

METHODS OF RESEARCH ON TEACHING THE ENGLISH LANGUAGE ARTS

The Methodology Chapters
from the Handbook of Research
on Teaching the English Language Arts,
Second Edition

Sponsored by
International Reading Association
& National Council of Teachers of English

EDITED BY
JAMES FLOOD
DIANE LAPP • JAMES R. SQUIRE
JULIE M. JENSEN

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ARTS, SECOND EDITION**

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2005

LAWRENCE ERLBAUM ASSOCIATES, PUBLISHERS
Mahwah, New Jersey

London

Senior Acquisitions Editor: Naomi Silverman
Assistant Editor: Erica Kica
Cover Designer: Kathryn Houghtaling Lacey
Textbook Production Manager: Paul Smolenski
Full Service Compositor: TechBooks
Text and Cover Printer: United Graphics Incorporated

This book was typeset in 10/12 pt. Palatino Roman, Bold, and Italic.
The heads were typeset in Americana, Americana Bold, and Americana Bold Italic

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Lawrence Erlbaum Associates, Inc., Publishers
10 Industrial Avenue
Mahwah, New Jersey 07430
www.erlbaum.com

Library of Congress Cataloging-in-Publication Data

Methods of research on teaching the English language arts : the methodology
chapters from the Handbook of research on teaching the English language
arts, second edition / edited by James Flood . . . [et al.].

p. cm.

"Sponsored by International Reading Association & National Council
of Teachers of English."

Includes bibliographical references and index.

ISBN 0-8058-5258-1 (pbk. : alk. paper)

1. Language arts. 2. English language—Study and teaching. I. Flood, James.
II. International Reading Association. III. National Council of Teachers of English.
IV. Handbook of research on teaching the English language arts.

LB1576.M46 2005

2004022854

Books published by Lawrence Erlbaum Associates are printed on
acid-free paper, and their bindings are chosen for strength and
durability.

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

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Preface

The methods that are used for conducting effective research in the English Language Arts continue to grow in number and continue to be refined to ensure their overall trustworthiness. In this brief volume we have included the eleven chapters that comprise Part II, “Methods of Research on English Language Arts Teaching,” from the *Handbook of Research on Teaching the English Language Arts, Second Edition* (Flood et al. 2003). These chapters describe eleven different, highly regarded methodological approaches to research within the Language Arts. Each of these chapters represents its own paradigm, and each comes with its own standards of rigor. As each method is presented, it is embedded within the traditions of Language Arts research and teaching. The authors judiciously selected and cited seminal research studies within the field to illuminate the ways in which the methodology and the content of the studies work together to enhance one another. Throughout, the authors carefully explain why they have selected a particular methodology.

Sandra Stotsky and Cindy Mall introduce the book with an overview chapter that delineates the traditions and types of methodologies that have been used throughout the history of research in Language Arts. Anne DiPardo follows with Chapter 2 on contemporary design issues; she takes on the dual challenges of defining “Multiple Literacies” and explaining “how” we know what we know about language processing and communication in today’s society.

In the chapters 3, 4, and 5, Robert C. Calfee and Marilyn Chamliiss; Robert J. Tierney and Margaret Sheeby; and June Birnbaum, Janet Emig and Douglas Fisher systematically explain the intricacies of empirical research design, longitudinal studies and case studies, respectively. Each chapter includes the principles underlying the specific research designs and illustrates these principles from well-known Language Arts studies.

Chapter 6, on Ethnography, by Judith L. Green, Carol N. Dixon and Amy Zaharlick, carefully describes the requirements for conducting ethnographic research. Their approach to this chapter explains ethnography from the perspective of the logic of inquiry.

Chapters 7 and 8 deal with the issues of teacher research. In Chapter 7, Fredrick R. Burton and Barbara L. Seidl discuss teacher research projects from the elementary perspective, and Bob Fecho and Jo Beth Allen, in Chapter 8, write about teacher inquiry into literacy, social justice and power. Chapter 9, by Carl B. Smith and Susan S. Klein, clearly explains ways to conduct synthesis research and provides examples from classic Language Arts studies to demonstrate the issues of collection, selection, analysis and rigor.

Chapter 10 provides insights into new ways of conceptualizing inquiry and research. Donna E. Alvermann and George G. Hruby give us context and directions for writing Fictive Representation, an alternative method for reporting research.

In Chapter 11, M.C. Wittrock concludes the volume with a synthesis of the current issues in methodology, and he provides insights into future directions for conceptualizing new designs for methodology.

The eleven chapters in this volume provide insights and knowledge about ways to conduct effective research using existing methodological paradigms, and it introduces "new" ways of thinking about appropriate ways to conduct and represent findings from research.

We hope you'll enjoy exploring ways to conduct research in the Language Arts as you read this book.

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CHAPTER 1

Understanding Research on Teaching the English Language Arts: An Introduction for Teachers

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In everyday life, we often do research to find practical solutions for immediate problems; we look for something that “works,” even if we don’t really know why it works. The immediate purpose of academic research in education, however, is to seek empirical evidence for explanatory generalizations, or theories, about the relationships among teaching practices, learning processes, and educational outcomes. The larger purpose of academic research is the development of theoretical knowledge.

Theoretical knowledge consists of systematically formulated and organized generalizations that explain the nature or behavior of a particular phenomenon. In the English language arts, these explanatory generalizations, or theories, constitute our knowledge about what happens as language teachers and language learners interact, what their interactions mean to them, why they take place, and what effects they have on the quality of language learning. The purpose of these theories is not only to explain what we can observe but also to predict what will or might happen. In essence, a theory is an educated “guess” about cause and effect for a particular phenomenon. A theoretical model derived from a theory tries to organize all the seemingly relevant elements of the phenomenon in a

way that may account for its occurrence, and the model serves as a guide in formulating hypotheses for empirical studies of the phenomenon.

The purpose of much of the research in the English language arts is to determine how valid a particular theory is in explaining a particular phenomenon. The more validity a theory has, the more support it has, the more researchers can use it to guide further research, and the more teachers can rely on it as a general guide for pedagogical practice. Nevertheless, no matter how much explanatory strength a theory has, for example, no matter how much empirical evidence has been obtained to support the theory, theories in the English language arts, as in other areas, are always tentative. Problems constantly arise or new facts are discovered, that do not seem to be explained by existing theories. Moreover, our ability to understand any educational phenomenon is always limited by the complexity of human behavior. Every theory is simply the best explanation we have at the moment for a particular educational question or concern. Thus, academic research on teaching the English language arts is a continuous, never-ending process of systematic inquiry for enhancing the explanatory power of theoretical discourse on language teaching and learning.

This chapter is intended to give K–12 teachers an introduction to understanding the basic categories and functions of research in teaching the English language arts, as academic research is generally understood. It was designed with the assumption that most teachers do not have extensive backgrounds in understanding educational research. It was also designed to highlight, as much as possible, studies that tell us something about teaching or the teacher's role in the learning process in order to compensate for the fact that there have been relatively few studies since the 1960s devoted to the teacher's role in stimulating student learning in the English language arts (Peters, 1987). Although much of the research in the English language arts is addressed chiefly to other researchers or doctoral students (e.g., the research on planning processes in composing), or is of primary concern to public policymakers or educational administrators (e.g., large program evaluations), the illustrative research in this chapter was selected, as much as possible, for its potential appeal to classroom teachers or curriculum developers.

The chapter begins with a brief overview of what research is and what it is not. It then describes the two basic modes of academic inquiry—conceptual work and empirical research—with a discussion of empirical research in the English language arts divided into two categories: qualitative and quantitative methods. It concludes by suggesting how teachers might recognize these major categories of research in classroom-oriented studies and how they might go about determining the theoretical value of a study's findings. However, the chapter also suggests why the usefulness of a particular study to a particular practitioner may not necessarily depend

on the theoretical value of its findings. Thus, the overall purpose of this chapter is to help teachers become more intelligent consumers of, as well as participants in, educational research.

WHAT IS RESEARCH?

Academic research on teaching the English language arts is a planned, methodical exploration of some aspect of language teaching and learning. Regardless of the nature of the question or problem the researcher is investigating, researchers plan what they are going to do and proceed by systematically gathering data of some kind to address the question or problem. Data are facts. Sometimes they may be easily established and verified by others (e.g., the works of literature that secondary school teachers recommend for whole class instruction, as in Stotsky and Anderson, 1990). Or they may have a subjective quality and their status as facts depends on what researchers report they have observed (e.g., how students with different levels of reading ability participated in informal literature discussion groups, as in Wollman-Bonilla, 1994). Or they may be quantities resulting from criteria or instruments that assess the quality of language teaching and learning, as in Sadoski, Willson, and Norton, 1997. But researchers do more than provide their readers with data to inspect (e.g., a list of the readings certain teachers assign their classes; a detailed description of how particular sixth graders responded to their teacher's invitation to talk informally about what they had read; or the combination of instructional variables associated with large gains in writing. They also interpret the meaning of these data. Researchers then suggest how their findings contribute to the development of theoretical knowledge about the process of language teaching and language learning and the effects of this process on the students' development as a speaker, listener, reader, and writer of the English language.

In the English language arts, as in other subject areas, one must distinguish a research study from instructional materials that operationalize the pedagogical implications of research findings. For example, a workbook on the editing process by Epes and Kirkpatrick (1987) provides exercises designed to help adult basic writers discover whether they are most prone to overlooking either missing words, missing endings, or reversed letters. The exercises are based on many years of teaching, joint research (e.g., Epes & Kirkpatrick, 1978), and Epes' (1985) in-depth case study of 26 unskilled adult students, all of which suggested that unskilled adult writers show different patterns of errors in their writing. While the material in Epes and Kirkpatrick's workbook is clearly derived from their research findings, it is not the research itself. A bibliography (as in Epes and Kirkpatrick's

workbook) or an introductory section should suggest the body of research on which an instructional text is based.

It is also important to distinguish academic research from field-testing instructional material. Before mass distribution of newly created instructional material, field-testers for publishing companies attempt to determine the material's usability in selected classrooms representative of the intended market. Their goal is to find out if the material needs to be revised (and made more useful), not if the theoretical knowledge that the material was designed to reflect should be revised. Field-testing is also done by teachers. As Calkins (1985) points out, many of the studies conducted by teacher researchers in their own classrooms are also examples of field-testing. Teachers often try out their own or others' ideas in their own classrooms. But, Calkins suggests, "Will this work in my classroom?" is not an academic research question.

One must also distinguish academic research from what is referred to as "advocacy-oriented research" or "action research." In this kind of classroom-based work, a self-designated teacher researcher shapes a classroom lesson to achieve a particular self-chosen social or political goal. It is done for the purpose of "altering social relationships" in the classroom, which Harste (1992) asserts is the larger goal of literacy research. For example, Enciso (1994) used literature discussion in a fifth-grade classroom to bring up the topic of race and racism, which the children had not brought up themselves, in order to make them aware of the color of their skin and to shape their "cultural identities." However, as the co-directors of the National Reading Research Center (1995) comment, it is not clear that researchers who engage in advocacy-oriented research "can know what is enabling, or empowering, for others" and can "instill a certain sense of empowerment within those who participate in our studies." Their comments point to the flaw in such so-called research; its purpose is not to find answers to questions about an issue or problem in teaching or learning but to act on the belief that the answers to the questions are already known.

Finally, one must distinguish academic research from personal narratives describing a successful teacher's philosophy, approach, and experiences in the classroom, such as Eliot Wigginton's (1985) account of the *Foxfire* project, or Nancie Atwell's (1987) book on teaching writing and reading in a middle school. Books or articles of this nature can stimulate other practitioners' thinking, provide them with much useful pedagogical advice, and offer rich insights for researchers to use in creating or revising theory. But in themselves, they do not constitute academic research, a form of inquiry characterized by, among other things, the professional detachment of the inquirer, the systematic collection and write-up of data to address an explicit problem or question, and the use of a codified methodology (Chilcott, 1987).

Good research provides teachers with concepts to think with and ideas to think about. It also raises questions to stimulate their thinking about what they see or do in the classroom. But its purpose is not to propose a specific solution to a particular teacher's classroom problems, to advocate a particular pedagogical practice, or to provide instructional materials for teachers or students. Rather, its purpose is to enhance a teacher's ability to make intelligent instructional decisions. It is from this general perspective that teachers should examine academic research.

THE BASIC MODES OF ACADEMIC INQUIRY IN TEACHING THE ENGLISH LANGUAGE ARTS

In order to understand the nature of empirical research on teaching the English language arts, it is useful to distinguish first the two basic modes of academic inquiry. In its categorization of doctoral dissertations for determining awards each year (e.g., *Educational Researcher*, 1988, p. 30), the American Educational Research Association (AERA) suggests two broad categories of academic inquiry concerned with the improvement of the educational process: conceptual and empirical work.

Conceptual Inquiry

Conceptual work is theoretical or philosophical in nature and is usually referred to as scholarship rather than research. It focuses on an examination of the assumptions and conditions that shape teaching and learning and on the formulation of broad principles for models of teaching and learning. It may draw insights from the results of existing empirical research, but it is not concerned with gathering new data from systematic observations to provide evidence for support of its propositions. The work of John Dewey (1938) is a prime example of conceptual inquiry in the field of education. He saw a need for active learning within a coherent intellectual framework, and he stressed the development of a curriculum that moved progressively in the direction of a "more objective intellectual scheme of organization" from roots in the student's experience. But Dewey did not actually gather data from classroom observations to show that experience-based activities could lead to better and more meaningful learning than formal text-based discussion. We accept or reject his ideas according to how sensible, insightful, and well-reasoned we judge them to be.

The work of James Moffett (1968) is a notable example in the field of composition teaching. He proposed principles for developing a series

of composition assignments that he believed could, over time, enhance growth in abstract thinking. Although he showed examples of student writing to illustrate the use of his principles in actual writing assignments, he, too, did not gather data from classrooms to show that the use of the principles he articulated did, in fact, improve student thinking.

Empirical Research

In contrast to purely conceptual work, empirical research focuses on the collection, analysis, and interpretation of data that can be sensed or experienced in some way, either to answer research questions, to test hypotheses derived from theories, and/or to develop hypotheses or theories. Examples of different forms of empirical research, according to the AERA, are experimental research, survey research, participant observational research, audiovisual recording analysis, in-depth interviewing, and empirical historiography.

Although North (1987) distinguishes four “communities” of empirical researchers in the field of composition (experimentalists; clinicians, or case study researchers; formalists, or model-builders; and ethnographers), most educational researchers have in recent years grouped various methods for empirically investigating questions of interest in English language arts into two basic categories of methods. This chapter uses the terms “qualitative” and “quantitative” to designate these two groups of methods because they seem to be the most commonly used terms in recent articles, including those in *Educational Researcher*, an official journal of the AERA. However, the terms qualitative, holistic, phenomenological, hypothesis-generating, participant-observational, ethnographic, longitudinal, humanistic, naturalistic, field-based, interpretivistic, or hermeneutical are often used interchangeably, even though some researchers do not see them all as interchangeable; unfortunately, no clear definitions can be found that distinguish among all these various terms. Similarly, the terms positivistic, scientific, hypothesis-testing, or quantitative are also often used interchangeably. However distinct these two groups of methods may be in theory and in practice, a question we will return to later, all methods can contribute to the development of theoretical knowledge in teaching the English language arts.

In the next section, we look at the general features of these two broad categories of methods. Other chapters deal separately with various types of studies using these methods (see, for example, the chapters on case studies or ethnographic studies), and readers should consult these chapters for further illustrations and more detailed explanations of these specific types.

Qualitative Methods

Researchers use qualitative methods to investigate how language teaching and language learning take place in the complexity of their natural settings. They may explore the process of language teaching and language learning as these occur in the classroom, the home, or the community. Qualitative methods, by definition, feature qualitative data—the researcher’s description of what participants do or say about themselves and their activities in an educational setting. Studies featuring qualitative methods tend to focus on small numbers of participants and a thorough understanding of small, complete units of social interaction; hence, “thick” descriptions, or masses of details, are a salient characteristic of these studies. Researchers then analyze and interpret these details and often formulate categories for classifying their data. If their studies are not theory-based, they may propose tentative generalizations based on their data, and these tentative generalizations may be referred to as “grounded theory” because the theory has been derived from the data.

For example, Florio and Clark (1982) observed an elementary classroom to find answers to the following questions: “What opportunities for writing do students find in school? How is writing used by students to meet those opportunities? How do students come to differentiate among the functions of writing and the forms appropriate to them? What role does the teacher play in this process? What other contextual forces are operant” (p. 116)? After lengthy observations and an analysis of what they saw and heard, they concluded that, among other things, they could identify four different purposes for student writing in this classroom: students wrote to participate in community, to know themselves and others, to demonstrate academic competence, and to occupy free time. By providing categories for understanding how the teacher and her students used and talked about writing in this classroom, this study contributes to the formulation of a theory about the social meaning of written literacy in the classroom.

Studies featuring qualitative methods tend to be exploratory in nature. Sometimes qualitative researchers do not decide in advance all the aspects of the phenomenon under investigation they will explore; they hope to discover possibly important aspects that may not have been noted yet. On the other hand, sometimes they explore the possible significance of features that have been noted but which have not yet been considered relevant to an understanding of a particular phenomenon. For example, Wong (1988) examined teacher/student talk in writing conferences at an engineering school over a 3-month period. The descriptive research she had reviewed found that teachers tend to initiate talk in writing conferences, despite a view by eminent teachers of writing that the writing conference should be more like a “natural conversation,” with both parties initiating talk. Wong

hypothesized that a writing conference might be less dominated by the teacher if students had more technical knowledge than their tutors with respect to the content of their writing. She discovered from this small case study involving two tutors and four tutees that this variable seemed to have some influence on the teacher/student conference; students writing technical papers did engage in more give-and-take dialogues than did the students in the research Wong had reviewed. Thus, her study contributes to a better understanding of why conferences do not seem to be natural conversations and helps in the elaboration of a "complete theory of conferencing for guiding instruction" (p. 459).

Researchers using qualitative methods not only make their own interpretation about what they see and hear, they frequently explore what the language learning and teaching activities mean to the participants as well (although researchers using quantitative methods may also examine this). They try to discover the participants' point of view, thoughts, and feelings and why they think, feel, or behave as they do. For example, Hudson (1986) asked 20 children in several elementary grades to tell her whether the pieces of writing they had done at home and at school over the course of several months were self-sponsored or school-sponsored. By obtaining the children's perceptions of their own writing, she found that many children often did not distinguish assignments given by the teacher from those they wrote on their own, seeing many school assignments as self-sponsored if they had a personal interest in them. Hudson did not determine whether or not their teachers had kindled their interest in the school assignments they perceived as self-sponsored, but she was able to conclude that the traditional dichotomy between self-sponsored and school-sponsored writing may be misleading, and that students' personal investment in their writing may not depend on their having chosen the topic themselves. Hudson also found a much wider variety of purposes for writing in the classroom than Florio and Clark (largely because she asked the children for their perception of their purposes and categorized what she found in a different way), suggesting the importance of multiple descriptive studies of a commonly observed phenomenon.

Quantitative Methods

Studies featuring quantitative methods are apt to be concerned with the discovery of broad principles of language teaching and learning that will hold across many students, classrooms, or schools. These studies are usually characterized by a testable theory, concrete data obtained by a reproducible methodology, and a methodology that allows confirmation or disconfirmation of the theory (Becker, 1987). In order to make valid generalizations across many students, classrooms, or schools, quantitative

researchers may use representative populations or randomly chosen subjects in experimental and control groups, or carefully constructed comparison groups. Drawing on the results of other relevant research to shape and justify their specific focus of interest, they decide in advance on all the variables to be examined, specify the relationships among them that are to be investigated, and measure them (statistically) in prescribed ways (Howe, 1988). A study using a quantitative method usually proceeds by systematically manipulating its specific variables to test the predictions made by the theory informing the study. Quantitative methods, by definition, feature quantified data (facts) expressed as quantities so that objective measurements are possible.

Hillocks' (1986) integrative review of research in written composition provides an examination of many well-done studies using quantitative methods. As part of a meta-analysis, a statistical treatment of the quantified findings of experimental studies with similar purposes and variables that makes the results of each individual study interpretable in relation to the others, Hillocks showed that studies exploring the effects of similar writing strategies or modes of writing instruction produced similar amounts of gain in students, despite differences in the individual studies with respect to such contextual variables as population and grade level. (For example, students in sentence-combining studies showed about the same amount of improvement in their writing, despite differences among these studies in the classroom setting.) This indicated that the findings of well-designed experimental studies in composition may be generalized across varied instructional contexts; for example, sentence-combining activities may have a beneficial effect on writing in any classroom.

Not all studies using quantitative methods focus directly on cause and effect relationships. Many such studies are correlational rather than experimental. They seek to discover whether one entity is related to another, and if so, how or to what extent. Researchers may then try to infer cause and effect, but must do so carefully. For example, a study by Anderson, Wilson, and Fielding (1986) found a relationship between outside-of-school book reading and reading achievement in fifth-grade students. In itself, this study cannot establish a causal relationship between outside-of-school book reading and reading achievement. But it still can suggest that teachers and parents might assign a "higher priority" to outside-of-school book reading, and it does provide a rationale for a rigorous study comparing an experimental curriculum stressing outside-of-school reading with one not doing so.

It is important to note that not all quantitative research is oriented to the validation of theory; in fact, a great deal of it in and outside of academic settings does not directly concern theory at all. Some of it is conducted to assess instructional programs. Descriptive data are frequently gathered

and quantified to provide a vast variety of factual information, such as faculty or student profiles. Other kinds of studies without a theoretical orientation also use quantitative methods. They can provide useful information on matters of interest to researchers or scholars. Studies on word frequencies, or studies detailing the objective characteristics of oral or written texts, such as parts of speech, types of words, misspelled words, or level of word difficulty, are among the best examples. For example, the data in Stotsky, 1997, on the nature and scope of the reading vocabulary in current basal readers for grades 4 and 6 help raise questions about the capacity of these readers to accelerate students' growth in reading ability. Often these collections of data are used in other research or for creating instructional materials, such as vocabulary or spelling textbooks.

ARE QUANTITATIVE AND QUALITATIVE METHODS INCOMPATIBLE?

Howe (1988) argues that no incompatibility between quantitative and qualitative methods exists in theory or in practice. In an examination of qualitative and quantitative methods with respect to the design of a study, the analysis of data, and the interpretation of results, Howe suggests that differences exist primarily in the assumptions researchers are willing to make and in how much attention they pay to "closely experienced" data—data based on their own observations and their own understanding of their interactions with participants in the research setting. There are, in fact, many commonalities among the methods used for empirical research.

To begin with, both categories of methods can be used to enhance theoretical knowledge. On one hand, empirical studies can be pre-theoretical, and their findings can help to create theory. As Jacob (1988) notes in an examination of six academic "traditions" that emphasize descriptive studies, all these traditions see descriptive studies preceding the testing of specific theories and hypotheses. On the other hand, empirical studies can be based on theory, and their findings can help to strengthen, revise, or disconfirm it. Case study research, as Calkins (1985) points out, as well as experimental research, is often, if not usually, theory-based, and can contribute to the confirmation, revision, or disconfirmation of theory (e.g., the case studies by Wong, 1988, and Epes, 1985).

Second, as Jacob notes, all researchers are interested in minimizing or controlling bias despite differences in how they obtain their data or in the kind of data they collect. Jacob notes that even qualitative researchers want to report their data as objectively as possible, even when they report on subjective aspects of behavior as participant-observers-researchers who

not only observe their subjects but interact with them and, possibly, influence them.

Third, all researchers collect, analyze, and interpret data. No facts of any kind ever interpret themselves. Moreover, all researchers present their data to the reader in some form. A researcher's argument is always based on evidence available to the reader, with a careful exploration of alternative explanations of the data (Howe, 1988).

Finally, studies using either quantitative and qualitative methods to investigate teaching in the English language arts can take place in the classroom or in other natural settings. Both kinds of methods can also be used in laboratory settings.

It may be the case that studies using qualitative methods do not, in general, focus on an assessment of the quality of teaching and learning activities. They may more often seek to describe the process of language teaching and learning in its natural settings and to understand the meaning of what happened in the classroom from both the researcher's and the participants' perspectives. It may also be the case that studies using quantitative methods do not, in general, focus on all the details of various contexts for language teaching and learning. They may more often seek to discover the precise role of individual elements in the process of language teaching and learning in order to determine their influence on the quality of language learning. Nevertheless, Kantor, Kirby, and Goetz (1981) note: "Quantitative strategies can be associated with investigation of processes, grounded theory, and close examination of contexts, while qualitative approaches can serve the study of outcomes, hypothesis testing, and generalizable conclusions" (p. 295). Thus, each group of methods does not necessarily cluster around a completely different set of interests, and methods from both groups can be, and are, combined for purposes often associated with one or the other group.

Jacob (1988), too, concludes that "researchers are presented with a range of research options, not just an all-or-nothing approach between qualitative research and positivistic research" (p. 23). And, indeed, more and more studies on the English language arts today use both qualitative and quantitative methods. Researchers may creatively combine the case-study method of investigation with some of the advantages of a quantified study as Epes (1985) did in a model case study; using 26 carefully selected subjects in comparison groups, Epes was able to test hypotheses and tentatively establish causal relationships. Researchers can also codify and quantify classroom observations and use comparison groups based on seemingly important differences to explore possible causal factors. For example, Wendler, Samuels, and Moore (1989) conducted observations of three groups of elementary school teachers (teachers who had received an award for excellence in teaching, teachers with a master's degree, and a group of teachers

with significantly fewer years of teaching experience and reading courses) to determine the amount of time they spent on comprehension instruction using basal readers and to see if there were differences among them in the use of the best comprehension instruction practices suggested by research. Finding that all three groups spent very little time on pre-reading activities and direct comprehension instruction, the researchers were able to conclude that graduate-level course work in reading may not be influencing comprehension instruction in the way it should and suggested we need to find out why.

