would argue that verges have multiplied exponentially in the past 10 years. While such verges often lead to contradictions and confusion, they provide the critical basis for continually rethinking the answers to "What is possible?" and "What should be?" in reading research, practice, and policy. As long as these questions continue to be fiercely debated, reading will likely remain the prominent educational issue among researchers, practitioners, and policy makers alike. Should the verges disappear and agreement on all issues prevail, reading would quickly lose its prominence, no doubt giving way to disciplines whose frontiers represent more fertile verges for exploration.

Volume III represents a different type of verge. The editors and the individual authors of the chapters have decided to forego royalties and honoraria for their work. In conjunction with The National Reading Conference, a fund has been established to promote reading research. The fund will operate on the royalty and fee income from this and subsequent volumes of the *Handbook*.

In contemplating Volume IV of the *Handbook*, we, as editors, considered what was not included in Volume III. We negotiated for more chapters than we received. In particular, we did not get all of the chapters that dealt with reading research around the globe. We did not represent the large and growing concerns with adult and workplace literacy.

The editors anticipate that verges of the next 10 years are likely to be different and will continue to expand in increasing orders of magnitude. Yet, Volume IV (like Volumes I and II) will hopefully continue to address the timeless verges between what we know and what we don't know, between what we do and what we should do. In sum, our task as reading researchers remains one of continuing to create new frontiers of

thought, keeping the borders of verges open for all who are willing and imaginative enough to undertake the exploration. And in the process of creating confusion, we will have ever present the opportunity to discern what James Glick (1992) called the "broader underlying pattern of our shared chaos."

ACKNOWLEDGMENTS

Finally, we want to acknowledge the efforts of many of our colleagues, students, spouses, and others who have worked to make Volume III a reality. We extend special recognition to the editorial work of Naomi Silverman who kept us (roughly) on time and on task; the assistance of Lori A. Hawver was also invaluable in reminding us when we were lagging behind; and Robin Marks Weisberg provided important support in production. We also want to acknowledge Lawrence Erlbaum for creating a new home for the *Handbook of Reading Research*. Most particularly, we, as editors, want to extend our great appreciation for all of the authors around the world who made this work a reality. We look forward to Volume IV.

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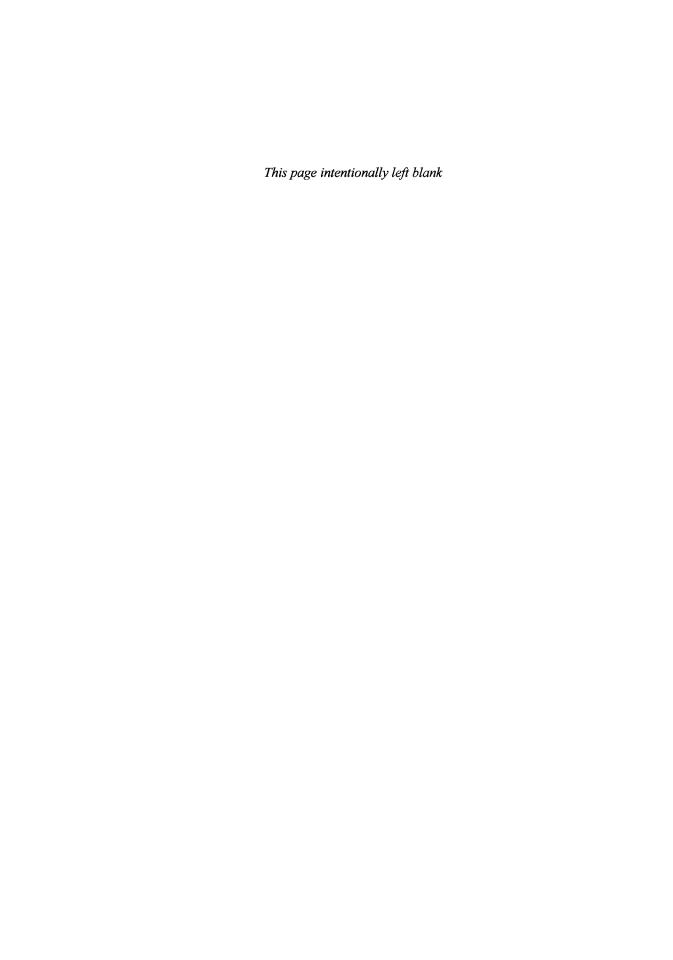
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PART I

Literacy Research Around the World



CHAPTER 1

Reading Research in Australia and Aotearoa/New Zealand

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The Ohio State University
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Griffith University
John Elkins
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This overview of research focuses on reading, but occasionally moves into the broader field of literacy. It has been decided to present the picture from Australia first, though the international influence of New Zealand research has probably been as great, particularly through the work of Clay in reading development (Clay, 1991) and through the widespread adoption of Reading Recovery (Clay, 1993). Some Australian research, particularly in the area of genre, has been treated lightly because its influence has been greater in writing research and applied linguistics than in reading. Halliday and Hasan's (1976, 1985) development of systemic functional linguistics spawned many Australian studies of the development of genre (e.g., Painter & Martin, 1986) and of cohesion (Anderson, 1982, 1983; Smith & Elkins, 1985, 1992). Kidston and Elkins (1992) reviewed research and practice up to the past decade. They found a strong so-called "psycholinguistic" tradition, closely related to Goodman's miscue analysis and whole-language theory. Cambourne (1984, 1988, Cambourne & Brown, 1987) was the most active researcher of this type. Research on adult literacy has not been reviewed because of space limitations.

AUSTRALIA

Context

Australia's population is mostly people of European ancestry, though over one third are recent migrants or their children, including many from Asia. Indigenous people, Aboriginals and Torres Strait Islanders, represent less than 2%. The Australian Commonwealth comprises states and territories with constitutional responsibility for edu-

^{*}At the time this chapter was written, Wilkinson was on faculty at The University of Auckland.

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cation. What has characterized policy related to literacy education over the last 10 years, however, has been an increasingly interventionist Commonwealth Government. This process began to be shown explicitly in 1989 with the development and publication of the Commonwealth's policy paper on literacy education (Dawkins, 1990). This policy entailed, among other things, a redirection of school-directed funds to language and literacy education, culminating in the gradual collapsing of Commonwealth support for other services (e.g., a "disadvantaged schools" program and programs relating to English as a second language, ESL) into programs more explicitly targeted at literacy education. That 10-year period has as well seen a shift of the Commonwealth's interest initially toward adult literacy and ESL programs and more recently back toward the school years, with particular enthusiasm for early literacy.

These changes brought to the surface a long tradition in Australia of considering literacy education to be intrinsically bound up with questions of equity and access to public goods and services, including productive employment pathways and an active voice in political processes. In contrast, the Commonwealth's interest has been made constitutionally legitimate partly through a linking of literacy education and the economic well-being and cultural cohesion of Australia, a focus on functionality rather than participation. This partial reformulation of literacy in economistic terms, as a component of human capital, has therefore been in contest with both the personalist and social justice conceptions of the nature and value of literacy education that had long shaped the field (Green, Hodgens, & Luke, 1994). In that regard, states and territories and the Commonwealth share responsibilities for migrant services and indigenous education. The composition of Australian society has long been multicultural and multilingual, but it has been in the last 30 years or so that the consequences of such a cultural and linguistic environment for literacy education have become part of the foreground of research efforts.

Trends and Issues

In many respects, the issues that have occupied the field of reading research in Australia parallel those found in other English-speaking countries: Questions about the relative significance of skills- and meaning-based instruction, developmental sequences in reading acquisition, and the role of reading capability across the school curriculum have been prominent. However, these have been given distinctive inflections in this context due to two features of the history of literacy education in Australia: The first concerns access to literacy in a culturally and linguistically diverse environment and the optimal role of educational providers for both children and adults; the second relates to the tendency in Australian schools and preservice teacher education programs to work with a variety of pedagogical methods and literacy instruction materials, partly because they have been, to date, relatively free from commercial instructional programs and, until recently, from government-imposed testing regimes. Government priorities for literacy research can be discerned in a recent "map" of research on children's literacy (Gunn, 1996), which indicates those areas that have received significant funding over the last 10 years or so. The following is a sample of those areas:

- Literacy for students with bilingual or non-English-speaking background.
- The relationship of oral language development to literacy with special focus on classroom interaction as a literacy-learning site.
- The impact of various literacy programs.
- The nature of the interface between home and school culture and its consequences for literacy learning.

We briefly illustrate each of these prominent areas with a necessarily selective sample of studies. We collect these examples under the headings of skills approaches and cultural/critical approaches, terms derived from a Commonwealth-funded study of teacher education programs in literacy by Christie et al. (1991).

Skills Approaches. The role of alphabetic and phonological knowledge in early reading development has been, in Australia (Bowey 1996; Bowey & Underwood, 1996; Bowey, Vaughan, & Hansen, 1998) as elsewhere, a matter of contention in theoretical as well as professional circles. Major Australian contributors to this debate have included Byrne and Fielding-Barnsley, who based their theorization of early reading on Chomsky's approach to linguistic knowledge. In a series of publications (Byrne & Fielding-Barnsley, 1989, 1991, 1995; and see Byrne, 1992, 1998), they have explored the development of phonemic awareness in young children and documented its teachability. In the 1991 study, they evaluated the effects of a program (called Sound Foundations) aimed at enhancing phonemic awareness, and 3 years later explored its longer term outcomes. Preschoolers (aged about 4 years) who were trained for 12 weeks showed greater gains than a control group who used similar materials without a focus on phonemic awareness. The authors also found transfer to unfamiliar sounds favoring the trained group, and transfer as well to superior performance on a forced-choice word recognition test, indicating that the trained group could use their knowledge to decode unfamiliar printed words, a transfer outcome also noted in Jorm and Share (1983).

In the follow-up study, Byrne and Fielding-Barnsley (1995) found that, compared to control group, the trained children were superior in reading comprehension 3 years after the training. Byrne and Fielding-Barnsley took this to offer support for Juel's (1988) "simple view" of reading—that reading comprehension comprises a simple additive relation of decoding to listening comprehension.

Under this heading as well can be grouped much of the research that has been occasioned by the endorsement by several state education authorities of the implementation of Reading Recovery programs. The research effort directed at this intervention has confirmed findings reported elsewhere: The program has strong immediate effects that diminish proportionately with the duration of the follow-up period. Comparably to some New Zealand research (e.g., Glynn, Bethune, Crooks, Ballard & Smith, 1992), Centre, Wheldhall, Freeman, Outhred, and McNaught (1995) found the Reading Recovery group was superior to control students on all tests measuring reading achievement; at 15 weeks follow-up the advantage over the control group was sustained with the exception of those tests assessing metalinguistic skills; and at 30 weeks follow-up, almost all of the original advantages had been lost. More recent research by Crevola and Hill (1998) has taken the need for Reading Recovery as a given, and sought to improve the first wave of literacy education by drawing on the effective schools literature. Another current research project involves the adaptation of Slavin's Success for All for Australian schools. Termed SWELL, this whole-class early literacy intervention has produced encouraging results (Center & Freeman, 1997).

Research on assessment has had several threads. National and state testing has seen the adoption of Rasch scaling rather than traditional psychometric theory (Masters & Forster, 1997), and a wider grasp of literacy by including writing, speaking, and listening with reading. Classroom assessment, particularly portfolios, has been studied by van Kraayenoord (1994, 1997) and her colleagues (Dilena & van Kraayenoord, 1996; Maxwell, van Kraayenoord, Field, & Herschell, 1995). Some recent work on criterion-related assessment has seen attention paid to benchmarks. Testing receives greater attention at times when "standards" receive political attention, as occurred in the mid 1990s. Research responses appear to have little impact on the claims that stan-

dards of reading or spelling are inadequate, and substantial politicizing of the literacy standards debate has occurred (McGaw, 1998).

In the Australian context, psychologists and remedial educators with an interest in literacy education have actively pursued research aimed principally at establishing the need for systematic attention in classrooms to phonological and phonemic awareness. The strong argument that instruction is necessary for the full development of appropriate levels of awareness, and that these domains of awareness are in turn necessary for early reading acquisition, is still debated and motivates much research, as does the even stronger argument that these domains of awareness are both necessary and sufficient for early reading acquisition.

Cultural Approaches. As an example of a distinctively Australian study under the first of the headings just given, Clayton, Barnett, Kemelfield and Mulhauser (1996) studied the use of oral and written English and various Australian Aboriginal languages in the desert regions of South Australia, Western Australia, and the Northern Territory. Among their findings was that language and literacy development in English for young Aboriginal people is a major priority for the communities. Achieving appropriate levels of proficiency through schooling, however, was made difficult by a complex interaction of factors relating, on one hand, to socioeconomic circumstances and the language ecology of communities and, on the other, to the remoteness and difficulties in resourcing characteristic of desert schools. These researchers also noted that Aboriginal communities expressed the desire that the English language and literacy development of their children not be at the expense of local indigenous languages. In Australia, indigenous languages have been vanishing for 200 years, and the Aboriginal community members who participated in this study made it clear that they wanted "both ways" learning, with English and Aboriginal languages to be "equal and level, not one rising above the other."

The dilemma facing bilingual and multilingual parents with respect to the cultural and linguistic context of their children in school was reflected as well in a study by Breen et al. (1995). They provided documentation of reading and writing practices in six urban and rural communities, with case studies of 23 families, across Western Australia. One notable finding from this study was that the remarkable diversity found among the family literacy practices contrasted sharply with the uniformity of the classroom practices aimed at reading and writing that the children encountered in school. The nature and amount of reading activities in the homes, although not consistent across the 23 case study families, showed a mixture of reading for pleasure, for parent and child home study, for parental occupation, for sports and hobbies, and for religion. The schools were found to use a common set of tasks within whole-language-based classroom strategies, texts that were almost uniformly monocultural and sometimes ethnocentric, and programs that often assumed specifically Australian cultural knowledge, thereby educationally but also culturally marginalizing some of the children in the case studies. As in the study by Clayton and others, the parents in this study saw English oracy and literacy as means of attaining a good education and possibly better employment for their children, but were keen to avoid losing their distinctive cultural background, an outcome that would accompany their children's loss of the home languages.

In line with a renewal of interest in the early schooling and a belief in its critical role in later reading development, Hill, Comber, Louden, Rivalland, and Reid (1998) documented the literacy development of 20 preschool children in five different locations, and followed them into the first year of school. They found substantial variation in the

reading capabilities of children entering school. Among many relevant findings, they showed that many children have knowledge about books (and how to read with a "book reading tone"), letters, and how to attend to print before entering school, but that the first year of schooling is associated with significant gains in word concepts, punctuation, sentence writing, and a critical awareness that reading is necessarily associated with decoding. They draw out one important implication of this, in the light of moves to assess literacy capabilities among very young children:

This points to a possible danger with testing programs being used too early or interpreted as evidence of "risk," when in fact the children may simply have not had the opportunities to learn what is being tested. Early testing programs conducted before school may inaccurately label children or indicate inexperience with school literate practices rather than anything more. (Hill et al., 1998, p. 13)

These studies of literacy as a set of cultural practices have served to provide a descriptive basis for debates about reading curriculum, policy and classroom practice. They also signal a widespread move in Australian reading research toward the study of reading education in naturalistic settings, using combinations of quantitative and qualitative research methods. As noted earlier, compared to other countries, Australian literacy educators tend to use a variety of methods, mixing and matching hybrids of genre-based, meaning-based, and skills-based approaches (van Kraayenoord & Paris, 1994). In that light, Australian literacy research in general is characterized by a move into the classroom and to the study of the details of interactions in and around reading materials. This work is exemplified by the work of Baker (1991, 1997), who has shown, through close attention to transcripts of reading lessons, how such lessons constitute simultaneously the relations between teachers and students, the contents of various cultural domains, and procedures that are taken to count as successful reading for and in school. Baker's work serves as a caution against conducting research in reading that is based on "theories, abstractions or idealisations" (1991, p. 184) of pedagogy rather than on the details of lessons themselves. There has also been a substantial amount of research on critical literacy (Luke, 1994) and on gender issues in literacy (Alloway & Gilbert, 1997; Gilbert, 1988, 1998; Gilbert & Taylor, 1991), but space constrains our dealing with this here.

Conclusions

From this brief sample of studies, a number of substantive and methodological observations can be made. First, as a field of study, "reading" has been subsumed in the Australian research context under more general studies of *literacy*. It is significant, for example, that the Australian Reading Association recently changed its name to the Australian Literacy Educators Association, and its journal from the Australian Journal of Reading to Australian Journal of Language and Literacy. This is more than cosmetic. It reflects a change in how the reading enterprise is defined and conceptually arranged, from being next to other curriculum areas in the primary school program (e.g., social studies) to being next to other foundational psychological and sociocultural capabilities (e.g., numeracy).

This change has been brought about partly by the significant incursions into the study of reading by linguists, ethnographers, and cultural theorists (including cross-culturalists). There are positive and negative corollaries to this: On the positive side, the notion of reading is now located in terms of its direct and inextricable relationship to writing, a connection established by much research and by teachers' professional understandings. This realignment now enables impact from adjacent

disciplines on the matter of reading (e.g., critical theory). Finally, the change provides a constant reminder that the linguistic and sociocultural aspects of understanding shape the nature of what is read and how various kinds of reading practices are shaped by social processes in homes and schools.

On the negative side, easier access to the "output data" (especially linguistic output) of writing compared to reading has tended to direct many empirically oriented educators away from the systematic study of reading; the realignment has also heightened the disciplinary divides within the literacy field in Australia (put somewhat too simply, reading is for psychologists, writing for linguists and ethnographers). This increased disciplinary divide itself leads to increased difficulty in staging focused debates across disciplinary divisions, and a reversion among some to unsophisticated notions of reading outcomes because of their readier measurability (e.g., spelling).

AOTEAROA/NEW ZEALAND

Context

Unlike Australia, New Zealand has a unified national education system, although with a high degree of management at the local school level. In 1989, the government implemented reforms involving radical decentralization of educational administration while retaining the accountability of schools to agencies of central government. The reforms, termed *Tomorrow's Schools* (Lange, 1988), were designed to enhance the responsiveness of schools to their local communities, to improve parental choice in education, and to increase the overall quality of schooling. Ten years on, only some of these goals have been realized. Heavy emphases on local control and marketization of education have come at the cost of increased inequity of educational opportunities for students from schools in "rich" and "poor" areas (see Gordon, 1994; Wylie, 1997).

These reforms have come at a time when there have been dramatic shifts in the cultural and linguistic environment for literacy education. New Zealand has a strong bicultural heritage, and Maori, the indigenous people of New Zealand, make up 14.5% of the population. Pakeha (a Maori term used to describe New Zealanders of European descent) comprise 71.7% (Statistics New Zealand, 1997). Both Maori and English are official languages, and there is an emphasis on Maori culture in education and social policy. In the last 30 years, high levels of migration to New Zealand of people from the Pacific Islands and Asia have made for a more multicultural and multilingual society. Pacific Islanders and Asians, as well as Maori, because of their younger age structures, now make up large proportions of the school-age population. In 1998, 20% of school students were Maori, 7% were Pacific Islanders, and almost 6% were Asian (Ministry of Education, 1998). At least 7% of students came from non-English-speaking backgrounds.

There have also been dramatic changes in the socioeconomic structure of New Zealand. In 1984, the government introduced a program of economic and social restructuring in the pursuit of free-market reforms described as "more radical than those of any other industrialized country" ("The mother of all reformers," 1993, p. 20). State expenditures were cut, unemployment rose, and income inequalities increased (Kelsey, 1995). This restructuring has had a negative impact on the well-being of many New Zealand families and, it may be conjectured, on the home literacy backgrounds of children entering school.

Trends and Issues

As a result of these changes, the single biggest challenge confronting literacy education in New Zealand today is the issue of equity in the face of increasing ethnic, language, and socioeconomic diversity (Wilkinson, 1998). Although New Zealand

continues to maintain high levels of literacy, there is a growing body of evidence of large inequities in outcomes. Results of the 1990–1991 survey of reading literacy conducted by the International Association for the Evaluation of Educational Achievement (IEA) showed that variation in achievement among 14-year-old students in New Zealand was the largest of any other country participating in the survey (Elley & Schleicher, 1994). New Zealand had more good readers than any other country, but it also had a large number of poor readers. Variation in achievement among 9-year-olds was also very large. The majority of poor readers were Maori, Pacific Islanders, and other children whose home language was not English, and boys at an early age (Wagemaker, 1993). More recent data collected by the National Education Monitoring Project (Flockton & Crooks, 1997) suggest that gaps in students' reading achievement between different ethnic, income, and gender groups continue to be cause for concern (see also Fergusson & Horwood, 1997; Nicholson, 1995; Nicholson & Gallienne, 1995). There is also evidence of large gaps in literacy levels between these groups in the adult population (Ministry of Education, 1997).

Educational responses to the challenge posed by increasing diversity have primarily centered on emergent and early literacy and have taken several forms. One response has been to regard the problems as solely societal and to hold on to current practices but with redoubled efforts to address the needs of low-performing subgroups. Nevertheless, there is growing concern that "more of the same" will not be enough (Ministry of Education, 1999). Another response has been to suggest that the societal changes require more concerted approaches to improving equity in literacy education. Yet another response has been to suggest that the problems signal weaknesses in current methods of teaching literacy and that wholesale changes in methodology are required. Research indicative of these three approaches is considered in turn.

Strengthening Current Practices. Clay (1997) and Elley (1997) have argued that New Zealand teachers need to hold on to practices currently used in the junior school (the first 2 to 3 years) but show greater sensitivity to the needs of students from disadvantaged subgroups (e.g., those for whom English is not the home language, young boys). Current practices offer at least two tiers of support for children with reading difficulties.

The first tier comprises the regular classroom reading program in which the major components are language experience activities, reading aloud to children, shared-book experiences, and book-based activities involving high-interest natural language texts. Elley (1989) documented the benefits of reading aloud to children in terms of gains in vocabulary knowledge, especially for lower ability students (although for more conservative evidence, see Nicholson & Whyte, 1992; Penno, 1997). Elley (1991; Elley & Foster, 1996) also documented the benefits of book-based programs in combination with language experience and shared-reading activities for improving the word recognition and comprehension of students for whom English is a second language.

The second tier of support is Reading Recovery (Clay, 1993), an early-intervention program designed to accelerate progress of children who are experiencing difficulties learning to read after 1 year of school. Reading Recovery is now available in 72% of state-funded primary schools and serves approximately 18% of 6-year olds (Kerslake, 1998). Evaluations by Clay (1987, 1990) suggest that the program is highly successful at least in the short term (see also Clay & Tuck, 1991). Smith (1994) has documented its success with children for whom English is a second language.

Recently, a third tier of support for the 1% to 2% of children who do not become successful readers following regular classroom instruction and Reading Recovery has been developed and evaluated by Phillips and Smith (1997). This is a very specialized

program in which children (average age 6 years 11 months) who are identified as the lowest achieving "hardest-to-teach" children are given one-on-one tutoring by specially trained teachers who receive ongoing support and monitoring. The tutoring procedures are based on those of Reading Recovery but are more finely tuned to the needs of individual children and are more consistently delivered. Results of Phillips and Smith's (1997) evaluation showed that almost 80% of the 23 children who completed the program achieved reading levels commensurate with average levels of their peers, and the majority of children achieved this in an average of 20.4 lessons. In other results that the developers themselves described as "unexpected," gains were particularly marked for Maori children and children from non-English-speaking backgrounds.

Improving Equity. Another response to the challenge posed by diversity, represented especially in the work of McNaughton (1995) and colleagues, has been to suggest that societal changes require more concerted approaches to improving equity in literacy education. These approaches include improving the equity of resources for literacy learning, improving equity of access to effective literacy instruction, and improving equity of processes occurring within instructional activities.

Equity of resources for literacy learning refers to both psychological and physical resources. Wylie, Thompson, and Hendricks (1996) documented major disparities in the home literacy backgrounds of children from different ethnic and income groups prior to entry to school. In one finding, they noted that only 58% of Maori and 29% of Pacific Islands children were read to at least once a day, compared with 78% of Pakeha children. The Alan Duff Charitable Foundation has implemented a *Books in Homes* program to foster children's ownership of books and to promote a literate culture among families from disadvantaged communities. The program donates books to students in low-income areas and operates in 150 schools nationwide. Students take the books home and share them with their families. The program has been successful in improving the reading attitudes and habits of children and has led to modest gains in reading achievement (Elley, 1998).

Other attempts have been made to improve the equity of access to effective instruction. Working from a sociocultural perspective, McNaughton (1995) has argued that effective forms of instruction are those that allow children to engage with activities using familiar forms of expertise and that provide bridges between home and school. McNaughton and colleagues (Phillips & McNaughton, 1990; Tagoilelagi, 1992; Wolfgramm, 1991) have identified styles of storybook reading used by Maori, Pacific Islands, and Pakeha families and have noted that different styles enable some children to engage with classroom instruction more than others (see also McNaughton, Ka'ai, & Wolfgramm, 1993). McNaughton and colleagues have worked with families to augment their repertoires of reading styles to create closer connections between home and school literacy activities (e.g., Wolfgramm, McNaughton, & Afeaki, 1997). Conversely, these researchers have also tried to augment classroom practices to make them more compatible with the home-based activity structures of certain minority cultures (e.g., Hohepa, Smith, Smith, & McNaughton, 1992; Hohepa, McNaughton, & Jenkins, 1996).

Still other attempts have been made to address the equity of processes occurring within instructional activities. Early studies by Clay (1985) and Kerin (1987) noted the problems experienced by Pakeha teachers in conducting extended conversations with New Entrant (Kindergarten) Maori children during reading and writing sessions. Cazden (1992) related these problems to features of classroom organization, discourse, and topic knowledge. Goodridge and McNaughton (1997) have illustrated similar dif-

ficulties encountered by teachers in their interactions with Maori and Pacific Islands children. Glasswell, Parr, and McNaughton (1996) have also revealed patterns of interactions between teachers and low-ability children in writing conferences that prevent children from fully participating in the activities because of a lack of shared understanding of the goals and nature of the activity. These studies suggest that teachers need awareness of different strategies for working with children with diverse backgrounds and experiences.

Changing Methods. A third response to the challenge posed by diversity has been to suggest that the problems signal weaknesses in current methods of teaching literacy and that changes in methodology are required. Nicholson (1999), and Tunmer and Chapman (1996) have argued that the problems experienced by low-progress readers are due to lack of explicit attention to phonemic awareness and phonics in beginning reading instruction in New Zealand (see also, Thompson, 1995; Thompson & Johnston, 1993). At issue seems to be the relative contribution of sentence context and graphophonemic cues in the identification of unfamiliar words. Current practices advocate that beginning readers use sentence context as the primary source of information for identifying unfamiliar words and use graphophonemic cues simply to confirm hypotheses based on context. Critics, on the other hand, argue that the strategies should be reversed—beginning readers should look for familiar spelling patterns first and use context only to confirm hypotheses based on word-level information (Tunmer & Chapman, 1998). This recommendation is gaining currency (Ministry of Education, 1999).

Nicholson has conducted two small-scale interventions on the benefits of adding explicit instruction in phonemic awareness and phonics to New Entrant reading programs. One study with children from mostly middle-class backgrounds evaluated the effects of adding phonemic awareness training alone (Castle, Riach, & Nicholson, 1994). Another study with children from low-income backgrounds examined the effects of adding phonemic awareness training combined with alphabet knowledge and knowledge of simple letter–sound correspondences (Nicholson, 1997). Children in both studies made gains in phonemic awareness, although these gains showed only modest transfer to measures of reading.

Tunmer, Chapman, Prochnow, and Ryan (1997) have conducted one of the most comprehensive intervention studies of beginning reading instruction in New Zealand. Working collaboratively with classroom teachers, they adapted, developed, and tested supplementary materials and procedures designed to help students, especially low-achieving students, acquire the phonological processing skills and word identification strategies necessary for literacy development. New Entrant children from seven schools participated in the year-long intervention. Results showed superior gains in reading achievement by the end of the year (the locus of the effects and the long-term benefits have yet to be examined).

The work of these critics has also threatened Reading Recovery's dominance as the second tier of defense against reading failure. Nicholson (1989) has criticized the methodology used in early evaluations of the program, and Tunmer and colleagues (Chapman & Tunmer, 1991; Iverson & Tunmer, 1993; Tunmer, 1990, 1992) have argued that there should be greater emphasis on phonological awareness, phonological recoding, and syntactic awareness in the program. The Glynn et al. (1992) evaluation has also cast doubt on the long-term benefits of Reading Recovery, as mentioned previously, and revealed that many children completing the program are placed in their regular classroom at reading levels well below those they had attained at discontinuation. Tunmer, Chapman, Prochnow, and Ryan (1997) reported similar findings.

Conclusions

If New Zealand is to meet the challenge of equity in literacy education, the dilemma is how to maintain its child-centered pedagogy in the face of economic rationalist pressures and the demands placed on the educational system by increasing diversity. New Zealand's literacy practices have a history of association with a developmental constructivist bias in teaching and learning. There is a general commitment to the centrality of the child in teaching and to a view of learning as proceeding from the child along developmentally appropriate pathways under guidance or support of the teacher; direct instruction of specific knowledge and skills according to prespecified routines finds little favor.

Given this developmental constructivist bias, attempts to strengthen current practices and to improve equity of resources, access to effective instruction, and processes have a natural home in the New Zealand literacy landscape. Nevertheless, the dominance of Reading Recovery as the second tier of defense against reading failure may be weakened in the future, not only because of the research criticizing the program's pedagogy and its effects but also because of the enormity of the demands being placed on the educational system by low-performing subgroups. The shift toward school-based management and the fundamental inability of Reading Recovery (as it is presently constituted) to deal with low performance at a schoolwide level may mean that Reading Recovery becomes one of a number of options that individual schools choose for dealing with reading problems.

Moreover, among those who argue for strengthening current practices and improving equity, there is broad agreement that programs for literacy instruction of 8- to 12-year-olds need closer attention (Clay, 1997; Education Review Office, 1997). Some have argued for a second catch-up effort, following on from Reading Recovery, at about 10 or 11 years (Clay, 1997; Henson, 1991). One example of such an effort is local adaptations of reciprocal teaching (Palincsar & Brown, 1984). Moore and colleagues (Gilroy & Moore, 1988; Kelly, Moore, & Tuck, 1994; Le Fevre, 1996) have reported robust comprehension gains from reciprocal teaching for students in the middle and upper primary school, particularly those with diverse language and ethnic backgrounds.

If wholesale changes in methodology of reading instruction are to take hold, New Zealand educators will need to resolve the tension between explicit instruction and a developmental constructivist bias. Suggestions for specific guidance and tutoring do not sit easily with a constructivist framework, unless they can be construed within a sociocultural framework that ascribes an active role to social and cultural processes as well as to the child (McNaughton, 1996) (as has been achieved with Reading Recovery and reciprocal teaching). For the issues of phonemic awareness and phonics, this means that classroom teachers may need to find ways of providing more explicit assistance to children in the phonetic structure of language, and in letter–sound correspondences, but without distracting them from engagement with the functions of language and literacy (Johnston, 1997).

SYNTHESIS

It seems to us remarkable how little connection exists between the literacy researchers and topics of the two neighbors. Even where common concerns for equity and the literacy of indigenous students exist, there seems to be little cooperative effort. Each country has high levels of general literacy, but major areas where improvement is needed. Each is struggling with a historical commitment to student-centered literacy education, in the face of economic rationalist pressures toward improving functional literacy as an instrument of national economic responses to globalization. Each has made significant contributions to reading research, although New Zealand work may be better

known overseas at present. Australian research in critical literacy, and applications of systemic functional linguistics, seem likely to be more widely acknowledged in coming years.

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CHAPTER 2

Reading Research in the United Kingdom

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There are dangers as well as difficulties in attempting an overview of research. I share the opinion of those who would argue that any authors, no matter how carefully they attempt to review a field with impartiality and rigor, are unable to shake off the effects of their own personal history and ideology. This does not mean that it is futile to make the attempt, but rather that in these postmodern times it can be helpful to acknowledge that a review of research is bound to be idiosyncratic (Harrison & Gough, 1996).

The 1930s would be one possible point at which to begin an historical overview of reading research in the United Kingdom, because it was in 1932 that Sir Frederick Bartlett published his landmark study of the psychology of memory, *Remembering*, which for 60 years was one of the most cited in the field, because of its pioneering analysis of cross-cultural intrusions on story recall (Bartlett, 1932). Equally, the 1960s would be another point to begin, because it was during this decade that UKRA was established, and the journal *Reading* was founded. This journal went on to publish for over 20 years an annual review of reading research in Great Britain, which has left us with a valuable record of research findings that would in many cases no longer be accessible (see Goodacre, 1969, for an early example, and Raban, 1990, for one that demonstrates the explosion of research activity that occurred during the intervening years). One further archival source for information on reading research would be the *Journal of Research in Reading*, which was established by UKRA under the inspirational leadership of Tony Pugh in 1978. The *Journal of Research in Reading* remains the only journal in Europe wholly devoted to reading research.

In order to facilitate comparisons with research and practice in other countries, however, the remainder of this chapter focuses on contemporary issues and themes in reading research in the United Kingdom, using the three coordinating concepts of processes, practices and policies. Broadly speaking, research into reading processes has been carried out by psychologists, and research into practice has been carried out by scholars in university schools of education, whereas policy-driven research has been directed and funded by government agencies. It is worth mentioning in this context that although UKRA covers England, Northern Ireland, Scotland, and Wales, Scotland and Northern Ireland have their own government departments for education, and

thus have more independence in policy and practice than is the case in England and Wales. From 1988, the point at which a national curriculum was introduced, these latter two countries endured a decade of unprecedented government-initiated change, which has impinged on both research and practice, and to which I give attention later in the chapter. I am acutely aware that on a conservative estimate some 1,600 books and perhaps 4,000 journal articles on reading have been published in the United Kingdom during the period 1960–1998, and that this chapter refers directly to no more than 40 of these. In order to keep within the word limit for the chapter, I made the difficult decision not to attempt to summarize research into neurological processes or into reading in a second language, even though I believe that much important and exciting work has been done in these areas in the United Kingdom.

RESEARCH INTO READING PROCESSES

If one were to pose the question, "What phrase had the greatest impact on teachers' understanding of the reading process in the United Kingdom over the 1990s?" the consensus answer would probably be "phonological awareness." In the 1970s, the insights of Kenneth Goodman (1967) and Frank Smith (1973), both frequent visitors to England, came to dominate the discourse of reading, at least in schools and in the education departments of universities and colleges, and the phrase psycholinguistic guessing game became a key element in teachers' accounts of the reading process. During the 1980s, this dominance prevailed, but was augmented by Marie (now Dame Marie) Clay's emphasis on "concepts of print" and the principles of Reading Recovery (Clay, 1985). But during the 1990s, the phrases phonological awareness and phonemic awareness came to assume a centrality that might seem surprising, at least to those unfamiliar with the cyclical nature of reading research and pedagogy. In the United Kingdom, these phrases are particularly associated with the work of Peter Bryant, notably in his collaborations with Lynette Bradley (Bradley & Bryant, 1983; Bryant & Bradley, 1985) and Usha Goswami (Goswami & Bryant, 1990). I discuss the impact of these studies on pedagogy later in this chapter; for the moment, my focus is the reading process.

In the early 1980s, Bradley and Bryant (1983; Bryant & Bradley, 1985) reported on a 4-year longitudinal study of the reading of 368 children, which had begun when the children were either 4 or 5 years old. The study gave particular attention to prereading abilities, especially those that preceded children's knowledge of letters and letter names (children who showed any sign of being able to read were excluded from the study), and sought to establish which variables were the best predictors of subsequent success in reading. Bradley and Bryant used regression procedures to eliminate from the analysis achievement attributable to intelligence, memory, and vocabulary, and produced one central finding: that children's sensitivity to rhyme was the best single predictor of subsequent success in reading. The test that Bradley and Bryant used was an alliteration oddity test, in which the child was asked to say which word in a list of three or four was the odd one out: the words might be pin, win, sit, and fin, for example, with sit being the odd one out. The argument Bryant developed was that the child's sensitivity to rhyme and alliteration was a causal factor in progress in learning to read and spell in the following 3 years. The finding was a specific one: Sensitivity to rhyme predicted subsequent reading ability, but it did not predict skill in arithmetic. A second more detailed longitudinal study (Bryant, Bradley, Maclean, & Crossland, 1989), starting at age 3 years and following 64 children over 3 years, also showed a strong predictive relationship between sensitivity to rhyme and progress in reading. The effects of intelligence, vocabulary knowledge, and social background were controlled, and once again a very specific effect was found: Rhyme awareness predicted success in reading but not mathematical skills. It is important to stress that Bryant and his co-workers regarded sensitivity to rhyme as an ability that developed independently from other

forms of phonological awareness, and they argued that other experimenters who conflated scores on phonological variables such as rhyme awareness, phoneme detection, and letter–sound knowledge had produced highly questionable conclusions in some cases.

Bryant's argument was supported by the research of Ellis and Large (1987), who reported that many 4-year-old children with a high IQ but poor rhyme-detection skills went on to become poor readers, whereas those with high IQ and good rhyme-detection skills were much more likely to become good readers. Stuart and Masterson (1992) also carried out longitudinal studies of young children, beginning at age 4 years with a battery of six tests of rhyme detection and phoneme awareness. Unlike Bryant, Stuart and Masterson found that their six phonological measures intercorrelated so highly that it was reasonable to combine them into a single factor. What they found was that this phonological score was a better predictor of reading ability at age 10 than was IQ at age 6. Phonological awareness at age 4 was also a better predictor of subsequent spelling ability than was IQ. Like Bryant, Stuart and Masterson found that phonological awareness was a specific rather than a general ability; it was not a strong predictor of subsequent vocabulary knowledge, for example. Correlation is not causation, however, and they point out that, although having a lower than average phonological score at age 4 is extremely likely to be followed by below-average attainment in reading, there is no guarantee that having an above-average phonological score will lead inevitably to success in reading (Stuart & Masterson, 1995, p. 182).

Bryant was aware that correlational data do not provide evidence of a causal relationship, and he set out to establish such a relationship through intervention studies, the most widely cited of which was the one that appeared in *Nature* (Bradley & Bryant, 1983); this is generally held to be the one that led to the foregrounding of the issue of phonological awareness for teachers in the United Kingdom. It is important, therefore, to stress that this training study, which is widely understood to have shown that teaching 6-year-olds about rhyme brings about significant improvement in reading ability, actually produced findings that were rather less clear-cut than this. First, there were not one but two experimental groups, the second of which received specific training in recognizing letter-sound relationships, using plastic letters. This is of course a very different intervention from one that sets out simply to improve children's ability to recognize and manipulate sounds. There were also two control groups, one of which was given additional time on vocabulary development through categorizing word families. In the event, the groups performed as one might have predicted on Bryant's model: The dual-treatment experimental group (phonological training plus letter-sound training) did best, the single-treatment experimental group (phonological training only) came second, the vocabulary development group came third, and the no-treatment control came fourth. This rank order was consistent across the three tests of word reading, passage reading, and spelling. However, although the means supported Bryant's hypothesis, the within-group variance was high, and this meant that the crucial group difference—that between the phonological training only versus the vocabulary training—fell short of statistical significance. In fact, the difference in group mean scores between the two experimental groups was greater on all three tests than the difference between the phonological training only group and the vocabulary development control group. The case that developing young children's rhyme awareness leads to improved reading had received support, but the results from Bradley and Bryant's dual-treatment experimental group strongly suggested that the most powerful teaching method is one that combines training in phonological categorization with training in letter-sound relationships.

One seminal strand of United Kingdom research into the reading process that explores more deeply the issue of how children make use of their knowledge of phonol-

ogy has been the work of Usha Goswami (1986, 1990) into how analogies are used to decode new words. Goswami focused on the onset-rime distinction (between the first consonants in a word and the remainder of the word, e.g., str-ing), and examined children's potential for decoding previously unfamiliar words at age 5, 6, and 7. She used an elegant experimental procedure, establishing first that a word was unfamiliar, then teaching it and noting how the child was subsequently able to generalize using onset-rime analogies. Children in all three age groups demonstrated an ability to use analogies to help recognize unfamiliar words, but their ability to do so developed over time, and Goswami's experiments provided an detailed account of the developmental sequence, as children learned to form analogies first using the rime (recognizing weak, having been taught beak), then the onset (recognizing trap, having been taught trim), and finally just part of the rime (recognizing harp having been taught hark).

Goswami and Bryant's (1990) views on the importance of the onset-rime distinction have not gone unchallenged. Muter, Hulme, Snowling, and Taylor (1997) argued that not all measures of phonological awareness are equally good predictors of later reading, and that rhyme awareness, which comes early, is a weaker predictor than phoneme segmentation, which develops later. Muter and her colleagues carried out a longitudinal study of children from age 4, giving a battery of phonological tests that enabled a factor analysis to be carried out. This produced two factors: a *rhyming factor* (rhyme detection, rhyme production) and a segmentation factor (phoneme segmentation, deletion and blending). They then carried out multiple-regression path analyses, which came up with a result that appears to inflict severe damage on the Goswami and Bryant model: Their path diagrams showed significant weightings at the beginning of the study for IQ and segmentation ability in predicting achievement a year later in segmentation, reading, and spelling. In their analysis, rhyming ability failed to make a significant independent contribution to either reading or spelling. Muter et al. also reported that letter knowledge made a further significant contribution to both reading and spelling in year 2, and identified one final key element—a separate interaction effect based on the product of letter-knowledge × segmentation, which exerted a small additional effect on reading, and a massive additional effect on spelling. The authors' interpretation of these findings was to emphasize that it is necessary to teach children in such a way that explicit links are formed between their underlying phonological awareness and their experiences in learning to read. The Hatcher, Hulme, and Ellis (1994) intervention study reported later in this chapter provides a detailed test of these claims.

Research into reading comprehension has been much less prominent in the United Kingdom, but important work on reading comprehension processes was carried out by Briggs, Austin, and Underwood (1984), who extended the widely cited study of West and Stanovich (1978) on readers' use of context in reading by offering a closer examination of differences between younger and older, and good and poor readers. They found a more complex pattern of interactions related to children's use of context than what would have been predicted by Stanovich's Interactive-Compensatory model of the reading process. Stanovich proposed a two-process model of reading, in which readers either used automatic (unattended) word recognition, which freed up processing capacity for comprehension, or a slower, attentional pathway, which was more reliant on context for word recognition. Good readers, it was hypothesized, would be less reliant on context, and less influenced by it than poor readers. This was not what Briggs et al. found, however. Skilled readers at age 11 appear to go through a phase in which they are influenced by context, but in a somewhat disabling way (though it should be noted that in the Briggs et al. study the reading ability of the good readers was at the level of the "less skilled" readers in West and Stanovich study). Perhaps the best interpretation is that it is only as readers approach adulthood that they are able to

consciously repress context effects in order to activate the more rapid automatic word recognition pathway to word recognition.

RESEARCH INTO READING PEDAGOGY AT HOME AND SCHOOL

Early years education in the United Kingdom saw something of a revolution over the two decades that followed the publication of a seminal study of the importance of stories in the linguistic development of potential readers (Wells, 1978), and as schools have come to see parents as allies and partners in the teaching of reading (Bloom, 1990).

Two research projects that monitored the results of encouraging parents to read with their children came to have national significance; these were the Haringey project (Tizard et al., 1982) and the Belfield project (Hannon & Jackson, 1987). The actual experimental results of both projects were relatively modest in scale and effect size, but both received dramatic levels of publicity in the press, and Hannon reported that the Belfield team felt impelled to go into the production of booklets to help meet parents' needs for information. Hannon (1995) conducted a useful review of research and practice in parents' involvement in the teaching of literacy, and he reviewed all the major initiatives, offering a helpful gloss on the methodological options related to evaluation and program development in this field. He argued that the multiplicity of contextual variables available tends to make traditional testing approaches and methodologies invalid, and argued instead for *evaluation by participants*, and a qualitative analysis of the following issues: take-up, participation rate, implementation, involvement processes, teachers' views, and parents' views.

A related strand of research activity has been that of Keith Topping (see Topping & Lindsay, 1992, for a review), a former school educational psychologist who conducted a series of studies on the effectiveness of *paired reading* (peer tutoring of reading, usually based on student–student interaction). Much of Topping's work focused on peer relationships within schools, but Hannon (1995, p. 25) pointed out that many of those advocating parent involvement have made use of Topping's approach, and often use the terms *paired reading*, *shared reading*, *home reading*, and *parent listening* interchangeably.

Topping's approach is essentially one of having a more experienced reader provide immediate encouragement and support for the less experienced, as the two readers read together, with the tutor gradually withdrawing support as the tutee gains in confidence. Paired reading has been used with readers of all ages from age 6 to adult. The approach has been widely evaluated, in over 150 small projects involving over 2,300 participants, and the results have been very positive. Brooks, Flanagan, Henkhuzens, and Hutchinson (1998), however, in their review of the effectiveness of early intervention schemes in the United Kingdom, commented that Topping's claim of overall effect size (0.87 for reading accuracy, over 34 projects) may be an overestimate, because Topping calculated his effect sizes using a nonstandard metric.

Research into the development of reading abilities beyond the early years is relatively new field in the United Kingdom, and it is worth reviewing it in some detail, because the studies initiated in the 1970s are still having an impact on practice. Research into extending reading development first received funding at national level in 1973, when the Schools Council (the government-funded national curriculum development agency, which was closed down by Margaret Thatcher when she became Secretary of State for Education) launched two research projects, Extending Beginning Reading (Southgate, Arnold, & Johnson, 1981) and The Effective Use of Reading (Lunzer & Gardner, 1979). These projects looked respectively at reading in a representative sam-

ple of schools in the age ranges 7–9, and 10–15, across the countries of England and Wales. Southgate's project reported some significant findings, the import of which is still being felt. She stated that teachers gave far too much time to listening to children read, that teachers did not use that time well, and that while teachers were devoting time to hearing children read, children spent up to a third of their time off-task. As an alternative to listening to children read, more sustained and less frequent interactions were recommended, in which comprehension development, reading progress, and reading interests could all be explored (Southgate et al., 1981, p. 320). One startling research finding was that students in the school in which the teachers spent the least amount of time listening to individual children read made the most progress in reading (Southgate et al., 1981, p. 319).

Southgate's findings found support in the research of Hazel Francis (1987), who in another widely cited study concluded that teachers needed to have a much clearer understanding of the intentions and pedagogical goals in hearing children read. She suggested that in their desire to avoid making the experience an unpleasant one for children, teachers tended to hold back from correcting, and thus from explicit teaching, and that it was this that made the practice seem limited to an outside observer.

The Lunzer and Gardner (1979) project carried out the most extensive investigation ever undertaken in the United Kingdom into the place of reading at the end of elementary schooling and in the first 4 years of secondary school, and producing findings that are still regarded as important and valid. The study investigated:

- The nature of reading comprehension subskills (a unitary model was proposed, with comprehension defined as the ability and willingness to reflect on what is read).
- The readability of school texts (a cross-validation study found that pooled teacher estimates of readability were highly reliable, and that in general, the harder a text, the more likely a student would be to have to read it at home, without the availability of teacher or peer support).
- How reading occurred in the classroom (reading took up about 10–15% of a student's day; outside of English, or Language Arts, however, this percentage dropped to 8–11%).
- Reading for homework (there was more sustained reading at home than in school; even when the texts were difficult, children tended to rate the reading they were assigned for homework as easy).
- The use of commercial reading development programs (in a study of 1,018 children, at ages 11, 12 and 15, a 3-month intensive course using commercial reading materials produced highly significant gains in experimental groups, which were sustained in a late posttest 6 months later; gains were particularly large in the case of groups of weaker readers).
- The use of small-group discussion activities to develop comprehension subsequently called DARTs—Directed Activities Related to Texts (these were found to be useful in a range of subject areas, promoting close reading, and increasing confidence).

Lunzer and Gardner also reported on how teachers sought to develop reading at junior high school level (broadly speaking, they didn't), how children read in class (generally in bursts that summed to less than 15 sec in 1 min, even in text-intensive subjects as history and geography), and the tasks that teachers offered students for "research" (these were often too often inauthentic).

The two Schools Council studies appeared at a time when reading development was about to become a focal issue for teachers. One important reason for this was the

democratization of schooling that accompanied government moves during the 1970s to decrease selective and increase comprehensive schooling, which drew the attention of a much greater number of teachers to the needs of weaker readers. Another was the contribution of the Open University's courses for teachers. During the 15 years that followed the publication of the government's report on the teaching of English (DES, 1975) thousands of teachers participated in the Open University's distance-learning courses on reading, many at master's level, and all carrying out classroom-based research into reading activities and reading development.

During the 1980s, Lunzer and Gardner received funding to extend and further evaluate the DARTs activities (Davies & Green, 1984; Lunzer & Gardner, 1984). What was significant in these studies was that teachers within each content area devised small-group reading development activities, which were formatively evaluated before inclusion in the report. Although the evaluation did not explore whether the DARTs activities were associated with gains in reading achievement, the authors did report increased attention to text, increases in reflective reading, improved comprehension, and readers who used DARTs activities needing to ask fewer questions of the teacher.

RESEARCH INTO EARLY INTERVENTION

There was a great deal of research activity related to the evaluation of early intervention in the United Kingdom during the 1990s, much of which may be attributed directly or indirectly to the government initiatives referred to later in this chapter. The United Kingdom government gave substantial support for a pilot implementation and evaluation of Reading Recovery (Clay, 1993) in 21 local authorities, and also supported an evaluation of a range of family literacy projects (Brooks, Gorman, Harman, Hutchison, & Wilkin, 1996). Other projects arose out of the work by psychologists into reading processes. Of particular importance were intervention studies designed to assess the effectiveness of various types of phonological training. The Sylva and Hurry (1995) evaluation of Reading Recovery included an alternative treatment group that received phonological training, and in Cumbria, a county in the north of England, Hatcher et al. (1994) evaluated a program that compared the effectiveness of phonological training with and without a complementary program of individualized activities broadly similar to those offered in a Reading Recovery session.

Brooks et al. (1998) undertook a meta-analysis of these studies, and of approximately 50 more (many of which were too descriptive to be capable of inclusion in the meta-analysis). In a lucid and authoritative monograph, the authors reviewed and compared the 20 studies, which they felt provided useful answers to the question of which interventions have been effective. Where a particular intervention had been the subject of numerous evaluations, some of which had been reported in insufficient detail to enable effects to be judged on any statistical basis, the authors adopted the useful expedient of reporting the most meticulously designed and reported. In the remainder of this section, I draw heavily on the Brooks et al. (1998) analysis.