Witte (1987) also believes that the field of composition research is “large enough . . . to make good use of both qualitative and quantitative methodologies and to embrace both the logic of discovery and the logic of validation” (p. 207). Moreover, he feels that it must do both if the field of research is “to meet its obligations to itself *and* to the larger social context which sustains it” (p. 207).

In sum, both qualitative and quantitative methods are useful, are used together, and should be used together in empirical research on the English language arts. Moreover, both qualitative and quantitative methods can be used in both pre-theoretical and theoretically motivated research. Both groups of methods serve both functions of empirical research—studies using qualitative methods may be theory-based, and studies using quantitative methods may be pre-theoretical. This suggests that what teachers should first note when reading research on teaching the English language arts is not what methodology the study uses, or whether the data are qualitative or quantitative in nature, but rather how the study contributes to the development of theoretical knowledge and how well scientific reasoning is demonstrated in its design and in the analysis, presentation, and interpretation of its findings. As Stotsky (1989) concluded in a review of several recent books on teaching the English language arts, the value of theoretical knowledge and scientific thinking may well be what is at stake in the controversy about which empirical methods are more or less useful for research on teaching the English language arts.

DETERMINING THE THEORETICAL VALUE OF A STUDY'S FINDINGS

As we have previously suggested, perhaps the most important question for teachers to ask when reading a classroom-oriented study on teaching the English language arts is how it contributes to the development of theoretical knowledge. To answer that question, they need to ascertain whether the study is pre-theoretical or based on theory. Pre-theoretical

studies help us to create theories, while theory-based studies help us to validate theories and build a knowledge base. Teachers need to ask: Is a study exploratory and pre-theoretical, one in which the researcher seeks to describe what is happening in a particular educational setting and to generate questions or explanations for further research as in Stotsky, 1997? Do its findings contribute to the construction of theory, to the formulation of a tentative generalization that might explain its findings? Or does a study begin with a formulated theory and seek to gather evidence that validates the theory? Do its findings contribute to the strengthening of a theory, to the revision or confirmation of a formulated theory that predicted the findings?

Teachers may determine the theoretical value of a study's findings by distinguishing theory-based studies from pre-theoretical studies. Any empirical study can give teachers insights and useful ideas for the classroom, as we shall point out. But studies whose findings clearly validate an articulated theory about a particular phenomenon should probably carry more weight than pre-theoretical studies about that phenomenon, all other things being equal. This is particularly the case when the theory-based studies have resulted in converging evidence, or similar findings, using a variety of methodologies, teachers, and students as in Hillocks, 1986 and in Sadoski et al., 1997. And theories that account for all available evidence or that have been validated by a great deal of empirical evidence from a variety of sources and types of studies deserve more consideration than theories with little or no empirical evidence to validate them. Thus, when administrators or curriculum makers wish to develop recommendations for formal policy in English language arts, or when researchers wish to propose directions for future research, or when teachers consider making basic changes in classroom practices, they should pay especial attention to research whose findings provide strong empirical evidence to validate a comprehensive theory. The larger the body of research whose findings support the theory, the greater its explanatory power, and the more fruitful a practical translation of its pedagogical implications should be.

Although it is beyond the scope of this chapter to enumerate and explain in detail the questions educators might use to determine whether a study in the English language arts is pre-theoretical or theoretically-motivated, the following questions may be useful.

1. What exactly seems to be the purpose of the study? Does it seek to describe language teaching and learning in one specific context and to generate generalizations after data have been collected (as in Florio and Clark's study)? Or does it seek to validate a proposed principle of language teaching and learning (as in Wong's study)? The first kind of study is pre-theoretical: the second, theory-based.

2. Does the study begin with a series of questions or a statement of the researcher's focus of interest (as in Florio and Clark's study)? If so, it *may* be pre-theoretical: however, researchers sometimes phrase their hypotheses in the form of questions so that the presence of questions does not necessarily indicate a pre-theoretical study. If a study begins with specific hypotheses (as in Epes' study), then it is theoretically motivated.
3. Is the study informed by an explicit theoretical framework? If so, the study is theoretically motivated. If not, the study *may* be pre-theoretical. (Sometimes a theoretically motivated study is poorly written up and the reader can find little, if any, mention of its particular theoretical framework.)

Needless to say, a researcher's methodology should flow from his or her purpose for a study. If the methodology of a study is not guided by what the researcher seeks to do, then the study is conceptually flawed. And if the researcher's methodology is based on his or her values or beliefs, rather than on the purpose for the study, then rational discussion is not possible.

It is often not easy to determine exactly how a study contributes to the development of theoretical knowledge, for example, whether it seeks to create or confirm theory. Teacher discussion groups can be especially helpful. As teachers talk to each other about their understanding of the same study, the meaning of research concepts can be illuminated and the researcher's goals and reasoning process clarified. Comparing individual interpretations of a research report in teacher discussion groups may be the most fruitful way for teachers of the English language arts to learn how to interpret research.

HOW ACADEMIC AND CLASSROOM INQUIRY AND PRACTICE ARE RELATED

For policy-making purposes or basic changes in pedagogical practices, educators should pay close attention to studies whose findings strengthen theoretical knowledge about teaching the English language arts. However, the usefulness of a particular study to a classroom teacher is not necessarily determined by the study's orientation to theory and the theoretical value of its findings. According to Chilcott (1987) and Calkins (1985), most school ethnographic studies lack a theoretical basis. Their findings, therefore, do not contribute to the strengthening of an articulated theory; at best they contribute only to the formulation of a tentative generalization. Neverthe-

less, classroom descriptions can give (and have given) teachers stimulating and useful ideas. For example, elementary grade teachers can learn about a remarkable classroom project and the kinds of civic writing even young children can do from the description of the model imaginary community called "Betterburg" that second-grade students planned, organized, and managed in their classroom for the school year under the direction of their teacher (Florio & Frank, 1982).

The findings of experimental research support articulated generalizations about students or classrooms across specific contexts; they do not tell us about specific students or specific contexts. Nevertheless, they can be directly useful to individual practitioners. For example, the results of the studies on reciprocal teaching and guided cooperative learning by Palinscar and Brown (1983) and Brown and Palinscar (1986) suggest the value of a variety of group learning procedures for improving reading comprehension. Teachers can easily adapt these procedures for their own classrooms, and probably many have done so.

Even the fruits of conceptual inquiry can serve teachers directly as a source of inspiration and guidance. For example, Dewey's ideas on the value of experiential learning within an articulated and organized intellectual framework served as the primary academic source for the writing curriculum Wiggenton designed around the publication of the journal *Foxfire*. Wiggenton drew on relatively little, if any, empirical research to guide his thinking about classroom and community-based learning activities for his Appalachian Mountain students. Moffett's ideas have also directly influenced many teachers, such as Dellinger (1982), who developed a series of assignments and activities for teaching composition to her high school students that reflects almost wholly the use of the principles Moffett proposed.

Figure 1.1 shows the reciprocal nature of the relationship between the basic modes of academic inquiry and classroom inquiry and practice. At the base of the figure is the classroom where the teaching of the English language arts takes place. Teachers often do practical problem solving in their own classrooms without reference to academic inquiry, and the practical research they do can be very useful to other teachers. But their questions can serve as a stimulus for pre-theoretical empirical research, purely conceptual inquiry, and theoretically motivated empirical research, as the three arrows suggest. In return, the insights and findings of all modes of academic inquiry (whether or not this inquiry is based on the classroom teacher's questions) can stimulate teachers' thinking by expanding the contexts and the constructs they use for viewing their work in their own classroom.

Figure 1.1 also shows how the two functions of empirical research are related to conceptual inquiry and the development of theory. As the figure

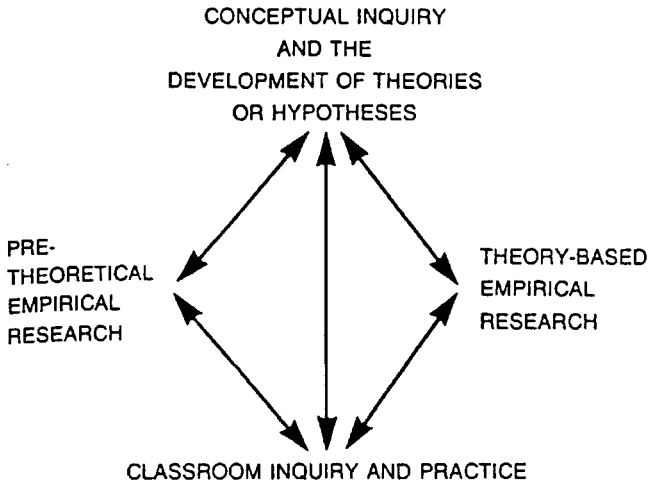


FIG. 1.1. The relationship of the functions of empirical research to conceptual inquiry, the development of theories or hypotheses, and classroom inquiry and practice.

suggests, pre-theoretical research can contribute to conceptual inquiry and the formulation of hypotheses or theoretical generalizations (grounded theory). Reciprocally, theoretical thinking can lead to further exploratory, pre-theoretical research. Hence, the bi-directional arrow. As the figure also shows, empirical research also proceeds from hypotheses or formulated theories and seeks evidence to validate them. The findings of this research may support or disconfirm these hypotheses or theories and provide a rationale for further theory-based empirical research (or even further exploratory pre-theoretical research). Hence, the bi-directional arrow here as well. It is important to note that theoretical generalizations can be formulated without prior pre-theoretical research and do not necessarily result in empirical research.

In theory and in practice, therefore, as Fig. 1.1 suggests, all modes and functions of academic inquiry can be useful to teachers. In turn, all modes and functions of academic inquiry can and should be responsive to teachers' questions and concerns. For teachers are not simply pragmatic or eclectic in all they choose to do in the classroom. For the most part, they are highly principled with respect to the goals of formal education. Their ideas about how they think students learn to become informed, self-sufficient, and responsible citizens through their English language arts programs are as worthy of consideration as are the ideas of academic researchers.

JUDGING THE USEFULNESS OF RESEARCH FINDINGS FOR CLASSROOM PRACTICE

We have discussed how teachers might determine the theoretical value of a study's findings. But we have not suggested how they might judge their usefulness for their classroom. Whether or not a study is pre-theoretical or theoretically motivated, the following questions may be helpful.

First, how applicable are the study's concepts to the teacher's classroom? The educational level of the study may make a considerable difference. Concepts useful at the elementary school level may have little meaning for adult learners, while those useful for adult learners may be inappropriate for young children. On the other hand, teachers may still wish to consider the adaptability of any concept for different educational levels.

Second, are the location of the teacher's school (rural, urban, or suburban), class size, and the students' level of ability in English similar to the school's setting, class size, and student ability in the study? Clearly, teachers should be cautious about applying the findings from any one study if their classroom differs substantially from the classroom in the study.

Third, are only small numbers of students involved in the study? If so, teachers should exercise caution unless a study's findings are consistent with those from a large body of research. If the study is unique, and its findings have not been replicated in any way, then the pedagogical implications of its findings should be considered with extreme tentativeness. One study should be seen as only a possible piece of a puzzle, with firm knowledge accumulating only slowly over time as evidence comes in from a variety of sources and types of studies.

Fourth, is other research negatively portrayed? A study should be able to stand on its own merits. If the researchers appear biased, both the conceptualization of the study and the interpretation of the data may be affected.

Fifth, are the teachers in the study criticized or demeaned in some way? Are they portrayed as resistant to new ideas? Does the researcher appear to believe that his or her ideas are the "correct" ones? Such a stance is patronizing to teachers, even if the researcher is also a teacher. But more importantly, negative attitudes toward teachers may also signal a bias in the interpretation of a study's findings. For example, most, if not all, studies of the differences between school talk and home talk have viewed these differences as sources of conflict that prevent students from learning in school. These studies then imply that teachers need to adjust their curricula accordingly. The possibility that differences between home and school talk have no necessary bearing on school learning, or that differences between the two may even stimulate school learning, has not been explored and might well be. While no professional practice is above examination and

criticism, it is useful for teachers to note whether the researcher explored alternative explanations for negatively interpreted findings, and whether evidence was provided to show that what the researcher found actually influences student achievement.

Sixth, are some or all of the students in the study portrayed negatively? Does the researcher appear to believe that some or all of the students are inherently racist, sexist, or ethnocentric by virtue simply of the color of their skin, their gender, or their ethnicity? This is a new and growing problem in English language arts research. For example, some studies assume that students whom they label "European-American" are inherently racist because they are white and that they are complicit in racism if they believe that it is caused by individual prejudice only (e.g., Beach, 1994) or fail to make direct references to racial identity and racial conflicts in discussions of a literary work (e.g., Enciso, 1994). The situation would be similar for gender studies in which the researcher appears to assume that all male students are inherently sexist whether or not they articulate sexist views or demonstrate sexist behaviors, or for studies on the use of multicultural literature in which the researcher assumes that the students' dislike of a particular work is an indication of ethnocentrism rather than a result of either not understanding the work or authentic boredom with the work. When a researcher has made assumptions that beg the research question, teachers need to question the validity of the study's results.

Seventh, are teachers urged to adopt specific practices on the basis of one study? As our discussion of empirical research implied, the findings of any one study are apt to be too context-specific or too general for blanket recommendations and for unqualified or automatic application to any one classroom. Even if a body of similar research findings supports strong generalizations about the effects of a particular classroom practice, no generalization necessarily applies to all classrooms in exactly the same way. Ultimately, what is best for particular students can best be determined by the teacher's professional judgment in light of what the best evidence suggests.

Finally, is the study well conceived and implemented? In Stotsky (1996), I note the common types of problems I found in qualitative studies submitted for consideration to *Research in the Teaching of English* during my tenure as editor of the journal. The problems appeared in their conceptual framework, their design, the selection of participants, the researcher's role in the classroom and relationship to the teacher, the validity of the interpretation offered, the presentation of the results, and the conclusions drawn. Although studies using quantitative methods also have problems, studies using qualitative methods have become much more frequent in the English language arts than quantitative studies and pose more problems in their planning, execution, and presentation than do the others. Before accepting the results of a qualitative study or the advice the researcher offers on the

basis of it, teachers need to consider whether the study is seriously flawed by the problems elaborated in this chapter and in Chap. 9 in Stotsky (1999).

CONCLUDING REMARKS

Serious educational research in the English language arts is only about 100 years old. Today, educators have the opportunity to gain insights and information from studies using a broad array of methodologies. Moreover, given the complexities of any research with human beings, teachers can legitimately expect researchers to use all methods of research and to gather both qualitative and quantitative data for investigating questions in teaching the English language arts. To deserve serious consideration, any specific conclusions about the teaching of the English language arts should be supported by a variety of pre-theoretical and theoretically motivated studies.

Teachers have many complex questions for researchers to address such as: What are ways to assess growth in reading and writing ability? How can parents assist their children's development as readers and writers? Do the results of a literature-based approach to reading instruction differ from the results of other approaches? Why are more boys than girls remedial readers and writers, and what can the schools do about it? What are the effects on reading and writing achievement in English if a young nonEnglish-speaking child's native language is used for beginning reading and writing instruction? Such questions require a variety of research methodologies as well as many different studies using similar methodologies, if teachers are to have confidence in the conclusions of these studies.

However, it is worth keeping in mind that findings from different studies on the same topic may just as easily be inconsistent or contradict each other as converge (Mathison, 1988). And they may just as easily support or contradict teachers' intuitions or experiences. Mixed findings do not invalidate academic research, nor do findings that contradict teachers' intuitions invalidate their judgment. To the contrary, mixed findings provide new and useful information, and they suggest how complex the problem is. The best wisdom suggests that we should not expect one or two studies, no matter how well done, to provide answers to complex questions of classroom practice in teaching the English language arts. In the final analysis, how teachers read and interpret research on teaching the English language arts depends on the respect researchers and teachers have for each other, the respect researchers have for other researchers, and the respect researchers have for the moral and intellectual goals that most teachers have for their students.

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CHAPTER 2

Teacher Professionalism and the Rise of “Multiple Literacies”: How to Describe Our Specialized Knowledge?

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Talk of teacher “professionalization” is much in the air these days—in local efforts to give teachers a greater say in decision making and governance (Clift, Johnson, Holland, & Veal, 1992; Clift, Veal, Holland, Johnson, & McCarthy, 1995; Fullan & Hargreaves, 1996; Wilson & Daviss, 1994), as well as in national calls to raise initial licensure requirements and restructure career opportunities (National Board for Professional Teaching Standards (NBPTS), 1989; National Center for Education Statistics (NCES), 1999). In common usage, the term “Professional” meanwhile remains as vague as it is reified. “He acted so unprofessionally,” we might say of a backbiting colleague; or, in recounting an instance of top-down management, “It was an affront to my professionalism.” More substantively, what do we mean when we say that teaching is more than a mere job—that it is properly described as a *profession*? Does “professionalism” rest primarily in autonomy and empowerment, the judgments of outsiders, or perhaps some combination of both? What particular things might “professionalism” mean in the context of English/language-arts teaching? How to describe what literacy educators understand and enact in ways that communicate authority and a clear sense of purpose?

“PROFESSIONALISM” AND “SPECIALIZED KNOWLEDGE”

The word “professionalism” has been the subject of much debate over the years, its meaning shifting along with changing times and ideologies. Several decades ago, the sociologist Talcott Parsons (1968) predicted that the power of the capitalist titans would soon disappear, with professionals emerging as a transcendent national influence. Parsons envisioned professionals as both enlightened and ethical—possessing specialized bodies of knowledge, learning from one another through mutual interaction and associations, providing altruistic service to the whole of humankind, and intervening where colleagues’ performance slips below desired norms. Parsons maintained that the proliferation and rising power of the professions would place greater influence in the hands of universities, charged with providing “formal technical training accompanied by some institutionalized mode of validating both the adequacy of the training and the competence of trained individuals” (p. 536). For Parsons, professional preparation involved heads as well as hands, “giving prominence to an *intellectual* component—that is . . . primacy to the valuation of cognitive rationality as applied to a particular field” (p. 536). Parsons regarded medicine and law as prototypes, models to all the applied professions in terms of specialized training, collegial support, and commitment to serving the good of humankind above economic self-interest (p. 541).

Revisionist sociologists would later take issue with Parsons’s arguments. Some noted that the particulars of this “specialized training” (just *how* long and *how* intellectual?) were left unduly vague in Parsons’s formulation (Freidson, 1970). Magali Sarfatti Larson (1977) argued that such vagueness masked a hidden agenda of the professions: a desire to control their own domains, dictating what members of their fields should know, fencing out those who do not follow the sanctioned training and induction rituals. For Larson, professions achieve respect and status not through the lofty passage Parsons envisioned, but by creating exclusive markets for their services and keeping competitors at bay—that is, by creating a “monopoly of expertise in the market [and] monopoly of status in a system of stratification” (p. xvii). For monopolist critics such as Larson, professionalism has an underside, providing power to silence alternative voices and diminish the quality of service to clients.

Whether grounded in altruism and “cognitive rationality” or a more self-interested desire for market control, the quest for professional status has inevitably involved staking claims to bodies of “specialized knowledge.” In an influential book on the history of medicine, Paul Starr (1982) traced the ascendance of doctors to early reforms in medical education, stimulated

by a host of social and economic factors, and brought to fruition by Abraham Flexner's 1910 report on the uneven quality of physician training. As medical education became more standardized and scientific, argues Starr, doctors achieved new levels of legitimacy—assuming an air of authority that engendered popular trust, thereby ensuring their economic well-being and political influence. Historian Elizabeth Lunbeck (1994) has meanwhile explored the rise of psychiatry, grounding her analysis of psychiatrists' claims to specialized knowledge in Michel Foucault's (1980) notion of disciplinary control as derived through the power moves of labeling and categorizing.

While the nature of professionals' "specialized knowledge" remains the subject of analysis and debate, its importance in terms of authority and prestige endures. For scholars since Parsons, such knowledge may be suspect or indisputable, its authority achieved through systematic data or rhetorical sleights of hand; but if a group of workers is to acquire and maintain professional status, they must be perceived as possessing specialized understanding that distinguishes them from their untrained counterparts. What does this imply, then, for our thinking about the professionalization of teaching? Given that a claim to "specialized knowledge" remains a hallmark of professionalism, how to characterize the understandings one must acquire in learning to teach—and in learning to do so with distinction?

TEACHERS' "PROFESSIONAL KNOWLEDGE"

"Special schooling for teachers is neither intellectually nor organizationally as complex as that found in the established professions," observed Dan Lortie (1975, p. 58). While the work of teachers is nearly as old as humankind, Lortie perceived a paucity of systematic studies of teaching and learning that might guide the efforts of novices. For Lortie, the "specialized study" of classroom learning had a short and undistinguished history, with little connection to the intellectual mainstream:

Early study of education was isolated from scholarship; attempts to integrate it with disciplines like psychology have lasted only a few decades. Nor do we find an equivalent to the centuries of codified experience encountered in law, engineering, medicine, divinity, architecture, and accountancy; no way has been found to record and crystallize teaching for the benefit of beginners . . . what meaningful record exists of the millions of teaching transactions that have occurred since the City on the Hill? (pp. 58–59)

While Lortie may have exaggerated the historical basis of knowledge in other professions and diminished that of teachers, the perception remains that teacher educators lack an agreed-upon conceptual framework and knowledge base. Lieberman and Miller (1992) concur that "the knowledge base in teaching is weak; there is simply no consensus (as there is in medicine and law) about what is basic to the practice of the profession" (p. 3). This lack of generalizable knowledge has added fuel to conservatives' criticisms of teacher preparation programs. Echoing charges made by James Koerner (1962) nearly 30 years earlier, Rita Kramer (1991) came away from her visits to colleges of education convinced that prospective teachers would be better off focusing on discipline-based knowledge. "How to teach English literature should be the concern of professors of English," she writes, "not experts in curriculum and instruction" (p. 219). Kramer places esteemed literary scholars to the one side, their claim to specialized knowledge unquestioned even in the midst of challenges to the traditional canon and formalist approaches to literary understanding; on the other, well-meaning but misguided education professors, experts in nothing, replacing rigor and solid foundations with airy talk of equity and caring.

Such critiques have exacerbated the already low status afforded teacher preparation at many American universities. For education professors Frances Maher and Mary Kay Tetreault (1999), this prestige problem reflects an unfortunate split in higher education "between the world of knowledge and the world of pedagogy":

People view the work of scholars, articulated through the academic disciplines, as a corpus of knowledge to be presented to students; the means of presentation is considered unimportant. Pedagogues, on the other hand, are seen as concentrating on the learning process, which is without content; when they call for attention to student learning, they are accused of "watering down" real knowledge. (p. 40)

The perceived split—between knowing a field of study and knowing how to teach—is as enduring as it is unfortunate, one of those reductionist dichotomies John Dewey warned of many decades ago (1938/1963).

Recent years have seen efforts to describe in more precise and compelling terms the melding of disciplinary, pedagogic, and interpersonal understandings that constitute the specialized professional knowledge effective teachers possess, formulations emanating most notably from bodies such as the Holmes Group (1995), the National Board for Professional Teaching Standards (1989), and the National Council for Accreditation of Teacher Education (1995). Shulman (1987) has termed this melding "pedagogical content knowledge," defining it as "that special amalgam of content and pedagogy that is uniquely the province of teachers, their own

special form of professional understanding" (p. 8). For Shulman, teachers' knowledge reaches well beyond what can be learned within the walls of the academy, to understandings of learners, classroom organization, curriculum, and school and district contexts. Pedagogical content knowledge encompasses all this and more, comprising "the distinctive bodies of knowledge for teaching," that which distinguishes "the understanding of the content specialist from that of the pedagogue" (p. 8).

Shulman allowed that the precise contours of this melding were still being articulated, an enterprise that has informed the subsequent work of the National Board for Professional Teaching Standards (NBPTS). The NBPTS's statement of "What Teachers Should Know and Be Able To Do" reflects an integrated commitment to student learning, habits of reflexive thinking, commitment to learning communities, as well as a deep understanding of one's chosen field of study:

The fundamental requirements for proficient teaching are relatively clear: a broad grounding in the liberal arts and sciences; knowledge of the subjects to be taught, of the skills to be developed, and of the curricular arrangements and materials that organize and embody that content; knowledge of general and subject-specific methods for teaching and for evaluating student learning; knowledge of students and human development; skills in effectively teaching students from racially, ethnically, and socioeconomically diverse backgrounds; and the skills, capacities and dispositions to employ such knowledge wisely in the interest of students. (NBPTS, 2000a, p. 1)

These conceptions cast teachers' "specialized knowledge" as at once practical and conceptual, reminiscent of what psychologists have called "situated knowledge" (Kennedy, 1999; Lave, 1988). In keeping with the belief that teachers must know in a special way—that "they must know in the context of practice" (Lampert & Ball, 1999, p. 38)—the NBPTS casts the value of disciplinary knowledge in terms of its relevance to students. That is, what teachers need to know must be seen as directly linked to what students need to learn, and how such learning can best be accomplished. Although such specialized knowledge is enriched by theory, it is increasingly seen as much more than a set of abstractions that can be mastered apart from young people, classrooms, and schools (Darling-Hammond, 1997; Darling-Hammond, Berry, Haselkorn, & Fideler, 1999; Sykes, 1999; Thompson & Zeuli, 1999).

If disciplinary knowledge remains crucial, the emphasis is increasingly on understanding how such bodies of knowledge are made and revised by human beings functioning in particular cultural and historic contexts (Thompson & Zeuli, 1999; Wertsch, 1991). This concern with understanding the knowledge-making process is reflected in the NBPTS' proposition that

“accomplished teachers have a rich understanding of the subject(s) they teach and appreciate how knowledge in their subject is created, organized, linked to other disciplines and applied to real-world settings.” Disciplinary knowledge is to be both respected and critiqued, as teachers communicate regard for its value while also using it as a site for developing “the critical and analytical capacities of their students” (NBPTS, 2000b, p. 2).

Despite such efforts to professionalize teaching by more clearly formulating the necessary knowledge base, considerable skepticism remains. Arguably, the process of such formulation is still in its infancy (Carter, 1996), marked by competing purposes and “contrasting epistemologies” (Tom & Valli, 1996, p. 373). Doubts concerning the adequacy of teacher knowledge remain prevalent among policymakers and the public, fueled by news of impending teacher shortages, failing schools, and dropping test scores. A recent survey by the National Center for Education Statistics (NCES, 1999) found that only 20% of new teachers describe themselves as feeling adequately prepared, that too many are teaching outside their subject-area specializations, and that professional development activities do little to enhance their knowledge once in the field.

Linda Darling-Hammond (1996) observes that efforts to professionalize teaching have historically met with widespread criticism (following Cremin, 1965). As in Dewey’s day, when the progressive aspiration to teach for understanding called for teachers of exceptional aptitude and training, Darling-Hammond observes a problem in recruiting sufficient numbers of talented and strongly prepared practitioners. Citing the standardizing influences that displaced Dewey’s progressive ideals, Darling-Hammond cautions that teachers risk bureaucratic control from above where they do not adhere to conceptually grounded standards of their own choosing. While allowing that appropriate practice “cannot be reduced to rules and lodged in concrete” (p. 269), Darling-Hammond argues that a failure to stipulate a common body of necessary knowledge ensures the continuing de-professionalization of teaching:

A profession is formed when members of an occupation agree that they have a knowledge base, that what they know relates directly to effective practice, that being prepared is essential to being a responsible practitioner, and that unprepared people will not be permitted to practice. Until members of the profession band together to articulate and enforce standards, the debate will continue. (p. 288)

Darling-Hammond (1997) likens this lack of an agreed-upon knowledge base to the infancy of medical education, before the 1910 Flexner Report called for higher standards and greater curricular consistency. Teachers can meaningfully respond to demands for increased accountability only as they

define and defend their “strong and widely shared base of knowledge,” she writes, knowledge “clearly related to improved learning and . . . a strong and widely shared commitment to the welfare of all children that is enacted in partnership with parents and communities” (p. 302).

If we acknowledge that teachers’ professional knowledge rests in a dynamic interplay between understandings about teaching, experience in an academic field of study, insight into what students need to know, and an ethic of collaborative care, what are the implications for English educators? How to describe “English” as a discipline, and how to characterize its enactment in the public school classroom? How to delineate the professional knowledge that literacy educators should hold in common, and its translation into a vision of what students should learn?

KNOWING ABOUT LITERACY

English teachers recount a generic tale of struggling to explain their work to strangers; the setting may be a grocery store line or a community gathering, but airplanes seem an especially common site. Seat belts are snapped in place in preparation for take-off, and the person in the neighboring seat turns in greeting. “And what do you do for a living?” he asks. Then, grimacing, “Ah, an *English* teacher. Better watch my grammar.” A bit into the flight come remembrances of works he still loves to hate—*Silas Marner*, *Julius Caesar*, *The Scarlet Letter*. If pressed, however, the stranger reveals a strong distaste for what he knows of the new pedagogic wave—whole language, ebonics, multicultural literature. He may wince at memories of his own literary and grammatical training, but he remains a traditionalist at heart, preferring to think that literacy means one thing, and still the *same* one thing it meant when he suffered through high school English. He bemoans slipping standards, but applauds the determined pedagogues still out there, transmitting the best that has been thought and said to the next generation of American citizens and workers.

Meanwhile, research into reading and writing practices both in and out of school has revealed a more textured landscape, suggesting that “literacy” is best imagined in the plural. Embedded in diverse contexts, shaped by culture, gender, and class, literacies are conceived as multiplistic, complicating discussions of what it means to prepare workers and citizens for the demands of a new millennium. For former National Council of Teachers of English (NCTE) Executive Director Miles Myers (1996), emerging societal and workplace landscapes demand more sophisticated literacies, redefining “minimal” in ways that up the ante for teachers and students alike. Myers emphasizes the growing need for workers and citizens with a high tolerance for ambiguity, a penchant for weighing diverse points

of view, and for understanding parts in the context of systemic wholes. An ability to decode for literal meaning is no longer enough; what Myers calls "critical/translation" literacy involves finding places to stand among competing perspectives, understanding the social, cultural, and historic influences that shaped particular texts, and fitting one's own writing to the rhetorical demands of occasion and audience.

Literacy, then, is increasingly conceptualized in ecological terms, as embedded in social-cultural practices that must be continually interpreted and negotiated (Barton, 1994). According to this expanded vision, literacy learning is also political, as diverse students maintain their own ways with words even as they acquire the "genres of power" (Street, 1995) that allow entrance into educational and economic opportunities. Increasingly, literacy is seen not as a body of knowledge but a flexible tool, while literacy learning is conceptualized as guided practice across varied rhetorical contexts. The New London Group (1996), an international assemblage of leading scholars, describes this dynamic, versatile, de-stabilized status of literacy and literacy learning:

Local diversity and global connectedness mean not only that there can be no standard; they also mean that the most important skill students need to learn is to negotiate regional, ethnic, or class-based dialects; variations in register that occur according to social context; hybrid cross-cultural discourses; the code switching often to be found within a text among different languages, dialects, or registers; different visual and iconic meanings; and variations in the gestural relationships among people, language, and material objects. (p. 69)

The notion of multiple literacies is connected to social constructivist conceptions that have come to supplant behavioristic, transmission-oriented models of teaching and learning. Martin Nystrand (1997) calls this new mode "dialogic," involving a conception of knowledge "not as previously formulated by someone else but rather as continuously regenerated and co-constructed among teachers and learners and their peers" (p. 89). Influenced by the work of Vygotsky (1978) and neo-Vygotskian activity theorists (Forman, Minick, & Stone, 1993), this new conception emphasizes vital dialogue over "long lists of facts, points, and obligatory principles to teach" (Nystrand et al., p. 106). Recitation and one-way transmission are supplanted by "a seemingly vague process of 'negotiated meanings' and 'transforming understandings' in open-ended discussion and instructional 'conversations'" (p. 89).

Also drawing on the metaphor of curriculum as "conversation," Arthur Applebee (1996) argues that meaningful learning takes place where students come to recognize "culturally significant domains for conversation,"

and “learn to participate in conversations within those domains” (p. 3). In contrast to E. D. Hirsch’s (1987) conception of “cultural literacy,” which emphasizes the acquisition of discrete facts, Applebee points to the primacy of exploring relationships among ideas, of understanding knowledge as both shaped by cultural tradition and subject to challenge and reassessment. Hirsch’s curricular critique, with its concrete lists and promise of firmer cultural ground, has been enthusiastically embraced by the general public. Meanwhile, observes Applebee, progressive educators have failed to codify adequately what they know and are working to accomplish, as “lively vignettes have replaced serious attempts at consensus about the structure and content of schooling” (p. 37).

Reductionist notions have permeated the popular conversation about literacy, as has insistence on accountability measures that emphasize bits and pieces of forgettable knowledge. Schools are political places largely because everyone has spent lots of time in them and therefore feels like something of an educational expert (Sarason, 1971/1996). Add to this the public’s generally low tolerance for ambiguity, as well as the determination of those casting the issues in simplified either/or terms (Dewey, 1938/1963), and English/language arts teachers face some strong popular opinions about what they should be doing. In other words, the public is poised to doubt that literacy educators’ specialized understandings are somehow greater than their own; in fact, they seem increasingly inclined toward dictating what “literacy” is and how teachers should be going about their work. Complicating all this, of course, is the historically low status afforded teacher knowledge generally, and the fact that our field’s vision of the nature of literacy has grown ever more nuanced and complex. Not all of us embrace this new vision, to be sure; at least since the Dartmouth conference of 1966, observers have noted an internal divide between teachers who see English as something one *does*, and those who see it as a body of information one can come to *know*—great books, literary criticism, rhetorical forms, and so on (Harris, 1991). If discussions of our work in the public arena are too often organized around deceptive dichotomies, the same could be said of our own debates. The simplistic polarities of these arguments obscure more fundamental questions: What are students to take away from their years of textual study and instruction in writing? What sorts of literate abilities are we striving to foster, and toward what ends?

While some continue to conceptualize the specialized knowledge of literacy educators as a body of information to be transmitted to students, others are arriving at a more integrated, activity-driven characterization, one that honors the multiple uses of literacy in the world beyond school and the complexities of engaging young people in its practice. How to describe this expanded definition of literacy in ways that will compete with lists of “what every American needs to know”? How to communicate to the public

the grounded fit between these new conceptions of literacy and progressive language arts pedagogy—that what English educators understand about literacy suggests mastery through conversation and hands-on practice, not transmission of discrete facts and canonical texts? How to speak with a united professional voice in the midst of inevitable disagreement within our own ranks? As the controversy over the NCTE / International Reading Association (IRA) Standards suggests, these are challenges more easily named than mastered.

PROFESSIONAL KNOWLEDGE AND THE NCTE/IRA STANDARDS

Popular dissatisfaction with the NCTE/IRA Standards derives from the fact that “multiple literacies” is not a notion readily translated into catchy sound bites or measurable goals. When the Standards were released in 1996 (NCTE/IRA, 1996a), the Associated Press, *The Washington Post*, *USA Today*, and *The New York Times* all quoted Michael Cohen, a senior advisor to the Secretary of Education, who called the document “very vague and very general” (Tabor, 1996, p. A12; NCTE, 1996). “There is no specific call for first-grade readers, phonics or Faulkner,” began the article in *The New York Times*; “No demand for sentence diagramming or Dante”:

Instead, a long-awaited report on national standards for English language instruction gives only general guidelines. It says, for example, that by the time they finish high school, American students should have read a “wide range of literature” and be able to communicate with a “variety of audiences,” using books and newspapers as well as computer databases. They should be able to use a library and write and critique texts. (Tabor, 1996, p. A12)

Where were the expected reading lists, benchmarks, and recommended teaching techniques, critics asked—the prescriptive verbs “should” or “ought”? (*New York Times* Editorial Staff, 1996). What about complaints from employers and parents that “many high school graduates cannot read or write effectively, use poor grammar and have little knowledge of literature”? (Tabor, 1996, p. A12). Arguing that curricular decisions are best made locally, NCTE President Beverly Chin hinted at the expanded vision of literacy informing the Standards: “The key thing is that we use language in order to communicate and think,” she explained. “We want all students to be able to use language effectively. This document furthers our vision of what literacy means” (Tabor, 1996, p. A12). In *USA Today*, Chin characterized this vision as “the kind of complex, real-world literacy . . . students should be encouraged to develop” (Henry, 1996, p. 1A).

A few weeks after the release of the Standards, NCTE and IRA leaders published an "advocacy advertisement" in the national pages of *The New York Times*, criticizing journalists' coverage of the Standards and charging that "many also attack the professionalism of English/language arts teachers" (NCTE/IRA, 1996b, p. A14). Again, NCTE and IRA leaders attempted to elaborate this enlarged definition of "literacy":

The standards recognize that our definition of "basic" must be expanded if our students are to assume responsible roles as parents, workers, and community members in the 21st century. Students must interpret and evaluate a range of superb literature; write for many purposes and for many audiences; use computers to find information and communicate effectively; and think critically about film, television, and other visual media . . . The standards are emphatically not designed to create a centrally regulated national curriculum or a simplistic and expensive national system of testing. Many critics think such approaches are "silver bullet" solutions that can be fired at every school and every learner. These critics are missing the main point: teachers need a shared vision of a new, more rigorous literacy, and they need support from parents and their communities to help students achieve it.

This notion of a "new, more rigorous literacy" implicitly referenced research documenting the reading and writing challenges of the world beyond school, but neither the public nor the press was particularly receptive. "Two education groups today are proposing to change the meaning of literacy," began the front-page story in *USA Today* upon the Standards' release (Henry, 1996). In the minds of many, literacy had not changed along with changes in the wider world, thereby necessitating fresh curricular approaches; rather, a disturbingly vague new definition was being proposed by NCTE and IRA. In national press coverage, literacy educators were widely regarded as lacking firm beliefs or systematic knowledge, as talking of complex skills and negotiated meaning while ignoring calls for benchmarks and measurable criteria.

What to say to a public that longs for reassuring explanations that resonate with what they already believe about literacy learning? To politicians, whose interest in educational matters is reaching unprecedented intensity? To present and prospective teachers, who face a future in which policy-makers seem increasingly determined to supply the specifics perceived as lacking in the NCTE/IRA Standards? While complete self-regulation may not be an appropriate goal for teachers, the ability to stipulate the contours of best practice remains a basic hallmark of professionalism. Teachers must work in partnership with parents and communities, but it is also important that they speak with credible, authoritative voices of their own. Even as the Standards articulated a need for learners to have multiple literacies at their disposal, fitting their written productions to the rhetorical demands of

audience and occasion, such a fit eluded the Standards writers themselves. Given the growing gap between this “new, more rigorous literacy” and the public’s desire for concrete specifics, how to ensure that English/language arts teachers have a say—that in this complicated age of multiple literacies, they are perceived as professionals possessing trustworthy specialized knowledge?

THE MULTIPLE LITERACIES NEEDED BY ENGLISH/LANGUAGE ARTS PROFESSIONALS

Admittedly, a perceived lack of specialized knowledge is not a problem faced by English educators alone. Teachers have long been said to lack codified, generalizable knowledge, and teacher education programs seen as lacking intellectual centers, what Parsons called “cognitive rationality as applied to a particular field” (1968, p. 536). Though amply grounded in compelling theory and research, the notion of “multiple literacies” has likewise fallen short in the public’s conception, dismissed all too easily as vague and insubstantial. Much else enters the mix, to be sure—fears of cultural and linguistic pluralism, a new passion for accountability, and a desire for yardsticks by which inferior outcomes can be identified and remedied. Part of what politicians wanted from the Standards was a way to foster our nation’s global competitiveness, an aspiration perhaps never fully embraced by English educators. In any case, if seen as an effort to explain a profession’s conception of literacy to the general public, the NCTE/IRA Standards must be regarded as less than fully satisfying.

English educators can scarcely be described as a homogeneous group, and while many were receptive to the Standards, the response was by no means unanimous. Some joined the chorus of voices calling the document excessively vague (Maloney, 1997; Zorn, 1997), while others questioned the very idea of English/language arts teachers embarking on such a venture (Kohn, 1999; Ohanian, 1997, 1999). In a ringing critique, Susan Ohanian (1997) took issue with both the Standards and their underlying premise:

I, for one, am uneasy about all this blather about teachers as professionals. Professionalism has a lot to answer for, particularly when it employs a language to shut out people who don’t belong to the guild. I’m thinking here of doctors and lawyers and people who write Standards documents. People who worry about being professionals seem to spend a lot of time thinking about tests and outcomes. Me? I’d rather be known as a nurturer, somebody who always has an eye out for the bird in the window, a person who has enough faith in kids and books to believe that tomorrow will take care of itself. (pp. 34–35)

Professionalism does have its lesser-acknowledged suspect side. Along with those who have countered Talcott Parsons' rosy optimism, perhaps we should all worry a bit more about the monopolistic aspect of professionalism colliding with an ethic of client care (Larson, 1977). Perhaps we do not wish to be just like doctors and lawyers, yet we long for a bit more respect, believing that increased authority would help us better serve students and lead more satisfying work lives. In the end, the alternative—having someone else make the key decisions for us—seems scarier than whatever seductions professionalism might present. Given the current climate, a belief that "tomorrow will take care of itself" may indeed not be enough.

We inhabit a contradictory school reform landscape, and these conversations about professionalization and standards are rife with unnamed tensions (Little, 1993). Even as many are calling for the professionalization of teaching, undergirded by enhanced initial preparation and opportunities for continuing growth, others insist on increased government intervention and oversight—more student testing, more reconstitution of low-achieving schools, more centralized control of research dollars—all communicating a general lack of trust in what teachers know and do. Even the basic question of whether English/language arts teachers are best seen as subject-area specialists or versatile generalists is increasingly unresolved. Rubbing against the grain of discipline-specific initiatives—standards, advanced licensure options, and so on—are an array of calls for blurring disciplinary boundaries. Middle school language-arts educators are under particular pressure to imagine curricula in interdisciplinary or integrated terms (Beane, 1997; Carnegie Council, 1989), often with little acknowledgment that much else in their career experience has communicated clear boundaries—discipline-specific training programs, membership in organizations such as NCTE, and professional-development opportunities that emphasize the teaching of literature and writing (DiPardo, 1999). While interdisciplinary teaching seems particularly well suited to current conceptions of literacy, disciplinary boundaries are so time honored (Grossman & Stodolsky, 1994, 1995; Siskin, 1994; Siskin & Little, 1995) that attempts to blur or eliminate them carries a further risk of a perceived diminishment of specialized knowledge, and with it a loss of professionalism.

In calling for more professional working conditions for teachers, Secretary of Education Richard Riley (1999) recently emphasized the need for the kind of joint discussion time that has long characterized the work of doctors and lawyers. On the one hand, these ideas would seem ideally matched to the notion of multiple literacies, with its emphasis on the joint construction of meaning, and on understanding how texts and readings are shaped by different angles of vision (Myers, 1996; New London Group, 1996). If students are to engage in such shared exploration, it certainly

makes sense for teachers to model these activities in their daily work (Clift et al., 1995; Sarason, 1996/1971; Tharp, 1993). But here, too, are tensions and contradictions—rhetoric that emphasizes collaboration and community, but practices that measure success and failure on an individual basis for teachers and students alike. Literacy educators may wax enthusiastic over the idea of Bakhtinian dialogism (Bakhtin, 1981), but the rising clamor is for outcomes assessment, and outcomes are most readily assessed in the context of an autonomous, individualistic conception of literacy and its teaching. The world of standardized testing and policymaking is an uneasy match with the multiple-literacies vision of things—a vision honoring ambiguity, competing perspectives, and eluding uniformity in both enactment and explanation. Where these expanded conceptions of literacy and literacy learning are dismissed as insubstantial, so too are English/language arts educators' claims to professionalism.

The challenge of conveying the specialized understandings English/language arts teachers bring to their work remains a matter of structural and economic urgency. If the notion of "multiple literacies" is seen as soft-headed and vague, then research informed by it will not be publicly funded, and materials that reflect it will not be published. Many of us hold the continuing hope that career ladders will become available for teachers who desire them, providing opportunity for expert practitioners to move into school- and district-based leadership roles. It is imperative that these voices reflect the best insights of the profession, that they look ahead to the world students will inherit, not backwards to an imagined past. Our profession's collective efforts to explain the foundation and nature of our work will help ensure that our most well-informed, thoughtful teachers are heard in local governance.

How might English educators bolster their professionalism by communicating what they know—and, more important, want students to learn—to policymakers and the general public? Lest the challenge seem hopelessly complex, it is well to remember that the current school reform landscape, with its often tacit contradictions and competing agendas, is the very sort of text English/language arts educators are best suited to reading. Comprehending the obstacles blocking their paths to professionalism seems an easy task for people accustomed to talk of the multiplistic and political nature of literacy. As we advise students that effective discourse is all about understanding context and audience and gearing one's approach accordingly, why not up the ante for our own dialogue with the public? As students of literature, English educators are uncommonly skilled at holding competing points of view simultaneously in mind, finding places to stand among an array of possibilities. Practiced in complex thinking in a world with a generally low tolerance for ambiguity, most of us have not fully realized ways to convert this turn of mind to political advantage.

Teacher educators can lay a professional foundation by engaging prospective teachers in lively discussion of competing conceptions of literacy, the need to be clear about their fundamental purposes, and persuasive in articulating those purposes to the general public. Meanwhile, literacy educators at all levels need to model this kind of rhetorical skill to novices, seeking out opportunities to explain themselves to skeptics, and to explore the real world uses of literacy beyond school in ways that can usefully inform instructional approaches. In addition to supporting NCTE's national advocacy efforts, more of us need to commit to intensified involvement at the state and local levels as well. When NCTE passed a resolution at its 1998 annual convention stating that "neither Congress nor any federal or state agency should establish a single definition of reading or writing," (NCTE, 1998) many of us experienced a certain temptation to rest in the satisfaction of a collective voice. But we tend to find sooner or later that such relief is temporary, doing little to prepare us for the snags and roadblocks increasingly cropping up in our local paths—where the challenges are just as great, the stakes immediate, and like-minded company often harder to find.

Around the time that the NCTE/IRA Standards were released, I agreed to join my local school district's strategic planning committee. Our deliberations began benignly enough, with review of the "belief statements" included in the prior strategic plan. Our facilitator wanted to know if the new team still believed in them, assuring us that if even one member had the slightest reservation, any of the statements would be eliminated. Many were the usual platitudes—"all students can learn," "everyone has a right to feel safe," "challenge enhances learning," and so on. Then we came upon this one, with its unmistakable echoes of E. D. Hirsch: "The survival of our civilization depends upon the transmission of a common core of knowledge." The room grew still as I voiced my objections, then angrily vocal. How could I, an English educator of all people, take issue with a statement so undeniably true? How could the district proceed with curriculum review absent such a statement? Don't I believe in teaching Shakespeare and Chaucer? What would I say to low-income parents, who were sure to read such a statement as ensuring basic literacy? After a much longer debate than anyone would have preferred, the statement stayed in with only slight modifications.

Three years later at the annual update meeting of our committee, we were asked to review the belief statements once again. "The survival of our civilization depends upon citizens' possession of a shared core of knowledge," read the slightly revised statement. My fellow committee members glanced uneasily my way, anticipating another windy speech on how my field just doesn't think of "literacy" in quite this way anymore. But this time a high school principal spoke first. It seemed that parents and teachers had approached him, asking what the statement was intended to say and

accomplish. He realized that he couldn't come up with a clear paraphrase, nor, on further reflection, could the other members of our committee. No longer distracted by my talk of an expanded definition of literacy, they decided they didn't quite know what the statement meant after all, and it was thrown out.

I teach courses in literacy theory and research, and I enjoy lots of opportunities to talk with students about changing literacy demands and the complexities of the current school reform climate. But when pressed, I could not satisfactorily explain to a committee of community members, policymakers, and teachers how the "transmission of a common core of knowledge" was a notion out of sync with current conceptions of literacy, and why they should trust me on this. Worse still, I forgot to listen adequately, or to pose searching questions in return, questions that might have helped them detect the shaky foundation of a definition of "literacy" they had mistaken as sturdy. For a few moments, I found myself yearning to be back at my university office, with all those books lined up alphabetically on my shelves, Britton and Dewey looking down in tacit agreement. Community involvement had seemed such a good idea at the time, but that was before I had come to anticipate these unexpected challenges, this yawning conceptual gap. I realized that I still have a lot to learn by way of rhetorical skill, but then I suspect we all do. The challenges ahead are substantial, but our literate understandings prepare us—and our professionalism depends on our continuing (if sometimes stumbling) efforts to articulate what we know and why it matters.

ACKNOWLEDGMENTS

Thanks to Michael Millender, Bonnie Sonnek, Stacy Haynes Moore, and Jane Hansen.

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CHAPTER 3

The Design of Empirical Research

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Empirical research is a systematic approach for answering certain types of questions. Through the collection of evidence under carefully defined and replicable conditions, social science researchers seek to discover the influence of factors that affect human thought and action, and to understand when and why these influences occur. Nonempirical research spans a wide range of approaches, including mathematical, logical, historical, and legal, many of which support empirical techniques.

The empirical tradition plays a significant role in creating and validating social and psychological theories about how people think and act. In language arts, for instance, data-based research has supported models that link reading and writing as social acts (e.g., Nystrand, 1989; 1990; Spivey, 1997). No longer are readers and writers perceived as lost in their own thoughts, but instead as communicating with one another through written text.

Empirical research also searches for answers to practical questions. A high school English teacher seeks to improve her students' understanding of formal arguments. A middle school teacher aims to encourage his students toward more analytic comprehension. A remedial reading teacher wants to improve vocabulary instruction so that students score higher on

standardized tests. While these questions are informed by scholarship and conceptual analysis, the primary goals are pragmatic.

Empirical research is disciplined (Cronbach & Suppes, 1969). It is distinguished "by the ways observations are collected, evidence is marshaled, arguments are drawn, and opportunities are afforded for replication, verification, and refutation" (Shulman, 1988, p. 4). The essential criterion for judging empirical evidence, from a research perspective, is *validity*; the researcher must be able to defend the interpretation of the evidence against counter-interpretations.