In some respects it is difficult to generalize from the evaluations of Reading Recovery in the United Kingdom. All of the 21 local authorities in which Reading Recovery was implemented produced an evaluation report, but many were descriptive and did not report outcome measures other than in relation to Marie Clay's diagnostic survey instrument, or through data on how many students were "successfully discontinued" from the program. These measures are not easy to relate to standardized tests. The most comprehensive evaluation (Sylva & Hurry, 1995), however, did use standardized tests, and reported on the implementation of Reading Recovery in six London boroughs and in Surrey, a county bordering south London. All the children in this study were age 7 at the start of the project, and had already failed to make a good start in read-

ing. A total of 89 children across the seven authorities were given Reading Recovery. An alternative treatment based on developing phonological awareness was given to a total of 91 children in a second set of schools, and the design also included a no-treatment control group in a third set of schools in the same authorities.

The evaluation showed Reading Recovery to be expensive, but effective: The experimental group made mean gains of 16 months in word reading over the 8.5 months of the intervention (with an effect size of 0.75), and these gains were sustained. By contrast, the no-treatment controls made only an 8-month gain. A very important finding of the study was that the alternative treatment groups, which had been given a sustained program to develop phonological awareness, made only modest progress: Their mean reading gain was 10 months over the 8.5 months of the intervention (with an effect size close to zero). The clear implication from the Sylva and Hurry study is that, although phonological awareness may be a good predictor of future success in reading, interventions for poor readers that focus on phonological awareness alone will have very limited success.

A very similar conclusion was drawn by Hatcher et al. (1994) in their study in Cumbria. This study had three experimental groups and one no-treatment control group, with 31 children 7 years old (±1) in each group. The treatments were a "phonology alone" program, a "reading and phonology" program, and a "reading alone" program. Controls to minimize differences attributable to teacher's style and other unintended interactions were exemplary, and the results were dramatic: The "reading and phonology" group showed significant gains in word reading, reading accuracy, and reading comprehension, with effect sizes in the range 0.45 to 1.60. Just as importantly, neither of the other treatment groups showed any significant gains over the normal schooling group. Hatcher et al. (1994) argue that there is a powerful interaction effect when phonology and reading are taught together, and that this was what made the mixed program effective. The mixed program was modeled on Marie Clay's (1985) procedures, but included additional phonological activities.

Brooks et al. drew the following conclusions from their meta-analysis:

- Normal schooling ("no treatment") does not enable slow readers to catch up.
- Work on phonological skills should be embedded within a broad approach.
- Children's comprehension skills can be improved if directly targeted.
- Working on children's self-esteem and reading in parallel has definite potential.
- Approaches using information technology (such as integrated learning systems) only work if they are precisely targeted.
- Large-scale schemes, such as the Basic Skills Agency Family Literacy project (Brooks et al., 1996) and Reading Recovery, although expensive, can give good value for money.
- Where reading partners are available and can be given appropriate training, partnership approaches can be very effective.
- Most of the schemes, which incorporate follow-up studies, continued to show gains (Brooks et al., 1998, p. 14).

READING RESEARCH AND POLICY ISSUES

The period 1988–1998 was a cataclysmic one in the United Kingdom in terms of the impact of government policies on schools (Harrison, 1995), particularly in England and Wales, and to a lesser extent in Scotland and Northern Ireland. During the period 1988–1991 the National Curriculum was established in England and Wales, and teachers were given a statutory duty to administer and test it, focusing on achievement at

the end of three "key stages," corresponding to years 2, 6, 9, and 11 in the English school system (grades 1, 5, 8, and 10 in the United States).

The rationale for these changes was a concern to raise educational standards, but some of the government's strategies were difficult to reconcile with these goals. For example, in 1990 the Thatcher government abolished the Assessment of Performance Unit, the language monitoring group of which had been based in the National Foundation for Educational Research since its establishment in 1980. This group had been responsible for developing nationally validated tests of reading, writing, speaking, and listening in English and Welsh schools, and was by far the best placed to report on any changes in national standards of literacy (Gorman, White, Brooks, Maclure, & Kispal, 1987).

The government's thinking was that if all parents were able to receive information on the performance of their own children, using tests administered in school, with performance related to National Curriculum standards, then there would be no need for national surveys (K. Clarke, personal communication, February 11, 1991). But unfortunately, the task of devising completely new sets of classroom-based assessment materials to perform simultaneously the job of diagnostic and summative assessment, in English, mathematics, and science, at a number of age levels, proved too great, and the result was administrative chaos, teacher disaffection, a record number of teachers taking premature retirement, and a national boycott of the government's tests (Harrison, 1995; Harrison, Bailey, & Dewar, 1998). Some innovative approaches to classroom-based assessment were piloted and then rejected before the evaluations of them had even been submitted (Vincent & Harrison, 1998), whereas independent evaluations of the government's new tests (released 2 years after the reports had been submitted) showed that they fell short of acceptable standards of rigor in terms of validity and reliability (Ruddock et al., 1995).

During the middle and later 1990s, an uneasy truce developed, and the government's testing program was reduced, which permitted test development to occur at a less frantic pace and a dialogue to be opened between those responsible for enacting government policy and academics with testing expertise (Horner, 1998; Brooks, 1998; Vincent & Harrison, 1998). The Labour government, which came to power in 1997, was no less interventionist than the Conservative government that preceded it, and in 1998 government's Literacy Task Force announced that every elementary school in England and Wales would be required to deliver a Literacy Hour each day, following a strict set of pedagogical goals that were sent out to schools, and that were to be accompanied by in-service teacher development activities, some of which have been supported by additional government funds.

Scotland and Northern Ireland have fared somewhat better than England and Wales, in terms of direct government intervention in literacy teaching and assessment. In Scotland, for example, a suggested national program for literacy development for the age group 5–14 years was put forward, and although most schools decided that it would be unwise not to "volunteer" to adopt the new curriculum, it has been launched in a much more collegial climate than its English counterpart (in England, the national curriculum was drawn up by officers of the Schools Curriculum and Assessment Agency, reporting directly to ministers; in Scotland, the curriculum and the suggested assessment arrangements to accompany it were written by schools inspectors, who collaborated closely with academics, teachers and local authority personnel to ensure that the curriculum would be likely to receive wide support).

Innovative assessment arrangements have also been developed in Scotland in a more collaborative atmosphere than has been the case in England. The approach in Scotland has been to help teachers to become more skilled at formative evaluation of literacy development, and to this end a *Diagnostic Procedures* handbook was developed

by a group of teachers working closely with members of the schools inspectorate and academics (Haywood & Spencer, 1998).

It is important to end this section with a mention of two reports that produced significant data on trends in reading standards in the United Kingdom. Government initiatives to raise standards are generally predicated on the assumption that reading standards are in decline, and certainly the press in the United Kingdom gave sustained support to this belief during the early 1990s. The available data did not support such a view, however. Two reports that appeared during the 1990s gave strong evidence that this was not the case in the United Kingdom. Brooks (1997) reviewed all the national survey data on reading in the United Kingdom over 50 years, and concluded that literacy standards have changed very little over that period. He noted that standards of reading in England appeared to dip slightly at the end of the 1980s (when teachers were grappling ineffectually with the demands of the new curriculum, and an unprecedented number of teachers in primary schools took premature retirement), but recovered in the early 1990s. International comparisons suggest that the British educational system produces high standards of literacy, with middle and upper ability children performing at a level comparable to the most successful countries in the world; more worrying is the longer "tail" of underperformance in the United Kingdom, which some commentators have ascribed to the elitist nature of the United Kingdom educational system.

The other important study was a replication of the Whitehead, Capey, and Madden (1977) study of the voluntary reading habits of 8,000 children aged 10, 12, and 14 (Hall & Coles, 1997). reported very similar findings to those of Whitehead, and emphasized that there was no evidence of a widespread decline in voluntary reading. Boys and girls at age 10 and girls at age 12 were reading more than boys at 12 and girls at 14 were reading about the same amount as their counterparts 25 years previously; only boys at age 14 had a mean significantly below that of Whitehead's population, and this was only a reduction of 0.3 books read in the previous month. What was worrying was that boys still read far less than girls, at all age levels, a finding that perhaps goes some way toward explaining the highly significant gender differences in reading achievement noted in the large-scale APU studies of the 1980s (Gorman et al., 1987).

FINAL WORD: NEW LITERACY STUDIES

As I suggested in the introduction to this chapter, research into reading processes in the United Kingdom has been carried out mostly by psychologists, research into practice has been led for the most part by scholars in university schools of education, whereas policy-driven research has been directed and funded by government agencies. Nearly all the research reported in this chapter falls within the paradigms of traditional psychometric research, classroom-based research, or policy research.

This situation is changing: Street (1995) has argued compellingly that traditional or "commonsense" definitions of literacy are only a privileged subset of the available models. He argues that such commonsense models, whether they be those used by researchers to conceptualize literacy as a technical activity or those used by politicians to characterize literacy as a kind of economic activity, are limiting and hegemonic. He contrasts these commonsense models, which he describes as *autonomous*, because of their tendency to render invisible alternative models, with *ideological* models that admit of diversity in definition, and that open up the field of literacy research to a fresh perspective: the study of literacy practices. On such an analysis, literacy research can become a branch of cultural studies, with the task of the researcher being to lay bare for analysis both the power relations that make up the landscape of literacy practices within a culture, and the discourses that map them.

A related if not directly similar approach has been adopted by researchers at the University of Lancaster (Fairclough, 1995; Hamilton, Barton, & Ivanic, 1994). Around the terms critical discourse analysis and new literacy studies, these colleagues and a number of co-workers have created a series of perspectives on literacy and literacy practices that are not only potentially powerful; they are ones which have found a ready audience with teachers and teacher educators, because they offer tools for critical analysis in the literacy field that many have found liberating. Studies of the social aspects of literacy seem set to become an area of growth in the future.

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CHAPTER 3

Education in Transition: Trends in Central and Eastern Europe

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The close of the 20th century witnessed an explosion of new democracies. These fledgling democracies emerged in a part of the world thought destined to totalitarian rule well into the 21st century. But the general euphoria in the West over the rise in democratic expression has subsided recently with the realization that these democracies are tenuous at best, with many of the newly founded democratic republics slipping toward autocratic or totalitarian governments and, in some instances, near chaos. Thought has now centered on considering by what means democracies can be established, and what role schooling plays in supporting civil society. Coincidentally, many Western societies have begun to examine these same issues (Oldenquist, 1996; Smith, 1995; Soder, 1996) as concern develops regarding Western adherence to democratic principles and practices.

It has long been understood, especially by totalitarian regimes, that control of schools, and the minds of young people, is essential to controlling the population. During 45 years of Soviet domination, Central and Eastern European (CEE) schools were subjected to systematic manipulation (Organization for Economic Cooperation and Development, 1996; Harangi & Toth, 1996) and a Soviet-style education system was imposed. Soviet control over schools reached to the heart of education, affecting daily classroom practices and relations between teachers and students. Through intimidation, teachers became conduits and students passive receptors of information and ideology (Karsten & Majoor, 1994; Stech, 1994; Rust, Knost, & Wichman, 1994).

Meredith and Steele (1995), based on their work in CEE, stated in their presentation to the European Conference of the International Reading Association in Budapest, "These formally subordinated nations are now struggling to establish democratic institutions. Amid the turmoil of transition it is becoming increasingly apparent that the hope for democracy rests with the schools and in the minds and hearts of young people." Schools in the region are engaged in a titanic struggle for identity and heart amidst the collapse of former regimes and their imposed curricular manifestos (Döbert & Manning, 1994). Schools are caught in the crossfire of (a) recovering from the sudden collapse of socialism and (b) leading the way into the future without a road

map (Stech, 1994). Thus, the evolving CEE societies are contending simultaneously with assembling civil societies and with restructuring schools so they will sustain and nurture a new social order. Any consideration of trends in education during this transitory period must be linked to considerations of this aqueous cultural, social, economic, and political milieu. Moreover, although similarities exist among nations of the region, so do substantial differences, which prevent broad characterizations.

In this chapter we first describe the history and continuing tensions of education in Central and Eastern Europe. Our portrayal of the region describes the Soviet legacy, the beginnings of school reform, and Central and Eastern European schools today. Second, we elaborate in some detail on the links between literacy, democracy, and school reform. Reform has dominated CEE educational communities since 1989. Reforms have encountered some resistance or have been inadequately conceptualized and/or implemented, leaving behind few successes. The authors, living in CEE and working with schools and universities for over 5 years, are actively engaged in two successful education reform efforts. These school reform initiatives are briefly described as examples of reform efforts effecting change. Third, we explore university reform and the present status of academic research. Research has suffered a particularly egregious fate during the second half of the 20th century. We will explicate the plight of academic research, describe current research practices, and consider future research needs. Finally, some conclusions are drawn about public schooling, university teacher preparation programs, and research trends.

HISTORY OF EDUCATION IN CENTRAL AND EASTERN EUROPE

The Soviet Legacy

Ample evidence exists that the historical, sociological, linguistic, political, economic, and moral characteristics of any society are inseparable from its collective cultural context. This reality is no more apparent than in Central and Eastern Europe, where history, politics, culture, and economics lie at the vortex of all issues, including education and educational research in general, and literacy and learning in particular (Mitter, 1996). It is impossible to understand present or future research trends without first becoming aware of the historically significant realities that impinge on current educational practices and constructs (Karsten & Majoor, 1994).

It may be helpful to begin by defining the geographic boundaries of CEE. Although there is debate as to just who may lay claim to a European context, the most inclusive definition of Europe, beyond the boundaries of "Western" Europe, was proposed by Mitter (1996) and incorporates the former Soviet satellite nations cut off from "Western Europe" after World War II plus the newly independent states (NIS) of the former Soviet Union that lie between the Central European corridor and Russia. To these is then added Russia. This vast array of cultures and peoples has often been seen as a largely homogeneous group. Under Soviet domination, this view was superficially true (Rust et al., 1994). However, as nationalist tendencies of the post-1989 collapse of Soviet domination have revealed, the region is a mosaic of peoples as various in culture, habit, and language as anywhere on earth. Perhaps the two most distinctive features these nations now share are (a) a recent past during which the imposition of Soviet rule and Marxist ideology nearly crushed their respective economic, cultural, and social infrastructures (Revel, 1993), and (b) an attempt since 1989 to transition to a different, mostly democratic social order, revitalizing or recreating their cultural, social, economic, and political foundations (Rust et al., 1994).

During the period of Soviet domination, a universal Soviet system of education was imposed. The hallmark of this system was centralized control (Döbert & Manning, 1994; OECD, 1996; Szebenyi, 1992). The school system model typically included extensive kindergartens (preschool programs for children ages 2-6), 8- year basic schools, and vocationally focused secondary programs based on internal employment needs. Consequently, some students were directed toward gymnasia for eventual university training, whereas others attended technical schools for subsequent work in industries or attendance at technical universities. Service schools such as restaurant and hotel schools and, in some countries such as Romania, elementary teacher training high schools, and other vocational schools were established according to centrally determined employment needs. Curriculum was centrally controlled, commingling general content with Marxist ideology. Educational research was removed from universities and housed in research academies. Research was formulated by state authorities and was generally intended to show support for the imposed political system. University faculty were not allowed to pursue independent research agendas.

Karsten and Majoor (1994) described the impact of the Soviet model more starkly, suggesting that under Communism, substantial damage was done to educational systems in four fundamental ways: damage to *knowledge* through neglect, oppression, controlled access and pervasive censorship; damage to *thinking* through limitations in experimentation with new ideas; damage to the *teaching profession* through loss of prestige, lack of respect for roles and by requiring schools to transfer ideology; and damage to *values* by imposing a pseudo-value structure. Stech (1994), decrying the Czech experience with the Soviet model, wrote, "The past school system model brought us not only pain, but became anchored deeply in our consciousness and can be linked to some [prescribed] values accepted by people in everyday life" (p. 71).

Beginnings of School Reform

The primary task for students throughout the system was to memorize vast amounts of information and prepare for exhaustive examinations administered with alarming frequency. The curriculum was extremely dense, and students were under enormous pressure to perform. Initial reforms were inspired by the belief that schools needed to become more humane. Cracks, however, began to appear in this uniform educational model in the early 1980s as Hungary moved toward decentralization (Harangi & Toth, 1996; Németh & Pukánsky, 1994; Szebenyi, 1992). Although accomplishing more on paper than in practice, it was a benchmark in education reform.

Even with the rigid delivery of an almost exclusively information-driven curriculum, the education system was a source of great pride in most nations. Numerous achievements were credited to the system. In many countries of the region, schooling was not universally available until after World War II. The Soviet model was egalitarian, and compulsory education was established. Literacy rates throughout the region continue to be among the highest in the world. Schools were well-disciplined, calm, and secure places where students came with respect for learning. Academic performance, as measured by standardized test, often placed CEE students near the top in global comparisons.

Despite these apparent successes, education was targeted for reform shortly after 1989 by nearly every nation in the region. The initial reform movement focused on six basic goals:

1. Rewriting the curriculum, removing Marxist ideology and rewriting historical accounts, broadening the literature base, and increasing textbook choices.

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- 2. Restructuring schools to better serve newly established democratic institutions, initially targeting changes in civic education curriculum.
- 3. Humanizing schools so students would have more opportunity for active learning.
- 4. Preparing schools for Western evaluations, bringing schools up to "Western European" standards for eventual membership in the European Union.
- 5. Decentralizing school management, giving local authorities greater decisionmaking authority.
- 6. Reestablishing a university-based research agenda.

Agreement to remove Marxist ideology from textbooks was reached with relatively ease. Rust et al. (1994) stated, "The educational adjustments taking place throughout the region are significant and there is striking uniformity of educational changes taking place, all related in one way or another to a rejection of the communist ideology that has dominated education for the past four decades" (p. 283). Restructuring schools so they would better support civil societies and humanizing schools by introducing alternative instructional practices proved more difficult. Most CEE nations have adopted independent reform agendas, often supported by Western organizations such as the World Bank, Open Society Institutes, the European Union, United States Agency for International Development (USAID), and the United States Information Agency (USIA). New civic education curricula have been developed with varying degrees of implementation success. As the push for entry into the European Union intensifies, the need, especially for universities, to have in place systems and standards consistent with Western European standards has prompted the call for more rapid change. However, adoption of a comprehensive pedagogical research agenda has been slower to materialize due to shortages of funding, separation of schools from universities, and a shortage of skilled researchers.

School decentralization has experienced only limited success. Many countries have struggled with issues of local control, with resistance coming from many quarters. Many opponents of decentralization believe in the necessity of a national curriculum to maintain standards. Those opposed to decentralization suggest there is little expertise in rural communities to run schools. Schools also continue to be seen as political mechanisms. Allowing local control means letting go of a potentially productive political asset.

What is clear is that schools and universities are presently engaged in fundamental change and that school reform is inexorably linked to economic, political, and social reform. The massive reforms underway are, however, meeting resistance within the schools. Under the previous regime (Kaufman, 1997), school reform usually meant greater bureaucracy without real change. Yet most educators recognize that real reform is essential. As one Hungarian teacher told Kaufman, "Traditional reform is not the answer. The only reform that stands a chance is one that will aid in overcoming crisis. Any new education policy must help reform the economy. Students may need both more education and a different education" (Kaufman, 1997, p. 91). In fact, reform is not simply important, it is paramount. The rejection of the Soviet model has left a void. After 45 years of a single model, few instructional alternatives are readily available. What is needed (Meredith, Steele, & Shannon, 1994) is long-term systemic school restructuring intended to provide a coherent education system open to all stakeholders and responsive to the compelling academic, social, and economic imperatives of the region.

Central and Eastern European Schools Today

Bennett (1996), describing present day Russian schools, could have been describing the entire former sphere of Soviet influence. She wrote, "Today the old monolith, in which every Soviet pupil turned the same page of the same textbook on the same day

in every school across eleven time zones, has been pulled apart" (Bennett, 1996, p. A22). Svecova (1994) noted that there is a universal understanding that the remains of the Soviet education system cannot adequately support students in the new, market-driven, civil societies now emerging.

At a 1997 conference on school reform held at Lake Balaton, Hungary (Temple, Meredith, Steele, & Walter, 1997), educators from 11 CEE and Central Asian nations presented their views on the status of education in their respective countries. The overwhelming majority identified the same factors influencing the quality of education. Those factors included overcrowded classrooms (up to 50 students per class), poor quality textbooks, rigid instructional practices, teacher-dominated classrooms, emphasis on rote memorization of factual information, absence of practical application of knowledge, absence of critical thinking, overburdened curriculum, limited resources, poor school/parent relations, shortened school day, low teacher salaries, centralized control, and unresponsive university pedagogical programs.

Tremendous variation exists in the conditions of schools and universities throughout the region. The Balkans have suffered the most since 1989 (Open Society Institute, 1997). The conflicts in the former Yugoslav Federation have left schools in Bosnia in need of rebuilding literally from the ground up. Civil unrest in 1992 and 1994 and again in 1997 in Albania left over 1,000 schools destroyed. Those that remained were heavily vandalized and their meager supplies looted (Meredith, 1997; Meredith & Steele, 1998). Other nations of CEE have fared better. Although routinely underfunded, schools and universities in Slovakia, the Czech Republic, Russia, Poland, and Hungary have maintained standards and pushed ahead with school reform (Open Society Institute, 1997). The Baltic states have also pursued innovative education initiatives, perhaps more successfully than others in the region (Temple et al., 1997).

What is evident is that throughout the region tremendous energy is being expended on education reforms. Although continuing to labor under remnants of Soviet structure, drastic changes are being implemented. Despite the devastation of schools in Albania, educators are engaged in an array of initiatives (Meredith, 1996; Meredith & Steele, 1998; Musai, 1997). Four model kindergarten programs have been implemented. A major school construction program financed by the Soros Foundation (Musai, 1997; Open Society Institute, 1997) and a textbook revision program to replace outdated texts across all grades are underway. In Bucharest, Romania, elementary schools often operate three shifts a day, each shift operating for 3 hours. Yet Romania has embarked upon an ambitious restructuring effort in cooperation with the World Bank, including teacher and administrator in-service, curriculum development, textbook production, and university/school cooperation. Slovakia has moved forward with teacher and administrator recertification legislation (Steele, Meredith, & Miklušiáková, 1996), linking continuing education with salary increases. The Slovak Ministry of Education has also recognized nontraditional, innovative, in-service programs for teachers and administrators as qualified recertification programs.

LITERACY, DEMOCRACY, AND SCHOOL REFORM

For school reform to be effective, it must be conceptualized within the prevailing context of post 1989 Central and Eastern Europe where schools and society are reformulating out of a legacy of Communist totalitarianism, a social reengineering never before attempted in history. It is a context of uncertainty. The Hungarian film director Ibolya Fekete (1997) best described the context in which her East European peers survive when she declared, "You [East Europeans] have lost everything you used to be, and now you have to find a new place. It is a basic human struggle" (p. 56). Jozef Miklušiák, a former member of the Slovak parliament, succinctly stated this idea in relation to

school reform in 1993. He said, "Our children are having difficulty finding their sense of life. We need help guiding our schools so children can find their place in life in a democracy and to see for themselves a future within a democratic society" (J.Miklušiák, personal communication, May 1993).

The discussion about schooling has inevitably led to discussions about creating and sustaining democratic impulses. Perhaps one of the more significant educational legacies of the collapse of the Soviet empire will be the sudden imperative to juxtapose education and democracy within, as Fekete has said, this "basic life struggle," thereby demanding that the discussion become immediately manifest in instructional practice. The links between literacy and life-long learning on one hand and literacy and democracy through empowerment and constructive meaning making on the other have placed the language and literature of literacy at the center of the discourse on democracy and schooling. This linkage has become more transparent through the writings of theorists such as Giroux (1993), Rényi (1993), and Soder (1996). Within CEE, a growing number of scholars are examining this relationship in the context of ongoing school reform (Mieszalski, 1994; Parizek, 1992; Sandi, 1992).

The connections between literacy and democracy, although now more transparent, are not necessarily intuitive (Meredith, Steele, & Athanassoula, 1996; Steele, 1996). Certainly the connections between literacy and democratic participation at what Dewey (1938) suggested as an institutional or superficial level is intuitively obvious. That is, such literacies as political literacy will contribute to voter choice. Less intuitive is the linkage recent literacy pedagogy theories and practices have established at a more fundamental and personal level. It has been suggested (Meredith, 1996) that literacy pedagogy can foster democratic communities within schools, thereby nurturing civil societies. This thinking arises from the belief that democracy embodies a set of behaviors and values that guide daily life so that citizens within a democratic society behave in ways that sustain democratic experience. Schools are thought to be well situated to establish a democratic climate and provide genuine experiences with democratic interchange.

Many would argue that one of the central tasks of literacy is meaning making (Rosenblatt, 1978)—that is, to engage students in constructing meanings so as to succor innovation. Classrooms are paradigmatic settings for democratic culture because they have the capacity to engender unlimited diversity of ideas, reflections, opinions, and meanings. Meaning making becomes the defining act for democracy because it is the basis for valuing and the platform for self-reflection, opinion formation, and decision making.

In many instances education reform has not meaningfully entered the classroom. Teachers and students continue the process of passive information transfer. Critical thinking, opinion formation, initiative, collaborative problem solving, development of respect and tolerance, consensus building, constructive conflict resolution, and participatory decision making all await systematic and consistent introduction. The very foundational behaviors of democratic life remain apart from daily instruction.

Two reform efforts about which the authors are aware attempt to address reform through a model based on literacy pedagogy and principles of systemic engagement. The Orava Project (http://www.uni.edu/coe/orava) in the Republic of Slovakia is a model program that is succeeding at the most fundamental level of education restructuring precisely because it does systematically address and model teacher behaviors and instructional practices that are fundamental to the needed changes and because it is collaborative, avoiding the imposition of ideas in favor of a sharing model consistent with Nel Noddings's (1992) notions of caring. The project is a complex, systematic endeavor intended to effect permanent changes that are reflected in the interaction of people in their daily lives. Primary efforts include the establishment of core teacher leaders (CTLs) as teacher trainers for dissemination of democratic instructional prac-

tices, and introduction of these instructional practices into university teacher preparation programs.

The Reading and Writing for Critical Thinking Project (http://www.uni.edu/coe/rwct) introduces a comprehensive teacher in-service program focusing on critical thinking into an ongoing school reform context that was designed specifically for the participating countries by local educators from those nations. Both reform efforts bring together educators from around the world to share instructional practices that engender democratic behavior and maximize student learning.

The rapidly changing cultural climate of the region necessitates school change. There is historically a tradition of school transformation (Anweiler, 1992), which, although dormant during the communist era, is reawakening. The immediate needs of these transforming societies have put enormous pressures on schools to respond quickly. Those who consider restructuring schooling as fundamental to sustaining democracy have an even greater sense of urgency. Democracy's hold in the region is tenuous. Many consider today's elementary students as the pivotal population who will either embody democratic interchange and secure its place in the social order or fail to embody essential behaviors, allowing democracy to slip from the political landscape.

UNIVERSITY REFORM AND ACADEMIC RESEARCH

Reform at the university level has been complicated by numerous factors. One factor is the extent to which various university faculties were exposed to Western thought. Prior to 1989, exposure to outside ideas and influences differed widely according to both discipline and access of a particular country to Western thought. Scholars in mathematics and the natural sciences, which were not considered political, were permitted much greater access to Western knowledge. Many learned English or German and read scholarly work in those languages. Social scientists and educators, in contrast, were regarded with far greater suspicion and were more restricted. While others studied abroad, these professionals remained behind the iron curtain where ideas were easier to control. Consequently, before 1989, many scholars in education were unaware of trends and theories emerging in the west.

Before 1989, university faculty were not permitted to conduct independent research. Instead, research institutes were created. Research in these institutes was hampered by three factors:

- 1. The state typically determined the research questions.
- Source material was limited or nonexistent, reducing literature searches to a few relevant texts.
- 3. A research tradition based on a foundation of sound empirical research models was absent.

Since 1989, there has been renewed interest in academic research. However, opportunity and financial support lag behind interest, leaving many potential researchers frustrated. Computers for data collection and data analysis have only recently become uniformly available. The lack of availability of translated software has compounded the problem. For nations with larger populations, and thus more viable markets, software is now available in the local language.

In many nations of CEE, research institutes continue to exist. They are typically detached from the education community and offer little insight into effective instructional practices, continuing to be more content to focus on theory development and so called "scientific pedagogy." Azarov, cited in Furjaeva (1994), called for dramatic change in pedagogical research, suggesting, "The teacher needs living pedagogical

knowledge" (p. 143). And Furjaeva (1994) suggested the calls for "new research approaches" were an inevitable consequence of the failures of the reform movements of the 1980s.

Despite the continuing presence of research institutes, there has been a steady increase in university-based academic research. Significant CEE-initiated research is beginning to appear in local and international publications. Further, cooperative research between CEE and Western university faculties is increasing, creating a valuable comparative research literature (Comparative Education Society in Europe, [CESE] Conference, 1996).

The 1996 CESE and the 1997 EARLI (European Association for Research on Learning and Instruction) conferences provided a representative sampling of the research topics and methods emerging in the region. These two conferences provided a forum for 53 CEE research projects addressing a wide array of research topics, including cognitive processes in learning, effective civics education curricula, cognitive skills in reading, evaluation of school reform effectiveness, reading comprehension, achievement outcomes, academic assessment practices, school violence, motivation, reasoning and thinking, learning styles and strategies, school transformation, schools and globalization, and teacher education practices.

Research methods varied considerably. Much of the comparative research conducted with Western researchers was empirically based using formal research design techniques. Other independent research was more observational or the result of surveys, interviews, and literature reviews. Much of the school reform research reported is anecdotal, reporting teacher and student reactions to reform efforts. Few systematic intermediate or long-term school reform outcomes studies are being reported. The gulf between schools and universities also continues to limit the amount of school-based research being conducted (Furjaeva, 1994; Meredith & Steele, 1995).

In conversations with education ministry leaders from Estonia to Albania the lament is the same. During the past half century only a few researchers were able to engage in informative education research. Existing research traditions were lost. Now research needs are enormous, with effectiveness research on school reform efforts one of the greatest needs. The strengths and weaknesses of existing education programs are only acknowledged anecdotally. Ministries are making systemic decisions and developing guiding school policy without adequate data for decision making. The number of researchers remains small, whereas research needs exist in every area of education and schooling.

CONCLUSION

Educators in Central and Eastern Europe are engaged in a critical reexamination of their role in society. Teachers, previously marginalized by manipulative political agendas, are now adjusting to a new reality (Rust et al., 1994). For those educators who understand their central role in social construction, the pressure for change is enormous. There is, among these nations, a long history of commitment to education. Students come to school eager to learn, prepared to embrace new ideas, in a hurry to develop ways of knowing that will bring them comfort within their amorphous cultural milieu.

The trend in education in CEE is to both move away from education of the recent past and toward an as yet undefined schooling that prepares young people for their future. It will remain undefined if only because one significant lesson learned from the previous system is that a fixed system cannot survive, and, indeed, should not survive, because it ultimately fails to serve either political or social ends.

Schools and universities are engaged in a transformation process that began with the opening of the Hungarian border to Austria, through the fall of the Berlin Wall and

the 1997 uprising in Albania. The nations of the region are forever linked by this common bond. Yet it would be a fateful mistake to consider this a region of homogeneous peoples moving toward shared goals along the same path with similar sentiments and intentions. Establishing a living democracy has been an all-consuming effort since the revolutions that shook this region. But democracy is not a set of describable entities, laws, or conditions. What is emerging is not a democracy but democracies (Rengger, 1994). By their very nature, democracies necessarily reflect the differences of the people who shape them. The education community is attempting to respond to this massive social restructuring. Reform efforts have challenged, frightened, disappointed, and invigorated the educational culture. Obstacles to reform are numerous and severe, yet reforms move forward, compelled by the sheer thrust of necessity and the reality that each day in each classroom a teacher stands before a group of expectant students and must engage those students in some manner.

Universities are at a crossroads. Fifty years of limited access to pedagogical information and theoretical evolution as well as severe brain drain have left them in a state of intellectual shock. Western university faculty immersed in a literacy-rich and research-intensive community of scholars, without direct observation of the devastation Soviet policy wrecked on research traditions, have difficulty fully appreciating the enormity of the resulting void in existing education research and expertise. It is understandable. Václav Havel (1992), president of the Czech Republic wrote, "Often we ourselves are unable to appreciate fully the existential dimension of this bitter experience and all its consequences" (p. 126). Thus, among the paramount needs of the education community are the development of university research traditions, improved research skills, and the capacity of writers and researchers to translate theory and research into practice. Research is urgently needed to determine school change effectiveness. There need to be systematic studies of the impact of school reform on student achievement, teacher effectiveness, and student and teacher attitudes toward teaching and learning. In some countries there exists only limited documentation of the number of school reform efforts currently underway (Meredith & Steele, 1998). Documentation of newly implemented forms of teacher education and instructional practices is needed. For now, there also exist four generations of people representing vastly differing educational experiences. The oldest generation has memory of the time before Communism and what education was like then. Time is running out on this collective memory, and little written documentation has survived World War II and the intervening Communist years. The children and grandchildren of this oldest generation were schooled under the Communist method. Now the youngest generation has experienced 10 years of a transforming school culture. Among these generations there is a wealth of insight and an abundance of extraordinarily informative tales to be told about academic life. Someone needs to listen to these stories before it is too late.

Basic research about schools and schooling is desperately needed. There is a shortage of research about school and student performance teacher training programs, school culture, developmental and child health needs, special education practices, curriculum development, school management practices, in-service training, and other issues that guide political decision makers and policy developers. Finally, teachers have been excluded from the emerging resurgence in education research. Their engagement is critical to countermand the isolation of university researchers and to build bridges between research and practice. Action research by classroom teachers is needed to inform teachers about their own practices and to offer other teachers the kind of practical, relevant pedagogical information that so-called "scientific pedagogy" research fails to provide. Without more practical research, university research will continue to be marginalized as functionally irrelevant.

One of the most eloquent guides to the psyche of the Central and Eastern European mind is the Czech playwright and president Václav Havel. His insights have illumi-

nated the path of transition and made coherent some of the seemingly imponderable events circumscribing this great transition. In his book *Summer Meditations*, Havel (1992) looked into the "soul" of the transformation process and saw both despair and hope. He wrote:

The most basic sphere of concern is schooling. Everything else depends on that.... Most important is a new concept of education. At all levels, schools must cultivate a spirit of free and independent thinking in students. Schools will have to be humanized, both in the sense that their basic component must be the human personalities of the teachers, creating around themselves a "force field" of inspiration and example.... The role of the school is not to create "idiot-specialists" to fill the special needs of different sectors of the national economy, but to develop the individual capabilities of the students in a purposeful way, and to send out into life thoughtful people capable of thinking about the wider social, historical, and philosophical implications of their specialties. (p. 117)

It is in this context that teachers teach and children go to school. It is a time of enormous change and uncertainty. Clearly much of the burden for tapping that potential for goodwill, for deciding where to begin, for determining how to find meaningful outlets, for nurturing citizens toward "freely accepting responsibility for the whole of society" falls to the schools as caretakers and guides of the next generation of citizens.

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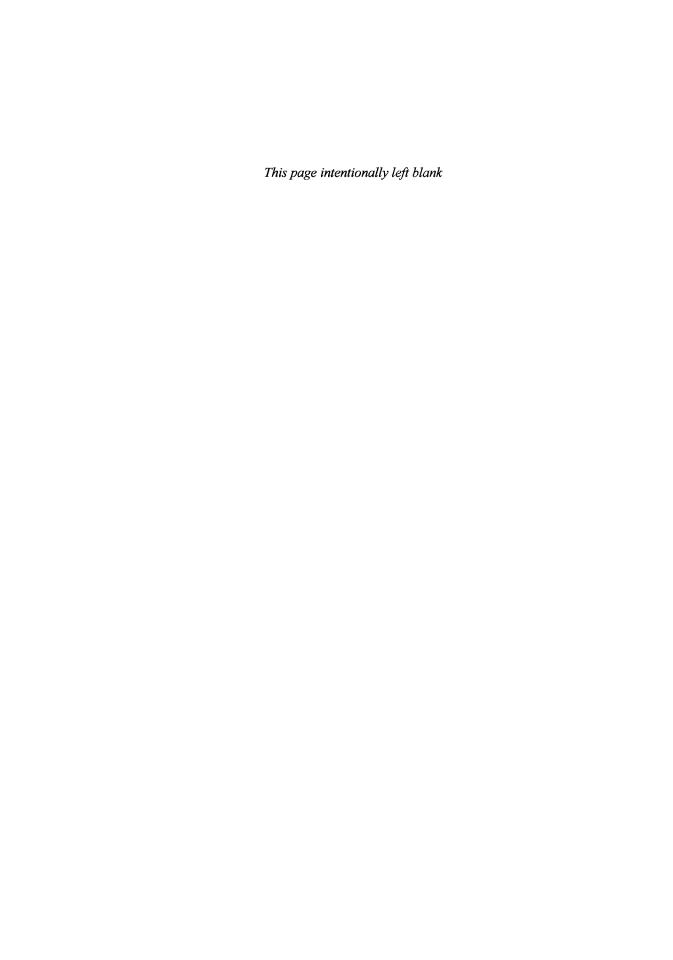
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CHAPTER 4

Literacy Research in Latin America

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In the story *Dos Palabras* [*Two Words*] by Isabel Allende, Belisa Crepusculario accidentally discovered the power of words during her escape journey from misery. Her discovery took place when she curiously inquired about the small "fly's legs" on a brittle newspaper page. The man told her that those were words and what it said. Belisa concluded that words "roam free" and anyone with some imagination may own them. Thus, she decided to make a living by selling words to anyone who would buy them (Allende, 1990).

Universal literacy is a major aspiration of educational systems in every nation. During the 1960s, developing nations launched multiple programs aimed at eradicating illiteracy. Their general premise was that industrialized countries have high levels of literacy, and therefore reading and writing were necessary conditions for national development. It has become evident over time that being able to read and write may be a necessary but not a sufficient condition for socioeconomic advancement and development. More important seem to be group histories (Rodríguez, 1995) and the functions and functionality of literacy as viewed and experienced by the illiterate themselves (White, 1979). Thus literacy movements in Latin America have had to address the tensions between histories and literacy, of learning versus owning the word, and of the need to affect one's reality, like Allende's character (Freire, 1969, 1970).

In this chapter, a brief historical context sets the scene for the substance of the discussion, followed by a theoretical consideration of language, literacy, and culture. In the third section I describe literacy programs in Latin America in terms of mainstream education and alternative education programs that relate to language, literacy and education issues. In the fourth section I discuss the research scenario. Finally, an agenda for research and development attempts to identify gaps and propose areas in which to move forward.

HISTORY AND CULTURE

A common denominator among Latin American countries is European colonization. Countries located in the "connected" lands of North, Central, and South America also

share long pre-Columbian histories of advanced civilizations, some of which are estimated to date from 3000 B.C. Today, long history and old civilizations still exert their weight in the region's culture along with colonization and modern world influences.

The present political and economic status of Latin America is considered by some analysts to be in a necessary transition that will have major effects on the region's educational systems (Marini, 1994). One major change is decentralization of totally centralized systems. Mainly driven by economic demands, the decline of military governments, administrative manageability, and weakening of monolithic sindicalists organizations are also pressing factors (Namo de Mello, 1996; Rodríguez, 1995; Rodríguez & Bernal, 1990; Schiefelbein, 1993; Schiefelbein & Tedesco, 1995).

Tensions between neoliberal ideology, Marxist traditions, and long cultural histories, particularly in the "connected lands" of Latin America, create new demands for change in the socioeconomic and political structures. Marini (1994), analyzing the situation from a Marxist perspective, maintained that Latin America entered into a cycle two decades ago that will still entail sudden changes and unexpected situations. These include increased competition among countries, accelerated industrial development, and the emergence of newly industrialized countries—presently the case of Mexico and Brazil—which will expand to the majority of countries in the region. As a result, there will be greater gaps between social classes and greater demands for higher levels of training, thus altering the structure of the labor force and of employment conditions.

The path however, is a necessary one for developing countries' integration into the new world economy. Influenced by neoliberal ideology, demands for reduction of state controls and of a larger private sector are and will continue to be present. However, Latin American nations' need to be competitive also requires creative means to strengthen their inner forces and to establish more favorable economic terms for themselves (Marini, 1994).

In this scenario, education is a major enabling factor for nations developing their own technologies, economic models, and cultural advances. They need to move forward through balanced developments in various fronts while imperiously maintaining their own identities. Latin America, as a greater society, is richly diverse and pluralistic both among and within countries. Although Spanish and Portuguese are the major official languages, the presence of linguistically diverse indigenous populations places complex demands on educational systems. Geographically, it expands over a vast region in the American continent: from North America (Mexico) through Central to South America and the Caribbean. In the literature, though, the geographical boundaries are not clear. Organizations and publications concerned with the region focus mainly on countries of Spanish and Portuguese colonization histories. Sometimes they include countries of British and French histories like Jamaica and Haiti.

To follow suit, in this chapter the discussion focuses on countries of Spanish and Portuguese colonization histories, which include the leading and larger nations in the region: Mexico, Brazil, and Argentina. Particularities about each country are necessarily used as examples in order to address commonalities. At the risk of simplification, the intent is to do as much justice to all as possible.

LANGUAGE, LITERACY, AND CULTURE

In the Spanish language, the word *literacy* in its current use has no direct equivalent. The closest term is *letrado* which corresponds to *learned person*, whereas *iletrado* [*illiterate*] corresponds to *analfabeta*, literally *someone who cannot read or write* or figuratively, *ignorant*. The opposite, *alfabetizado*, usually refers to someone who has "acquired" the written code. *Alfabetizado* and *alfabetización* (the process of becoming *alfabetizado*) are the common terms used in Latin American literature. In recent times the meaning seems to be expanding toward the *letrado* connotation.

Any discussion about literacy and education in Latin America needs to address language issues. The diversity of indigenous groups and languages within the region requires special educational efforts for most nations. To illustrate, in Mexico the indigenous population has been estimated to be 5 million representing 56 vernacular languages (Secretaría de Educación Pública [SEP], 1986; Nahmad, 1975). In the Vaupues territory of the Colombian Amazon, an area of approximately 65 square kilometers, the indigenous population was estimated in 1985 to be five times larger than the white population for a total of 19,000. The norm is for the indigenous to be bilingual and most likely multilingual. Many languages may be spoken by less than a thousand people, some by less than a hundred, and print is most likely nonexistent (Alfonso, Oltheten, Ooijens, & Thybergin, 1988).

Policies concerning national languages and language of instruction have traditionally been sensitive issues (Heath, 1972). Literacy programs in countries of Spanish colonialism were originally termed as programs of *castellanización*, that is, of learning Castillian. Today, educational systems make efforts to provide education to the indigenous populations and to graphically encode some of the vernacular languages. However, most programs continue to be transitional into the prestige languages (Larson & Davis, 1981; SEP, 1986; F. P. Secundino, personal communication, 1997; Troike & Modiano, 1975).

By the same token, mainstream education has been met with overt resistance by some indigenous groups, whereas others, indigenous and the poor in general, find themselves excluded from educational systems. In a meeting sponsored by the Centro Regional para el Fomento del Libro en America Latina y el Caribe (CERLAC, Regional Center to Promote [the use of] Books in Latin America and the Caribbean) in 1995, a group of specialists advised Latin American governments to establish policies of literacy. To that effect, Rodríguez (1995) wrote that although understandable from an access to modernity perspective, the recommendation does not take into account neoliberal thought and a natural resistance to legislate literacy. More significantly, he continued, are the "limits and conditionings" of cultures. He argued for a communicative attitude (rather than a legislative one), which takes into account the subjective, objective, and social worlds of groups and cultures.

Indigenous education is immersed in the complexities of many cultures and many languages. At the same time, teachers who have the educational, cultural, and linguistic backgrounds are very scarce. Often the solution is to opt for a sort of induction education of youths who finish secondary level education and who are members of the target groups. But the solution has its problems, among them that the many variations of vernaculars are often mutually incomprehensible. Felipe Patricio Secundino, a member of the Hñahñu and supervisor of indigenous education for the state of Querétaro in Mexico, in a personal communication (1997) pointed out that these young teachers are often assigned to remote rural areas, which they abandon as soon as they find more accessible settings. Thus, lack of continuity and development due to teacher mobility is one of the major obstacles in creating a substantial contingency of teachers to service indigenous groups (Secundino, personal communication, 1997). Also, the norm is for children to abandon school around Grade 4, which in turn affects community development and inhibits the continuous supply of teachers.

In a different cultural and political context, language has historically been a source of tension for Puerto Rico's educational system. After the Spanish American War when Puerto Rico became a territory of the United States as Estado Libre Asociado [literally, Free Associated State], the language of instruction, Spanish versus English, became a thorny issue. Today, tensions still exist, and as recently as 1992 and 1993 policies and laws about the official language were in question, finally opting for two official languages, although Spanish continues to be the language of instruction and English is taught as a necessary curricular subject (Scarano, 1993; Seda-Santana, 1987).

In essence, the particular linguistic code in which to address literacy and illiteracy is a varied and complex landscape requiring both encompassing and specific solutions for each nation and its people. Infused by cultural, political, and economic demands, solutions will need to be encompassing if they are to be effective while maintaining national unity and economic advancement.

LITERACY PROGRAMS IN LATIN AMERICA

Latin America's education seems to be in constant crisis (Puiggrós, 1995; Rivera-Pizarro, 1991; UNESCO, 1974; UNICEF, 1979). Such crisis may be explained by present political and economic dilemmas (Marini, 1994) as well as historical, social, and demographic complexities.

Public education efforts in Latin America aim toward universal education. Thus, education systems have expanded as central governments have accepted responsibility for many and varied educational functions and the search for the necessary and appropriate resources (UNESCO, 1974; UNICEF, 1979). Besides formal education, nations have undertaken open education, distance education, and nonformal education programs (Puiggrós, 1995). Some programs are geared for school-age children, youth, and unschooled and poorly schooled/illiterate adults, in urban, rural, urban marginal settings (in the peripheries of cities), remote rural areas, and urban shantytowns (Rivera-Pizarro, 1991; Rockwell, 1996; SEP, 1986; UNESCO, 1974; UNICEF, 1979). This monumental task is compounded by the ethnic and linguistic diversity of recipients.

Mainstream Education

The official discourse of government documents and of education professionals about school literacy is clearly influenced by current theories from developed nations. At the same time, there seems to be a revival of some ideological traditions of education in the region, mainly a critical perspective. Definitions of literacy, however, seem to fluctuate from Heath's (1991) *literate behaviors to* Cicero's *learned person to* the Middle Ages conception of *minimal ability in reading* as discussed by Venezky (1991).

In school learning the common term for reading and writing is *lecto-escritura* [read-write], which may signify as a unit (Seda-Santana, 1993). Although *lecto-escritura* suggests a wholistic view, in reality reading and writing are viewed and taught as separate processes (Braslavsky, 1995). For example, once a learner has command of the letter–sound correspondence and can decode words, the person is considered *alfabetizado*.

Official Spanish language curricula and government frameworks for elementary teaching of *lecto-escritura* suggest a *being literate* view with emphasis on *literacy skills* and *literate behaviors* (Heath, 1991) (see, e.g., Braslavsky, 1995, for Argentina; Gómez-Palacio, 1982, and SEP, 1992, for Mexico; Dirección de Educación Primaria/UNESCO, 1994, for Nicaragua; de Romero & de García, 1994, for Paraguay). Thus, in spite of the wholistic perspective espoused by the official discourse, in instructional practice atomistic and behaviorist tendencies prevail.

Alternative Education

Alternative education as used here refers to any program outside of traditional schools, albeit under the auspices of government institutions. It includes popular, indigenous, bilingual, adult, and community education. A prime objective of alternative education is community organization and development, as well as completion of basic education.

Conceptions about education often fluctuate ideologically between education for national development (characterized by technification, reason, efficiency, and development of human resources) and as a path to dependency versus liberation (Castro, 1994; Rodríguez, 1995; Torres-Novoa, 1977). The latter is evident in formal education programs, be it for national development or personal empowerment.

An important theoretical influence in educational systems in Latin America is Freirian thought. The Freirian ideal of education as liberation (Freire, 1969, 1970) aspires for participants to develop a critical conscience and to develop a commitment to decision making, and for effective actions to affect one's reality. Education for liberation typifies an important segment of the pedagogical movements in Latin America (Castro, 1994).

The word in relation to the world is central in Freire (Freire & Macedo, 1989), and basic education has not escaped its influence. Liberation is mediated by means of the word in written and oral forms (Freire & Macedo, 1989), and dialogue is viewed as the means to establish authentic pedagogical relationships essential to the goal of critical conscience. In essence, lecto-escritura is important but it is not a means to an end; rather, it may be a need stemming from the development of critical conscience.

It is in alternative education, a long-time staple in Latin America, that Freirian thought is most evident, such as Peru's Nucleos Educativos Comunales (NEC, Community Educational Nuclei), Honduras's schools by radio, the Acción Popular Cultural Hondureña (APCH, Honduran Popular Cultural Movement), and Mexico's Cursos Comunitarios (Community Education). These programs have moved into rural communities and have become important means for community development and organization. At the same time, the programs allow participants to obtain certification of their basic education studies (Castro, 1994; Rockwell, 1996, White, 1979).

Alternative education represents a major effort to reach universal education and *alfabetización*. Alternative education programs of different countries tend to be identified with *alfabetización* as the major goal. Examples of such programs are:

- Panama's schools of production, a work-study approach for basic education.
- 2. Guatemala's bilingual education for indigenous populations, characterized by beginning reading in the vernacular language and then in Spanish.
- 3. Colombia's Popular and Bank Schools as alternatives to mainstream education.
- Colombia's Radio Sutatenza, which began in 1947 with nationwide broadcast of Acción Popular Cultural (ACPO, Popular Cultural Action Program), and includes distribution of weekly printed material.
- 5. El Salvador's televised education of basic school years.
- 6. Venezuela's basic literacy and education program.
- 7. Haiti's Radio Docteur.