Empirical research is often equated with statistics and experimentation, in contrast to qualitative methods and naturalistic inquiry. We think this contrast is misleading for several reasons. First, it leads a researcher to concentrate on methodology rather than conceptualization. Second, it implies that the researcher must choose between what are often characterized as "hard" and "soft" approaches. Third, it overlooks the fact that virtually all significant educational problems call for a mix of methods, and all require rigorous conceptualization and creative design. Shulman (1988) advises novice researchers, "Become *skilled and experienced* in at least two methodologies . . . , become *aware* of the rich variety of methods of disciplined inquiry . . . , [and] do not limit your education to methodology alone" (p. 16). Our notion of empirical research design will encompass a full range of systematic approaches directed toward both theoretical and practical questions. The most appropriate starting point for a research project is a problem: questions unanswered by a previous investigation, a pragmatic need, a theoretical puzzle. Conceptualization and design focused on the problem should then determine the methods. Conceptualization represents the researcher's efforts to understand and analyze the structure of a research question. Design covers the various strategies for planning data collection.

We take our audience to be varied: researchers, college teachers of research methods, and high school teachers who rely on research as a guide to practice, among others. Based on our estimate of who is most likely to use the *Handbook*, we focus on a graduate student who is planning a dissertation. This individual is probably a practitioner who has returned for advanced work, who is interested in a study aimed toward practical outcomes, but who is prodded by her advisor to consider generalizability and theoretical implications. This chapter addresses the activities required for a research project: problem identification and conceptualization, surveying of the research literature with an informed and critical eye, construction of a research plan, data collection and analysis, and the interpretation and presentation of the findings, the latter with an eye to practical applications. We assume that a reader is already familiar with basic concepts of social science and educational research.

The chapter has four sections. The first explores the task of framing a research question. The next three sections describe the principles of research design, the process of constructing a design, and the task of interpretation. To demonstrate practical application of the concepts, we introduce a vignette early in the chapter that we will employ throughout the four sections. We include relatively few references; a sampling of the variety of methods texts available as of this writing would include Berliner and Calfee (1996, especially chapters by Behrens & Smith, Jaeger and Bond, and Hambleton), Creswell (1994), Gall, Borg, and Gall (1996), Jaeger (1997), Krathwohl (1997; also Calfee, 2001), and Thomas (1998). All of these volumes tackle the issues of conceptualization and design, placing methodology (quantitative and qualitative) at the service of problem solving.

RESEARCH STRATEGY: MOVING FROM ANSWER TO QUESTION

It is tempting to begin a research project by thinking, "I'd like to prove that. . . ." Especially in the educational sciences, we tend to be advocates of particular positions and actions. "Spelling tests are bad (or good)." "English teachers should (or should not) know a good deal of linguistics." "Student motivation is (or is not) critical in a writing assignment." And so on. Such hypotheses are entirely appropriate starting points for inquiry, but developing a research problem requires a fundamental shift in thinking toward "I wonder what will happen. . . ." A small switch, but with major implications. For instance, the earlier proposals now take shape as questions. "Under what conditions are spelling tests bad or good?" "What are the effects of more or less linguistic preparation on the thinking and behavior of English teachers?" "In what ways do higher or lower levels of motivation affect students' responses to different types of writing assignments?"

These questions all open Pandora's box; they challenge the researcher to explore a universe of possibilities. No longer is the task to compare one condition with another, but to think about a broad array of situations, outcomes, and individuals. Spelling tests come in a variety of flavors, and may help with some tasks (new spelling tests) and not others (writing assignments), for some students (compulsives) but not others (impulsives). How to grapple with the infinite possibilities? The simple answer is that *design* is an essential tool. In this section, we describe three critical tasks for constructing a research design: framing the research question, selecting a context for the study, and thinking forward to how you will defend your interpretation of the findings. The serial nature of print forces us to present these in sequence, but they are actually interactive and recursive.

Framing an Answerable Question

The initial phase in empirical research is the formulation of a workable scientific question, one that is answerable by objective evidence. For instance, imagine yourself as the high school teacher mentioned at the beginning of the chapter. You want to help your ninth graders to learn to write well reasoned and coherent arguments. You have recently become familiar with Toulmin's (1958) concept of argument, and this structure has become critical in your thinking. Toulmin proposed that all arguments have three basic parts: a claim, or assertion, what English teachers think of as a thesis statement; evidence offered to support the claim; and warrants, or principles about how to link the evidence more or less explicitly to the claim. In addition to the basic structure, complex arguments also present qualifications, counterarguments, and rebuttals.

It has taken you some time to understand what Toulmin means by a "warrant." Claims, evidence, and even counterarguments and rebuttals, seemed much more straightforward. Describing warrants as the underlying reasoning that links the claim to the evidence and either makes or breaks the argument, Toulmin suggested that warrants can be expressed as general statements, such as "If this evidence, then this claim;" or "Evidence such as this entitles one to draw a conclusion or make a claim such as this."

The relationships among claims, evidence, and warrants become clearest in simple arguments. Think about an argument that claims, "Wolves often represent evil in folk tales." It offers as evidence, "In various folktales, wolves terrorize and almost kill three little pigs, a little girl wearing a red coat and her sick grandmother, and a little Russian boy and his pets." The warrant would be something like "Any character that terrorizes and almost kills innocent people and animals represents evil." Alternatively, imagine the same claim with slightly different evidence. "A smart pig, a woodcutter, and a grandfather boil, chop up, or shoot wolves who are intent on eating weaker characters." Stating the warrant for this second argument reveals a problem with its evidence that you may have already noticed: "Any character who is destroyed by a more powerful character before killing weaker characters represents evil." The warrant is almost nonsensical given what we all know about the representation of evil in literature, and stating it explicitly seems almost silly. We all know that good evidence should exemplify the claim in simple arguments and that it succeeds in the first instance but fails in the second. Where stating the warrants becomes crucial is when the connections between evidence and claim are not obvious, when they need to be explained or defended against various counterarguments.

Now imagine an editorial claiming, "World political systems have converged on a single model that combines socialistic economics and

democratic politics.” Most of the editorial presents as evidence world events where socialistic economics and democratic politics were both present. The editorial explains how each of these events warrants the claim by describing how socialistic economics and democratic politics have combined. These explanations help the reader decide whether each of the world events indeed exemplifies the relationship between economics and politics stated in the claim. The editorial also counterargues that certain events demonstrate socialistic economics within a totalitarian political system, but notes in rebuttal that these events have occurred sporadically, accompanied by strong protests from the world community. The Toulminian framework applies to a range of situations in politics, history, literature, and so on—and also to research methods.

Analyzing several written arguments has led you to realize that focusing attention on warrants could help students highlight the reasoning present in their reading and writing. You are particularly interested in exploring whether having them state warrants explicitly helps them evaluate how well the evidence in the arguments that they write supports their claims.

In addition to applying the Toulmin model to your instruction, you want to explore the social aspects of reading and writing (Spivey, 1997). You believe that all writing is dialogic, involving at a minimum the communication between an author and a reader. Your experience suggests that students have mastered the argument genre when they can use it to query and critique an author’s ideas (Mathison, 1998) and can anticipate readers’ responses to their own writing (Rubin, 1998).

You ponder several issues, including the following:

- What is the essence of a good argument?
- What do my students already know about the concept of argument?
- How might I effectively teach all of my students to comprehend, critique, and compose various types of arguments?

Let’s look at the researchability of each of these questions. The first question cannot be answered empirically because the answer depends on value judgments—“good” is the fly in the ointment. In *Argument Revisited; Argument Redefined: Negotiating Meaning in the Composition Classroom* (Emmel, Resch, & Tenney, 1996), the authors debate the “goodness” of three argument models: Toulmin’s model (e.g., Fulkerson, 1996), a classical model that retains the contrast between deduction and induction (e.g., Gage, 1996), and a Rogerian argument model seen as being less confrontational than either of the other two approaches (e.g., Brent, 1996). Reading this debate and studying the scholarship of other philosophers, you decide that the Toulmin model best matches the writing curriculum in your school district, and so you choose it as the “best.” However, you know that

you must be prepared to defend your choice from critics who disagree, believing other argument models to be superior.

The second and third questions, in contrast, both provide starting points for empirical study. For instance, students' responses to the question, "What makes this argument strong?" may reveal their thinking processes. Observing the results of different instructional approaches on student performance can provide evidence about the third question.

The key to establishing the researchability of a question is to ask yourself, "Assuming that I collect evidence of one sort or another, and obtain a particular set of results, to what degree can I make a convincing argument when I interpret the findings in relation to the original question?" Addressing this issue demands that you step outside your own convictions and develop skills as a self-critic; it helps to find a "friendly enemy" along the way, someone interested in your problem, and willing to work hard at destroying your line of argument. Defending your interpretations against alternative explanations is the essence of the research enterprise, and is the central theme of this chapter.

Finding the Evidence

Once a question has appeared on the screen, the researcher must decide what evidence is relevant to the question, how to gather it, and how to analyze and interpret the data. It helps to know the territory: What do you already know about research on comprehension of argument texts, about comprehension and composition in general, about effective instructional practices, and so on? Another task is review of the literature, which can seem a daunting task. By selecting a few "best evidence" papers as starting points and working backwards from there (Krathwohl, 1997, chap. 6; Slavin, 1986), you can sometimes shape the job into manageable proportions. You should also bring your professional knowledge and experience into the mix.

You must then reach decisions about *what* data to collect, along with *how* and *where* to carry out this task, and from *whom*. We will cover the *what* of data collection later as a design task, but a few fundamental matters deserve immediate consideration. First, should you focus on numbers or "stuff" (observations, interviews, and so on)—quantitative or qualitative? In fact, you don't have a choice! Empirical data are inherently qualitative, and it takes a uniquely human act—*measurement*—to assign numbers to observations. A student essay begins as "stuff," but you can count the number of words, calculate the average sentence length, or ask a panel of judges to assign one or more rubric-based values to the work. Whether you decide to measure and how you decide to do it is a conceptual matter.

A second dimension to *what* is “how much?” A useful guiding principle is *triangulation*, which means to consider different ways of collecting data for each construct in the study. If you are interested in student writing, then looking at different facets (length, coherence, mechanics) of each composition makes sense. You might also accumulate other artifacts (student notes and outlines) and indicators (e.g., ask students to talk about the compositions and how they planned and produced them). If this amalgam of information produces a consistent picture, then your argument is increasingly believable.

The *how* of data collection encompasses two overlapping strategies; the researcher can either *observe* or *intervene* with the intent of *describing* or *experimenting*. Imagine a young boy examining an ant hill. One moment he is the naturalist, observing the hectic activity in the insect community. Suddenly compelled to intervene, he pokes a twig into the hole and watches the ants’ responses.

To observe or to intervene? Most texts on research methodology separate these two approaches, one section on naturalistic approaches and a second on experiments. *Experimental*, *quantitative*, and *statistical* are often bound together in one package, and contrasted with *naturalistic*, *qualitative*, and *descriptive*. Fortunately, the joining of quantitative and qualitative methods is becoming more commonplace (Krathwohl, 1997). Both approaches are clearly empirical, in the sense that they both rely on evidence. Moreover, the various strategies are independent; you can design a naturalistic investigation that uses quantitative methods, or an experimental study that employs qualitative assessments. Quantifying observations allows the researcher to employ statistical techniques for summarizing information and conducting inferential analyses (how closely related or disparate are two sets of evidence). The richness of qualitative information, on the other hand, may allow the researcher to delve into underlying processes and explore complex hypotheses. For instance, measuring the length of two sets of compositions may reveal substantial and trustworthy differences; students taught about warranting may write substantially more than students without such instruction. Student interviews may resist quantification, but suggest to the researcher how instruction led students to write longer essays. For instance, suppose several students tell you something like this: “I knew that if I just wrote my main point and a few details you wouldn’t like my paper, so I just rambled around—that’s kinda what you mean by that ‘warrant’ thing.” The interview results may not be what you hypothesized, but they connect the quantitative information with the instructional treatment.

The *where* of data collection is frequently tied with the *who*. Traditionally, “real” classroom situations have been contrasted with laboratory environments, the latter presumably “unreal.” More recently, close collaboration

between classroom teacher and researcher has been contrasted with researcher imposed designs (Freedman, Simons, & Kalnin, 1999). These contrasts can be misleading. Researcher imposed designs implemented within either classrooms or laboratories are supposed to eliminate extraneous fluctuations in conditions, whereas the classroom is a "wild and crazy" place. The practical value of researcher imposed designs and laboratory findings is often questioned, whereas teacher designed, classroom based research is presumed to be directly applicable. Neither stereotype stands close scrutiny.

One can find many examples of untrustworthy laboratory research and excellent instances of classroom-based investigations. The practical significance of a study depends on the quality of the research rather than the characteristics of the setting. An important bridge between these extremes is the *design experiment*, in which systematic variations are tried out in different classrooms through collaborations between teachers and researchers, a range of quantitative and qualitative indicators serving to inform the teams (Brown, 1992; Collins, 1994). The design experiment technique, although still in the early stages of development, illustrates the linkage of methodological distinctions that previously seemed altogether contradictory.

Evidence is trustworthy to the extent that it holds up against attack from others; research has much in common with law. Earlier we introduced validity as of central importance. You will also encounter the concept of *control*; in social science research, control refers to the researcher's efforts to ensure the validity of the interpretations, the trustworthiness of the argument, the generalizability of the findings.

One essential contributor to adequate control is *design*, which refers to the steps in identifying the contextual factors that influence performance, planning the conditions of data collection so that these factors are adequately represented, and ensuring that the plan allows defensible generalizability of the findings—you can argue that the findings are trustworthy, replicable, and usable. Later in the chapter we introduce the concepts of *factors* and *factorial design* as one strategy for establishing adequate control.

Enough abstractions. Let us now show how these concepts might apply to the vignette, starting with *where* and *who*. Suppose you discover that two teachers in your school employ different approaches to argument instruction—one fairly traditional, the other more innovative. The traditional teacher relies on lecture and discussion to cover thesis/support forms of argument and assigns a five paragraph essay with the claim or thesis in the introductory paragraph, three paragraphs of evidence or support, and a conclusion that summarizes the argument. The second teacher leads students through several forms of argument including those with counterarguments and rebuttals. This teacher emphasizes the role of warrants in linking evidence to a claim and directs students continually to

identify and question their thinking. She integrates comprehension and composition in each lesson.

You have the makings of a natural experiment. The plan seems simple enough; your task as researcher will be to visit classrooms and describe what you see. On reflection, you realize that the reality is more complex. For instance, your questions and your presence may have influenced both teachers and students. These effects are not necessarily “bad,” but they illustrate how research almost always entails some intervention.

You then begin to think about a planned experiment, with classes assigned to contrastive treatments, one traditional and the other more innovative. This approach resembles the studies covered in Chapter NN on *Major Research Programs*. This plan also seems simple enough at first. You construct materials for the two instructional treatments, select measures to assess performance at the beginning and end of the study, and decide on appropriate statistical tests.

Your advisor raises questions. First, she warns that the two treatments appear to be *confounded*. Don't think that your ideas are being denounced. Confounding is a technical term describing a condition where two or more dimensions or factors vary simultaneously. In your plan, the two treatments differ in several ways, including the goals (five paragraph compositions vs. analytic essays), the reading materials (none vs. some), the teaching approach (lecture vs. discussion), and student activities (individual vs. group assignments), to name a few. If the results favor the innovative approach, how can you identify the critical elements? Second, how can you be sure that the treatments are implemented as you intend? Third, what if the measures do not mesh with critical elements of the instruction? You begin to understand that, even in a planned experiment, you may have to play the naturalist's role, documenting in detail what happens during instruction for both classes.

Making Sense of the Evidence

The study is now complete—you are satisfied with the design, and the data are in the bag. You have completed the analyses. You have almost finished the job—or have you?

Unfortunately, data do not answer questions; people do. For evidence to have meaning, you must deal with several issues. How far can you trust the evidence; how far can you generalize the findings; how convincingly can you persuade others of your interpretation? The basic point is simple: You should reflect on what you will say in response to various outcomes—*before you collect the data*. You can organize this task around two options: The findings confirm your expectations or they surprise you. The reason for this exercise is equally simple: It helps you refine your research design.

Suppose the results turn out as you predicted. You document that students in the novel treatment for analyzing and composing arguments are more likely to participate vigorously in classroom discussions about one another's arguments and prepare coherent arguments for their classroom assignments than those in the traditional approach. What does this result mean? Your argument appears straightforward; the innovative approach is superior, supporting your convictions about what students need to learn and how they can best learn it.

The researcher's task is seldom so simple. You should expect challenges. How else might the results be interpreted? This question is both practically and theoretically important. The intent is to establish the *validity* of the findings, to ensure that the interpretation holds up to close scrutiny. You are probably familiar with the concept of validity as it applies to testing: Validity is the extent to which a test measures what it is supposed to measure. In fact, recent thinking (Messick, 1995) about validity has taken a different turn: "Validity is the strength of the argument that a particular test outcome means what the tester says that it means" (page 742). Would the same conclusion hold if the student were given a different test at a different time or by a different tester? What alternative conclusions might fit the data? In a word, do the warrants hold up?

Research validity comes down to the same issue—the validity of a study is the strength of the argument that a particular finding means what the researcher says that it means. Meeting this challenge is seldom easy. The researcher is usually close to the problem and invested in the expected conclusion. Imagining other possibilities does not come readily.

One remedy is to ask colleagues for alternatives. You will be surprised at the creative ideas that emerge from this exercise. For instance, the novelty of your favored approach may invigorate both teachers and students; what will happen when the method becomes humdrum? Instruction can be highly dependent on the larger context. Would your approach work as well for teachers and students who were accustomed to a lecture/recitation format? The technique worked for this class, but will students apply the ideas in other classes and situations? The approach takes extra work; if another teacher decides to try it with modifications, what critical features need to be kept in order for the treatment to remain effective?

On the other hand, suppose the results do not come out as expected? You may have difficulty imagining this outcome. Given all your planning, thinking, and work, how could this happen! But it does. The most frequent disappointment occurs when an innovative treatment produces little or no effect, when the *null hypothesis* (no difference) cannot be rejected. This result can come about for either or both of two reasons. First, the treatment may actually not be effective—hard to accept, but possible. Second, student

performance may vary so widely that random fluctuations swamp the effect. It's like a slot machine, which "costs" you on each play; you do not immediately notice the loss because sometimes you win and sometimes you lose. A well-conceived research design allows you to identify extraneous sources of variability in performance, so that you can tell whether you have won or lost.

We have laid out three elements, but as noted earlier, planning an empirical investigation is not a step-by-step process, despite what you may have learned in high school (and even college). The process begins with a question. You wrestle with the details, and the shape of the question changes. You think about how to interpret various outcomes, and the design takes a different form, which leads you back to your original conceptualization. Each element has distinctive features, but the process is recursive and interactive. When you read a research report, it may resemble bowling; the investigator sets the pins, throws the ball, and counts how many pins fall. Reality is different. "Some of the most excellent inquiry is free ranging and speculative in its initial stages, trying what might seem to be bizarre combinations of ideas and procedures, restlessly casting about . . ." (Cronbach & Suppes, 1969, p. 16). But threading through all the elements is one critical theme—design.

PRINCIPLES OF DESIGN

This section of the chapter develops the foundational concepts of research design. Any field of study evolves in stages or paradigms, often beginning with the careful examination of intuitive experiences and ideas and the increasingly careful collection of evidence. Data patterns emerge, often to vanish or transmute. Eventually the patterns lead to the formulation of theoretical ideas, which are valuable because they explain and enlighten the evidence. Along the way, investigators must rely on informed guesses. Educational research is in this middle stage today. Educators do not yet have powerful theories and so must still rely on informed guesses to guide their work. Disciplined planfulness is crucial. Hence, our focus in this chapter on research design.

We first explain the three fundamental barriers that design techniques help surmount: *lack of construct validity*, *confounding*, and *extraneous variability*. Then we discuss four fundamental principles: the *concept of design*, the *elements of design*, *connection of the elements*, and *integration around a theme*. We will employ a technical vocabulary that has evolved over the past several decades; the critical terms are shown in Fig. 3.1. This table should be helpful as you proceed through the chapter.

- **FACTOR:** A variation in treatment conditions, in subject characteristics, or in instrumentation, that is identified by the researcher to achieve control over the performance outcomes in a study; also referred to as an *independent variable*.
- **LEVEL OF A FACTOR:** A particular choice or selection from the possible variations in a factor.
- **MEASURE:** Result of observation or measurement of performance under specified conditions; also referred to as a *dependent variable*.
- **TREATMENT FACTOR:** Variation in environmental conditions under direct control of the researcher. *Amount of time allowed for revising a draft* is a treatment factor; *5, 10, and 30 minutes* are levels.
- **PERSON FACTOR:** Pre-existing characteristics of a person or group, identified by the researcher in designing a plan for selecting a sample for investigation. *Undergraduate major* is a person factor; *English, Engineering, and Political Science* are levels.
- **OUTCOME FACTOR:** Facet used in designing a measurement package (e.g., test, observation, interview, or questionnaire). *Writing topic* is an outcome factor; *contemporary writing styles, earthquake preparation, and world conflicts* are levels.
- **NUISANCE FACTOR:** A variation included in the design of an investigation to ensure adequate control, not necessarily because of conceptual or practical importance. *Class period* is a nuisance factor; *early and late morning and afternoon* are levels.

FIG. 3.1. Technical vocabulary for research design terminology.

Three Fundamental Barriers

In conducting a research study, the researcher must keep in mind three critical issues—construct validity, confounding, and uncontrolled variability—that can undermine the merit of the outcomes. Design methods safeguard against these threats.

The *construct validity* of a research study, as for a test, refers to the trustworthiness of various interpretations of the evidence; does the finding mean what you think it means, where “it” is the construct? Validity can be compromised in several ways, but most of the shortcomings arise from a failure to think through the path that leads from the initial question to the final interpretation. The concept of test validity is a useful metaphor. Suppose a student’s test score indicates that she reads two grade levels below expectation. The validity of the test for this decision can be questioned in several ways: Is the test suitable for this purpose? Were the testing conditions appropriate? What other evidence is available? What are the costs and benefits of the decision for the student? Does the evidence say something about “reading” or about the test and testing conditions?

Similar questions can be posed for a research study. The principles are the same; the construct validity of the findings depends not only on the data but on the interpretation. Is the plan of the study adequate? To what extent does the context allow generalization to other situations? How does the finding mesh with other studies? What are the cost–benefit implications of

various decisions springing from the study? The more you know about the answers to these questions, the more secure will be the construct validity. One purpose of research design is to increase the chances that outcomes are trustworthy. As Cronbach (1988) puts it, "Validators should do what the detached scientist would do; [the key ingredient is] a vigorous, questing intellect. . . ." (p. 14)

The second barrier, *confounding*, occurs when the effect of the primary factor cannot be separated from the confounded factor, in which instance the findings are completely compromised. Consider how confounding might arise in your study if you select two teachers, one assigned to each instructional approach in a different class of students. Suppose you find a striking difference in student outcomes. The finding can result from the teacher, the students, the program, or some combination of the three. Given these possibilities, the evidence cannot be interpreted with any confidence. This difficulty is virtually impossible to repair after the fact.

Confounding is the major shortcoming of designs that contrast an innovative approach and a traditional method, the classical experimental-control technique. A quarter century ago, Cronbach (1963) pointed out the severe limitations of this design, but it still appears with great regularity in the empirical literature. Any comparison of two groups means confounded variables, and hence is subject to multiple interpretations. Our advice, if you consider such a study, is to give the matter further thought. A more complex design can separate the confounded variables. Qualitative descriptions of classroom life during both the innovation and its contrast can also help in interpreting confoundings.

Uncontrolled variability, the third concern, occurs when unintended fluctuations obscure answers to the research question. Eliminating unwanted variability is essential because of the critical importance of variability in educational research. On the one hand, systematic or explainable variability is the payoff. You predict that performance under the novel treatment will differ from the traditional approach, presumably because of the treatment. On the other hand, unexplained variability is the gauge against which systematic differences are measured; large differences in student performance within the two conditions may obscure the treatment effect.

Your job is to plan a design and arrange conditions so that systematic variability is maximized and unexplained variability is minimized. Suppose, for instance, that writing scores (rated on a 1–10 rubric scale) under one approach range from 8 to 10, while they range from 3 to 5 in the other approach. This difference passes the eyeball test. On the other hand, if scores range from 6 to 10 in the treatment group and 5 to 9 in the control group, you are well advised to wonder about the possibility that the differences are due to chance. In this second example, suppose that most girls score 9 or 10 in the first group, while boys in both groups range around 5

to 8. Now your interpretation takes a different turn; the treatment appears to make a difference, but only for girls.

Control encompasses the various methods employed to strengthen validity. Chief among these methods is design, although other issues are also important. For instance, if your findings are to be generalized to other situations, the evidence should presumably be based on a *random sample* from some population of interest, or at least you should know how nonrandom the data are. Social science research typically relies on “handy” random samples. You have access to teachers and students in a particular school, not exactly a chance selection, but typical of schools in the area. Some teachers will cooperate with you; others will not. Or you may search for a “purposive” sample, a situation selected because it meets conditions important for your hypotheses. These constraints and decisions may limit the generalizability of your findings. What should you do? In these and other instances, the important point is to *be aware* of these constraints, and to *document* events for yourself and your audience. The reader can then assess the degree to which the failure to achieve absolute randomness—which is both impossible and unnecessary—compromises your argument.

A second nondesign control issue is the maintenance of *uniformity* during data collection. A well constructed design provides control over certain variables, but other conditions are likely to be free floating. For instance, suppose your study spans a 5-week period. Consult the calendar—what upcoming events may influence instruction or assessment? If the critical posttest is scheduled on the day before a big football game, students may not give full attention to the task. What is happening in the lives of students and teachers during the study? If several students know that they are moving in 2 months, their engagement in the program may be lessened. If one teacher is in the midst of a divorce or fighting with the Internal Revenue Service, this may not be the best time for a new program—nor, for that matter, to handle a traditional approach.

These scenarios exemplify the difficulty of establishing uniformity. You should nonetheless make every effort to keep conditions constant, while remaining sensitive to discrepancies, and documenting them. Like randomness, uniformity is an ideal seldom attainable. Problems arise when you do not detect these variations and when you fail to report them. Unrecognized sources of variation arise from such conditions, and they can cloud the picture when you ignore their effects.

The Concept of Design

Thus far we have outlined the steps in conceiving a design from question to answer. We have discussed three threats that design can defuse. But a crucial question remains: What does a good research design look like?

A well-planned design is the key to separating treatment effects from and lowering background noise. It is the best protection against lack of validity, confoundings, and extraneous variability. Textbooks on research design often stress the procedures and mechanics of the design task, along with complementary statistical methods of analysis of variance. We will start instead with the underlying principles of design, which apply equally to descriptive and experimental investigations, to quantitative and even qualitative approaches.

Many human endeavors rely on the concept of design, sometimes through recognition and appreciation of naturally occurring patterns, more often through creation and construction. As Simon (1981) notes, design is the feature that distinguishes between the natural and the artificial, between happenstance and the artifices of humankind. All designs have three essential ingredients (Chambliss & Calfee, 1998). First is a set of distinctive elements, what Simon calls “nearly decomposable components.” Second are the linkages that bind individual elements together. Third is the theme that gives overall shape and meaning to the enterprise.

Toulmin’s argument model actually illustrates the design concept nicely. The *theme* comes from the claim, which sets the author’s overall purpose and guides the remainder of the argument. The *elements* are the sources of evidence, the concrete statements chosen by the author to support the claim. The warrants are the *linkages* that bind the evidence to the claim and join the separate parts into a coherent whole. The three characteristics of good design are present in Toulmin’s model, which serves as the conceptual framework for your study.

Now let us turn to the application of design principles for a research study. The elements include the factors that influence performance: the treatment or environmental variations, differences between individuals, and various methods for assessing performance. The elements are linked by one of two relationships, “crossing” or “nesting,” described in the following. The theme encompasses the overarching objectives of the research guided by questions or hypotheses. A design with these three characteristics will generate a data structure to inform your research questions in a well controlled—i.e., trustworthy and generalizable—fashion.

Factorial Elements

A factor is a variable that the researcher defines and controls in order to evaluate its influence on performance (see Fig. 3.1). Some factors can be directly controlled; others depend on careful observation of natural variations. In your study, for instance, initial reflections turn up several candidates as factors for inclusion in the design: argument type, instructional method, prior student experience with arguments, age and sex of

students, teacher experience with the genre, teacher and student beliefs about the social nature of reading and writing, and choice of a written or oral test.

As suggested earlier, your best strategy at the outset is to cast a wide net—brainstorm, think divergently. The idea is not to create a shopping list of every conceivable variable, but to identify a range of factors that may substantially influence performance or inform your understanding of the phenomenon.

Novice researchers tend to begin with one or two factors of central interest, relying on “randomness” to handle other effects. Such a strategy leaves much to chance. Keep in mind the following principle: *If you ignore factors that influence performance, variability from these sources does not disappear; instead, it confuses the picture.* In a well-controlled study, the researcher pins down important sources of variability, to ensure that systematic effects stand out clearly against background noise.

For practical purposes, we distinguish three primary types of factors: treatment factors; person or individual-difference factors; and outcome factors (see Fig. 3.1). A fourth category, nuisance or “control” factors, is also useful in preparing a design.

A *treatment factor* is an environmental facet directly controllable by the researcher. Argument type, social interaction, and task might serve as treatment factors in your study. You decide to introduce students to the two types of arguments depicted in Fig. 3.2: a simple version where all the evidence supports a single claim, and a complex form where different facets of a claim are supported by different pieces of evidence. You arrange two types of social interaction: one in which students work together to analyze the two types of arguments and another in which the teacher models the analysis through lectures. Finally, you give students practice with one or two tasks—either reading only or both reading and writing. You have defined three treatment factors, each with two variations.

The primary goal of identifying various factors is to assess the importance of these variations each in its own right—the *main effect* of the variation. To what extent do students perform differently on simple and complex arguments? Do the student interactions and teacher’s role make a difference?

In a *factorial design*, the research plan includes all combinations of the factors. Including the combinations can increase the cost of the study, although not that much. For instance, suppose you have identified two factors. You could do two studies, one for each factor, a total of four different conditions. If you combine the two factors—two times two equals four, the same number of conditions.

The real payoff from a factorial design is that you can also assess the *interaction* among factors. An interaction occurs when the effect of one variable depends on conditions associated with another factor. For instance, simple

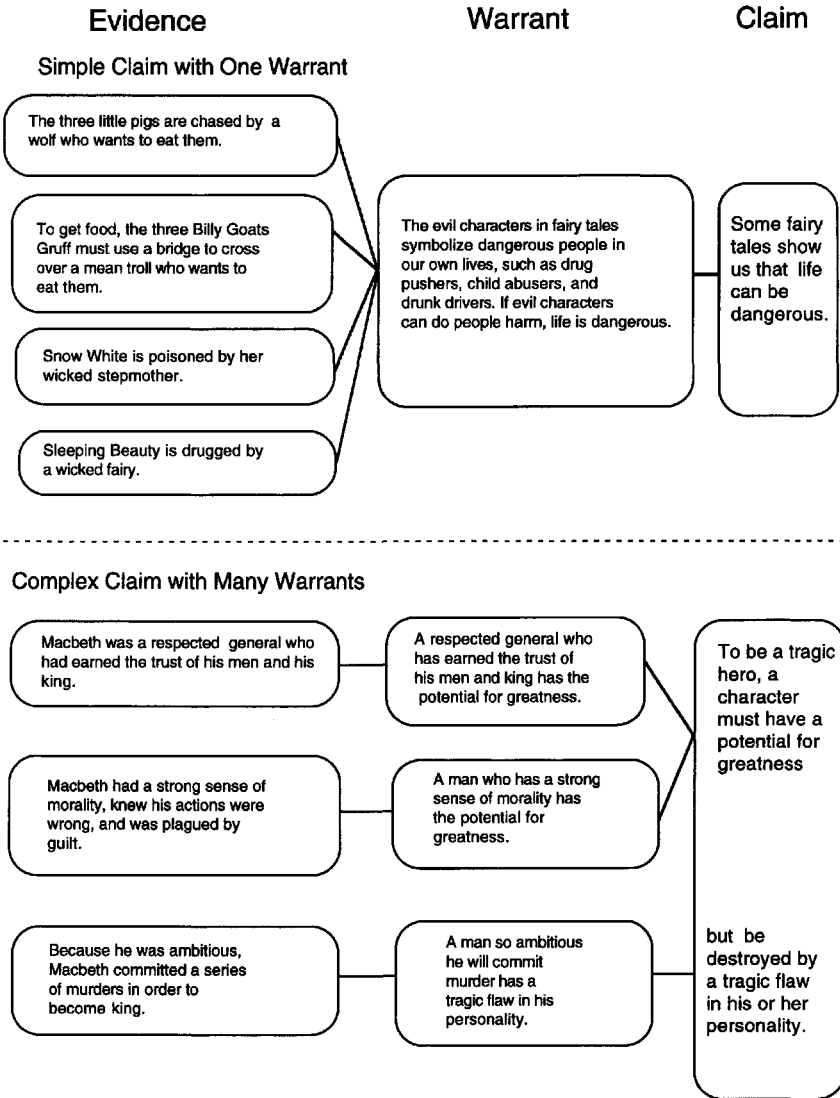


FIG. 3.2. Diagrams of two types of argument structure: A simple claim with one warrant and a complex claim with many warrants.

arguments may not require social interaction, but complex arguments may be more easily acquired under this condition. Main effects and interactions are critical outcomes from factorial designs, and we will return to this matter in a later section.

A *person factor* is an intrinsic characteristic of an individual or group. Age, sex, ability, and prior experience are examples. These factors should

be taken into account when selecting teachers, students, and classes, either because you have a theoretical interest in the effects or to control extraneous variability. For instance, if you know that some students have been taught about arguments while others are unfamiliar with the concept, then you should include student experience as a design factor. If you know that some teachers understand the argument genre better than others, then you should include teacher understanding as a factor as well. Interactions can also occur among person factors. It is possible that students with no prior instruction about arguments would benefit from having a teacher who understands the argument genre, but that the teacher understands the genre well would matter much less for students with prior instruction.

Interactions are also assessable from combinations of treatment and person factors. For instance, more experienced students may not benefit from social interactions, while novices do much better in a group than when left on their own. This particular effect exemplifies an aptitude-treatment interaction, in which students respond to variation in a treatment factor differentially depending on person characteristics (Cronbach & Snow, 1977).

Outcome factors direct the choice of measures in an investigation. Like treatment factors, they can often be directly manipulated by the researcher, although this opportunity is frequently overlooked. The tendency is to select an off-the-shelf instrument without thinking about its relation to the research questions. Suppose your school administers a standardized comprehension test. Shouldn't you employ this test to assess the relative effectiveness of the two programs? In making this decision, you face some trade-offs. On the one hand, most standardized tests use rather vague expository passages, not the argument genre, and they tap the students' ability to recognize, not to reflect or to compose. Because of these limitations, you could construct measures that directly assess students' ability to handle argument structures, that demonstrate their ability to craft a persuasive text, and that reveal attitudes and confidence about these tasks. On the other hand, standardized tests are proven instruments with established reliability and validity estimates, while your measure has not been submitted to tests of reliability and validity. You might use the standardized test as an index of general student ability, and your own measure for a more focused look at students' composition of arguments.

Because you expect factors such as teacher understanding or social interaction to affect student performance, it would be important that you describe the instruction that each teacher provides and the social interaction that actually occurs. You can collect detailed field notes that record teacher and student dialogue or videotape class sessions and analyze the amount and quality of social interaction. It is not uncommon, for example, for students to spend small group time discussing social roles rather than analyzing a complex written text together, an unintended event that

could muddy your results if you have not collected descriptive data during implementation.

Beside deciding on the factors for your design, you also need to choose the levels for each factor. Sometimes the decision is straightforward; if sex is a factor, then male and female are obvious choices. For a factor like undergraduate major, the range of options is greater, and the selection requires more thoughtfulness. If revision time is a treatment variable, the number of options is virtually infinite. Think first about the relation between this factor and performance. For instance, does performance increase steadily with time? Might it increase for a while and then tail off? Or perhaps, beyond a certain point, further time might actually lead to a poorer outcome? For each possibility, what are your best estimates of candidate values?

What instructional options emerge in your study? We suggested earlier that you might either have students analyze arguments in small groups or have teachers teach the argument structure directly. On reflection, what about a level (a condition) that combines the two? Now the factor has three levels (Fig. 3.3). But how are lecture and group work to be combined? Students might first analyze arguments in small groups with minimal guidance and then end the session with a teacher-guided discussion. Another approach could be to lecture the students about argument structures and then have them practice in small groups. A third approach could be to begin with lecture followed by group work and ending with a guided discussion. Which plan should you employ in the design? The answer depends on your resources and your judgment about what you can learn from each plan. If you are looking for the grand design and you have limited resources, you will have a difficult time managing the entire design; far better to prioritize by thinking about the most interesting choices for a preliminary study.

Building a Factorial Design

The simplest way to construct a design from factors is to combine them as though they were Lego blocks—put all the pieces together. This strategy works well as a start, but you also need to know about some refinements. Two factors can be joined in either of two ways: *crossed* (every level of the first factor is combined with every level of the second factor) or *nested* (the levels of the second factor differ at each level of the first factor). The contrast, shown in Fig. 3.4, parallels the difference between a matrix and a hierarchy. In a matrix, every level on the first dimension is combined with every level of the second dimension. In a hierarchy, while the lower levels may have a common thread, they do not connect to other points at the same level. When a set of factors is crossed, you can assess the main effects of each factor as well as the interactions among them. When factors

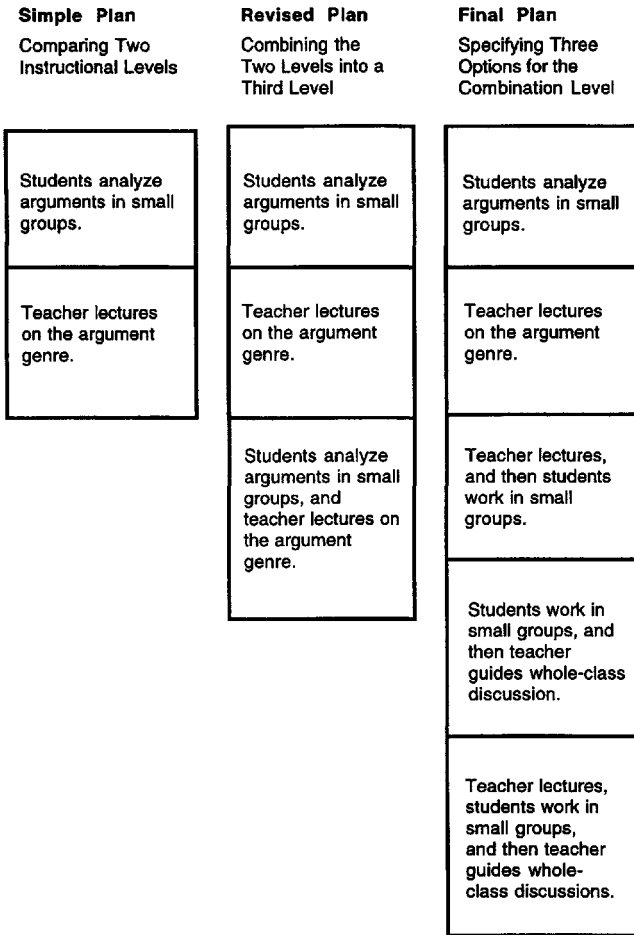


FIG. 3.3. Choosing levels for an instructional factor from a simple plan with two levels to a final plan with options for five levels.

are nested, only the main effects can be evaluated, because the design does not include combinations of the two factors.

These methods for connecting factors have two advantages. First, like Lego blocks or Tinker toys, they combine in virtually infinite ways to join any number of factors. While the previous definitions express relations between a pair of factors, any number of factors may be joined by combinations of crossing and nesting.

Second, the methods ensure that any factorial design is free from confounding, that the effects of any two factors are independent of one another.

Crossed Design

		Factor A		
		A ₁	A ₂	A ₃
Factor B	B ₁	A ₁ B ₁	A ₂ B ₁	A ₃ B ₁
	B ₂	A ₁ B ₂	A ₂ B ₂	A ₃ B ₂

Nested Design

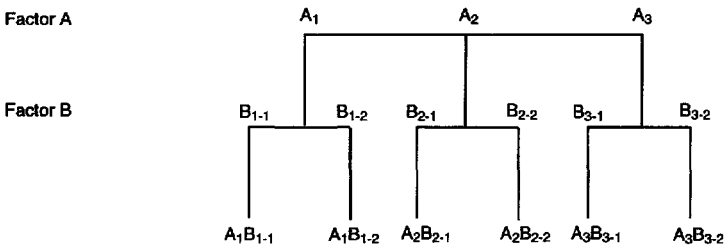


FIG. 3.4. Two types of linkages: Crossed and nested.

This assurance has two caveats. First, each combination must include an equal (or proportionate) number of observations. For instance, suppose you divide a writing class into high and low achievers (the achievement factor) crossed with boys and girls (the sex factor). You are likely to find many more high girls and low boys than the other two combinations, which means that the design is partly confounded; "boys" means (in part) "low achieving," and contrariwise. Second, the strategy does not guarantee that any given factor is not confounded with other factors *not* in the design. Low-achieving may also mean "from poor families," for instance. You can often predict such patterns in advance. By selecting your sample according to a design that you have prepared, you can collect data that allow you to separate the various facets.

How does the researcher decide whether to cross or nest a particular pair of factors in planning a design? The linkage can depend on the situation. Suppose you have initially spent time in several classrooms observing comprehension and composition instruction. During your observations and teacher interviews, you discovered that the teachers who are candidates for the study seem to prefer different types of instruction. One group, whom you decide to call "Group L," prefers traditional teacher-led lecture

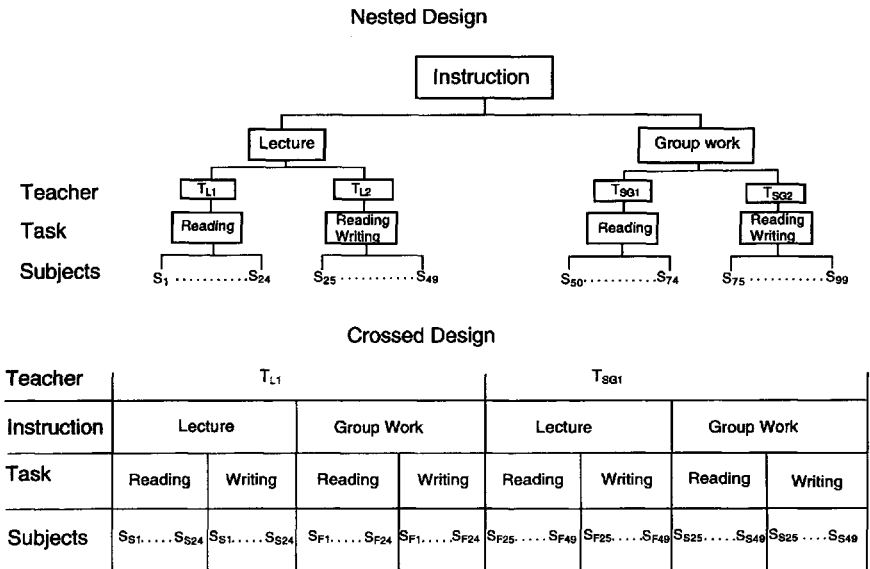


FIG. 3.5. Linking INSTRUCTION, TEACHER, TASK, and SUBJECTS into alternative designs.

and discussion while the second group, "Group SG," favors small group student-centered instruction.

Figure 3.5 shows two alternate sets of linkages for creating a design that acknowledges these teacher differences. The top panel shows a design that is primarily hierarchical. Believing that teachers will be more effective if your instruction matches their preferences, you assign teachers L_1 and L_2 to the lecture condition and teachers SG_1 and SG_2 to the small group condition. Note from the figure that students are nested within teacher and task; a particular student receives only one type of instruction and one type of task from the same teacher.

This hierarchical design does not allow you to see what might happen when instruction mismatches teacher preferences. Perhaps teachers will be even more motivated by instruction that differs from their usual style than instruction that matches what they already do. The design in the second panel is more crossed than nested. In this design, one teacher with a lecture preference and a second teacher with a small group preference teach both types of instruction. Furthermore, whether they are lecturing or facilitating small groups, all teachers provide instruction in both comprehension and composition. Like the hierarchical design, however, students are nested within teacher. Teacher L_1 lectures in the spring to one group of students and provides small group work to next year's group of students in the fall. Teacher SG_1 reverses this pattern.

An important consideration in planning a design is the decision about how to assign individuals or groups to various treatment combinations. The issue often appears in research texts as the choice of a *between-subject* or *within-subject* plan, but is better described as crossing versus nesting of persons with other design factors. Both of the designs in Fig. 3.5 nest students within teacher, a common design in educational research. All of the students in a class receive the same instruction, which differs from the students in another teacher's class, a between-subjects design. However, every student participates in comprehension and composition instruction in the crossed design, a within-subjects plan.

The decision to nest or cross persons with other factors reflects both practical and theoretical considerations. Practically speaking, the researcher sometimes has little choice. For instance, individual-difference factors like sex or personality dictate that individuals be nested within the levels of a factor. A person is either male or female, impulsive or reflective. Treatment factors can generally be crossed with person factors, and sometimes it makes sense to do so. If a treatment combination takes only a minute or two to administer and the student is available for an hour, the researcher should probably administer as many conditions as possible. This decision means crossing the student with several factors.

Crossed and nested person designs provide qualitatively different information. If each student is tested under a single condition, the researcher cannot assess how individuals react to different combinations. When each individual is tested under several conditions, then contrasts in performance are measurable. To be sure, the researcher must then attend to performance changes due to the testing itself. People improve with practice; they also become fatigued over time. Several techniques (e.g., counterbalancing through Latin Square designs, Cobb, 1998) permit control over these influences, but the key issue remains the researcher's sensitivity to such ancillary factors.

Theme

The final ingredient in a design is the conceptual framework that guides selection of the factors and decisions about how to combine them. While we have placed this topic at the end of our list, it is actually of paramount importance. The thematic foundation of a research study requires knowledge of the territory, experience in dealing with the issues, and a large dollop of intuition and art. On the other hand, the task can also be guided by systematic strategy, for which Simon (1981) gives counsel. Although some systems appear complex on the surface, Simon argues all are fashioned around a relatively small set of separable components, each with a distinctive internal structure, each linked in simple ways to one another (Calfee, 1981). We applied this notion earlier to the composing of a written

argument and the planning of the sample study. It also applies more generally to the conceptualizing of virtually any research problem.

The key is to look for the joints that divide a complex system into a small number of simpler entities. Carving a turkey is a metaphor. A turkey can pose quite a challenge to the novice carving the Thanksgiving bird. The trick is to find the joints, so the carver can divide a big job into relatively small ones. Think about *messes, lumps, chunks*. If you carve a problem into a lot of little pieces, you will be overwhelmed by the details. If you try to handle the problem as a whole, you will be confused by the apparent complexity. Human beings can effectively handle a few items at a time; the key is to keep it simple—more to the point, make it simple.

How do you know when you have hit a joint in a conceptual domain? We suggest that when the technical language and relations in one chunk differ from those in another chunk, you have found a starting point. The previous discussion about selecting treatment, person, and outcome factors illustrates this point; we “talked” differently about the choices within each of these domains. Locating the chunks, then, is the key to analysis of a complex question; it also lays the foundation for synthesis, for relating the chunks to one another.

Let us apply this reasoning to the previous vignette. Your initial thinking about argument was fuzzy and complex. You saw the issues as one dimensional: The best method seemed obvious. But then you were soon burdened by technical details of control. Try looking for a few joints, which will allow you to divide the big problem into manageable chunks that organize the details. You have already moved in this direction by focusing on two thematic areas: forms of argument and styles of integrated instruction. Both areas have a distinctive technical base; each can be considered as an entity in its own right.

You can apply the divide-and-conquer principle to each of the two domains. For instance, how might you subdivide the complexities of instruction—pedagogical method, materials, and management? The answer is implicit in the question. Divide the big chunk into a handful of distinctive subchunks, and decide which are critical to your research question. To be sure, the chunks will then need to be re-related to one another, but the capacity to assess interactions is inherent in the technology of factorial design.

CREATING THE DESIGN

This section discusses how the previous concepts and procedures apply to construction of a specific research plan. This is the time when you move from divergent to convergent thinking, from strategy to tactics.

You have identified two thematic issues: how your students process arguments and instructional strategies that help students improve both how they comprehend the claim in a writer's argument and how they support a claim in their own writing. You have posed researchable questions for each issue. What processes do ninth graders use as they work their way through a written argument? How do they use their knowledge about arguments (if any) when they write? Both of these questions are descriptive. Your instructional question is: What combination of social interaction and teacher direction will improve student skills? This question implies an intervention.

How do you formalize a plan of action? You have several options, but certain principles can guide your decisions. First, the thematic chunks—how students process arguments and instructional approaches—need to be expanded into operational factors. Second, you might consider two or three bite-sized investigations rather than putting all of your eggs into a single basket. Third, keep the ultimate goal in mind, and be careful not to drown in details. The factors selected for the design should support the thematic foundations of the study, while ensuring that the design controls significant sources of extraneous variability. The following sections offer some practical advice about preparing a plan.

Big Picture and First Steps

The first word of advice is to remember where you are going, and to keep moving in that direction—unless you have a good reason to chary. You have shaped the elements of a plan; an image of the research problem is taking shape in your mind's eye. How should you proceed next? One approach is to plan a full-scale experiment. Another is to develop a series of mini-studies. A third is to initiate a naturalistic investigation of observation, interview, and assessment. Our recommendation is that you work at all levels of this continuum, but especially the middle, collecting preliminary data while also refining your thoughts about the big picture—even if you never get around to it.

Developing a conceptual framework requires abstract thinking, but it can also be aided in practical ways. For instance, a graphic layout can help you document the emergence of your research plan. Figure 3.6 shows a midstream road map that might fit your project. The matrix arranges the two thematic elements as column headings; the rows show the factorial categories central to any research plan. Imagine the sketch as a structure for laying out ideas; the entries in the figure are illustrative. Creating the plan is a dynamic enterprise; use "Post-Its," or record your thoughts on a word processor. Ask colleagues for comment and criticism. Be flexible; the one constancy in research design is change; to be sure, funding agencies may not always appreciate this advice.

	Description of Comprehension Processes	Method of Instruction
Treatments	Argument differences	Task differences for teachers & students Comprehension & composition
Subjects	Different levels of expertise	Different levels of expertise
Outcomes	Performance measures	Performance measures Transfer measures Satisfaction measures Field notes

FIG. 3.6. An overall design for describing comprehension processes and instructing comprehension and composition of arguments.