With few exceptions, alternative education and programs for *alfabetización* in general are government sanctioned and funded. The programs, as might be expected, have had various degrees of success and duration. Initially stemming from local efforts, once programs expand and become official they begin to suffer some of the same problems of formal education, mainly bureaucratization and inflexibility (Rockwell, 1996; UNICEF, 1979). On the positive side, officialization enables certification of studies.

A major source of difficulty for alternative education programs is the need for teachers with appropriate training and sensitivity to work in the target communities. Often called *promotores*, promoters, they need pedagogical education as well as a wholistic education that sensitizes them about their target contexts and prepares them for their community leadership roles. The challenge is how to prepare *promotores* for a specific type of praxis to enable them to act both as active participants and leaders within the group (Cetrulo, 1988).

Promotores have traditionally been outsiders who gradually insert themselves into the communities. The major difficulty is the short duration of their involvement, which impedes acquisition of the necessary cultural wisdom to work their way up to be accepted by the communities and become effective leaders within them.

Recently, efforts have been made to gain continuity by involving and preparing members of the target groups as *promotores*. Although in principle a good solution, sometimes other problems arise, such as lack of training and experience for the demands of their roles.

Adult Education: Alfabetización and Post-Alfabetización

In Latin America, adult education programs for alfabetización may subsume other movements like popular education and indigenous-bilingual education while maintaining their own space, particularly in alfabetización. Adult education, however requires a broad definition of "adult" in the context of alternative education and of marginalized groups. An adult may be anyone of any age who actively participates in group or family production or in a subsistence economy and is not attending school. This is often the case in remote rural areas (Infante, 1983; Isáis-Reyes, 1957; Schmelkes, 1990). Thus, in adult education, the socioeconomic characteristics of individuals and their geographical location determine eligibility.

Traditionally, programs for adult *alfabetización* tended to view literacy as a good in and of itself and as the ability to "break the code." That is, once individuals learned the alphabetic code, they became members of the literate society, which would translate into national progress (Isáis-Reyes, 1957). Soon it was understood that access to the alphabetic code by no means guarantees national or personal progress (Infante, 1983; Marini, 1994; Rodríguez, 1995; Schiefelbein, 1993; Schmelkes, 1990). The necessary learnings are more related to *literate behaviors* and *being literate* (Heath, 1991) and to being able to act upon one's reality (Freire, 1969, 1970).

Freire and Macedo (1989) argued that those who have previously developed a critical conscience and a need to modify their own reality (liberation) may acquire a need to break the code. Thus, programs for *alfabetización* will have the most impact when individuals understand the need for and the functionality of literacy.

However, a major difficulty for programs of alfabetización is the loss of acquired abilities due to the lack of practice and of printed material in the communities (Ferreiro, 1997; Infante, 1983). Recent works in *post-alfabetización* programs have attempted to reach some understanding about the results of adult education programs and their impact in the lives of participants (Schmelkes, 1990).

Post-alfabetización, in a strict sense, refers to programs of postacquisition of lecto-escritura to reinforce functional skills and avoid their loss (Medina-Ureña, 1982). In a broader sense, post-alfabetización refers to programs that help individuals advance forward in their lives and not just to maintain skills—that is, to "advance toward higher personal goals and to ease participants' introduction into new social and occupational roles" (Nagel & Rodríguez, 1982, p. 51). They have emerged from varied needs and demands: government, private, joint government and private initiatives, and community efforts.

Evaluation of impact of *post-alfabetización* programs is based on problem solution and productivity, in community organization and community outcomes. *Alfabetización* here is clearly a means to an end, and some of the observed outcomes in communities are modifications in agrarian structures, alternative economies, organization of land laborers, a supply of skilled labor to the formal economic sectors, creation of alternative means of production, particularly among women, and work skills for the younger productive segments of the population.

Educación Popular

The *educación popular* [popular education], in essence, refers to education for social movements (Bengoa, 1988; Ortíz-Cáceres, 1990). It "is characterized by its political-pedagogical nature with the intent of turning education into a vehicle of support to popular organization, and to increase for its people their participatory capabilities in decision-making processes which affect their daily lives" (Sirvent, 1993, p. 19, my translation). In this view, education should promote critical thought and should have its effects in the social organizations of its recipients (Ortíz-Cáceres, 1990; Sirvent, 1993; Torres-Novoa, 1977).

Popular education programs in Latin America represent important movements of social organizations. Literacy is a major goal of the programs; however, promoters and organizations have begun to recognize that literacy is only one of many components to address in situations of marginalization. Other components related to helplessness and access within a major society also need to be addressed.

THE RESEARCH SCENARIO

Educational research in developing countries necessarily differs ideologically from research in industrialized nations. In 1979, Mexico's Centro de Estudios Educativos (CEE, Center of Educational Studies) and the U.S. Comparative and International Education Society (CIES) sponsored a meeting of researchers from the American continent. The goal was to reach some understanding of the nature and ideology of research in the different regions of the continent.

Conclusions pointed to the fact that research is a social practice and its characteristics and definition depend on its context. Patricio Carriola, from the Centro de Investigaciones y Desarrollo Educativo (CIDE, Center for Research and Educational Development) of Santiago de Chile, warned against trying to adopt research models from the industrialized nations that are not suitable to the contexts of other nations. The dangers are that research is transformed by problems and questions that are alien to the contexts to which it should respond (CEE, 1979).

It was concluded that a major difference between the research practices of the northernmost (industrialized) nations and the southernmost (developing) nations is that in industrialized nations research as praxis may or may not have a clear relation to practice. When it does, implementation is conducted by others not necessarily involved in the praxis of research. In Latin America the relationship between educational research and policy is surrounded by an aura of immediacy. Researchers are frequently immersed in the practical applications of research and in policy decisions. Thus, Carriola called for establishing a *common ground of understanding* between researchers of the American continent.

In turn, Joseph P. Farrell from the CIES called for efforts across nations to try to better contextualize research to its settings, that is, to relate its function to the context rather than to an a priori concept of science. The immediate nature of research in Latin America has been an impetus to develop specific paradigms in its praxis (CEE, 1979), although they presently share a broad common ground.

Twenty years after the CEE and CIES meeting and in the era of free trade agreements, the value of immediacy still pervades the research. Research intended to effect change, including qualitative, participant, and critical research, allows a good fit with the context (Montero-Sieburth, 1991; Sirvent, 1993). Qualitative research paradigms in general and their historical leftist tradition find fertile ground in the Marxist and Freirian influenced thought of educational movements in Latin America (Montero-Sieburth, 1991). Recently these research paradigms have also been ex-

panded to include research in classrooms and schools (see Beltrán-Rueda & Campos, 1992; Campos-Saborio, 1990; Montero-Sieburth, 1992) and to gender studies (Montero-Sieburth, 1992).

In light of immediacy, the content of Latin American research has focused mainly on (a) program development and implementation, and (b) evaluation of educational programs. Furthermore, the immediacy of problem solution within formal schooling, a traditionally closed setting, has opened itself to analyses of these sorts.

In contrast, education and psychology research methods courses in higher education follow predominantly a logical-positivist ideology of experimental research and statistical methods. This may be due to the prevailing notions among academics of neutrality and objectivity, as well as an a priori notion of science mainly modeled after "alien universes" as pointed out by Farrell (CEE, 1979).

Presently there are clear indications of openness and change in higher education. Yet at the same time the sociopolitical ideological roots of qualitative methods, its association to leftist and feminist research, and the need to adopt a particular position toward the construction of knowledge seem "unscientific" to more traditional scholars.

Literacy research in Latin America has been and is responding to its context. Present theoretical influences from developed nations are creating new demands and needs for literacy research in the region, but old demands and needs still have to be addressed. Among the latter are the generalized alternative education demands that the region's diverse populations require. The following examples of recent research should help illustrate.

A study by Rockwell (1991) in Mexico suggested that it is less likely that children become literate in school due to instruction from which they mainly acquire *skills* than through a variety of experiences that she referred to as *extrainstructional* activities. She presented evidence suggesting that children appropriate for themselves the reading and writing processes in spite of instruction. Convergent evidence for the Rockwell work is the fact that, as a topic of discussion, instruction of *lecto-escritura* virtually disappears from the literature about formal education after Grade 3, although by no means from educational concerns and evaluation studies (Colbert & Arboleda, 1990; Velez, 1992).

In Chile, Ortíz-Cáceres (1990) compared and characterized three different popular education programs for adults. She found that the "pedagogical discourse" in these programs is slanted toward collective conscience, group organization, and participation in the greater society. She concluded that the positive effects of these programs were mainly on three fronts:

- 1. Participants acquired a more realistic perspective (social representation) about social mobility.
- 2. They were exposed to alternatives to the societal "free rider" notion.
- 3. They generated internal group norms favorable to collective action, which were monitored within the group.

Schmelkes (1990) compared 76 post-alfabetización programs of 13 countries in the region. In her conclusions she established a direct link between education and work. The mission of one group of programs was preparation for work, and work skills were added to the curriculum. The mission of the other programs was production of goods, and educational activities were a necessary ingredient to achieve program goals.

For the first group of programs Schmelkes found that it was difficult to link educational efforts with work objectives in their implementation. In the second group of programs there was a close link between the contents of instruction and the need to be productive. In these, instruction became instrumental and functional to the goals of

participants, thus extending implementation beyond the normal activities of the programs (Schmelkes, 1990).

These examples, represent the tenor of most of the existing research literature: that is, of analyses of programs in existence, of program implementations in quantitative terms (Rivera-Pizarro, 1991), or to discuss sociopolitical and philosophical issues (Rodríguez & Bernal, 1990; Rodríguez, 1995).

Basic research related to school literacy is less common, although there are important contributions from Ferreiro (1989, 1997), Ferreiro and Teberosky (1979), Braslavsky (1983, 1995), and Rojas-Drummond and colleagues (Rojas-Drummond, Hernández, Velez, & Villagrán, 1998), to name a few. Other research consists of general analyses of school programs and program implementations such as those by Barocio-Quijano (1990), Braslavsky (1995), and Rockwell (1991).

AGENDA FOR RESEARCH AND DEVELOPMENT

In the midst of multiple demands, research has not been a major priority for Latin American countries. Although many efforts and advances have been made in the educational field, the ground is fertile both for research and for development. At the forefront of educational endeavors is the demand for universal literacy where alternative education programs have offered the most interesting settings and activities for researchers in general. Moreover, an analysis of the literature of both formal and alternative education reveals several areas in need of exploration, of which I address only some—those especially pertinent to literacy education.

Of prime importance is research on teachers and teacher education, particularly in formal education settings. National efforts to advance education lean heavily toward program development and program evaluation, but little is done to effectively bridge the gap between national programs and teacher education (i.e., Braslavsky, 1983; Campos-Saborio, 1990; Dirección de Educación Primaria de Nicaragua/UNESCO, 1994; Ferreiro, 1997; Rivera-Pizarro, 1991). Theoretical influences such as those related to reflection and action in one's reality (Freire, 1969, 1970, 1996; Schön, 1983) are emerging in the literature of formal education; however, detailed analyses of processes of change and educational practice are virtually nonexistent. They only appear tangentially, mostly in relation to program implementation (i.e., Barocio-Quijano, 1990; Campos-Saborio, 1990; Dirección de Educación Primaria de Nicaragua/UNESCO, 1994).

In keeping with the immediacy of research in Latin America and paradigms of participant and critical research, research on teachers and teacher research would be a natural candidate. Although such intrusions are surrounded by strong resistance both by researchers and on the school side (Seda-Santana, 1994), the possibilities are wide open, and some efforts are also beginning to emerge (Macotela-Flores, Seda-Santana, & Flores-Macías, 1997; Rojas-Drummond et al., 1998). Researchers will need to clearly establish within their design the direct practical benefits of each specific research initiative to the context in which it is to be conducted.

In relation to the complex ethnic, linguistic, and geographical landscape of the region, research addressing possible alternative routes to literacy is also virtually nonexistent. Printed material in general is scarce in remote areas, but at the same time popular literature such as comic books, tabloid magazines, and newspapers is common in cities and towns, and it is all written in the dominant language. Because bilingualism is common among the cities' marginalized populations, studies of whether and how literacies exist or are part of their lives would provide useful information to understand alternative processes of *alfabetización* and to inform alternative education programs. Specifically, programs of *post-alfabetización* may benefit from information

on alternative routes to alfabetización and the uses of literacy among specific populations.

Popular literature in and of itself is a source of multiple researchable questions in relation to its social role and alternative routes to literacy. Existing work has addressed the sociopolitical aspects and domination ideology of comic books (Dorfman & Mattelart, 1980; Emmanuelli, 1991; Ortíz, 1991; Zalpa-Ramírez, 1997), but not in relation to literacy learning and development. Popular literature is most likely the only literature, if any, available to marginalized groups.

Recent movements in educational systems, such as decentralization, need to be researched for specific outcomes and impact on national economic systems and educational effectiveness. Of particular interest may be a movement's impact on alternative education programs and on national curricula. By the same token, some experiments involving government-subsidized private education for the lower socioeconomic groups in Chile reveal that educational efforts that model the ways of the higher socioeconomic groups are not necessarily practical solutions to level off differences in acquired abilities in reading, writing, and arithmetic (Schiefelbein & Tedesco, 1995). Thus, practical experiments that apply some of Latin America's own theoretical perspectives to educational contexts and to today's demands are necessary.

To summarize, literacy research in Latin American ought to maintain and respond to the immediacy of its context and address problems to be solved. At the same time, it needs to move forward in researching questions and situations that take advantage of existing knowledge bases and contribute to addressing questions of a finer and more detailed grain than exists thus far. Issues of ownership and functionality in particular, as suggested in Allende's character, are important for alternative education movements to move more directly into Freire's ideal (1996) of a pedagogy of hope.

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CHAPTER 5

Trends in Reading Research in the United States: Changing Intellectual Currents Over Three Decades

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Life can only be understood backwards. It must be lived forwards.

-Soren Kierkegaard

Our charge was to construct an interpretive analysis of trends in reading research in the United States. We wanted to distinguish historically and currently contending issues in school-based literacy and understand the interplay between reading and writing research and theoretical perspectives, teaching practices, and school policies. What are the intellectual currents that flow through and shape our perspectives and how have they changed, changed us, and changed our actions over time? And, of course, we wanted to frame answers to these questions differently from our predecessors in order to offer a fresh view of the past and to project a future that honors the past but is not bounded by it.

We became archeologists using the last three decades of researcher and practitioner journals from two major professional organizations as our artifacts. Guzzetti, Anders, and Neuman (1999) reviewed the topics, methods, and special features of the *Journal of Reading Behavior/Journal of Literacy Research*, expanding on the analyses of publications of the National Reading conference by Baldwin and his associates (Baldwin et al., 1992). We selected the International Reading Association (IRA) and the Council for Ex-

ceptional Children (CEC) due to their prominence in education, parallel missions, and membership configurations in their respective fields of reading and special education.

Information about both organizations was located in the *Encyclopedia of Associations* (Jaszczak, 1997). The organizations have corresponding purposes, and each sponsors major journals focused on research and practice. Each organization sponsors a major annual conference, distributes print and nonprint media, operates as a clearinghouse for information, and serves an advocacy role for children and youth, parents, and professionals.

IRA was founded in 1956, the product of a merger of the International Council for the Improvement of Reading and Instruction and the National Association for Remedial Teachers. This professional organization is comprised of 94,000 members including teachers, reading specialists, consultants, administrators, supervisors, researchers, psychologists, librarians, and parents interested in promoting literacy. The goal of the organization is to improve the quality of reading instruction and to promote literacy worldwide. IRA disseminates information on adult literacy, early childhood and literacy development, international education, literature for children and adolescents, and teacher education and professional development (Jaszczak, 1997, p. 894).

From the four journals published by IRA, we selected *Reading Research Quarterly* as the research journal and *The Reading Teacher* as the journal focused on practice. *Reading Research Quarterly* is a peer-reviewed journal that publishes original research reports and articles on theory in teaching reading and learning to read and "is intended to provide a forum for the exchange of information and opinion on theory, research, and practice in reading" (*Reading Research Quarterly*, front inside cover). The first issue of volume 1 was published in the fall of 1965.

The Reading Teacher is a peer-reviewed journal that is published eight times per year and contains articles on current theory, research, and practice in literacy education of preschool and elementary school children (Jaszczak, 1997; Reading Teacher, 1998, p. v). The Reading Teacher was published by the International Council for the Improvement of Reading Instruction beginning in 1947, with continuing publication by IRA at the inception of the organization in 1956.

Founded in 1922, CEC is a professional organization of 54,000 members including administrators, teachers, parents, and others who work on behalf of children with disabilities and those who are gifted. The goal of the organization is to improve the educational outcomes of children, youth, and young adults with disabilities and those with gifts and talents. CEC is an advocate for appropriate government policies, provides information to the media, operates as a clearinghouse for information on disabilities and gifted education, and supports professional development (Jaszczak, 1997, p. 902).

CEC publishes two journals: Exceptional Children (bimonthly) and TEACHING Exceptional Children (quarterly). Exceptional Children is the primary forum for "original research on the education and development of persons with disabilities of all ages from infants to young adults and articles on professional issues of concern to special educators" (Exceptional Children, 1995, inside cover). All kinds of research are solicited in the journal's statement of purpose, and submissions undergo blind peer-review. "The journal welcomes manuscripts reflecting qualitative or quantitative methodologies using group or single-subject research designs. Articles appropriate for publication include data-based research, data-based position papers, research integration papers, and systematic analyses of policy or practice. The journal also includes reports of official actions of the governing bodies of CEC" (Exceptional Children, 1995). Exceptional Children was first published in 1934 under the title The Journal of Exceptional Children and in 1951 switched to the abbreviated title in use today.

Other specialized journals are published under the auspices of Divisions of CEC.

TEACHING Exceptional Children is specifically designed for teachers of children with disabilities and children who are gifted. Articles that deal with practical methods and materials for classroom use are featured and are subjected to a field-review process. The statement of purpose is explicit that TEACHING Exceptional Children is not research oriented but welcomes data-based descriptions of techniques, equipment, and procedures for teacher application with students with exceptionalities (TEACHING Exceptional Children, 1995). TEACHING Exceptional Children was first published in 1968.

Essentially, our approach was to look at changes over three decades in patterns of language use in these professional journals. The pivotal assumption for our approach is this: The words people use reveal the assumptions they make. In a fascinating book about computers and cognition, Winograd and Flores (1987) proposed a view of language that is importantly constructive. In their view, not unlike that of Foucault (1973), we design ourselves in language. Thus, they advocate "a shift from language as description to language as action" (p. 76). In language, we create a mutual orientation to the world. Over time, the consensual language forms the background of our conversations. Like white noise, present but unattended, the background constituted in language becomes invisible to us. According to Winograd and Flores, when problems arise they rub against the invisible background and our assumption-embedded language reveals itself. The rubs, therefore, are the interesting places to look.

To find the rubs, our method was to look at what people say and what they do not say, what they once said but no longer say, what they now say that they did not say before. Both what was said and what was left unsaid informed our search, peeled back layers to reveal the always present but usually invisible background, and uncovered the changing voices in the field over the last three decades.

PROCEDURES FOR ANALYSIS

Our analysis of the four journals began with issues published in 1965. This was the first year of publication of *Reading Research Quarterly* and the year that Chall completed her influential report, *Learning to Read: The Great Debate*, which was published in 1967. As educational researchers with professional and personal histories in the field of reading, we shared our hypotheses about themes and issues that we expected to be prominent at different points in time. We discussed the social, cultural, economic, political, and directly educational influences that were present during each decade since 1965. We generated a bibliography of classic books, chapters, and articles about reading and the teaching of reading that we read to augment our shared knowledge.

But we went beyond the conventional approach of scattered, selective reading and tried a perhaps innovative empirical approach to chart the landscape of the last three decades of reading research. We used a multifaceted approach that sought both depth and breadth of analysis: (a) Using the qualitative software NUD*IST, we did intensive studies of all of the research articles published during each of 4 years a decade apart. (b) Using the search engine OVID, we did extensive studies of the ERIC database for two of the journals in our purview. We were able to switch easily from macro to micro levels of analysis, providing a series of checks and balances—a process of triangulation—for developing and proving hypotheses about trends.

We chose for intensive analysis every article in the two research journals, *Reading Research Quarterly* and *Exceptional Children*, published in 1965, 1975, 1985, and 1995. Only two issues of Volume 1 of the *Reading Research Quarterly* were published in 1965, fall and winter, so to fill out the sample we supplemented the 1965 issues with subsequent issues published in 1966. The moldy smell of the earliest issues reinforced the

and Exceptional Chimien by Ical				
	Year	Reading Research Quarterly	Exceptional Children	
	1965	11°	44	
	1975	10	27	
	1985	15	45	
	1995	32	31	

68

147

TABLE 5.1

Total Number of Articles in Reading Research Quarterly and Exceptional Children by Year

Total

sense that we were on an archeological dig. The total number of articles included in the sample for each journal and year is reported in Table 5.1. Neither of the practitioner journals publishes abstracts, so we chose to reserve them for the subsequent broader but shallower analysis.

The titles and author-written abstracts of the 215 Reading Research Quarterly and Exceptional Children articles from 1965, 1975, 1985, and 1995 were imported into NUD*IST (Qualitative Solutions and Research, 1997). We agreed on initial categories for coding the articles, but each of us created new categories as we proceeded. As we read the articles that we were coding, we were able to add our own notes about the content and emerging ideas through the memo and appending tools of the NUD*IST program.

Once the documents were collected, stored in electronic form, coded, and supplemented with our notes and evolving thoughts, we were ready to explore the rich data. With relative ease, we could create reports based on the coding categories that we created and also easily search the titles and text of documents for actual words and phrases. An advantage of NUD*IST is that one can readily view terms in context in order to distinguish, for instance, between teaching strategies and learning strategies. Both of us undertook exploratory sweeps of the documents guided by a priori hypotheses, searching for specific words or word strings. Results of searches were saved so that they could be analyzed by journal and year, allowing the identification of patterns. We pursued our hunches and conducted independent analyses. We often shared our results, generated ideas for new directions, and brainstormed alternative word strings with similar meanings to ensure that we were finding all occurrences of keywords. For example, a search for documents having to do with teaching included

[teach | teacher | teachers | teaching | instruct | instructor | instructors | instruction]

and in a search for documents addressing children with reading difficulties the following descriptors were used:

[below average | poor | slow | disability | disabilities | disabled | handicapped | retarded | blind | deaf | impaired | special | exceptional | low intelligence | low IQ | dyslexic | dyslexia]

To be comprehensive, we sometimes needed to search using terminology that is not acceptable in the late twentieth century, such as *retarded* and *handicapped*. As a result, however, we were able to track changes over time in usage of such terms in technical writing.

Two issues of Reading Research Quarterly were drawn from 1966.

The broad analysis involved the entire set of 697 Reading Research Quarterly articles and 3,018 Reading Teacher articles published from January 1966² through April 1998 that are included in the ERIC databases. The databases were examined online using the OVID search tools. For each article, the source material available to be searched online consisted of the title, descriptive codes and identifiers assigned by ERIC indexers, and a succinct ERIC-written abstract.

CHANGING CONCEPTIONS OF RESEARCH

To plunge immediately into our results, consider the vignette that follows. The italicized terms are ones that were more frequent in 1965 than in 1995, or vice versa, based on counts from the intensive analysis of articles in the *Reading Research Quarterly* in 1965, 1975, 1985, and 1995. For instance, the word *experiment* [includes *experiments*, *experimental*; in this and subsequent examples, closely related terms are incorporated] appeared in 55% of the articles published in 1965 but only 22% of the articles published in 1995, whereas *study* appeared in 18% of the 1965 articles and 59% of the 1995 articles.

In 1965, an investigator reported a conclusion about a theory or hypothesis by performing statistical analyses of data from tests administered during an experiment. By 1995, an investigator announced a finding based on a study motivated by a model or maybe a framework, view, or premise.

Anyone who has been a professional in the field over these years is well aware that the conception of educational research has broadened, so our finding is not surprising, but it is gratifying that the trend is so clearly documented by our methods. The unsurprising finding in this case will increase our confidence in making negative inferences when trends do not appear in other cases.

We must caution that our analysis does not fully warrant the conclusion that the field's conception of research has changed. It might be that the same proportion of scholars are performing experiments on aspects of reading now as in earlier decades, only now more experimentalists are publishing in journals such as the *Journal of Educational Psychology* or, more recently, *Scientific Studies of Reading*, instead of *Reading Research Quarterly*. The only way to tell for sure would be to canvas all of the journals that publish reading research, broadly defined. Another, possibly transient, influence is who the editors of a journal are in a certain era. In 1995, the editors of the *Reading Research Quarterly* were Judith Green, Robert Tierney, and Michael Kamil, who had an announced policy of broadening the journal (Tierney, Kamil, & Green, 1992). Against the idea that 1995 was perhaps atypical because of editorial policy is the fact that generally the key terms in the vignette just given changed progressively over the three decades, including during the tenure of Philip Gough and his fellow editors, known not to be enemies of experimental research.

We turn now to the question whether it is possible to document, on the basis of the language used in journal articles, changes in theoretical paradigm over the past three decades. Our sense is that the major theoretical changes in the reading field are captured like this:

Behaviorist \rightarrow Cognitive \rightarrow Sociocultural

The transition from behaviorism to cognitive science was assuredly a paradigm shift, if any change in world view in the history of the human sciences deserves this label.