Our second recommendation is that, as your plans take shape, you spend time in the research context (e.g., classrooms, teachers, and students), looking and listening, trying out your ideas and procedures and materials in realistic settings. This suggestion does not assume you have an empty head; to the contrary, what you see and hear will be guided by the conceptual framework spread around the walls of your study area. But before the design is cast in stone, check the context. Approach this task with explicit questions in mind. What are the major sources of evidence? What variations are especially critical? Where are you least certain and most confused? What questions should you pose to informants? What answers do you expect, and how can you follow up for further clarification?

These early forays into the field can make substantial demands on research methodology. You are still framing the research question. You are still developing the instruments. The decisions you base on early descriptive work are critical and will determine the shape of the subsequent study.

Yet in making these decisions you must rely on relatively unreliable evidence.

We might do well in social science research to adopt a more organic and decision-oriented approach, a more deliberative and interactive process: “Given what I have learned thus far, what is the most sensible direction for my next move?” Custom (and the reliance on the set-piece proposal) often leads the novice researcher (as well as others) to persist with an original course of action even when it is clear that things are not going as planned. Research is a problem-solving activity and depends on flexibility and response to feedback for success.

Evolution of a Strategy

Following classroom visits and reflection on the issues, you begin to construct your research plan. Studying the charts around your walls, you may feel overwhelmed. Too many factors, too many combinations, too much data to assemble and interpret. Simon’s suggestion to search for parsimony is now the remedy.

Our experience suggests that the initial stage of an instructional study (after the “walking around” phase) is often most effectively directed toward the development of a descriptive system designed to uncover psychological processes—cognition, behavior, and motivation. The description stage informs your research questions and gives you valuable information for designing instruction. The second stage explores the impact of instructional interventions, not to demonstrate the efficacy of a particular approach, but to gain an understanding of the relation between instruction and learning. The following two sections illustrate ideas for pursuing a strategy crafted along these lines.

Description of Comprehension Processes

Figure 3.7 depicts a plan for the description phase. The plan incorporates three psychological tasks: (a) identify the author’s purpose, (b) search for the author’s claim and evidence, and (c) use the warrants to integrate the parts into a mental representation of the author’s argument. Your knowledge of comprehension research (e.g., Chambliss, 1995; Meyer & Freedle, 1984) suggests to you that these tasks are basic to effective comprehension. Some factors, like author’s purpose, have specific variations for each task. For example, the contrast between informational and argumentative purposes will show whether students recognize when an author intends to support a point, the first task. The general factors apply to all three components. For instance, individual differences in reading achievement

Comprehension Processes			
Identify Author's Purpose	Search for Author's Claim and Evidence	Integrate Parts to Represent Author's Argument	
Specific Factors			General Factors
Treatment Factors Text Structure <i>Argument or informational</i>	Claim Presence <i>Claim present or absent</i> Evidence Presence <i>Support or superfluous information</i>	Argument Structure <i>Simple claim/individual warrants or simple claim/one warrant or complex claim/individual warrants.</i> Warrant Presence <i>Warrant explicit or implicit</i>	Text Replicates <i>2 examples of each text type (e.g., two arguments and two informational texts.)</i> Order <i>For all crossed designs, the order of the factors (e.g., Argument first or second.)</i>
Person Factors Text Knowledge <i>Know text schemata or not</i>	Argument Knowledge <i>Know how to find argument parts or not</i>	Argument Structure Knowledge <i>Know argument structures or not</i>	Vocabulary Skills <i>Grade level or not</i> Prior Experience <i>Present or not</i>
Outcome Factors Identify Text Type <i>Paper/pencil comprehension measure</i> <i>Videotape of class work</i> <i>Student compositions</i>	Identify Argument Parts <i>Paper/pencil comprehension measure</i> <i>Videotape of class work</i> <i>Student compositions</i>	Summarize the Argument <i>Paper/pencil comprehension measure</i> <i>Videotape of class work</i> <i>Student compositions</i>	Vocabulary Scores <i>Standardized reading subtests</i> <i>Classroom vocabulary tests</i> Prior Experience Questions <i>Student Interview</i> <i>Student Records</i> <i>Teacher Interview</i>

FIG. 3.7. A design for describing the comprehension of arguments.

are likely to influence student performance in all three tasks, and must be included to control extraneous variability and evaluate interactions.

The Instructional Study

Figure 3.8 lays out a plan for instructional factors. This design has two parts, the first intended to aid students to comprehend the argument schema, and the second to assist them in composing an argument text. As in Fig. 3.7,

Processes to be Taught			
Comprehend Author's Argument	Compose Own Argument		
Specific Factors		General Factors	
Treatment Factors	Instructional Content <i>Identify text type, find claim and evidence, and integrate to match text</i>	Instructional Content <i>Choose a rhetorical pattern, translate the pattern to print, and review according to the needs of the reader throughout</i>	Teacher Tasks <i>Lecture or small group instruction or a combination</i> Student Tasks <i>Individual practice or small group practice or whole class practice or a combination</i>
	Argument Knowledge <i>Know argument type or not</i> Reading Skills <i>Level of decoding skills</i> <i>Level of vocabulary skills</i>	Argument Knowledge <i>Know argument type or not</i> Writing Skills <i>Level of spelling skill</i> <i>Level of sentence mechanics skill</i> <i>Level of paragraph development skills</i>	Prior Experience <i>Earlier experience with arguments or not</i> <i>Earlier experience with whole class, small group and/or individual work or not</i>
Outcome Factors	State Author's Point in Argument Text <i>Accurately or not</i> State Speaker's Point in Class Discussion <i>Accurately or not</i> State Speaker's Point in Political Speech <i>Accurately or not</i>	Write an Argument <i>Competently or not</i> Prepare a Debate <i>Competently or not</i>	Fill Out Motivation Questionnaire <i>High or low interest</i> Fill Out Prior Experience Questionnaire <i>High or low prior experience</i> Teacher Field Notes <i>Instruction implemented as planned or not</i>

FIG. 3.8. A design for instructing students to comprehend and compose arguments.

the plan is designed as a matrix crossing the two components with the three general factorial categories. Factors for the comprehension component depend on outcomes from the description study, which reveal areas where students have difficulty. Factors for the composition component are adapted from Nystrand's (1989) reciprocity model whereby writers' choices are continuously affected by what they presume will be the response of readers: choosing a rhetorical pattern, translating the pattern to print, and reviewing according to the needs of the audience.

A few words about the structure of this particular design. Teaching presumably has lasting effects. Different students are assigned to each instructional combination; in this instance, students *must* be nested in a factor. In making these and other decisions, basic design principles provide the basis for moving from initial conceptualization toward the final plan.

DATA ANALYSIS

This chapter centers on the role of design in the research enterprise, and we have neither the mandate nor the space to say much about the tasks of dealing with the evidence once it is in hand. A few points directly relevant to design do merit attention, however. First, whatever the nature of the evidence, some common principles undergird the job of data analysis. Two of these principles will be mentioned in the following. The point here is that the principles are the same whether the evidence is quantitative or qualitative, whether in the form of numbers, field notes, interviews, pictures, videotapes, or whatever. The tools and techniques may differ from one type of evidence to another, but managing the path from data collection to interpretation places similar demands on the researcher.

One job is *summarization*, pulling together trends in the evidence. For numbers, the trends are represented by basic terms like *mean*, *variance*, and *correlation*. The customary tactic today is to load the numbers into a computer, which generates "descriptive statistics." For the "raw observations" typical of qualitative evidence, the usual approach is to immerse yourself in the data, transcribing recordings, constructing thick notebooks with numerous post-its and multicolored highlightings. Both of these tactics carry important messages. The researcher dealing with numbers is well advised to "explore the data," to study frequency distributions, prepare scatterplots, and look for unusual events. The field of *exploratory data analysis* (Behrens & Smith, 1996) provides a range of systematic techniques for guiding these tasks. The researcher exploring qualitative evidence is equally well advised to look for trends analogous to those found in statistical methods. Central tendencies—what are the typical elements in the data set? Variability—what kinds of deviations from typicality do you find?

Correlations—in what ways do parallel trends seem to emerge? You may not be able to attach precise summary indices to these trends, but you can certainly convince the reader of their existence. Arguments based solely on anecdotes rest on perilous ground.

We mentioned earlier that factorial designs provide the basis for assessing both main effects and interactions. To remind you, main effects reflect differences that emerge as you move from one level to another of a factor, such as the differences between males and females, or between writing by the individual versus small group tasks. Interactions describe patterns associated with factorial combinations; girls might do better than boys when writing as individuals, while boys do better than girls in group settings. Statistical procedures such as analysis of variance generate indices for identifying reliable differences associated with main effects and interactions. An exact parallel does not exist for qualitative methodologies, but the researcher can still examine the evidence for such patterns and develop an argument to support various conclusions. In doing so, the researcher may find himself or herself falling back on numbers, something like the following example:

In 70% of the small group protocols, boys expressed a competitive stance on the writing task, whereas girls voiced a more cooperative slant. These trends were supported in the interview data. When I talked with students after individual writing assignments, competitive-cooperative motivations were mentioned by only 15% of the students.

A final remark on data analysis—personal computers now make available incredible power for “feeling the data.” The graphic representation of numeric data is an integral part of virtually every contemporary statistics package, and statistics textbooks are beginning to catch up with the programs. On the qualitative side, programs like NUD*IST and Atlas-TI (for background, see Weitzman & Miles, 1995) now provide researchers with powerful tools for discovering and representing patterns in nonnumeric data sets.

INTERPRETATION

We now make another pass at a question raised earlier: With the data in hand, how does a researcher interpret and generalize the findings? Again, the critical issue is validity—the trustworthiness of the interpretations. This task of establishing validity comprises two subtasks: internal validity and external validity (Campbell & Stanley, 1966; Cook & Campbell, 1979; Porter, 1997). Internal validity addresses the question, “To what degree can I trust

the evidence that I have within my grasp?" External validity asks, "To what degree can I extend the findings to other situations?"

The matrix in Fig. 3.9 extends the concepts of internal and external validity to reflect the design perspectives laid out in this chapter. The matrix is organized around factors controlled by the design and uncontrolled "free floating" factors. The first test of validity, *conceptual clarity*, depends on the design factors. Now that the data are in, how clearly can you tell what happened? To what degree do the factors appear as compelling representatives of the constructs (the underlying concepts) that you chose to represent the research question? To what degree can you make sense of patterns in the data? Complex interactions may be appealing when you first think about a problem, but they can also render interpretation difficult. To what extent did the treatments work as intended? Secrest, West, Phillips, Redner, and Yeaton (1979) refine this point: "The essence of construct validity is that one has a good understanding of the conceptual meaning of the treatment It refers to our interpretation of the treatments, not the treatments themselves" (p. 17). For instance, you may discover that when you form small group writing teams, the interactions do not take shape as you intended. You had in mind the construct of *cooperation*, but your qualitative observations reveal variations that include cooperation, competition, and a lot of "parallel play." The research is not a failure if you learn something from the results.

The second validity test, *situational stability*, is the degree to which the evidence allows you to project the basic findings with confidence to other contexts, without modification of the original design. What about the influence of factors that you decided to ignore; either directly or through interactions, how may they influence the outcome? If the sample of participants is too small or too homogeneous, then you may not be able to extend the findings. If the instruments are too specialized, you may again be hesitant to recommend your results to others.

The next two categories go beyond the details of your original design to extension of the underlying principles. Researchers seldom limit their interpretive scope to a particular study. You are interested not just in the program that you have developed, whatever shape it may take in the final design, but in the concepts that undergird this program. Researchers aspire to broadly generalizable statements, and here the issue of validity takes a different shape.

Figure 3.9 has two entries under this heading. First is *conceptual match*. In going beyond the original conditions, while staying close to the original conception, how safe are you in projecting your results? The key here is again the clarity of the original conceptualization, and the degree to which the conditions can be implemented in a similar manner in a different context.

Your argument program shows considerable promise on its test flight. The program employs a student-centered approach, with techniques for working in groups to comprehend and critique an author's argument. The instruction incorporates a group planning guide and graphic organizers that students can use to represent an author's reasoning. Teachers receive intensive staff development in the concepts and the procedures. A colleague plans to implement the program in a different setting, but must modify it to fit local conditions. What are the boundaries? Surely, the program is not limited to specific wording or format. If staff development has to be reduced from a week to 2 days, what to keep and what to jettison?

Next comes the *situational match*, which is related to what Cronbach (Cronbach, Glesser, Nanda, & Rajaratnam, 1972) labeled *generalizability*. Suppose a user wants to change the program and apply it to a different situation—what are the chances that the results apply under these circumstances? Your program has been tested under one set of conditions, with certain factors under control. The students are from middle-class backgrounds, the classes are relatively small, the teachers are experienced professionals, and resources are available for staff development and collegial interactions. Can the findings be applied in situations where these conditions do not hold? If the treatment is powerful, then the variation in local contexts should not matter. An investigation should ideally provide linkages that inform judgments about the transferability of the findings.

Answers to these questions require human judgment. Informed judgment is enhanced when you understand the conceptual issues. Interpretation is generally a matter of pattern detection, a task in which the human mind excels.

FINAL THOUGHTS

Research is problem solving—with real problems. Empirical data are part of the process, though not necessarily the most significant element. Educational and social science research are particularly demanding because the theoretical foundations are weak—and because researchers tend to overlook the theoretical tools that are available (Suppes, 1974). But “the times are a-changing,” and rapidly. Cognition and social cognition, the practical emphasis on educating rather than training, and the challenge of helping every individual realize his or her full potential—the road ahead is exciting and demanding.

Educational and social science research is still in the “sleepwalking” phase (Koestler, 1968). Even the best of our theories are heuristic more than formal, and we must often rely on experience and intuition. Success depends most frequently on doing several things right rather than

the one best answer (Slavin, 1986; Tyack, 1974). Cronbach (1975) paints a dim prospect for generalizable research in education, portraying a hall of mirrors with infinitely complex and intricate interactions.

The problems are clearly daunting, but we are optimistic. Whether as producer or consumer of empirical research, you should consider the "divide and conquer" strategy. A series of modest but well-designed studies is likely to be more informative than a single humongous effort. Critical experiments are rare in our business; any single investigation may provide one or two insights—often from a mistake that suggests what *not* to do.

While we do not recommend a fixed algorithm for planning empirical research, the strategy exemplified in the vignette often works quite well. First, learn as much as you can about the territory through a descriptive study. Your goal is to focus on person factors such as motivation and psychological processes as well as factors that are present in the situation. Then experiment; try out a series of instructional treatments, perhaps one or two chunks at a time. Innovations are difficult to implement, and you are more likely to succeed by proceeding in phases. It is important to assess the actual implementation and to examine in detail the full range of potential effects (positive and negative). You may not be able to complete an indepth evaluation for every participant, but you can usually select a few individuals for "thick" study, for contrast with the thinner data from the entire group.

Our main message throughout is the essential importance of *design*—basic building blocks, linkages, and an overarching theme. These components assume different shapes in different stages of an investigation, but if you build on them consistently, they give coherence and unity to the effort. You are likely to learn something from the experience, and to gain satisfaction from the enterprise.

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CHAPTER 4

What Longitudinal Studies Say About Literacy Development/What Literacy Development Says About Longitudinal Studies

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Perhaps no other research approach has more potential to answer the complex development questions that should undergird curriculum. Indeed, longitudinal studies have illuminated our thinking about literacy development in ways that have startled theorists and often challenged key assumptions of touted approaches. Amidst a flurry of political polemics and pronouncements about literacy development, longitudinal research often-times yields surprises and unmasks presuppositions—especially a review of such research. And, especially, if such research is examined in terms of the assumptions about literacy and society including the sociopolitical nature of what counts as research or, within a research study, what counts as data/evidence or the lens that might be used to illuminate development.

In preparation for the original review (Tierney, 1992), a great deal of time was spent gathering information about longitudinal research: scanning the research for examples of longitudinal research on particular topics of relevance to the language arts and reviewing discussions of research methodologies for some tenets by which longitudinal studies might be conducted and reviewed. At the time, neither a substantial review of longitudinal research dealing with methodological issues nor a thorough review of those longitudinal studies pertaining to reading and writing development

existed. Most discussions of research in the social sciences included a mere mention of longitudinal research; and with a few exceptions, reviews of reading and writing research only incidentally mentioned the extent to which longitudinal studies have been pursued. Perhaps this should have come as no surprise. For longitudinal studies are expensive to pursue and are apt to be viewed as unrewarding if a rapid turnaround in research is an investigator's goal. This may account for the enormous number of cross-sectional studies comparing students at different ages rather than studies of the same students at these ages.

As with the previous review, the current review examines longitudinal studies of readers and writers. Again, most discussions of research in literacy development included a mere mention of longitudinal research. Instead, there continues to be an enormous number of cross-sectional studies comparing students at different ages or studies of short instructional treatments rather than studies of the same students where full consideration is given to development. In addition, most reports of longitudinal studies do not exist in the mainstream research outlets. For the current review, an ERIC search was done using key terms "longitudinal, literacy, and research" from 1992 to 1998 resulting in 225 hits, 30 of which were studies published in journals, and not necessarily research journals. Of these 30 articles, only those that detailed the methods taken to arrive at the conclusions are included in this review. Too, other research was included, including journal articles that did not come up in the ERIC search and research published in books. Not included as "longitudinal studies of literacy development" are studies that occurred over time that describe uses, processes, or co-constructions of literacy but do not chart development of these uses or social processes according to a stated unit of analysis over time.

A review runs the risk of effecting an illusion of a developmental progression of research and knowledge. In this review, we have fabricated a quilt, of sorts, from the available material—research represented in journals and books. We laid out these "patches" of material in what seemed manageable categories. In this act, each patch was plucked from the history that produced it. Thus, we risk re-presenting a neatly sewn history, one where one study leads to another and knowledge progresses steadily forward. This is not the case. In fact, in this chapter, we find that research is revisiting old haunts—particularly a consistent theme across time: the development of phonemic awareness. We see this as a historical-political phenomenon, and not as a natural progression of research. At the same time, a line of research previously silent is being afforded space in journals—bilitery research and research that attempts to bridge or understand differences in literacies used in homes and in schools. Some of this research has, in our minds, destabilized previously assumed stabilities: the individual and literacy.

The question that guided this review—How does literacy develop?—has, in most the research reviewed, been looked at in terms of stabilities. Some of the recent research, however, suggests that literacy has to be seen as “literacies,” which at every turn is not a set of skills and abilities but situated systems of language and language activities at play in powerful webs of discourse. Thus, an individual may become adept at the use of literacies only to the extent that there is possibility for a multitude of literacy performances. From this perspective, what longitudinal research has to say about literacy development, and what literacy development has to say about longitudinal research should not be seen as a developmental progression that reveals in ever more provocative and sophisticated ways readers’ and writers’ development over time. Perhaps the political climate in which we write this review will best make this point. As we write, a standards movement across the United States has mandated phonics instruction to occur in specific ways; teachers’ practice in some states is scripted; and education professors in California are prohibited from using particular books. Indeed, what counts as research and what counts as literacy depends to a large degree on affordances and constraints the politics around education—and literacy, in particular—support researchers, teachers, and developing readers’ and writers’ literate endeavors. In this particular historical moment, what counts as research and literacy, at legislative levels, is affording particular literacy practices above others. In past and much of present longitudinal research, literacy was not theorized within political contexts. If anything striking has occurred between the time of the original review and this one, it is that literacy can no longer be understood outside the political discourses that constitute the various ways it becomes defined through a number of culturally and politically situated social practices.

Having situated this review (its patches plucked as they are outside their various histories) within the historical moment we have outlined, this chapter examines longitudinal studies of reading and writing growth with two major questions: How do readers and writers develop? and What are some of the methodological considerations involved in longitudinal studies?

LONGITUDINAL STUDIES DIRECTED AT THE STUDY OF READING AND WRITING IN THE EARLY YEARS

Over the past 40 years, studies of children’s initial encounters with print and beginning school experiences represented the majority of longitudinal studies conducted. Especially in the past 20 years, there appeared several case studies of young children and observational studies of several

children that examined reading and writing development across time. The antecedents of such studies seem to be rather a mixed set. Some of them have their roots similar to those pursued by developmental psychologists who were predominant in the period from 1910 to 1930. For example, in the early part of the 20th century a number of maturational psychologists detailed the early development of young children. For instance, based on his observations of several children at various ages and the same children at different times, Gesell (1925, 1928, 1940) detailed what he termed a reading gradient—a scale that represented the book handling and related behaviors that were typical of children at different ages. Likewise, toward proposing development sequences to early writing development and reading, Hildreth (e.g., 1932, 1934) engaged in various observational analyses over time and correlational studies of reading and writing development of students from 3- to 6-years old and elementary age students in conjunction with looking at opportunities to practices and individual differences. Other studies have their roots in more clinically oriented studies based on the case history of the students who had incurred difficulty in learning to read. In this regard, the work of Vernon (1957) in England, Schonell (1956) in Australia and Monroe (1932) in the United States may be most notable. Still others have their roots in case studies that focused on readers' response to storybooks. Finally, many have roots that stem from a reaction to or movement away from correlational studies that compared skills considered to be related to later reading achievement with each other (e.g., Barrett, 1965; Dykstra, 1966). The 1990s, however, saw a return to correlational studies that predicted phonological awareness and the role of decontextualized language of preschool children in their reading achievement beyond third grade.

A landmark study is Durkin's (1966) longitudinal research of early readers in which she examined the impact of home experiences on later reading achievement in hopes of attaining answers to several questions: How many children learn to read before they start school? Do they have any traits that distinguish them from other children? What are their family backgrounds? What do their families report about how they learned to read? Do they stay ahead as they move through the grades? Durkin found 49 children out of 5,103 in Oakland, California and 180 children out of 4,465 in New York who could read a list of primary level words at the beginning of first grade. The early readers were retested at least once a year for several years and the results on these tests were related to various factors in the preschool situation as well as to measures such as IQ, sex, data from personality tests, teacher ratings, and interviews with parents. In addition, the progress of the early readers was compared with that of equally bright students who were not early readers. Furthermore, a number of these early readers were selected for case studies. Several of Durkin's findings served to challenge popular

beliefs about early reading experiences. Her studies in "no way corroborate the pessimistic predictions about the future achievement of early readers" (p. 133). After 6 years of schooling, early readers maintained their advantage. Her findings also challenged the belief that IQ, socioeconomic factors, and other traits were effective predictors of success. Neither IQ nor selected personality traits nor other measures suggested a particular advantage for any of these factors. Instead, what proved to be salient were an array of factors related to how parents and siblings encouraged, nurtured, and responded to the reading interests of these children. Durkin stressed that what appeared to be important was "the presence of parents who spend time with their children; who read to them; who answer their questions and their requests for help; and who demonstrate in their own lives that reading is a rich source for relaxation, information and contentment" (p. 136). She also stressed that a great deal of the early readers' interest in print and learning to read was tied to their interest in learning to "print and spell," and their curiosity about what words "say."

In addition to being partially replicated (Tobin & Pikulski, 1988), several lines of research addressed some of the same issues raised by Durkin. In particular, a number of studies examined through parents' diaries, parent-child and teacher-child interactions and other data during young children's storybook reading experiences. Dorothy White's *Books Before Five*, originally published in 1954, represents one of the earliest, best known diary accounts of story reading. White's diary describes a 3-year period (from ages 2 to 5) of her daughter's story reading experience. White's diary chronicles her daughter's response to a caring parent who shares various books with her daughter and notes sensitively the nature of her responses including acquisition of written language, but especially meaning making. As Somerset (1954) points out in the foreword, there are two sets of issues explored implicitly throughout and explicitly on occasion in the diary:

We find on the intellectual side the following lines clearly marked: a gradual understanding of the meaning of drawings and pictorial symbols, growth in comprehending the meaning of words, the growth of memory, the emergence of the distinction between "real" and "pretend," "true" and "untrue." On the aesthetic side, too, we find a great deal of interesting material: the joy in sounds and words, in rhymes and rhythms, and a dawning perception of literary form not only in verse but even in prose stories. And, of course, many phases of a child's emotional life—its joys, its fears, its likes and dislikes, its interests—are to be found illustrated in these pages. (p. xvi)

Over the past 20 years, a number of other parents have told the story of their child's development as a reader and writer in conjunction with story reading. In 1979, Butler described her reflections of her grandchild,

Cushla, and the role of story reading on her ongoing cognitive and social development. In 1980, Bissex described the literacy development of her son, Paul, in conjunction with his early reading and writing development. In 1983, Crago and Crago reported the preschool discoveries of their daughter, Anna, as she encountered pictures and texts. In 1989, Wolf offered a case study of her daughter, Lindsey, from 3 years 2 months to 4 years 6 months of age.

Apart from diary studies, a number of longitudinal studies of parent-child interaction together with studies involving repeated readings of storybooks have led to a gradual refinement in understanding of the nature and role of story reading and especially its significance to ongoing literacy development. For example, a study by Ninio and Bruner (1978) with children 8 to 18 months suggests a rich but rather routinized dialogue between parent and child occurs during story reading. As Ninio and Bruner stated, the interactions around books had a "structured interactional sequence that had the texture of dialogue" (p. 6) with the parent's dialogue centering on labeling and the child smiling, pointing, vocalizing, and acquiring the turn-taking rules underlying such dialogues. Investigations by Snow (1983) and Snow and Goldfield (1982) indicate that this type of routinized interaction with parents affords children the security whereby they can link ideas from these experiences. Snow's studies and studies by Teale (1984), Teale and Sulzby (1987), Sulzby (1985), Teale and Martinez (1986b, October), Teale and Sulzby (1986a), Teale and Sulzby (1986b), Teale and Sulzby (1987), Teale, Martinez, and Glass (1988) suggest that routine does not mean mindless repetition. In repeated readings of a storybook children move from elaboration and labeling to a concern with motive and causal issues. Teale (1984) has noted that they shift their focus from character identification to what the characters are doing. Furthermore, the nature of the social interactions between child and parent shift as the child assumes more responsibility for the reading. Describing the changes in the language and social interaction that took place over a 14-month period in a mother-child dyad reading of a counting book, Teale and Sulzby (1987) found important shifts in responsibility as the child gained more and more control over the task. In fact, after 8 months of the mother initiating the reading, the child spontaneously read the material.