²Although *The Reading Teacher* and *Reading Research Quarterly* were published earlier, documentation of publications in ERIC begins with 1966.

Some would call the transition from a cognitive to a sociocultural view a paradigm shift, but we believe it is more appropriate to call it a paradigm elaboration.

During the 1960s, behaviorism is ascendent at the intersection of education and psychology. B. F. Skinner is god, although Jerome Brunner keeps an altar candle burning for a cognitive perspective in the *Process of Education*. Cognitive trends are well underway in academic disciplines that relate to education. Linguistics is flourishing and the hybrid field of psycholinguistics is emerging. Information-processing psychology develops rapidly and dominates experimental psychology by the end of the decade. Educational psychologists such as Robert Glaser, Lauren Resnick, and Richard Anderson, who began the decade as behaviorists, end it as cognitive psychologists. Research on text processing is pioneered by Ernst Rothkopf, who uses the concept of mathemagenic behavior to rationalize research on adjunct questions.

Interestingly, analysis of the language of journal articles suggests that the reading field is not now and never has been manifestly behaviorist. The evidence for this claim is the extremely low rate of the terms reinforcement, programmed instruction [or programed instruction], operant, behavior analysis, behavioral analysis in the Reading Research Quarterly or The Reading Teacher. Some might argue that behaviorism is or was latent, but it seems few in the reading field were ever self-conscious Skinnerians.

In the 1970s, cognitive science—the amalgam of psychology, linguistics, and computer science—is born; one of the founders, Herbert Simon, wins a Nobel Prize. Allan Paivio makes mental imagery respectable. John Bransford shows that all language processing is meaningful. Bonnie Meyer establishes the psychological reality of text structure. Nancy Stein and Jean Mandler introduce story grammars. The concept of schema is reinvented. Text processing research flourishes under the leadership of such figures as Walter Kintsch. John Flavell and Ann Brown make metacognition an exciting new theme. Postmodernism and deconstructionism take hold in humanities departments. Del Hymes, Courtney Cazden, and John Gumperz push the new discipline of sociolinguistics into education; they extend linguistic competence to "communicative competence." The 1970s are the Golden Era for school effectiveness and teacher effectiveness research.

In the 1980s, and on into the 1990s, educational scholarship takes a social and political turn. By late 1980s, the avant garde are social constructivists. James Wertsch and Barbara Rogoff promulgate the ideas of Vygotsky and Baktin. Michael Apple makes neo-Marxist critiques of technical rationality in the schools. Situated cognition, blending cognitive and sociocultural concepts, moves to the forefront. Psychologists study increasingly complex phenomena such as computer programming and scientific understanding. Connectionism emerges as a significant rival to rationalist cognitive psychology. Cooperative learning is a thriving educational research topic. Increasing numbers now do qualitative research instead of experimental or quantitative research. Teacher-as-researcher is a rallying cry in educational scholarship.

We were able to find traces of the cognitive revolution and the sociocultural turn in the language of journal abstracts and titles. Interestingly, again, theoretically juicy terms such as *schema*, *metacognitive*, and *constructive* are rare. The evidence for paradigm change is less direct. It can be traced in the changing frequency of words and phrases such as *comprehension*, *background knowledge*, *reading strategy*, *context*, *social*, and *culture*. These words and their implications are reviewed fully in the next section.

Reading researchers take a curiously atheoretical—we might say positivist—stance toward their work. They stick to "facts" that are presented as though they can be verified by the senses alone, eschewing subjective or theoretical terms. Evidence for this comes from the high frequency of use of the verbs *show*, *reveal*, and *indicate*, as in "Study 1 revealed that ..." and "The data show that ..." We believe that the unproblematical use of these verbs implies that the authors assume (or judge they must pretend to assume) that conclusions are simply there to be seen, without an active human agent

who understands, interprets, or explains in terms of a theoretical framework. The percentage of *Reading Research Quarterly* articles using *show, reveal*, or *indicate* in this manner ranged between 45 and 50% from 1965 through 1985 and then declined sharply in 1995 to 13%, which may mean that positivism is falling out of favor. However, agentless uses of related forms such as *suggest* and *imply*, as in "The data suggest" and "The results imply," remained high in 1995.

Authors almost never identify themselves in *Reading Research Quarterly* articles as the agents in sentences containing verbs of knowing, believing, or valuing. We found no instance of *We, author, investigator, researcher, experimenter* (there are no instances of the personal pronoun *I* in the corpus) paired with *know, believe, think, contend, maintain, suspect, feel, argue, interpret, explain, judge.* We did find two instances in which authors identified themselves as the agents of an act of concluding, as in "The investigators conclude that" Writers go to amazing lengths to avoid making themselves the agents of knowledge claims, as in the awkward circumlocution, "It is suggested that."

The positivist stance helps us to explain the relative absence in *Reading Research Quarterly* corpus of *schema* or the prefix *meta-*, as in *metacognition* and *metalinguistic awareness*. These terms are embarrassingly theory laden. If our analysis is correct, when writing, if not when thinking, authors retreat to terms they feel are less theoretical, more everyday, more sense based, like *prior knowledge* and *strategy*.

Word identification is the one subspecialty in reading that we could find in 1995 in which investigators consistently and self-consciously evaluated competing explanations for data. This indicates a studied awareness that conclusions do not just "show" themselves in data. Ironically, most people in reading would say that word identification is the most positivist area of reading research, which leads one to wonder what people mean by "positivism," anyway.

Why positivism might persist in reading research is perfectly understandable. Those of us who came of age during the era of radical behaviorism were taught that a theory is a needless ornament that distracts from the elegant simplicity of human beings. Since that era, the field has rushed headlong to the view that human beings, individually and severally, are exceedingly complex, so complex that truths are seen as always contingent, transient, and context bound. A strong theory of how a process works is not thought to be possible, or even desirable. So, we have come full circle, around again to the view that theory is a dangerous thing. You have your position and I have mine, but we can at least agree on the plain facts.

Remember, though, that journal abstracts were our primary source documents. Quite possibly, whole articles do not have the positivist skew of abstracts. Analyzing a corpus of whole articles is a bigger job for another day, however.

CHANGING CONCEPTIONS OF READING

This section summarizes analyses that reveal aspects of change in conceptions of the nature of the reading process and ideas about the teaching of reading. We attempt to explain changes in the field of reading in terms of preceding and concurrent social, political, and intellectual developments. Trends in reading are associated with, and presumptively caused by, multiple forces: (a) large scale social, economic, and political developments, (b) developments in cognate fields, (c) general developments within education, and (d) developments specific to reading education. Taking heed of the work of organizational theorists, Venezky (1987) cautioned those who are studying curriculum history to bear in mind the complex factors that impinge upon schools. He contended that if schools are vulnerable to external pressures, then reading instruction is doubly vulnerable. "No other component of the curriculum has been subjected throughout its history to such intense controversy over both its basic methods and its content" (Venezky, 1987, p. 159).

The remainder of this section foregrounds the results of 12 searches of the corpus of articles accessible through ERIC and published in *Reading Research Quarterly* and *The Reading Teacher* from 1996 through April 1998. These 12 represent a small subset of the searches that we conducted. These searches were given priority because they revealed something interesting that could, in most cases, be corroborated in part in the more intensive analysis from selected years. With one exception, the searches are summarized in bar graphs that present the percentage of articles containing words or word strings in each 5-year period since 1965. We imagine the bar graphs to be aerial photographs of the temporal landscape of the reading field. The graphic depictions of the data reveal the movements in the field as they swell and crest and wane.

Considered first is the question of which units of language have preoccupied researchers and practitioners. Figure 5.1 charts the percentage of articles that mention word (e.g., word, verb) and subword units (e.g., letter, syllable, prefix). Figure 5.2 shows the percentage of articles mentioning a whole text unit (e.g., story, book, poem). There are no figures for the classes of units that would include phrase and sentence or paragraph and passage because such units are rare in the corpus.

Looking at Fig. 5.1, it is apparent that there was a steady decline in mentions of letters, syllables, and other word and subword units in *The Reading Teacher*. That references to these units of language were relatively high in 1966–1970 is perhaps attributable to Chall's *Learning to Read: The Great Debate* and the fact that the received wisdom of the day was represented in basic skills management plans such as the Wisconsin Design. We ascribe the decline since 1966–1970 to the lure of competing ideas. Kenneth Goodman first introduced the idea of reading as a psycholinguistic guessing game in the late 1960s. Frank Smith's influential books began appearing in 1971.

Still looking at Fig. 5.1, references to word and subword units in *Reading Research Quarterly* jumped in 1976–1980 and have remained high ever since. We believe that the best explanation for the jump in 1976–1980 is a burst of new ideas (phonemic awareness, dual route lexical access, and decoding by analogy), new experimental methods (priming, lexical decision), and new empirical findings (regularity × frequency interaction) at approximately that time.

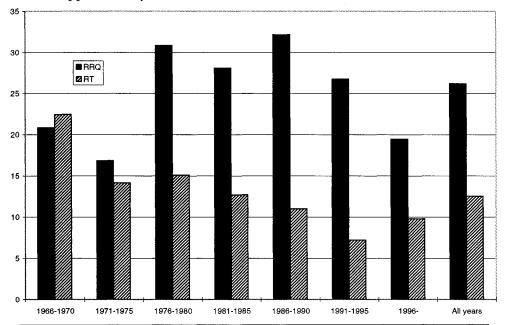


FIG. 5.1. Percentage of articles referring to word and subword units of language.

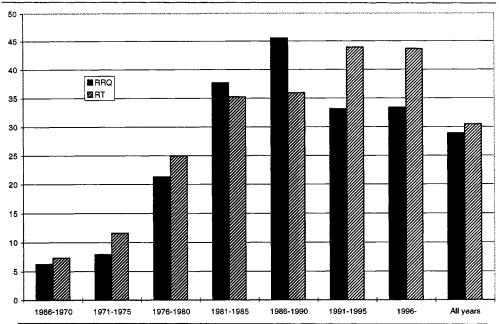


FIG. 5.2. Percentage of articles referring to whole texts.

Figure 5.2 shows references to whole text units. Such references increased dramatically in both journals between 1966–1970 and 1986–1990. Since then, references in *The Reading Teacher* have gone even higher, whereas those in *Reading Research Quarterly* have declined somewhat. The sharp upward trend from 1966–1970 we impute to a confluence of forces from within the field and cognate disciplines, again a wave of new ideas, methods, and findings. As we mentioned in the preceding section, the 1970s was the period during which reading was construed as a constructive process, when ideas of schema, script, text structure, and story grammar took hold. In 1976, the first federally funded center focused on reading, the Center for the Study of Reading, was established, with a charter to examine comprehension, not decoding. The whole language movement was gaining momentum during this period.

Figure 5.3 charts references to *phonics* (including *decoding*, *word identification*, etc.). The trends very closely match those that appear in Fig. 5.1 with respect to word and subword units. This is only to be expected, of course, but it does provide converging evidence for an underlying theme, since the word strings searched were not the same.

Figure 5.4 shows the occurrences of comprehension (narrowly defined to include just comprehension, comprehend, comprehends, and comprehending) whereas Fig. 5.5 shows occurrences of strategy (reading strategy, learning strategy, etc.). Looking at Fig. 5.4, the data for Reading Research Quarterly can be interpreted as showing that research on comprehension peaked during the 1980s, when more than half the articles contained the term, and then dropped sharply during the 1990s. The Reading Teacher shows a similar but weaker pattern. Durkin's (1978–1979) exposé showing little direct comprehension instruction in schools may have been a specific catalyst for the peak in the 1980s.

As would be expected, the trends in Fig. 5.4 for comprehension and Fig. 5.5 for strategy roughly corroborate the trend portrayed in Fig. 5.2 for whole text units. A difference is that mentions of whole text units in *The Reading Teacher* continued to climb during the 1990s, whereas mentions of comprehension and strategies in this journal were falling. Our explanation is that *Reading Research Quarterly* was riding currents in text processing research and discourse psycholinguistics. *The Reading Teacher* was in-

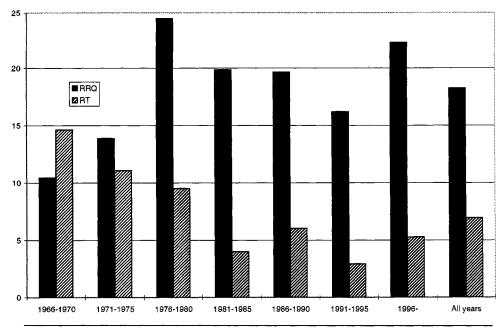


FIG. 5.3. Percentage of articles referring to phonics.

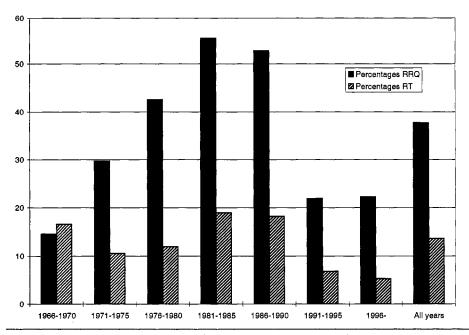


FIG. 5.4. Percentage of articles containing comprehension.

fluenced to some extent by the same currents, but was also responsive to the whole-language and literature-based instruction movements, which continued to be vigorous into the 1990s.

Figure 5.6 shows the occurrences of *schema* (including *schemas* and *schemata* and related terms such as *existing knowledge* and *topic knowledge*). The occurrences are plotted on a finer scale than that in other figures for a couple of reasons, one of which is simply that there are not enough of them to show percentages. The figure shows that following its first appearance in 1978, *schema* got a fair amount of play until the late 1980s, when its use tailed off to one or two occurrences every several years, approximating the pattern for more general, and much more frequent, terms such as *comprehension*.

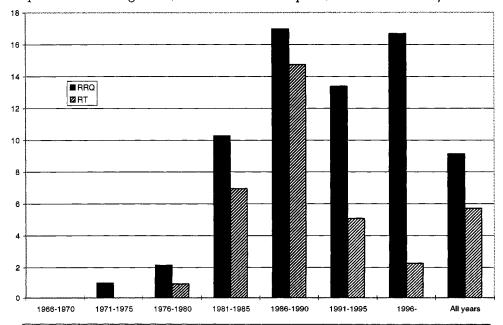


FIG. 5.5. Percentage of articles referring to reading strategies.

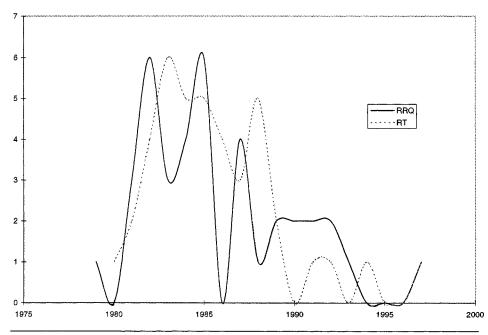


FIG. 5.6. Number of articles containing schema or prior knowledge.

The idea of schema reflects the surge of interest in comprehension, and indeed, probably to some extent, was actually one cause of rising interest. The low frequency of schema-related terms, nonetheless, suggests to us that most in the field did not commit themselves to the specific theoretical content associated with *schema* and, instead, took the general idea in various directions.

The occurrences of *whole language* (just this phrase) are displayed in Fig. 5.7. It is apparent that whole language was at the peak of its influence in the decade beginning in 1986. The rate of mentions in *Reading Research Quarterly* during 1991–1995 is inflated; a series of related commentaries and rejoinders account for over half of the occurrences. The overall rate of *whole language* may seem low, but we would not make any strong inference from this about the influence of the whole-language movement. We found similarly low rates for other named methods or approaches— including DISTAR, reciprocal teaching, process writing, Reading Recovery, and Success for All. One reason for this is that named approaches tend not to be explicitly mentioned in ERIC abstracts, although whole language became prominent enough to be assigned a descriptive ERIC code that our search encompassed. Whole language appears to have waned in the period beginning in 1996.

Changing directions now, Fig. 5.8 pictures trends in use of the terms *social* and *cultural* (including *culture*, *context*, *contextual*, words beginning with *socio*-, etc.). The generally upward trend in both journals is consistent with the idea of a change toward a sociocultural paradigm. We believe that the surge in 1976–1980 references in *Reading Research Quarterly* is attributable to the rising influence of sociolinguistics and anthropology of education during that period. A contributing influence may have been schema-based research, which always had a sociocultural dimension. In fact, the first *Reading Research Quarterly* article to use the word *schemata* used it in the phrase *cultural schemata* (Steffenson, Joag-Dev, & Anderson, 1978). The peak in use of sociocultural words in *Reading Research Quarterly* in 1991–1995 is possibly an effect of the deliberate policy of the editors to broaden the journal.

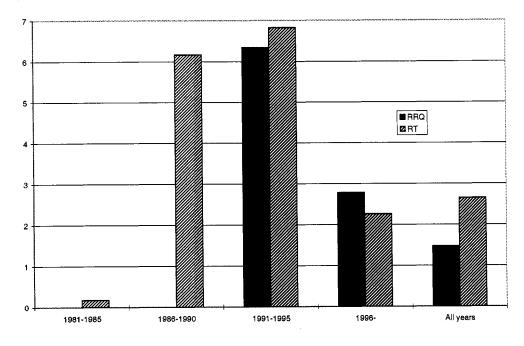


FIG. 5.7. Percentage of articles referring to whole language.

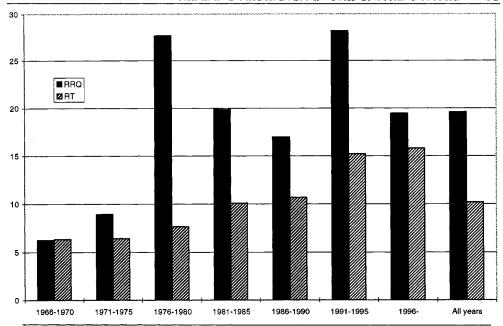


FIG. 5.8. Percentage of articles containing social or cultural.

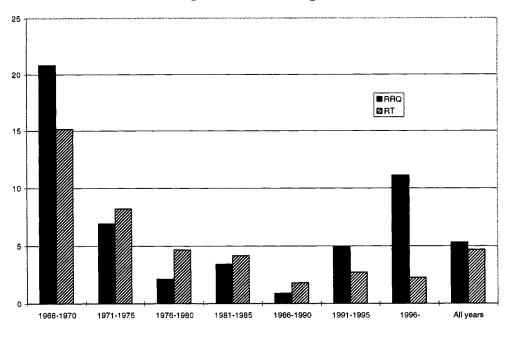


FIG. 5.9. Percentage of articles containing words about race, class, or dialect.

Figure 5.9 presents trends in the use of words referring to race, class, and dialect. The high rate of these words in the 1960s undoubtedly reflects the Civil Rights movement, the strong tide toward school integration, and the launching of Great Society programs such as Head Start and Follow Through. All of this inevitably captured the attention of the reading field. Guzzetti et al. (1999) confirmed that attention to socio-

economic status and ethnicity peaked during the first decade (1969–1978) of publication of the *Journal of Reading Behavior/Journal of Literacy Research*. What is not as easy to understand is the steadily declining references to race, class, or dialect since the 1960s (with an upturn recently). Considering Figs. 5.8 and 5.9 together, one possibility is that terms for race, class, and dialect got swept under the sociocultural rubric.

Finally, we present data on three topics that are discussed more frequently in *The Reading Teacher* than in *Reading Research Quarterly*. Mentions of writing (includes write, writer, writes, wrote, and writing, but not written) are plotted in Fig. 5.10. In *The Reading Teacher*, the trend in references to writing turned up in 1981–1985, surged in 1986–1990, and has declined since then, although remaining at a level higher than any period before the 1980s. This pattern is weakly mirrored in *Reading Research Quarterly*, except for the continuing upward trend in 1996–1998. It is tempting to surmise that the trend was stronger in *The Reading Teacher* than in *Reading Research Quarterly* because leaders in the process writing movement such as Don Graves and Lucy Calkins spoke directly to teachers, bypassing a long research and development phase. Questions of whether, when, or under what circumstances research "leads" practice are taken up again in the next section.

Figure 5.11 shows references to cooperative learning or learning centers. Except in 1996–1998, there are more references in *The Reading Teacher* than in *Reading Research Quarterly*. These are topics on which there is plenty of research. It is simply not research reported in *Reading Research Quarterly* until recently.

Figure 5.12 graphs occurrences of words about motivation or interest. Again, except in 1996–1998, there are more references in *The Reading Teacher* than in *Reading Research Quarterly*. Perhaps it is obvious that a journal for teachers would not ignore motivation. At the same time, it is apparent that motivation, emotion, and affect do not comprise a major theme in reading research. This finding would not surprise motivational researchers, such as Mark Lepper or Carole Ames, who have often complained of the hegemony of cool cognition. The rise in occurrences of motivational

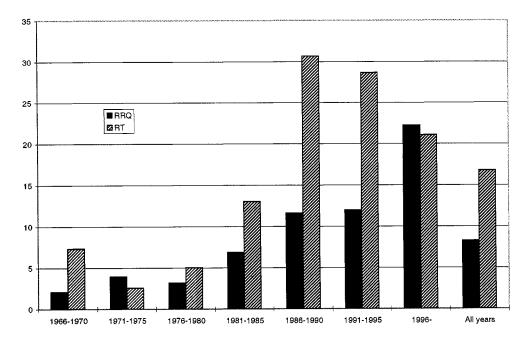


FIG. 5.10. Percentage of articles referring to writing.

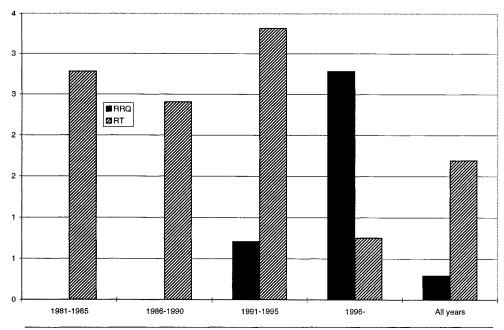


FIG. 5.11. Percentage of articles mentioning cooperative learning.

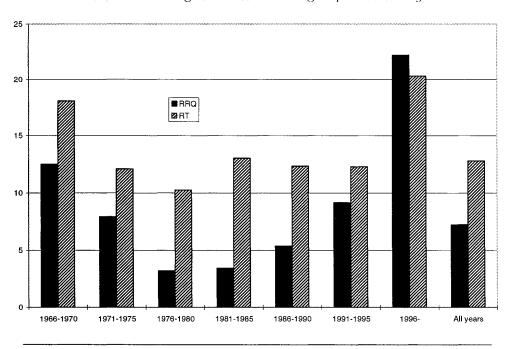


FIG. 5.12. Percentage of articles containing words about motivation or interest.

terms in 1996–1998 may reflect, in part, the influence of the National Reading Research Center at the University of Georgia and the University of Maryland which made engagement one of its principal themes.

ON THE CONNECTION BETWEEN RESEARCH AND PRACTICE

In the her most recent update of Learning to Read, Chall (1996) wrote that

The use of research and theory for improving practice has not been consistent. While research continues to produce findings in the same direction, practice seems to move back and forth. More often than not, it moves in a direction that is not supported by the research and theory. It would seem that the time has come to give more serious attention to why practice has been so little influenced by existing research. (p. xx)

Chall expressed the lament of many educational researchers, teacher educators, and staff developers. A plethora of reasons have been offered as to why teachers do not implement research-based practices, such as: (a) lack of effort or commitment because the innovation "won't be here long," or the fad phenomenon (Slavin, 1989); (b) lack of knowledge of research, or issues of dissemination (Gallagher, 1998) and access (Kennedy, 1997); (c) not enough time or inadequate material, personnel, and financial resources; (d) poor implementation, what Gallagher (1998) characterizes as "teacher error"; (e) lack of teacher knowledge or skill (National Commission on Teaching & America's Future, 1996); and (f) insufficient systemic support and weak leadership (Fullan, 1993).

Recently, two authors proposed reasons for the presumed research–practice gap that are distinct from those commonly listed. Robinson (1998) viewed confusion over the nature of methods as the primary reason for the research–practice gap. In her problem-solving-based theory, methods are activities that solve problems that confront teachers in their practice. She contends that often methods recommended on the basis of research do not solve the problems in ways that are responsive to the particular constraints on teachers' work. Rather, the solutions are dominated by the abstract view-point espoused by researchers.

A related explanation is put forward by Gallagher (1998), who maintained that law-like generalizations that emerge from research, in this case in special education, inaccurately represent and exaggerate scientific claims. Gallagher's logic led her to dismiss the often repeated reasons for lack of research-based practice. In her view, teachers need to be responsive to concrete features of the context and of individual students' learning rather than suppose that it is possible to implement errorless practices based on scientific authority. Thus, "we would begin to make teacher craft knowledge the centerpiece of our efforts to improve both practice and teacher education" (Gallagher, 1998, p. 500).

Interestingly, all of these hypotheses are based on the premise that research should affect practice and does not do so often enough or to a sufficient degree. The next question we wanted to ask of our data revolved around these same issues. What is the direction and extent of influence between research and practice? We explore whether, when, and under what conditions research could be said to *lead* practice.