In an effort to detail children's use of text cues, a number of studies focused on how children respond to and use print as a source for making meaning across repeated story readings. For example, Cochran-Smith (1984) described in some detail the behaviors of children enrolled in a nursery school over a period of 18 months. According to Cochran-Smith the study demonstrated that the students "were coming to know . . . a great deal about print" (p. 252). The 3- to 5-year olds knew reading and writing were integral and meaningful parts of the everyday world and were effective

ways to accomplish many of their own purposes and needs. Furthermore, they knew how to organize and use print, relate print to oral language, relate their own knowledge to decontextualized print of storybooks, achieve and apply understandings, and integrate the use of reading and writing into their lives.

Other studies examined in more detail the shifts that occur in students' use of text cues across time. For example, Sulzby (1985), reported a longitudinal study in which the "emergent reading" attempts of 24 children at the beginning and end of their kindergarten year were compared and examined against similar data acquired from repeated readings with storybooks by 2-, 3-, and 4-year-olds. By using a classification scheme to characterize the reading behaviors of children, Sulzby demonstrated the extensive repertoire of strategies students acquired as a result of storybook reading and the types of changes that occurred across time but seemed relatively stable across books. Sulzby contends, as several of these researchers who have pursued longitudinal studies have stressed, literacy is not learned by rote procedures but occurs in conjunction with negotiations between the child, parent, text, and other features of context.

Adopting a slightly different orientation, Pappas and Brown (1987) explored in detail the extent to which 27 kindergartners were developing an understanding of the register of shared reading including the linguistic awarenesses necessary to understand stories. As they stated:

Learning to read is fundamentally an extension of the functional potential of language. During the preschool years young children... learn to adjust their linguistic choices to meet the features of particular social contexts—the setting, the participants, and the specific task at hand. To become literate, however, the young child has to come to terms with certain important characteristics of written language—its sustained organization, its characteristic rhythms and structures, and the disembedded quality of written language. Thus, an essential aspect of the extension of the functional potential of language involves young children's coming to understand that the registers of written language are different from those of speech. (pp. 160–161)

Rather than focus on children's role-like word-by-word response to the repeated reading of a story, Pappas and Brown focused on the children's approximations of the author's wordings and extrapolations from the story. Across repeated readings Pappas and Brown found that children made extensive use of extrapolations and approximations and their use seemed integral to their realizations of the potentials of written language (including their constructing an understanding of the social conflicts and plans of characters pertaining to the story). What is noteworthy is the socio-semiotic perspective adopted by Pappas and Brown. Their analyses bring to the fore

the social nature of literacy and literacy learning, as well as the extent to which meaning making is constructive. As they concluded:

While young children's reading-like behavior in previous research might have been explained in terms of rote memory, the results reported in this study indicate that this is not the case. The ontogenesis of the registers of written language appears to be just as much a constructive process as we have seen in other areas of children's cognitive/ linguistic development. (Pappas & Brown, 1987, p. 175)

Along similar lines, Yaden, Smolkin, and Conlon (1989) were interested in the hypothesis that "story reading may provide an opportunity for children not only to explore many aspects of the book itself, but also to acquire new ways of communicating, and to sharpen, refine, and compare their own view of the world with the perspectives they encounter in books" (p. 207). To this end, they reported studies in which the questions and inquiries of preschoolers (3 to 5 years) regarding print and pictures have been described. On a weekly basis for periods of one and two years, they collected, transcribed, and analyzed the questions and inquiries of nine children. Children's questions were classified as pertaining to graphic forms, word meaning, story text, pictures and book conventions. Their findings suggested that over 1 or 2 years, even the least inquisitive child would ask over 1,000 questions and these represented a full range of question types. While most students asked questions about pictures, some students moved toward asking questions about the story text. At no time did students ask many questions about the conventions of books. While the researchers tended to decline from suggesting trends or developmental patterns (due to the variations that were found across students, the story selections themselves, and the interactional style of parents, and other variables), the researchers concluded that storybook reading offered children a foundation from which they might begin to "master" reading. As they stated:

Perhaps it is safest to say that story books provide a variety of information about the way print communicates meaning and represents the sounds of oral language, just as environmental print may influence children's acquisition of print knowledge. In another way, exposing children to as many sources of written information in the environment as possible before school cannot help but give them the kind of foundation needed for successful mastery of this most complicated human invention. (Yaden, Smolkin, & Conlon, 1989, p. 211)

Studies of literacy acquisition have not been restricted to children's responses to story reading. Apart from a number of cross-sectional studies of different children at different ages (e.g., Goodman, 1986; Hiebert, 1978), a few longitudinal studies exist that focus on the link between what is

commonly referred to as "print awareness" and reading ability. The key tenet underlying such pursuits is the notion that children acquire an understanding of literacy as a result of their interactions with everyday print. As Goodman (1986) argued, environmental print encounters are at the root of the child developing a model for the features of written language. As she stated, "the development of print awarenesses in environmental contexts is the root of literacy most common to all learners and the most well developed in the preschool years" and serves to facilitate the child's development of "a model . . . which includes rules about the features of written language in situational contexts" (p. 7). One example is a study by Kontos (1988) who examined the relationship between print awareness and reading achievement from the beginning of preschool to the end of first grade for 47 subjects. Print awareness measures included a battery of tests directed at various aspects of print and book awareness (Clay, 1982) along with a researcher constructed measure of the children's knowledge of the communicative functions of print. Other measures included a test of knowledge of sound-symbol correspondence, writing measure, and a prereading phonics inventory. Across six time periods from spring of the preschool year to fall of first grade the intercorrelations between these variables and their relationship to performance on the Metropolitan Reading Test and California Test of Basic Skill (involving a composite score based on several tests including tests of component skills) were determined. Despite the fact that some of her reading measures were similar to the measures of reading subskills used as predictors, print awareness, especially as measured by Clay's battery of tests, did emerge as a significant predictor. Kontos argued that the role of print awareness seemed to be intertwined with the role of other literary knowledge and skills.

The aforementioned research on print awareness has its corollary in studies of early writing development. For example, Bloodgood (1999) examined the role of name writing and its relationship to other literacy development across 67 3-, 4- and 5-year-olds. Using Hildreth's (1936) 7-point scale (no representation, scribble, linear scribble, separate units, mock letters, name generally correct, consistent first name, fluent first and last name), Bloodgood revealed the interface between name writing and other facets of literacy development (e.g., alphabet knowledge, word recognition, and concept of word, etc.) as well as the extent to which letters from students names accounted for the children's "random" choice of characters that they chose to write.

Research on writing development has been another major area for study. In the past 20 years this area of research has received a great deal of attention as researchers began asking questions about the child's conceptions of written language rather than concentrating on how well the letters and words are formed and conventions adopted. In this regard, the work of Ferreiro

and Teberosky (1982), which is more cross-sectional than longitudinal, has been most seminal. Based on their analyses of children's writing at various ages, they described the hypotheses that were governing children's writing. Central to their work was the thesis that children operate according to certain assumptions (e.g., writing is a way of representing speech and objects, a principle of minimal quantity in terms of number of letters, a principle of individual variation of letters within words, the syllabic principle) that they construct and upgrade to account for new encounters. To date, a number of researchers have offered a longitudinal perspective on the understandings children acquire as they write. Several past researchers have offered several examples of how young children's writing develops across time. Bissex's (1980) and Baghban's (1984) case studies of their children are devoted primarily to tracing their early writing development. Graves (1982) has offered rich descriptions of writing development across time as students begin writing and conferencing with others. The longitudinal studies of Sulzby and her colleagues (1983b, 1985a; Sulzby, Barnhart, & Heishima, 1988; Sulzby & Teale, 1985) support the findings that have emerged from the aforementioned studies. While highlighting the active and constructive nature of meaning making by the child, they argue that children's writing might be informed more by adult conventions than previous research supported. In a similar vein, Read (1971, 1975), Chomsky (1979), Beers and Henderson (1977), and Zutell (1978) have described in some detail students' spelling development including the linguistic understandings and principles that inform children's spelling adeptness, explorations, and appropriation of conventional spelling.

Taken together, the longitudinal research on early reading and writing to date has confirmed some beliefs at the same time as it has added definition and stimulated a number of issues. The view of the child as an active meaning maker constructing his or her own hypotheses in the context of daily negotiations with print and others is substantiated repeatedly. Left unanswered is how such constructions are achieved. Some of the key factors seem to have been identified, but their interrelationship and the mechanisms students use to construct these hypotheses seem relatively undefined. What seems most promising are those studies that have adopted a more expansive, differentiated view of literacy that is situation-based—namely, studies that have been willing to address the complex configurations of variables that constitute literacy events.

Rowe (1987), in conjunction with exploring the nature of literacy learning across an 8-month period with 3- and 4-year olds enrolled in a daycare situation, pursued detailed analyses in hopes of understanding the saliency of interactions with others and prior experiences in literacy learning. Her analyses prompted her to hypothesize that the links and negotiations children have with their own and other's past experience was central to their ongoing literacy learning. As she stated:

as children formed new communicative goals, they flexibly combined various aspects of their existing knowledge, or linked their existing knowledge to available demonstrations, to construct situation-based hypotheses which were their communicative goals. (p. 110)

In accordance with this view, Rowe (1987) suggested that literacy events in the classrooms

provided opportunities for children to observe another at work, to talk with that person in order to expand and develop their ideas, to observe again, and often to incorporate new ideas into their own texts. Sometimes children used the demonstrations of others as starting points for developing their own ideas. . . . At other times, children chose to use available demonstrations conservatively; that is, they chose to stick as close to the demonstration as possible until they felt they understood it fully. . . . It was by observing the demonstrations of others, by exchanging meanings in conversation, and by authoring their own texts that children formed shared meanings about literacy. (p. 106)

Rowe's work has a number of parallels with the work by Dyson (e.g., 1983, 1985, 1986, 1988; 1992) who has explored the role of the tensions that occur as various texts (oral, written, drawings) and ideologies (writing workshops) transact. As she stated:

Children's major developmental challenge is not simply to create a unified text world but to move among multiple worlds, carrying out multiple roles and coordinating multiple space/time structures. That is, to grow as writers of imaginary worlds and, by inference, other sorts of text worlds as well, children must differentiate, and work to resolve the tensions among, the varied symbolic and social worlds within which they write—worlds with different dimensions of time and space. (1988, p. 356)

It is noteworthy that the studies of both Rowe and Dyson extrapolated their principles of literacy learning based on detailed analyses of both individuals and groups across different literacy situations. These leanings concur with the implications drawn in conjunction with longitudinal pursuits by Galda, Pellegrini, and Cox (1989) and Pellegrini, Galda, Dresden, and Cox (1991) in which a determination of the relationship among play and literacy development were assessed. They hypothesized that the language of reading lessons and linguistic verbs in symbolic play share features involving talking about words and using them to represent meaning. Drawing on Vygotsky, the researchers assumed "that early writing originates in symbolic play and travels a developmental route through drawing to writing." The authors explain that in symbolic play, children divorce meaning from objects; using language to redefine meaning is necessary in

writing. A drawing of a car or the written word car at this stage represents the object, not the word car. In a second order symbolization, the written word represents the oral word. Consistent with this theory, they hypothesized that the symbolic transformations at 3½ years-of-age should predict writing status 1 year later because symbolic play provides the basis for using written symbols. The authors predicted, also, that the use of process and process-contrastive linguistic verbs in peer discourse should predict facility with the lexicon of reading events as measured by the Concepts of Print Test (Clay, 1982) because both constructs are concerned with the lexicon of reading events. More exactly, the language or reading lessons and linguistic verbs used in symbolic play share design features to the extent that they both involve talking about words and using words to represent meaning. To explore these hypotheses, 7 boys and 5 girls were observed and audio recorded for 15 minutes during free play periods nine times per year in a university lab school. A variety of data were gathered and assessments used. They found that within Years 1 and 2, the use of linguistic verbs were positively intercorrelated, but Concepts of Print was not significantly correlated with transformations or highest level of writing. Linguistic verbs predicted children's performance on the Concepts of Print Test "to the extent that linguistic process and linguistic process-contrastive verbs were positive and significant predictors. Linguistic idiomatic verbs were not significantly related" (p. 231). Symbolic transformations, however, predicted children's emergent writing status. Accordingly, the authors concluded that "The ability to write words should be related to representational competence in play because both indicate children's ability to use signifiers to convey meaning" (pp. 230–231).

As children navigate these multiple worlds using their own emerging principles, there is some disagreement as to the role of adult conventions. In particular, whereas some researchers verge on the view that literacy learning involves acquiring adult conventions, other researchers contend that literacy should be viewed as emerging. In accordance with this latter position, literacy is viewed as involving respect for what and how literacy is negotiated in different situations rather than how literacy measures up to adult conventions. What seems to distinguish this view is that literacy can be viewed as open to refinement or closed with static conventions. Accordingly, literacy involves refinement, invention, and development in conjunction with pursuing the power to negotiate meanings in different contexts rather than being tied to eventually acquiring a standard set of conventions for so doing. On the one hand, it might be useful to pursue a view of literacy that somewhat merges the two positions. An amalgamation of such views might suggest that literacy has many of the features of "jazz" music—a mixture of improvisations, inventions, allusions, variations, and standard themes inspired by the combination of players and context. On

the other hand, it may be that we simply do not, as yet, understand the extent to which conventions may be embedded in sets of relations available to children, caregivers, and teachers within larger political contexts. While young children may improvise and invent literacy within their communities, once they attend school, improvisation is not rewarded equally across races and classes (see, for instance, Delpit, 1995; Luke, 1995/1996). Understandings of literacy development within situated plays of power involving curriculum, materials, standards movements, and sociocultural processes of race, class, and gender are wide open for exploration.

LONGITUDINAL STUDIES OF LITERACY ACQUISITION DURING THE BEGINNING SCHOOL YEARS

Early longitudinal studies of writing development during the beginning school years represent rather disparate concerns and approaches, and some of these studies further complicate the invention/conventions debate. Hilgers (1987) studied four children repeatedly as they evaluated pieces of writing in hopes of gleaning developmental trends in the standards students used to evaluate their texts and how they applied these criteria. In general, the students' aesthetic response (i.e., whether or not they liked a piece) was the most prevalent criteria used by all four students across this period. While Hilgers suggested there were no clear developmental trends, students, with age, tended to increase in the number of criteria that they employed as well as the time that they spent evaluating essays. In terms of how and when students employed criteria, the trends were not straightforward. Some students applied criteria during planning, others during revision, or both. Furthermore, students tended to use certain skills in their own writing prior to employing that same skill as a basis for evaluating essays. Oftentimes, opportunities to discuss certain skills seemed tied to their use.

Rentel and King (1983) studied written narrative texts elicited from a population of 36 children stratified by sex, socioeconomic class, dialect, and school at intervals of 4 months over the children's first 4 years of schooling. A subsample of the texts of 16 of these children was then used as the basis for an examination of coherence in the students' narratives. Specific to their study, the data revealed that students developed what the researchers deemed to be a coherent text at a very young age and that differences in the coherence of these texts was linked to their use of identity and similarity relationships for purposes of tying together events. Of relevance to the potential of longitudinal studies to inform developmental appreciations,

their comments regarding these findings are noteworthy. As Rentel and King stated:

Children marshal their linguistic resources and bend them to the task of writing almost in defiance of the law of adult expectations. From second grade onward, the sample of children's texts we investigated thwarted our expectations about levels of coherence we could expect within them. Our expectation was that cohesive harmony scores would improve gradually over a period of several years. They did not. Cohesive harmony scores increased significantly from the point at which children could navigate the rudiments of a fictional narrative—for most, at the beginning of second grade. We expected roughly parallel emergence of identity and similarity relations in children's texts. Identity and similarity relations followed a course separate from each other in the sense that identity relations took precedence in children's earliest texts, while similarity relations came to dominate their fourth-grade texts. We expected that reiteration would be an important chain-forming relation in children's first stories, but would gradually diminish as a chain-forming strategy. It did not; instead, reiteration was a basic chain-forming strategy from the outset of writing and grew in its importance as a chain-forming resource over the entire four years of development we studied. (p. 31)

Based on a case study of a first grade child, Sipe (1999) contended that shifts in writing development were influenced by a pull of conventional forms, the social nature of writing, topic choice, and by the influence of the teacher. As Sipe observed across a year, shifts in the boy's writing involved (a) using environmental print resources, to linking what he knew to what others knew and requesting less help; (b) focusing on encoding, to focusing on the message; (c) getting lost in revision at letter and word levels, to automaticity in revision at phrase and sentence levels; (d) knowing a meager stock of words, to a large stock of known words, automatization of subroutines, and increased fluency; (e) verbalizing his actions, to not speaking aloud; (f) acquiring case knowledge with sudden breakthroughs, to making analogies and applying knowledge across cases; and, finally, (g) having diffuse spatial organization and serial order, to controlled spatial organization and serial order.

Dyson (1992) suggested that conventions, a social construction, are imposed on writers through such ideological pedagogies as "writing workshops" and process writing. This imposition is embedded in power relationships for which the first grade composer she observed once a week for 4 months and twice a week for 6 months, created "stages of performance." Citing her earlier work, she writes:

Learning to write in school involves figuring out—and gaining entry into—the range of social dialogues enacted through literacy, including the assumed relationships among writers and their audiences. (Dyson, 1992, p. 6)

Jameel, an African American boy, used culturally relevant language such as music, repetition, and rhyme in his composing processes. He did not always find his audience helpful and negotiating the multiplicity of roles his audience played was tense. When his teacher asserted a stance that emphasized conventions, it confused his performances. Dyson illustrates how Jameel blended genres, a blending that points to ways literacy genres could open up to allow for cultural performances. Jameel used his strong storytelling style and musical sense of language as stages to perform. Dyson notes that orality and musicality are part of the dialogic properties of language.

Kamberelis (1992), taking the position that children make transitions to conventional forms, hypothesized that two mixed-level relationships between writing and reading were potential indices of transitional knowledge in emergent literacy. He qualifies "writing" as that which is made up of alphabetic print.¹ A level mixture, Kamberelis explains, is internal disequilibrium experienced when different levels of sophistication of reading and writing are operating. For instance, disequilibrium may be experienced if a child knows more convention strategies in writing than in reading, or vice versa. Hence, "a mixed-level relationship is a relationship comprised of a low-level writing form paired with a higher level reading form or vice versa" (p. 371). He predicted that low-level writing / high-level reading would involve an unsophisticated form of alphabet writing combined with an advanced form of reading and would index transitional knowledge. In this case, random and patterned letter strings would be paired with reading written monologue style. Similarly, high-level writing / low-level reading would also index transitional knowledge. Writing would include invented spellings and conventional orthography but reading would be characterized as an oral monologue style, written, or a mix of the two. Oral and written monologues are re-enactments of printed messages that do not involve decoding the print but, rather, involve enactment of the message using nonprint clues and memory for text. An oral monologue is conversational.

Offering an approach that enabled understanding not only of the sociality of forms but of the social negotiation of power, Wilde et al. (1992)

¹Kamberelis's hypothesis rests on the notion that Sulzby's classification scheme is "more or less" hierarchical. If variation does occur, the levels on which Kamberelis hypothesis is based could not be held constant, either for individuals or across individuals. The use of the hierarchy is interesting, however, and would be interesting to continue exploring. If the hierarchy were found stable, however, a further difficulty in testing Kamberelis's hypothesis is finding a large enough sample of transitional readers and writers fitting the needed characteristics. That only 13 of 26 students indicated transition does not seem strong evidence of a mixed-level relationship indexing transition to conventional reading or writing.

conducted a 2-year study of the writing processes of Tohono O'odham children in Grades 3 and 4. The researchers' overarching purpose was

not merely to understand the influences on the writing of these particular children but also to suggest how all children learn to write, learn through writing, and learn about writing. (p. 3)

To these ends, the researchers observed and interviewed 10 children the first year and 6 of these same children in the second year of their schooling on the Tohono O'odham Reservation. Teachers and parents were also interviewed and researchers recorded observations about the classroom after each session, including details of curriculum and instruction. Data included 278 texts, fieldnotes, 63 videotapes, 46 writing assessment interviews, 32 concept of writing interviews, 9 teacher interviews, and 13 parent interviews. A profile emerged over 2 years: Writing is influenced by (a) societal views about literacy; (b) the nature of the social community inside and outside the classroom; and (c) the ways schools and classrooms are organized.

Kasten's analysis, as part of the Tohono O'odham study, revealed children's development of resourcefulness. Kasten analyzed field notes accompanying 278 texts for the nature and function of oral language used during composition and the use of classroom resources. She found that children used resources 575 times. The children most often used human resources, to spell a word, for instance, and less often, used inanimate resources. In the second year, students used classroom resources more often in one of the teacher's classes, and less often in another teacher's classroom. The use of resources led directly to changes in text. Kasten concludes:

Classroom management styles, availability and accessibility of resources, and teacher encouragement are all factors in how students solve their writing problems within their community. In this context, control over writing grows, and the confidence to become a writer is established. (Kasten, 1992, p. 103)

Wilde analyzed 1,896 invented spellings out of 13,793 words in 215 stories written by the 6 children. She analyzed four spelling features: rounded vowels, unstressed vowels, double consonants, and inflectional suffixes. Over the 2 years, the children improved on these features more than the other eight features she examined. Wilde reports three major findings: First, that children's spellings "progressed beyond what could be called 'emergent' or even 'developing' into something more like 'high level' or 'refined.' Any interpretation of children's invented spellings must always be seen in the larger context . . . that includes the extent to which knowledge of dictionary spellings has replaced invention." Second, there is logic to

invented spelling and omitted letters are not random. And third, a “decrease in the frequency of invented spelling was often also accompanied by an improvement in the quality of those that remained” (p. 146).

Vaughan examined one girl, Anna’s, development over the 2 years. In third grade, Anna had conceptions of writing and of herself as a writer; her sense of audience depended on genre (for instance, her audience seemed clear in a letter, less clear in narrative); she used dialogue; she used varied sentence structures; and used punctuation marks mostly appropriately. Too, Anna liked writing narratives but didn’t like to revise and what she did revise were surface level revisions. As in Kasten’s observations, Vaughan, too, observed the differences in writing communities between Anna’s third and fourth grade years and relates Anna’s development to the changes in the community. In fourth grade, the class was encouraged to talk about their writing, and Anna became more aware of what her listeners needed from her as a writer, which influenced her revision growth. By the middle of fourth grade, Anna’s stories were longer and more complex, syntactically and semantically.

Wilde (1992) presented a case study of a boy, Gordon, in these 2 years. An early “concept of writing” interview revealed Gordon’s lack of sophistication about writing: he liked stories if they were interesting and was aware of the impression that spelling and handwriting had on readers. In the third grade, when writing assignments were restrictive, Gordon showed an understanding of his teacher as audience, to such a degree that one assignment was largely copied from an encyclopedia. From the first half to the second half of third grade, Gordon’s writing did not change much in terms of use of appropriate spelling and words per story, per sentence, or clause. Gordon’s punctuation, however, decreased in appropriateness. Wilde found this was due to omission of punctuation as Gordon tended to use only periods. Wilde suggested this is “a context induced variable” (p. 186), rather than a developmental regression. In fourth grade, Gordon began to speculate on what makes a story good. Gordon was interactive in third grade and continued to be in the fourth. As story topics were often unassigned in the fourth grade classroom, Gordon wrote on a range of topics. In fourth grade, Gordon’s syntactic complexity increased and his spelling and punctuation continued to develop. Gordon began to use hyphens and quotation marks. By the second half of the fourth grade, Gordon’s stories were longer as were sentences and clauses; his spellings were generally appropriate, and the words he used most frequently were always spelled correctly; and the percentage of conventional punctuation varied from 25 to 100% as he sometimes omitted periods, often omitted commas, and had partial control of quotation marks.

Taken together, these studies show development of children not only as individuals but across two distinctly different writing contexts. It seems

the children developed as writers particularly because the fourth-grade classroom not only involved students in wide varieties of writing, but because socializing over writing was encouraged and made part of the fourth-grade teacher's curriculum.

Several longitudinal studies of reading and writing development describe the stages students pass through as they learn to read and write in school. Clay (1982), for example, pursued a longitudinal study of children during their first year of school in New Zealand. She collected weekly records of reading (including running records of their oral reading of books that they were assigned to read) for a sample of 100 children from six schools, and administered a battery of 17 tests (tests of language skills, auditory and visual perception, a reading readiness battery) within 2 weeks of school entry, midyear, and when each child was 6 years old. In hopes of attaining a comparative perspective on the data, Clay examined the data across three ability groups (high, middle, and low). Her conclusions served two purposes: a description of the strategies of successful readers and a developmental description of the stages they pass through. Good readers, she observed, manipulate a "network of language, spatial, and visual perception cues and sort these implicitly but efficiently, searching for dissonant relations and best-fit solutions. Redundancy in cue sources allows for confirming checks and acts as a stimulus to error correction" (1982, p. 28). In terms of stages, she claimed that children move from a reliance on information from their oral language experience and knowledge of situation to the use of an expanded set of cues that include visual dimensions, word knowledge, and letter-sound associations. As she stated, cues from these sources for a long time are "piece meal, unreliable and unstable" but become efficient as the use of these cueing systems simultaneously become more differentiated. In accordance with these conclusions and other findings, she argued for maintaining a difficulty level of approximately 95% accuracy so that students will be challenged to apply a range of cues rather than rely on a limited repertoire or for which success is dependent on a restricted use of cues, for example, an overreliance on auditory cues.