Using the corpus of journal articles as the data, we could say that there is evidence that research *leads* practice if there is a buildup of references to a topic in research journals followed by a buildup of references to this topic in practitioner journals. There are two caveats. First, there is a weak and a strong sense of *lead*. The weak sense is to precede in time. The strong sense is to cause. Frustrating though it is to us, we are never going to be able to prove causation using our methods. The second caveat is that our data is several steps removed from actual classroom practice. An article in a journal such as *The Reading Teacher* contains ideas that the authors and editors think that teachers should know, that teachers will find useful, and that teachers will want to know, which is closer to classroom practice than most research articles, but still not realized practice itself.

Scanning the charts introduced in the previous section, there are several instances in which we can say research has led practice, in the weak sense. Clearest is the pattern of references marking a sociocultural perspective (Fig. 5.8). Without stretching too much, comprehension (Fig. 5.4), whole texts (Fig. 5.2), and reading strategies (Fig. 5.5) also appear to be topics where research has led practice.

When research *leads* in the weak sense, it could *lead* in the strong sense—that is, certain research development could be the cause or a contributing cause of a practical innovation. So when the weak criterion is met, checking further entailments of a causal relationship could be worthwhile. One additional entailment is that the supposed effect follows the supposed cause by an interval within the response time of the physical or social system. For instance, one would not want to say that flipping a switch caused a light to go off, if the light goes off an hour after the switch was flipped. We have no good idea about the response time of the social system that includes articles in *Reading Research Quarterly* and *The Reading Teacher*, but it takes more or less a year to write an article and get it published if everything goes smoothly.

The one analysis that we have presented on a time scale of a year is occurrences of schema and related terms, which appears in Fig. 5.6. Close scrutiny of this figure reveals that the first appearance of schema in Reading Research Quarterly preceded the first appearance in The Reading Teacher by a year; then six appearances in Reading Research Quarterly preceded six appearances in The Reading Teacher by a year. Thus, the timing of events is not inconsistent with a causal relationship. Please be clear that we are not angling toward the conclusion that a particular journal article provides the ideas and inspiration that causes another particular journal article to be written. What we would like to be able to conclude instead is that number of references to a theme in a journal is an indicator of the strength and direction of flow of a social and intellectual process that encompasses various communication channels with various response-time characteristics, including speeches, discussion, letters, preprint circulation, and, in recent years, e-mail notes and Web postings, as well as published articles. The timing of events is not inconsistent with this general process either, although how long it should take for presumed effects to show themselves becomes murky.

In the case of *schema*, there is another way to reason about whether research led practice. Best available information about the uses of *schema* supports a lack-of-other-explanation inference. We have never heard reports of unprompted discussions among teachers about how schemata provide the ideational scaffolding for the ready assimilation of new information.

Clear cases in which research has not led practice are the topic of word and subword units (Fig. 5.1) and the correlated topic of phonics (Fig. 5.3). References to these topics surged in *Reading Research Quarterly*, but there was not a corresponding subsequent surge in *The Reading Teacher*. As we have already remarked, writing may be another topic in which research, at least research reported in *Reading Research Quarterly*, did not lead practice. A similar story is plausible for whole language, which by all reports was a grass-roots movement.

At the beginning of this section, we quoted Chall's (1996) statement that "More often than not, it [practice] moves in a direction which is not supported by theory and research" (p. xx). Our analysis supports this statement in the notable instance of phonics. Insofar as frequency of mention is a valid indicator, attention to phonics in *The Reading Teacher* has steadily declined over the past three decades, whereas attention first climbed and then remained high in *Reading Research Quarterly*. However, according to our analysis, Chall's statement is not generally true. More often than not, practice moves in synchrony with research. Nor does our analysis support Chall's belief that practice "moves back and forth" to a greater extent than research. Most topic changes in *The Reading Teacher* are slow and sustained over long periods of time. In contrast, topic changes in *Reading Research Quarterly* are more frequently abrupt. Pronounced

changes in direction are to be expected in a research journal; papers that contain no news will not be published.

THE CASE OF SPECIAL EDUCATION

Historically, general and special education have operated on parallel paths, insulated from one another. At its core, special education serves an advocacy function for gaining access first and then appropriate education services for children and youth with physical, sensory, intellectual, and behavioral disabilities that range in degree from mild to severe. Parent organizations such as the Association for Retarded Children (now the Association for Retarded Citizens) and Association for Children with Learning Disabilities (now the Learning Disabilities Association of America), were central to generating the public and political support necessary for the conduct of litigation and the passage of major legislation, such as the Education for All Handicapped Children Act (Public Law 94-142, 1975) and Individuals with Disabilities Education Act (Public Law 101-476, 1990). These political roots continue to be central to the nature of special education. Trends in the field can be readily tracked through changes in legislative mandates that are accompanied by alterations in language used to refer to persons with disabilities and to the services they receive. New legislation incorporates the evolving language in the field, and the new terms are authorized by their inclusion in the law and subsequent rules and regulations.

As reflected in the changes of the names of the laws and organizations, special educators have shifted the language that is used to refer to those who they are intended to benefit. An analysis of the titles and abstracts of every article in *Exceptional Children* in 1965, 1975, 1985, and 1995 shows the history of the transition in terminology. In 1965 and 1975, *handicapped* was the dominant descriptor. The transition in special-education terminology occurred in 1985 when the terms *handicapped* and *disabled* were used equally. By 1995, the field had completely shifted to "person-first" language and the only expressions found were of the form *student with a disability*.

Since the inception of the field, advocates of special education have been concerned with issues of exclusion and inclusion in general education (Gaffney, 1998). Initially, focus was on obtaining access for school-age students in general education settings and in providing appropriate services. The call was for the *mainstreaming* of students with special needs who had been receiving their education in separate classes and schools. Public Law 94-142 provided the impetus and legal weight for mainstreaming; when it was passed in 1975, the articles on legislative issues were most prominent in *Exceptional Children* in 1965.

Functionally, mainstreaming had the effect of shifting students with disabilities one step in the direction of the least restrictive environment. In other words, a student in a special school would likely be moved to a self-contained special class and a student receiving services in a special class might be placed in a resource room, receiving some but not all services with general-education peers. The term *mainstreaming* seeps into the special-education language in 1975 and is the dominant term in *Exceptional Children* in 1985. In 1995, however, another term, *inclusion*—which had never appeared previously—eclipses all other terms. *Inclusion* raises the ante for the integration of students with disabilities by advancing the notion that *every* student ought to be educated within the general education environment. The inclusion paradigm encompasses all students with disabilities, regardless of the nature or the severity of their condition. Distinguished from mainstreaming, its conceptual predecessor, inclusion puts the burden of proof on those who propose placement in settings other than general education and with goals other than those used in the general curriculum.

Based on the coding of the 147 articles in *Exceptional Children* published in 1965, 1975, 1985, and 1995, 71 (48%) are research based and 32 (22%) are essays that do not re-

port research. These essays fall into categories such as practical advice, policy analyses, reviews or syntheses of research, and commentaries and rejoinders. The percentage of articles published in *Exceptional Children* that are research based by year is: 1965 (32%), 1975 (19%), 1985 (53%), and 1995 (90%). The type of research has changed over the three decades. Over half (57%) of the research articles published in 1995 were based on surveys and interviews, which far exceeds any other year.

Exceptional Children has undergone a dramatic shift toward qualitative and naturalistic research. These types account for 32% of the research in 1995. Not a single instance of qualitative or naturalistic research had appeared in any of the previous years. Quantitative methodology reached a high in 1985, under the editorship of James Ysseldyke, when it was employed in 42% of the research studies, with a steep decline to 10% in 1995. In any given year, only two or three studies employing empirical methods included a control group. Surprising to us, based on our a priori assumptions about research methodology in special education, was the fact that only two case studies were reported, one each in 1965 and 1975, and the fact that single-subject methodology was not employed in any study reported in Exceptional Children in any of the 4 years that were examined.

The fields of special education and reading intersect in the area of reading difficulties. Over 75–80% of school-age students with mild disabilities (i.e., learning disabilities, mild mental retardation, emotional disturbance, and behavioral disorders) experience significant problems in basic language and reading skill (Ellis & Cramer, 1994). Based on a review of national studies, a report by the National Center for Learning Disabilities (1996) indicates that as many as one in six elementary students encounters reading difficulties. The majority of students with mild disabilities are identified in third and fourth grades, once the discrepancy between an individual student's performance and national standards is significant and sensitive to testing. In fact, based on longitudinal data, approximately 74% of third graders with learning disabilities had reading difficulties that persisted through the ninth grade (Francis, Shaywitz, Steubing, Shaywitz, & Fletcher, 1994).

Despite the prevalence of reading difficulties among students with mild disabilities, the sample of 147 articles across the 4 years of *Exceptional Children* yielded only 13 (9%) articles that included terms related to reading or writing in the title or abstract. One article published in 1965 and one published in 1975 addressed both reading and writing. Reading was the central focus of only 4 of the 13 articles mentioning reading. This number seems shockingly small, considering the prevalence of reading difficulties among students with disabilities and the importance of reading as a life skill.

In a search for terms that would tap into theory, none were found in the total corpus of abstracts and titles in *Exceptional Children*. It seems that special education researchers are empiricists and pragmatists, not much given to theorizing and not very interested in the theories of others.

CONCLUDING REMARKS

What did we learn from our excavation of three decades worth of reading research? What did we unearth? What is worth preserving and what should be buried with honor? Most scholarship confirms established knowledge. This is regrettable because the excitement for the scholar comes from the unexpected archeological "finds" and figuring out how they came to be located at the site at a particular time in history. It was only reasonable to suppose that most of our findings would confirm the conventional wisdom about reading research, but we did have some surprises.

Using computer-aided document analysis, we got clear evidence of a major shift in conceptions of research over the last three decades. A parallel increase in number of qualitative articles published in the third decade (1989–1998) of *Journal of Reading Be-*

havior/Journal of Literacy Research has been noted by Guzzetti et al. (1999). Researchers are increasingly likely to use qualitative and naturalistic methods and increasingly less likely to use experimental and quantitative methods. This finding does not disturb the conventional wisdom.

Going beyond the conventional wisdom, perhaps, is our discovery of a certain skittishness about theory. Reading researchers avoid using theory-laden terms, in journal abstracts at least. Reading education and, certainly, special education seem to be fields where people want the simple facts, never mind the interpretation. This stance may reflect the supposed viewpoint of schoolteachers, who have been seen as impatient with theory since Lortie's (1975) famous study.

Our inquiry suggests that most ideas come and go within a rather short period of time. Some intellectual currents that seemed extraordinarily strong to those of us who swam in them leave only faint traces that can be detected with our methods. *Schema* (and its inflections) rarely appears in the corpus of *Reading Research Quarterly* and *The Reading Teacher* articles. Even when related terms such as *previous knowledge* and *prior knowledge* are included in a search, there are at most a half dozen articles a year for a period of no more than 8 years that refer to the concept of schema. The same is true of *whole language*; the expression was frequently used for a period of only about 10 years. Even terms for processes that seem to be integral to the very nature of reading, such as *comprehension*, ebb and flow on a short cycle. Most cycles are shorter and more pronounced in *Reading Research Quarterly* than in *The Reading Teacher*.

Our analysis of 30 odd years of articles in *Reading Research Quarterly* and *The Reading Teacher* suggests that, on most topics, the waves in practitioner journals are synchronized with waves in research journals. More often than not, *research leads practice*, meaning that a buildup of references to a topic in research journals precedes a buildup of references to this topic in practitioner journals. Notable exceptions to this rule were the topics of phonics, writing, and whole language. On these topics, authors of *The Reading Teacher* articles were not writing in a rhythm echoing the one in *Reading Research Quarterly*.

Some trends proved true in both special education, as represented in *Exceptional Children*, and general reading education. One similar trend is the broadening conception of research. Another similarity is the atheoretical stance toward research. Our most dismaying finding about special education research is that it so seldom focuses on reading.

Overall, we end up being pleased with the method of online search for words in representative documents as a means for revealing the trends in a field. We are less pleased with our insight into the tangled skein of social and intellectual causation that might account for the trends. Our accounts boil down to: It was in the nature of things, the time was ripe, it was happening everywhere.

Behind the broadened conception of ways of doing research documented in our analysis are changing assumptions about the nature of knowledge. We are struck by the contrasting kinds of knowledge that are endorsed as "truth." The shifts from behaviorism to cognitivism to socioculturalism reflect an increasingly complex picture of literacy, which surely must be closer to the "truth," in some sense of the word. Acknowledgment of this complexity is associated with a postmodern conception of science and whether science, variously conceived, is the best way to extend knowledge about literacy.

The most radical formulation of the postmodern view is that *all knowledge is local*. Gallagher's position (1998) regarding the knowledge base of special education represents the outermost perspective. She contended that law-like generalizations about teaching practices are problematic and that the terms *science* and *scientific* are invoked merely to lend status to claims. In her words:

We may find that the methods of science have served more to obscure than enlighten our current educational practices. Conversely, we may also find that research based on the suggested alternative perspective offers us a more viable means to understand the complexity involved with educational contexts, individual learning processes, teaching practices, educational policies, and innovations. (Gallagher, 1998, p. 500)

If all knowledge were truly local, then, other things being equal, first-hand knowledge would inevitably lead to better decisions than those based on statistical generalization from other cases. However, Paul Meehl (1954/1996) and his colleagues (Grove & Meehl, 1996) demonstrated that, to the contrary, decisions based on statistical generalizations are consistently superior to clinical decisions based on first-hand knowledge. Meehl's findings pose a challenge for the claim that all knowledge is local. Either the claim is false or it has to be understood impressionistically on a phenomenological or existential plane of discourse.

To evaluate whether "classroom actions are so situated that generalization across contexts is next to impossible" (p. 363), Chinn and his colleagues (Chinn, Waggoner, Anderson, Schommer, & Wilkinson, 1993) completed a detailed analysis of 3,008 oral reading error episodes in 72 small-group reading lessons in six second- and third-grade classrooms. Chinn et al. concluded that the data did

not support radical contextualism, the champions of which sometimes talk as though no generalizations across situations are tenable. Although there were certainly differences among between classrooms in this study, the behavior of teachers and students during oral reading error episodes proved to be highly predictable, and certain features of the behavior proved to be stereotyped Generalizations across people and situations ... were replicated rather well in the six classrooms in this study and ... are generally consistent with the findings of previous studies. (p. 390)

A problem with radical contextualism is that if the ecology of every class of children is unique, then teachers will be unable to benefit from principles gleaned from research conducted in other classrooms or even from narratives about the practices of other teachers. To invoke complexity may mean to excuse inaction. One of us invited classroom teachers enrolled in a graduate course to discuss an exemplary research study that they had been assigned to read. The study reported striking benefits from a writing intervention for children with learning disabilities. Nonetheless, the teachers seemed determined to dismiss the study. Their grounds for dismissing it were that the students who participated in the study were different from their students. When asked "different," as though that were all that needed to be said. Admitting that the study was generalizable would have entailed changing their teaching practice or acknowledging that theirs was not best practice. Insisting that the students in the study were different from their own left them a way out.

Our concluding thought is that generalizations that transcend time and circumstance are both possible and desirable. To conclude otherwise is, in the words of N. L. Gage (1996), the "counsel of despair."

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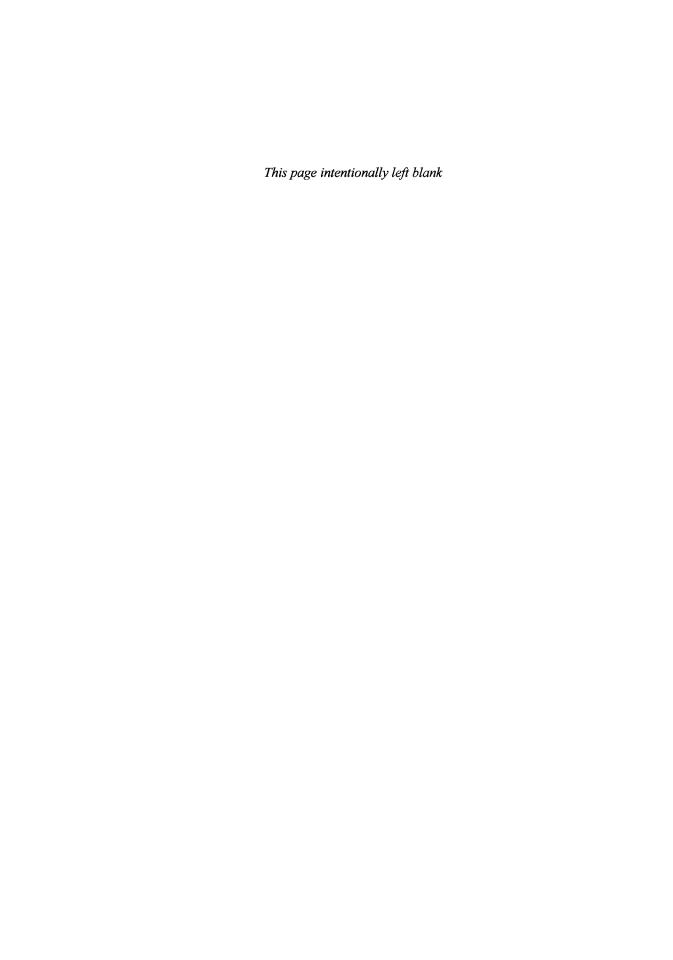
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PART II

Methods of Literacy Research



CHAPTER 6

Making Sense of Classroom Worlds: Methodology in Teacher Research

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We had such a hard time finding methods that we thought were practical and feasible. To this day, I have not been able to master the use of a teaching journal. The idea of being videotaped gives me hives None of the traditional methods of collecting data were inviting to me I thought of what strategies I could fit into my existing classroom structure and what wouldn't drive me insane.

—teacher researcher Debby Wood (cited in Baumann, Shockley-Bisplinghoff, & Allen, 1997, p. 138)

The 1990s have been marked by the resurgence and coming of age of teacher research (McFarland & Stansell, 1993). The recent renaissance of teacher research has resulted in the publication of numerous compendia (e.g., Bissex & Bullock, 1987; Donoahue, Van Tassell, & Patterson, 1996), full-length books (e.g., Allen, Michalove, & Shockley, 1993), and essays on classroom research (e.g., Cochran-Smith & Lytle, 1993; Goswami & Stillman, 1987). In spite of the proliferation of published teacher research studies, relatively little attention has been given to methodology processes and how they evolve and mature (Calkins, 1985). Perhaps it comes as no surprise that teacher researchers like Debby Wood and her colleagues sometimes struggle to find research methods appropriate to the unique demands of their classroom studies.

Many teacher researchers have successfully wrestled with vexing methodological issues, however, by selecting, adapting, or creating procedures that accommodate

their specific research needs (Baumann et al., 1997). But what are the methodological solutions? What is the nature of methodologies teacher researchers have employed in classroom-based inquiries into literacy? We address these questions in this chapter by presenting a qualitative analysis of published literacy teacher-research studies. We begin with a discussion of theoretical issues, followed by a description of our research methods. Next, we present and discuss the categories and themes of teacher-research methodology our analysis uncovered. Finally, we address limitations and conclusions, and we consider whether teacher inquiry is a new research genre.

THEORETICAL ISSUES

Defining Teacher Research

Definitions of teacher research vary (Threat et al., 1994), but most include several common characteristics (Cochran-Smith & Lytle, 1993; Lytle & Cochran-Smith, 1994a, 1994b). Being present daily in the research and work environment, teacher researchers have an insider, or *emic*, perspective on the research process. This provides them a unique, situation-specific, participant role in an inquiry (Cochran-Smith & Lytle, 1993, p. 43). Theory and practice are interrelated and blurred in teacher research (Cochran-Smith & Lytle, 1993; Kincheloe, 1991; Lather, 1986). It is this mixture of reflection and practice, or *praxis*, in which a teacher-researcher's personal theory and theory within a field converge and affect one another. A cornerstone of teacher research is that it is *pragmatic* and *action oriented*; that is, it involves reflecting on one's teaching and practice, inquiring about it, exploring it, and then taking action to improve or alter it (Burton, 1991; Patterson & Shannon, 1993; Wells et al., 1994).

Teacher research must involve disciplined inquiry (Shulman, 1997), which means it is *intentional* and *systematic*. Teacher researchers consciously initiate and implement their inquiries and have a plan for data gathering and analysis. Teacher research embraces both inquiries steeped in conventional research traditions (e.g., qualitative, quantitative) that have well-articulated, accepted information collection and interpretation procedures and evolving research paradigms (e.g., personal narrative, formative experiment, memoir) that involve less traditional but nonetheless still regular, ordered modes of inquiry (Lytle & Cochran-Smith, 1994b). Drawing from these principles and extending Lytle and Cochran-Smith's (1994b, p. 1154) definition of teacher research, we conceive of teacher research as "reflection and action through systematic, intentional inquiry about classroom life" (Baumann et al., 1997, p. 125).

Methods Versus Methodology

In our exploration of teacher research, we distinguish between method and methodology. According to Denzin and Lincoln (1994, p. 99), epistemology involves how a researcher comes to know about the world; ontology involves a researcher's beliefs about the nature of reality; and methodology involves the means by which a researcher gains knowledge about the world. Consequently, *methodology* for teacher researchers involves their beliefs about the world of teaching, learning, children, and classroom life. *Methods*, in contrast, are the procedures and tools a researcher employs in an inquiry: the plans for gathering information, the mechanisms for reducing or synthesizing data, and the techniques for analyzing and making sense of information. Methods are determined by methodological decisions (see Dillon essay in Baumann, Dillon, Shockley, Alvermann, & Reinking, 1996).

The implication of this distinction is that our examination of methodology in teacher research involves more than simply reporting the various types of research de-

signs, data collection procedures, and analysis techniques (i.e., methods) teacher researchers have employed. Rather, it requires that we put on a wide-angle lens to examine the general characteristics of teacher research, the process of teacher inquiry, and the nature of classroom inquiry dissemination, along with the actual methods classroom teachers use in their studies.

Literature on Methodology in Teacher Research

Teacher research has a long, rich, and varied tradition, and we refer readers to other sources to glean a full historical perspective (e.g., Cochran-Smith & Lytle, 1990; Lytle & Cochran-Smith, 1994a; McFarland & Stansell, 1993; Olson, 1990). Here we briefly trace selected works germane to methodology in teacher research.

Early in the 20th century, one finds references to the importance of teacher contributions to the knowledge base on teaching (Dewey, 1929) as well as discussions of methods appropriate for research involving teachers (Buckingham, 1926). Concurrent with the mid-century action research movement (e.g., Corey, 1953; Elliott, 1991; Stenhouse, 1973, 1975) were discussions about appropriate methodology for teacher research (Corman, 1957; Hodgkinson, 1957). More recently, authors have described various methods, tools, and procedures for engaging in teacher research (e.g., Brause & Mayher, 1991; Calhoun, 1994; Hopkins, 1993; Hubbard & Power, 1993a, 1999; Kincheloe, 1991; Mohr & Maclean, 1987; Myers, 1985; Nixon, 1981; Sagor, 1992).

Given the long-standing interest in the conduct and publication of teacher research and the more recent works describing methods and tools, it is interesting that there have been relatively few analyses of methodological perspectives employed in teacher research. Reviewers of the history or tradition of teacher research (e.g., Cochran-Smith & Lytle, 1993; Hollingsworth & Sockett, 1994; McFarland & Stansell, 1993; Olson, 1990) have commented on the methods employed and some methodological themes, but systematic analyses have been rare. Baumann et al. (1997) examined in detail the methodological perspectives employed in three specific teacher-research environments, but their cases do not provide any sense of the breadth of methodologies teacher researchers employ. The purpose of this chapter is to begin to fill this void. The following question guided our research: What is the nature of methodologies teacher researchers have employed in published classroom-based inquiries in literacy?

METHOD

Theoretical and Researcher Perspectives

This research is a qualitative study of teacher-research methodology in literacy education. Through an application of the constant comparative method to written documents (Glaser & Strauss, 1967), we analyzed 34 purposively selected teacher-research studies. Through this analysis, we generated categories and themes of teacher-research methodology that captured the essence of our sample.

We have both had experience with teacher research. Jim engaged in teacher research when taking a sabbatical from his university position to teach second-grade (Baumann & Ivey, 1997). He also worked within a teacher-research community (Baumann, Allen, & Shockley, 1994) and reflected on teacher-research methods (Baumann, 1996). Ann, a former elementary school classroom teacher and reading specialist, conducted teacher research as the instructor of a university- and field-based elementary reading education course (Duffy, 1997) and as the teacher of a summer reading program for second-grade, struggling readers (Duffy-Hester, 1999).

We believe that good teachers of literacy are theoretical as they utilize extant literacy research that informs their practice and produce new theories of teaching and learning

through their teacher-research endeavors. We see teacher researchers as linking research and practice, the embodiment of reflective practitioners (Schon, 1983). We know from our own teacher research that engaging in classroom inquiry can transform an educator's views on teaching and learning.

Sampling

We selected literacy-based, teacher-research studies that were consistent with our definition of teacher research (i.e., reflection, action, and systematic intentional inquiry). We accomplished this selection through the process of *theoretical sampling*, which is "the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges" (Glaser & Strauss, 1967, p. 45).

To obtain a broadly based sample of teacher-research studies, our theoretical sampling was guided by three selection criteria: (a) publication source, including journal articles, chapters in edited books, and full-length books; (b) age and grade level, including early childhood (preschool to Grade 2), elementary school (Grades 3–5), middle and junior high school (Grades 6–8), high school (Grades 9–12), and college-age students; and (c) research topic foci, including comprehension, discussion, integrated language arts, literature response, oral language, reading, spelling, writing, and whole language. We identified studies that reflected the range of diversity specified by each criterion.

As our analysis proceeded, we revisited and reevaluated our definition of teacher research, deleted studies from our list that did not seem to meet our evolving definition, and added new studies to broaden our sample. Midway through our sampling and analysis process, we created a matrix to determine whether we had adhered to our three sampling criteria of publication outlet, age/grade level, and research topic focus. We added and deleted studies as necessary so that the sample reflected our criteria and hence the broader universe of published teacher-research studies. We also shared the study sample and our criteria with a person experienced and highly published in literacy teacher research. We asked this educator to assess the sample in relation to our criteria. Based on her evaluation and suggestions, we deleted and added several studies. Table 6.1 presents the 34 teacher-research studies in our final sample.

Analysis

Our data analysis proceeded through five phases. In Phase I, *initial coding and category creation*, we independently read a subset of studies in the sample, writing researcher memos (LeCompte & Preissle, 1993) such as observer comments, methodological memos, and analytic memos. We then independently analyzed our notes to glean the emerging categories and met to discuss and create a list of common categories. In Phase II, *category refinement and theme creation*, we read additional studies, modified the existing categories, and identified emerging clusters of categories as themes. We concluded the analysis in Phase III, *data saturation*, that is, when neither of us modified or added to the 16 categories and 4 themes we had identified at this point.

In Phase IV, establishing credibility, we independently reread the studies and listed page numbers for which we found evidence of each category, resulting in an interrater agreement score of 88.6% across all 16 categories and 34 studies. Disagreements about a particular category were discussed and resolved in conference. In Phase V, audit, we provided a doctoral student trained in qualitative research methodology and knowledgeable in literacy teacher research copies of the studies, sampling and analysis procedures, data reduction and analysis documents, and a list of guiding questions (modeled after Halpern, 1983; cited in Lincoln & Guba, 1985) that evaluated the completeness, comprehensibility, utility, and linkages in our research. After reviewing six

TABLE 6.1

Teacher-Research Studies Analyzed

- 1. Allen, Janet. (1995). It's never too late: Leading adolescents to lifelong literacy. B, H, I
- 2. Allen, Jennifer. (1997). Exploring literature through student-led discussions. *Teacher Research: The Journal of Classroom Inquiry*. A, EL, D/LR
- 3. Allen, JoBeth; Michalove, Barbara; & Shockley, Betty. (1993). Engaging children: Community and chaos in the lives of young literacy learners. B, EC/EL, I
- 4. Allen, Sara. (1992). Student-sustained discussion: When students talk and the teacher listens. *Students teaching, teachers learning*. C, H, D/LR
- 5. Atwell, Nancie. (1987). Everyone sits at a big desk: Discovering topics for writing. *English Journal*. A, M, W
- 6. Avery, Carol S. (1987). Traci: A learning-disabled child in a writing-process classroom. Seeing for ourselves: Case-study research by teachers of writing. C, EC, W
- 7. Bryan, Leslie Hall. (1996). Cooperative writing groups in community college. *Journal of Adolescent & Adult Literacy*. A, C, W
- 8. Caulfield, Judy. (1996). Students telling stories: Inquiry into the process of learning stories. *Research in the classroom: Talk, texts, and inquiry.* C, EL/M, O
- 9. Christensen, Linda; & Walker, Barbara J. (1992). Researching one's own teaching in a reading education course. *Literacy research and practice: Foundations for the year* 2000. C, C, R
- 10. Cline, Dawn M. (1993). A year with reading workshop. *Teachers are researchers: Reflection and action*. C, M, R
- 11. Clyde, Jean Anne; Condon, Mark W. F.; Daniel, Kathleen; & Sommer, Mary Kenna. (1993). Learning through whole language: Exploring book selection and use with preschoolers. *Teachers are researchers: Reflection and action.* C, EC, WL
- 12. Commeyras, Michelle; Reinking, David; Heubach, Kathleen M.; & Pagnucco, Joan. (1993). Looking within: A study of an undergraduate reading methods course. *Examining central issues in literacy research, theory, and practice*. C, C, R
- 13. Cone, Joan Kernan. (1994). Appearing acts: Creating readers in a high school English class. *Harvard Educational Review*. A, H, R
- 14. Donoahue, Zoe. (1996). Collaboration, community, and communication: Modes of discourse for teacher research. *Research in the classroom: Talk, texts, and inquiry.* C, EL, S
- 15. Feldgus, Eileen Glickman. (1993). Walking to the words. *Inside/outside: Teacher research and knowledge*. C, EC, W
- 16. Grattan, Kristin Walden. (1997). They can do it too! Book club with first and second graders. *The book club connection: Literacy learning and classroom talk*. C, EC, D/LR
- 17. Grimm, Nancy. (1990). Tutoring dyslexic college students: What these students teach us about literacy development. The writing teacher as researcher: Essays in the theory and practice of class-based research. C, C, W
- 18. Harvey, Stephanie; McAuliffe, Sheila; Benson, Laura; Cameron, Wendy; Kempton, Sue; Lusche, Pat; Miller, Debbie; Schroeder, Joan; & Weaver, Julie. (1996). Teacher-researchers study the process of synthesizing in six primary classrooms. *Language Arts*. A, EC, C
- 19. Johnston, Patricia. (1993). Lessons from the road: What I learned through teacher research. *Inside/outside: Teacher research and knowledge*. C, M, D

TABLE 6.1 (Continued)

- 20. Maher, Ann. (1994). An inquiry into reader response. Changing schools from within: Creating communities of inquiry. C, EL, LR
- 21. Mosenthal, James. (1995). A practice-oriented approach to methods coursework in literacy teaching. *Perspectives on literacy research and practice*. C, C, I
- 22. Murphy, Paula. (1994). Antonio: My student, my teacher: My inquiry begins. *Teacher Research: The Journal of Classroom Inquiry*. A, M, I
- 23. Newton, Marianne; Nash, Doris; & Ruffin, Loleta. (1996). A whole language trilogy: The covered bridge connection. *Teachers doing research: Practical possibilities*. C, EC, WL
- 24. Paley, Vivian Gussin. (1997). The girl with the brown crayon. B, EC, LR
- Phinney, Margaret Yatsevitch; & Ketterling, Tracy. (1997). Dialogue journals, literature, and urban Indian sixth graders. Teacher Research: The Journal of Classroom Inquiry. A, M, LR/W
- 26. Pils, Linda J. (1993). "I love you, Miss Piss." Reading Teacher. A, EC, W
- 27. Ray, Lucinda C. (1987). Reflections on classroom research. *Reclaiming the classroom: Teacher research as an agency for change*. C, H, W
- 28. Richards, Jane. (1987). Rx for editor in chief. Seeing for ourselves: Case-study research by teachers of writing. C, H, W
- 29. Saunders, Laura. (1995). Unleashing the voices we rarely hear: Derrick's story. *Teacher Research: The Journal of Classroom Inquiry*. A, M, LR
- 30. Sega, Denise. (1997). Reading and writing about our lives: Creating a collaborative curriculum in a class of high school misfits. *Teacher Research: The Journal of Classroom Inquiry*. A, H, I
- Swift, Kathleen. (1993). Try Reading Workshop in your classroom. Reading Teacher. A, M,
 R
- 32. Thomas, Sally; & Oldfather, Penny. (1995). Enhancing student and teacher engagement in literacy learning: A shared inquiry approach. *Reading Teacher*. A, EL/M, I
- 33. Von Dras, Joan. (1990). Transitions toward an integrated curriculum. *Talking about books:* Creating literate communities. C, EL, I
- 34. Wood, Katie. (1993). A case study of a writer. *Teachers are researchers: Reflection and action*. C, M, W

Note. Each teacher-research study analyzed is presented in an abbreviated reference format that includes author(s), publication date, title, and publication outlet. The reference list at the end of the chapter includes complete citations for each entry in this table. We have included authors' first names in this table to fully acknowledge the identity of all teacher researchers whose work is cited. Following each entry is a three-part code. The first part identifies the type of teacher-research publication (A = journal article; B = full book; C = chapter in an edited book). The second part identifies the age or grade of research participants (EC = early childhood, including preschool, kindergarten, and Grades 1–2 children; EL = elementary children in Grades 3–5; M = middle school or junior high students in Grades 6–8; H = high school students in Grades 9–12; C = college-age students). The third part identifies the content foci for the studies (C = comprehension, D = discussion, I = integrated language arts, LR = literature response, O = oral language, R = reading, S = spelling, W = writing, WL = whole language). We acknowledge the limits and subjectivity of our classification system, particularly with respect to the content focus designations.

representative studies, the auditor concluded that the analysis procedures and inquiry path were clear, although she indicated that we had misclassified one study in the category "Teacher researchers supplement qualitative research methods with quantitative methods." To address this concern, we reviewed all 34 studies, finding evidence for this category in 3 additional studies.

RESULTS AND DISCUSSION

Our analysis of methodology in teacher research resulted in the construction of 16 categories, which clustered within four broad themes: (a) general attributes of teacher research, (b) the process of teacher inquiry, (c) teacher-research methods, and (d) writing and reporting classroom inquiry. Table 6.2 presents these themes and categories.

To facilitate reference to studies within our sample, we employ a theme/category labeling system. For example, we use 2B to identify Category B within Theme 2. We also provide a brief reference label for each category, which is shown in **boldface** type in Table 6.2. For example, **Instructive** denotes the 2B category, "Teacher researchers learn from their students," within Theme 2, "Process of Teacher Inquiry." For simplicity in citing studies within this chapter, we use a parenthetic number format that is keyed to the identifying numbers in Table 6.1. For example, (26) refers to Linda Pils's study.

Table 6.3 presents the themes and categories identified study by study. The presence of a bullet indicates that the category emerged from our analysis for a particular study. The final two columns of each row indicate the number of categories that emerged for a study, followed by the overall percentage (e.g., Study 6 possessed 12 of 16 possible categories, a 75% occurrence). The final two rows in the table present parallel data but by category (e.g., Category 1B was present in 20 of the 34 studies analyzed, a 59% occurrence).

Table 6.3 reveals several trends within the data. First, the categories had high representation across studies, with an 83% overall frequency of category occurrence. Second, there was variation by study, ranging from a 56% occurrence (Study 28) to 100%

TABLE 6.2

Themes and Categories Emerging From Analysis of Published Teacher-Research Studies

Theme 1: General attributes of teacher research

- A. Questions from within: Teacher research is prompted by the problems teachers face and the questions they pose within their own classrooms. (100%)
- B. **Question evolution**: Research questions are modified as teachers conceptualize and implement a classroom study. (59%)
- C. Theoretically driven: Existing theory—presented through written texts or collegial dialogue—inspires, guides, supports, or informs teachers in their own inquiries (i.e., theory → teacher research). (97%)
- D. Theoretically productive: Engaging in teacher research leads to the creation or development of theories of teaching, learning, and schooling (i.e., teacher research → theory). (94%)
- E. Reflective: Teacher researchers are reflective practitioners. (100%)

Theme 2: Process of teacher inquiry

- A. **Collaborative**: Teacher researchers conduct research with peers, students, families, or college faculty as coresearchers or collaborators. (91%)
- B. Instructive: Teacher researchers learn from their students. (100%)
- C. Clarifying: Classroom inquiry enables teachers to make sense of their classroom worlds. (94%)
- D. **Unsettling**: Because classroom inquiry involves change and risk-taking, teacher researchers may feel uneasiness with innovations or changes they examine in their classrooms. (62%)
- E. Compatible or discordant: Engaging in research and teaching are mutually reinforcing processes for some teacher researchers, whereas others experience tension between them. (26%)

TABLE 6.2 (Continued)

Theme 3: Teacher-research methods

- A. **Pragmatic**: Teacher researchers employ methods on the basis of their practicality and efficiency for addressing research questions. (100%)
- B. **Versatile**: Teacher researchers select, adapt, or create qualitative research methods for collecting and analyzing data. (100%)
- C. Complementary: Teacher researchers supplement qualitative research methods with quantitative methods. (26%)

Theme 4: Writing and reporting classroom inquiry

- A. Narrative: Teacher researchers employ a narrative style when reporting classroom inquiries. (94%)
- B. Illustrative: Teacher researchers document findings by including excerpts of transcripts and interviews or reproducing student work and artifacts in research reports. (91%)
- C. **Figurative**: Teacher researchers use research vignettes or metaphors to convey key points and ideas. (94%)

Note. Parenthetic percentages indicate the frequency with which a category was present across the 34 studies examined.

(Study 1). Third, there was variation by category, with frequencies ranging from 26% to 100%.

This variation is also captured, in part, in Table 6.4 (see p. 87), which presents three sets of categories clustered according to their frequency of occurrence. *Defining categories* were the most frequent features (91%–100% occurrence). *Discriminating categories* were those features that distinguished some studies from others (59%–62% occurrence). *Negative-case categories* were features of teacher research that, although low in frequency (26% occurrence), were retained because they helped define teacher research methodology through exceptions, much in the way negative-case qualitative analysis procedures (Kidder, 1981) are used to clarify and refine categories and properties. We now turn to a theme-by-theme presentation of categories with supporting data for each.

Theme 1: General Attributes of Teacher Research

Category A: Questions From Within. Teacher research is prompted by the problems teachers face and the questions they pose within their own classrooms. Ann Maher (20) stated that her research on reader response "developed from my growing discomfort and dissatisfaction with the reading program in my Junior grade 4/5 classroom" (p. 81). Eileen Glickman Feldgus (15) wondered how her kindergarten students learned to use environmental print in their writing, noting that "this question haunted me" (p. 171). High school teacher Lucinda C. Ray (27) reported that she engaged in research, in part, because "I was frustrated and dissatisfied with the lack of success I had in talking with my students about their writing" (p. 219).

O'Dell (1987) argued that teachers' research questions emerge from a sense of dissonance: "Something isn't quite clear to us; something just doesn't add up" (p. 129). Bissex (1987) defined teacher researcher through questioning: "A teacher-researcher is a questioner....Problems become questions to investigate" (p. 4). Our data support Bissex's definition.

TABLE 6.3 Themes and Categories by Study

	·	Š	neral 1	General Attributes	sə,			Prc	Process of TR	TR		TR	TR Methods	ds	W	Writing TR	R		
j	Study ID/Author	1.4	1B	1C	1D	1E	2A	2B	2C	2D	2E	3.4	3B	3C	4 <i>A</i>	48	4C	и	%
ij	1. Allen, Janet	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	16	100
5.	2. Allen, Jennifer	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	15	94
છ	3. Allen, JoBeth, et al.	•		•	•	•	•	•	•			•	•		•	•	•	12	75
4	Allen, Sara	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	15	94
51	Atwell, Nancie	•		•	•	•		•	•	•		•	•		•	•	•	12	75
9	Avery, Carol. S	•		•	•	•	•	•	•			•	•		•	•	•	12	75
7.	Bryan, Leslie Hall	•		•	•	•		•	•	•		•	•		•	•	•	12	75
œ	Caulfield, Judy	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	15	94
9.		•	•	•	•	•	•	•	•	•		•	•	•		•	•	14	88
10.		•		•	•	•	•	•	•	•		•	•	•	•	•	•	14	88
11.	Clyde, Jean Anne, et al.	•	•	•	•	•	•	•	•	•		•	•		•	•	•	14	88
12.	12. Commeyras, Michelle, et al.	•		•	•	•	•	•	•			•	•	•		•	•	12	75
13.	13. Cone, Joan Kernan	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	15	94
14.	14. Donoahue, Zoe	•	•	•	•	•	•	•	•			•	•		•	•		12	75
15.	15. Feldgus, Eileen Glickman	•	•	•	•	•	•	•	•			•	•		•	•	•	13	81
16.	16. Grattan, Kristin Walden	•		•	•	•	•	•	•	•		•	•		•	•	•	13	81
17.	17. Grimm, Nancy	•	•	•	•	•	•	•	•	•		•	•		•		•	13	81
18.	18. Harvey, Stephanie, et al.	•		• !	•	•	•	•	•	•		•	•		•	•	•	13	81

TR Methods TR	 86						TA	BLE 6.	TABLE 6.3 (Continued)	tinued										
Study ID/Author 14 18 1C 1D 1E 2A 2B 2C 2D 2E 3A 3B 3C Johnston, Patricia	l			Gener	al Attri	butes			Pro	cess of	TR		TR	Methoc	ls.	Wr	Writing TR	R		
Johnston, Patricia .	ŀ	Study ID/Author	1.4	1B	1C	110	1E	2A	2B	2C	2D	2E	3.4	3B	3C	4 <i>A</i>	4B	4C	и	%
Mather, Ann Mather, Ann Mosenthal, James Proposed Matter Murphy, Paula Newton, Marianno, et al. Paley, Vivian Gussin	15). Johnston, Patricia	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	15	94
Mosenthal, James Mosenthal, James Pale <	30). Maher, Ann	•	•	•	•	•	•	•	•			•	•		•	•	•	13	81
Murphy, Paula • • • • • • • • • • • • • • • • • • •	21	. Mosenthal, James	•	•	•	•	•	•	•				•	•		•	•	•	12	75
Newton, Marianne, et al. Paley, Vivian Gussin	22	". Murphy, Paula	•	•	•	•	•	•	•	•			•	•		•	•	•	13	81
Paley, Vivian Gussin Paley, Linda J. Paley, L	23	3. Newton, Marianne, et al.	•		•		•	•	•	•	•	•	•	•	•	•		•	13	81
Phinney & Ketterling Phinney &	24	Paley, Vivian Gussin	•	•	•	•	•	•	•	•			•	•		•	•	•	13	81
Pils, Linda J. Pils,	25	i. Phinney & Ketterling	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	15	46
Ray, Lucinda C. Ray, Ray, Ray, Ray, Ray, Ray, Ray, Ray,	26	i. Pils, Linda J.	•		•	•	•	•	•	•		•	•	•		•	•	•	13	81
Richards, Jane Saunders, Laura Sega, Denise	27	7. Ray, Lucinda C.	•	•	•	•	•	•	•	•	•		•	•	•	•	•		14	88
Saunders, Laura Sega, Denise Sega, Denise Swift, Kathleen Swift, Kathleen Swift, Rathleen Swift,	35	3. Richards, Jane	•		•		•	•	•				•	•		•		•	6	26
and deather a control of the control	25). Saunders, Laura	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	15	94
ather 34 20 33 32 34 100 91 100 94 62 26 100 100 26	36). Sega, Denise	•			•	•	•	•	•			•	•		•	•	•	11	69
ather • • • • • • • • • • • • • • • • • • •	31	. Swift, Kathleen	•	•	•	•	•	•	•	•			•	•	•	•	•	•	14	88
34 20 33 32 34 31 34 52 21 9 34 34 9 100 59 97 94 100 91 100 94 62 26 100 100 26	32	Thomas & Oldfather	•		•	•	•	•	•	•	•	•	•	•		•	•	•	14	88
34 20 33 32 34 31 34 32 21 9 34 34 9 100 59 97 94 100 91 100 94 62 26 100 100 26	33	3. Von Dras, Joan	•		•	•	•		•	•	•		•	•		•	•	•	12	72
34 20 33 32 34 31 34 32 21 9 34 34 9 100 59 97 94 100 91 100 94 62 26 100 100 26	8	i. Wood, Katie	•	•	•	•	•	•	•	•	•		•	•		•	•	•	14	88
100 59 97 94 100 91 100 94 62 26 100 100 26		п	34	20	33	32	34	31	34	32	21	6	34	34	6	32	31	32	452	
	ı	%	100	59	26	94	100	91	100	94	62	26	100	100	26	46	91	94	ļ	83

TABLE 6.4

Teacher Research Categories Clustered by Overall Frequency Across Studies

Cluster 1: Defining	1A
categories	
(category present	
in 91%-100% of	1C
all studies)	

- Questions from within: Teacher research is prompted by the problems teachers face and the questions they pose within their own classrooms.
- Theoretically driven: Existing theory—presented through written texts or collegial dialogue—inspires, guides, supports, or informs teachers in their own inquiries (i.e., theory \rightarrow teacher re-
- 1D Theoretically productive: Engaging in teacher research leads to the creation or development of theories of teaching, learning, and schooling (i.e., teacher research \rightarrow theory).
- 1E Reflective: Teacher researchers are reflective practitioners.
- 2A Collaborative: Teacher researchers conduct research with peers, students, families, or college faculty as coresearchers or collabora-
- 2B **Instructive**: Teacher researchers learn from their students.
- 2C Clarifying: Classroom inquiry enables teachers to make sense of their classroom worlds.
- 3A Pragmatic: Teacher researchers employ methods on the basis of their practicality and efficiency for addressing research questions.
- 3B Versatile: Teacher researchers select, adapt, or create qualitative research methods for collecting and analyzing data.
- 4A Narrative: Teacher researchers employ a narrative style when reporting classroom inquiries.
- Illustrative: Teacher researchers document findings by including excerpts of transcripts and interviews or reproducing student work and artifacts in research reports.
- 4C Figurative: Teacher researchers use research vignettes or metaphors to convey key points and ideas.

Cluster 2: Discriminating categories (category present in 59%-62% of all studies)

- Question evolution: Research questions are modified as teachers conceptualize and implement a classroom study.
- Unsettling: Because classroom inquiry involves change and risk-taking, teacher researchers may feel uneasiness with innovations or changes they examine in their classrooms.

Cluster 3: Negative-case categories (category present

- in 26% of all studies)
- Compatible or discordant: Engaging in research and teaching are mutually reinforcing processes for some teacher researchers, whereas others experience tension between them.
- Complementary: Teacher researchers supplement qualitative research methods with quantitative methods.

Category B: Question Evolution. Research questions are modified as teachers conceptualize and implement a classroom study. Kathleen Swift's (31) inquiry about the impact Reading Workshop had on the attitudes of her sixth graders led her to new questions: "What was happening to students' reading skills as a result of Reading Workshop? I wondered how well Reading Workshop strengthened and built comprehension. What effect did it have on the learning disabled students and below-grade-level readers?" (p. 367). University teacher researchers Linda Christiansen and Barbara J. Walker (9) likewise reported that "taking a closer look at one's teaching has led both to restructuring courses and providing questions for further research" (p. 63). Lucinda C. Ray's (27) four initial research questions grew along with her inquiry: "I learned some answers to these questions.... I learned to ask some new questions which I hadn't anticipated" (p. 222).

Although research question evolution is common (Baumann, Allen, & Shockley, 1994), Hubbard and Power (1993b) argued that "many teachers have to do some wandering to get to their wonderings" (p. 21). Our findings support this process.

Category C: Theoretically Driven. Existing theory—presented through written texts or collegial dialogue—inspires, guides, supports, or informs teachers in their own inquiries (i.e., theory → teacher research). Some teacher researchers demonstrate their familiarity and use of existing theory through literature reviews. Marianne Newton, Doris Nash, and Loleta Ruffin (23) found that by reading the professional literature, they were able to make "natural connections between the research others had done and what we were trying to do with the children in our classrooms" (p. 83–84). Theoretical grounding also came in the form of personal contacts. Sara Allen (4) reported how her department chair challenged her to engage in classroom inquiry, and Nancie Atwell (5) related how a research consultant brought "authority as a teacher and researcher [and] a wealth of knowledge" (p. 179) to their research team.

Teacher research is not atheoretical. Teacher researchers confer with colleagues, take courses and attend workshops on research, and read professional materials (Cochran-Smith & Lytle, 1993). We found this linkage of extant theory to classroom inquiry an almost universal characteristic of teacher research.

Category D: Theoretically Productive. Engaging in teacher research leads to the creation or development of theories of teaching, learning, and schooling (i.e., teacher research → theory). Carol S. Avery's (6) case study of a learning-disabled, first-grade child led to modification of her teaching philosophy and practices, and Joan Kernan Cone's (13) research led her to "know high school reading instruction in a way that would dramatically change the way I teach" (p. 87). Others reported that teacher research affirmed their theories, such as Eileen Glickman Feldgus (15), who found that her study of kindergartners strengthened several of her "personal beliefs" and "convictions" about emergent readers and writers (p. 177).

Teacher research involves a recursive relationship between theory and practice. Ann Keffer described how this notion of praxis played out for her daily: "Classroom research is not something one gets through with. Instead, it is a different approach to teaching in which theory informs practice and *practice informs theory* continually and immediately right in the classroom" (cited in Baumann et al., 1997, p. 139).

Category E: Reflective. Teacher researchers are reflective practitioners. Reflection was evident in all studies examined. Laura Saunders (29) described introspection in relation to her case study of an eighth-grade student: "As I reflect upon my decision making where Derek was concerned ..." (p. 56). Kristin Walden Grattan (16) wrote about her research with primary-grade children: "As I reflect on my journey of exploring and modifying Book Club to meet my classroom needs, I realize that it was a rather bumpy road" (p. 279). Leslie Hall Bryan (7), in the midst of her research with developmental studies college students, mused: "At this point I reflected on the process as a whole and the direction I wanted to go for the last weeks of the term" (p. 191). Lucinda C. Ray (27) stated that "reflection ... describes the impact of the study on me as a researcher and learner" (p. 222).

All who have analyzed the teacher-research process (Goswami & Stillman, 1987) or the development of teacher-research communities (Lytle & Cochran-Smith, 1992) ac-