Emerging from Clay's findings and studies of writing development is the view of children as intuitively sophisticated language users who access a variety of knowledge about language as they develop as readers and writers. Not surprisingly, a corollary to these findings comes studies of spelling acquisition (e.g., Beers & Henderson, 1977; Zutell, 1978), which suggest that young children approach spelling as extremely intuitive language users who enlist a variety of cueing systems as they learn the English orthographic system. Similarly, Y. Goodman (1976) drawing from various miscue analysis studies of readers over time stresses that "all systems of language must be intact in order for the reader to understand that reading is language and that the purpose of reading is to get at the author's message"

(p. 126). She also cautions that development may not be “gradually and continuously in an upward direction for one reader” (p. 126) but is likely to involve a sequence of rises and declines pending the transaction of various elements including personal, emotional, and physical factors and the experiential background of the reader in relationship to the setting, content, plot, characterization, theme, and style of the material.

A number of studies have tended to adopt and be restrained by a priori models of reading development and a focus on decoding. A longitudinal study launched by the Center for the Study of Reading at the University of Illinois in 1985 examined both comprehension and decoding. The primary focus of the Illinois study was on how children develop the ability to comprehend. As Meyer, Waldrop, and Hastings (1989) stated:

How do children develop the ability to comprehend over time? In the process of ferreting out answers to this question, several more focused research questions have emerged. What kinds of home experiences contribute to the development of reading comprehension ability? What is the nature of these activities? What sort of things do children do independently that contribute to the development of reading comprehension ability? How much reading instruction is there in the lower elementary grades? What are the characteristics of this instruction? How do activities in the home and the school jointly influence the development of children’s reading comprehension ability. (p. 12)

To answer these questions, the research team at Illinois adopted a tentative model of comprehension development that they had been testing. Their model assumed that various home and school factors together with student aptitude and student initiated activity combined to influence reading comprehension development. In all, the model included six general constructs (home background characteristics, students’ ability at the time that they entered school, the characteristics of the instructional materials, teacher’s management and instructional style, home support for literacy development, and independent reading), which were measured in different ways at different times in accordance with some important a priori decisions. For example, they decided to exclude any measure of independent reading prior to the third grade, and decided to characterize teaching style in terms of micro-level analyses of decoding activities and silent reading activities rather than other features such as shared reading, reading–writing experiences, conferencing, and story talk. The Illinois team did extensive observations of classrooms as well as extensive use of questionnaires and published tests. Perhaps due to the size of their sample, none of their measures of basic abilities were what might be termed open-ended—for example, their measures of reading comprehension included cloze procedures,

multiple-choice items, and so on, but did not include any type of free recall or miscue analysis. Their measures of decoding did not include a measure that addresses the students' use of decoding strategies in context.

The first cohort included 240 students from the three districts selected for study. The schools from which they were drawn represented a suburban school with diverse ethnic mix and two small midwestern towns. While the reading programs in each school differed somewhat, they appeared to be traditional given their alignment with a basal approach and their orientation to the teaching of skills. Using analysis procedures that sought to create a path model with a certain "goodness of fit" (in conjunction with factor analysis techniques to accommodate the use of multiple measures), the research team generated a model of the interrelationship between variables that maximized the variance accounted for at each grade level. As the researchers pointed out, the "model we are presenting is not the only possible model for these interrelationships, but it is the one obtained when we applied the criteria and diagnostic/revision procedures described" (Meyer et al., 1989, p. 41).

Their findings seemed to support and extend some of the findings of other research. Home factors emerged as closely related to end-of-year achievement and, at Grade 2 interacted with teacher behavior. Not surprising, the entry level achievement of students predicted success at the end of each grade level and, beginning in the first grade, interacted with teaching practices to affect achievement—in other words, as they stated, "What teachers do appears to be influenced by the skills the pupils bring with them" (p. 49). Also, the relationship between decoding attainment, reading comprehension, and activities that focus on letters or texts became complex by the end of the second grade. As Meyer, Wardrop, and Hastings pointed out, the decoding and comprehension appeared to be more distinct variables by the end of the second grade. That is, decoding activities tended to be less clearly related with reading comprehension and sometimes appeared to be negatively correlated. Indeed, decoding had a limited and sometimes negative relationship to comprehension by Grade 2. In general, these data point to an issue—the nature of the relationship between decoding and reading development—that has been an important facet of a number of longitudinal studies in reading.

A number of studies have attempted to sort out the precise nature of the interrelationships between component skills and reading, as well as how the development of these skills interface with different instructional experiences. Taken together, these studies, to which we now turn, seem to be suggesting that phonics appears to bear a relationship with reading that changes across time and that does not appear to be causal. By the end of the second grade, the relationship between phonics and reading for meaning is slight. Furthermore, there appears to be no advantage and

some disadvantages for emphasizing phonics over reading for meaning. Students who are encouraged to read for meaning have comparable phonic segmentation and superior reading for meaning abilities to students who have received a strict phonics emphasis.

To assess the viability of a model of literacy acquisition that posits decoding as crucial, Juell, Griffith, and Gough (1986) studied changes in the pattern of relationship of scores on various tests across 80 students during Grades 1 and 2 who were enrolled either in classrooms using a basal approach or in classrooms receiving daily synthetic phonics on top of the basal reading material.

We begin with the simple view of reading . . . that reading is composed of (a) decoding and (b) listening comprehension. This is not to suggest that either of the components, decoding and listening comprehension, is simple in itself but to argue that these two skills are the critical components of reading. That is, we suppose that reading crucially involves decoding, the ability to translate print into linguistic form. But we do not suppose that decoding alone is sufficient for reading. Having derived the linguistic form represented in print, the reader must then comprehend that form. To do this, we suppose that the reader employs the same mechanisms, the same knowledge of morphology, syntax, semantics and pragmatics that are used in the comprehension of spoken language in order to understand decoded print. We recognize that written text has certain distinctive characteristics from speech with differential impact upon the comprehension process . . . But we are inclined to agree with those researchers who emphasize the commonality of the demands of written and spoken language upon the comprehender. Thus, we believe that given perfection in decoding, the quality of reading will depend entirely on the quality of the reader's comprehension; if the listening comprehension is poor, then his reading comprehension will be poor, no matter how good his decoding. (p. 244)

In terms of data collection, a battery of tests were given either at the beginning of Grade 1 or periodically during Grades 1 and 2. Some of the measures represented a standard fare of published tests; others seem somewhat limited. For example, ciphering knowledge was based on the students' ability to pronounce nonsense words; exposure to print was assessed in terms of the number of words the students had confronted in their basals. What was apparent in their analyses was some specificity of effects. In particular, phonemic awareness tended to be most clearly related to those tasks which, in a restrictive sense, seem tied to phonemic awareness, such as spelling-sound knowledge. Furthermore, its relationship to reading comprehension, perhaps due to a ceiling effect, became quite diminished by the end of the second grade. Whereas those studies which have tended to focus on phonemic awareness to the exclusion of other variables suggest a

strong relationship between phonemic segmentation and reading achievement; those studies which have looked at some of the "other variables" suggest a more tempered and sometimes different viewpoint.

Take, if you will, some of those studies that have attempted to sort out the relationship between decoding and reading in the context of different instructional approaches. For example, Calfee and Piontkowski (1981) pursued a longitudinal study of the acquisition of decoding skills of 50 first graders in 10 classrooms. The design, which included four categories of data diagnostic decoding tests—oral reading, comprehension measures, standardized achievement test, and classroom observations—allowed for an investigation of the patterns of reading acquisition of "component skills" during regular classroom instruction and to examine the relationship of these patterns to the instructional program. In terms of the relationship between component skills and reading acquisition, there appeared to be some transfer from decoding to oral reading and comprehension, but not vice versa. In other words, those students who were comprehending successfully may or may not have had the same level of decoding skills. In terms of the effects of instruction, the results were somewhat predictable. Student performance on the various tests suggested that students learned what they were taught. In particular, target students in the reading for meaning programs tended to perform better on reading passages than in response to isolated words; target students in the programs emphasizing phonics performed better on decoding tasks rather than reading passages. The findings from this study underline the impact of differences in instructional emphases and illustrate the power of longitudinal studies to inform our understanding of development. As Calfee and Piontkowski (1981) argued in the closing statement of their study:

Understanding how readers become "good" or "poor" readers is not impossible, but it requires longitudinal, multivariate data with appropriate information about teaching styles and programs. Such research will not only clarify our knowledge of the acquisition of reading; it is also likely to yield the practical tools for assessment and instruction. (p. 372)

A number of studies adopted the multivariate viewpoint advocated by Calfee and Piontkowski and the possibility that the pattern of relationships between variables would vary with differences in instruction. Perfetti, Beck, Bell, and Hughes (1987) reported the results of a longitudinal study of the relationship between phonemic knowledge and reading for first graders ($N = 82$) in different instructional programs (basal with readiness, basal without readiness, and a direct code teaching method). Various measures were included throughout the year to assess phonemic knowledge,

word reading, and curriculum progress. At four points throughout the year phonemic blending and analysis were tested while other tests were less frequent. In general, the results suggested that those students who were given opportunities to read achieved more progress and were as able to perform adequately on the decoding tasks; students who received an emphasis on decoding made less progress and their decoding abilities did not necessarily transfer to reading. Based on partial time-lag correlations, the authors argued that reading gains had a reciprocal relationship with an ability to phonemically analyze (deletion task, e.g., remove the “k” sound from cat), but reading contributed to the ability to delete, which in turn contributed to reading rather than the ability to delete making a contribution by itself. As they stated:

What is clear is that learning to read can begin in a variety of ways, most of which may require only minimal explicit knowledge of speech segments. Thus, the rudimentary ability to manipulate isolated segments may be necessary for significant progress in reading. However, it is reading itself, we suggest, that enables the child to be able to analyze words and to manipulate their speech segments. It is not that the reader performs such manipulations on the orthography. Rather, learning some orthographic principles through reading enables the discoveries, including the alphabetic principle, can happen without direct instruction as well as with it. Although the direct teaching of the code may have some consequences for analytic phonemic knowledge, they are fairly subtle. Children taught by direct code instruction do not seem to learn any more (or less) about deletion than do other children. However, their improvement in decoding may depend less on phonemic analytic abilities than does the improvement of children not taught coding directly. (pp. 317–318)

Likewise, in a 15-month longitudinal study that began with children aged 3 years, Maclean, Bryant, and Bradley (1987) found a strong and specific relationship between knowledge of nursery rhymes and the development of phonological skills—particularly the detection of rhyme and alliteration, which remained significant when differences in IQ and social background were “controlled.”

It is interesting to note that studies by Mason (1980) and by Maclean, Bryant, and Bradley (1987) made a similar argument based on their pursuit of the origins of phonological awareness. Mason (1980; Mason & McCormick, 1979; 1981) reported a number of studies in which she examined the reading development of students enrolled in informal preschool and nursery school situations. Based on parent questionnaires describing the children’s interests in words, letters, and learning to read and tests directed at letter and word recognition and word learning, Mason (1980) argued that

the progress that students appeared to make in knowledge of reading and skill in recognizing and reading words could best be described as involving three levels of development. She stated:

The first level is denoted by children's ability to read at least one printed word, usually their name or a few signs and labels. They can also recite the alphabet, recognize a few letters, and may print letters. At the second level, they read a few short and very common words from books, print, and spell short words and begin to try reading new words by looking at the first consonant. At the third level, they notice and begin to use the more complex letter-sound congruences and letter-pattern configurations. Thus, first level children recognize words by context, second-level children begin to use letter and word-sound cues, and third-level children rely on a sounding-out strategy to identify words. (pp. 515-516)

Mason defines third-level children as readers; first and second-level children as prereaders. Vellutino and Scanlon (1987) reached similar findings regarding the interrelationship between phonic segmentation and reading ability. Vellutino and Scanlon (1987) compared the relationship of oral reading scores (acquired at the end of first and second grade) and IQ, various phonemic segmentation measures, vocabulary and syntactic abilities. Word recognition, phonemic segmentation (especially consonant substitution) abilities and use of contextual cues proved to be better predictors of oral reading performance than vocabulary measures and syntactic skills at the end of Grades 1 and 2.

In a slightly different vein, Stanovich, Cunningham and West (1981) have suggested that the interrelationship between automaticity of word recognition varies across time. Stanovich et al. adopted a longitudinal approach in hopes of assessing changes in automaticity of letter and word recognition across skilled and less skilled readers in the first grade; and developing an understanding of its development and role in reading improvement. An automated process was defined as "one that can take place while attention is directed elsewhere." Across two experiments various measures of response times were obtained at different times of the year (late September, mid-February, and April for experiment one; December and April for experiment two) for two groups of first graders ($n = 24$ for experiment one and $n = 24$ for experiment two). The data from experiment one suggested that for both skilled and less skilled readers there was little difference in their automaticity between February and late April indicating "a flattening out by the end of first grade" (p. 64). In experiment two, Stanovich et al.'s data confirmed the possibility that the chief difference between skilled and less skilled readers by the end of first grade was speed

of recognition rather than automaticity. As they point out, the results are consistent with Ehri and Wilce (1979) who argued that success in reading should be assessed in regard to three criteria: accuracy, automaticity, and speed. And from their results, they argue, one could conceptualize these as stages beginning with accuracy.

Research regarding literacy development and the development of phonemic awareness in the 1990s tended to compare development within different pedagogical contexts. Morris (1993) tested whether beginning consonant knowledge facilitates concept of word in text, which, in turn, facilitates phoneme segmentation, which, in turn, facilitates word recognition. Drawing on observations from his earlier studies, he sought a "clearer developmental formulation of the relationship between concept of word and phoneme awareness" (p. 135). Fifty three suburban Chicago kindergarten children in two teacher's classrooms, with different pedagogical approaches to the teaching of reading, were tested, in 2-month intervals, on five tasks:

1. Alphabet awareness that had limited use in the study because the children had high alphabet recognition prior to entering kindergarten.
2. Beginning consonant sound of dictated words.
3. Finger-point reading sentences under line drawings and finger-point reading at various points, and after examiner modeling, a few sentences while reading with the examiner a five-page storybook.
4. Moving a block while pronouncing separate phonemes in words.
5. Reciting 10 words as the examiner pointed to them along with 10 basal words.

As a group, the children conformed to the predicted sequence of word recognition development. Individually, 20 of the 53 students did not fit the predicted developmental sequence. Growth was not significantly different between instructional settings. Morris wrote:

The theoretical position put forth and tested in the present study offers a different perspective on beginning reading instruction. Although the crucial role of phoneme segmentation in printed word learning is not challenged in this study, the results suggest that a stable concept of word in text can actually facilitate a child's awareness of the sequential sounds within words. If one acknowledges this "facilitator" role of concept of word, then it follows that reading instruction of a certain kind (that which leads beginners to map spoken words to written words in text) need not await the presence of phoneme segmentation skill, but rather can precede it (or at least be taught in conjunction with it). (p. 149)

Chapman (1996), collecting the writing samples of six children in a whole language, first-grade classroom, presented an analysis of the phonemic awareness of one boy who entered school not knowing the alphabet and having few book-reading experiences with adults at home. Offering nine examples of writing over 9 months of school, Chapman attributed the boy's increasing phonological awareness evident in changes in the boy's texts to the cultural practices of literacy in the classroom that enabled the boy to invent spellings, and in that invention, demonstrate his phonemic awareness.

Treiman (1993) collected data from 43 first-grade children in a mostly white and middle-class whole language classroom. The children were in one teacher's class, 2 different years. Treiman's premise was that "Just as learning to read words is an important part of reading comprehension, so learning to spell is an important part of writing" (p. 3). She collected writing samples at the start and end of the school year. Analysis involved: (a) pairing the words with spoken words in the child's diction; (b) omitting words that couldn't be paired with spoken words—that is, when she couldn't figure out what conventional spelling was associated with a child's spelling—those words were omitted from analysis; (c) inferring breaks between words, where children did not have spaces; (d) transcribing words according to how they sounded in isolated speech rather than as they sounded when said because she assumed "children spell words as they sound when said alone rather than as they sound in connected speech" (p. 9); and (e) matching letters in a linguistic phonemic transcription with spoken word spellings.

Her analytic transcription considered spelling, pronunciation, match between spelling and pronunciation, conventional spelling, the name of the child, and the date produced. In answer to her question, "How do children spell each phoneme," she concluded that at least three processes seemed to be involved in spelling a word: analyzing the spoken word into smaller units, remembering the identity and order of the units, and assigning a grapheme to each unit.

MacIntyre and Freppon (1994), drawing on data from two previous studies, one by Dahl and Freppon (1995), charted the pattern of acquisition and use of alphabetic knowledge of six children in skills-based and whole language classrooms during their kindergarten and first grade years. Alphabetic knowledge included knowledge of the graphemic and phonemic nature of written language, grapheme/phoneme correspondence, and use of graphophonics as a tool for reading and writing. The researchers sought a pattern of the acquisition and use of alphabetic knowledge of the six children as they developed as readers and writers in both skills-based and whole language classrooms. The children, all from low-income homes in an urban community, were assessed for literacy knowledge at the beginning

of kindergarten and the end of Grade 1. Three children from the two types of instructional classrooms who matched on pre- and post-measures and on levels of achievement (most experienced, less experienced, least experienced) were randomly selected for the study. Each was determined to have no alphabetic knowledge at the beginning of kindergarten, and they each learned to read and write by the end of first grade. MacIntyre and Freppon observed in the two classroom types twice a week from October of kindergarten through the end of the children's first-grade year. They sat near the observed child and recorded what the child and teacher said as well as students' interactions. They also noted materials the child was using. The teachers were interviewed informally about their beliefs and practices. "The goal of analysis was to identify each observed child's knowledge and use of the alphabetic system across contexts during both years of school" (p. 401). To this end, they coded field notes and transcripts of audio recordings for "talk and action related to each child's use of the system" (p. 401). Their coding categories included: graphemic knowledge, phonemic knowledge, knowledge of sound/symbol correspondences, experimentation with (attention to) sound/symbol correspondences, effective use of sound/symbol correspondences, emergent reading behavior, emergent writing behavior, and level of invented spelling. They found all six children exhibited the same chronological acquisition pattern. The progression was: sound sense (hearing and matching sounds); sound-symbol sense; self-initiated experimentation with the alphabetic system; successful use of the alphabetic system, with assistance; and successful, independent use of the alphabetic system. Differences in the 2-year study were not in how fast or how well children learned the alphabetic system, but in what children did with their knowledge. All three children in the whole language instructional setting read literature and wrote extensively on self-selected topics. The children in the skills-based setting exhibited alphabetic knowledge while working with words in isolation or in sentences in basal readers. The authors documented that the whole language classroom offered more engaged literacy experiences.

In a related study, Dahl, Scharer, Lawson, and Grogan (1999) documented and analyzed the phonics teaching and learning in eight whole language first-grade classrooms from October through May. Their observations complement the aforementioned findings and contrast sharply with the suggestion that whole language teachers offer first graders limited learning opportunity with phonics (e.g., Stahl, Duffy-Hester, & Stahl, 1998). Dahl, Scharer, Lawson, and Grogan (1999) demonstrate that students of varying reading ability within these classes made substantial growth across a variety of reading ability indicators. Furthermore, they tied these observations to the learning opportunities that teachers "flexibly" enlisted. In terms of phonics, strategy development as well as foundational concepts

in conjunction with contextualized learning opportunities are more differentiated per customized adjustments for individual students.

Rohl and Pratt (1995) studied the relationship between phonological awareness and verbal working memory in the development of reading and spelling. They note that phonological awareness and verbal working memory have been proposed as causal factors in the acquisition of literacy; yet, phonological memory and phonological memory may be related, "as both may be dependent on a common latent phonological ability" (pp. 327-328). Phonological awareness was measured by tests of onset and rime, phonemic segmentation, and phoneme deletion. The authors noted that less is known about what is measured by verbal working memory tests. The authors posited that phonological awareness influences automatic word recognition, and verbal working memory could play a part before and during automaticity of word recognition. Seventy six children (46 boys and 37 girls) from three schools in lower-middle class schools in Perth, Australia, were administered a battery of tests three times in 2 years: the beginning of Grade 1, the end of Grade 1, and the tail end of Grade 2. The battery included three verbal working memory tests, three phonological awareness tests, and six reading and spelling tests. From means, standardizations, and maximum scores of phonological awareness tests, the authors concluded that many prereading children were aware of phonological categories of onset and rime and that while children could categorize words based on onset and rime, few could segment whole syllables phonemically. Factor analyses were performed to examine whether measures hypothesized to tap processing in the articulatory loop of verbal working memory loaded on a different factor from those measures designed to tap processing in the articulatory loop. Across the three testing times, a similar pattern was obtained. The authors concluded that the articulatory loop and central executive components of verbal working memory are related but distinct. As Rohl and Pratt stated, "tests which required children to repeat verbal sequences exactly as spoken by the experimenter consistently loaded on a separate factor from those which required children to repeat sequences in reverse order . . . [and] results of hierarchical multiple regression analyses showed that backwards repetition made some contributions to reading and spelling that were independent of simple repetition" (p. 351). Rohl and Pratt further concluded that "whilst the phonological awareness variables made contributions to reading and spelling which were independent of verbal working memory, verbal working memory did not contribute to reading and spelling in Grade 2 independently of end of Grade 1 phonological awareness when onset and rime and simple and compound phonological awareness were all controlled" (p. 351). They concluded also that while phonological awareness may be an independent causal factor in reading and spelling, verbal working memory may be subsumed under

phonological awareness tasks. Too, phonemic segmentation contributed to reading and spelling over sound categorization and phoneme deletion contributed above sound categorization and phonemic segmentation.

The sheer number of longitudinal studies of beginning reading that have focused on the acquisition of decoding skills suggest not only certain preoccupations but a political context fostering such concerns. First, research has tended to be preoccupied with decoding to the exclusion of other literacy understandings. There are a host of facets of being literate that have barely been touched on. They include: children's emotional responses to literacy tasks, aesthetic development, view of interpretative authority, genre, cognitive processes such as self-questioning, on-line thinking, the student's use of multiple sources of information, criteria for self-selection, self-assessment, and the role discursive affordances and constraints play in all literacy processes.

HOME AND SCHOOL STUDIES

In the last 20 years, a major field of longitudinal research has opened up—inquiring about language and literacies in children's homes. While much early longitudinal work occurred in homes, the current home studies tend to involve literacies in low-income homes or in homes of nondominant cultures. This move is important because a great deal of understandings of language and literacy development derive from white, middle-class homes and may assume uses of language that are culturally irrelevant in diverse settings. (e.g., Taylor, 1983; Cairney, 1945; Cairney & Munsie, 1992; Delgado-Gaitin, 1992).

The Home-School Study of Language and Literacy Development is an ongoing study undertaken by several teams of researchers (i.e., Beals, DeTemple, & Dickinson, 1994; Dickinson & Tabors, 1991; Snow, Tabors, Nicholson, & Karland, 1995) with low-income families in the Boston area. "The basic hypothesis of the Home-School Study of Language and Literacy Development is that early development of skill with decontextualized language will be related to reading comprehension abilities when children are in the middle grades of school" (Snow, 1991, p. 5). The home-study project in Boston is too voluminous to review in full. It is premised on the idea that a particular kind of language use—decontextualized language—enables comprehension. Snow (1991) explains that there is a particular kind of discourse that plays in literacy, and it involves "decontextualized" language, which Snow defines as language used to convey information to an audience at a distance, rather than face-to-face, when "contextualized" oral language is used. Snow contends that decontextualized language occurs among all classes and does not necessarily involve discussions around

books. Thus, she and other researchers involved in this study recorded the language of 80 children and their families in their homes and at their school settings from the time the children were 3 years, with the intention of collecting data until the children are 10 years old. The researchers predicted that decontextualized language would not be significant in the battery of tests the children received yearly, in their homes and schools, until they were in the fourth grade when their experiences with literacy would more actively involve comprehension. They argue that "school literacy outcomes in Grades 1 and 2 may be quite strongly related to preschool print skills, whereas school literacy outcomes in Grades 4 and higher, when reading comprehension becomes an important factor, may be more strongly related to oral decontextualized language skills" (p. 6). The "Model of Relationships Between Language and Literacy Development" the researchers developed shows no interconnections between print and comprehension in children's early years. As such, "reading" in first grade appears merely a decoding process. Observations of reading in many classrooms, however, would reveal guided reading and book sharing, which include the semantic cueing system in reading. Data are being collected, annually, in more than 80 low-income families' homes as well as in participant children's schools. Home data consist of (a) interviews with mothers; (b) children playing with a toy provided by the researcher; (c) mothers reading two, researcher-provided books, to their children; (d) a report of a past experience that mothers elicit from their children; and (e) mealtime recordings of conversations. School data consist of (a) spontaneous talk between the teacher and child; (b) videotaped group book readings; (c) a report about something that occurred at home, elicited by the teacher; (d) activities of all children in the class are noted every half-hour; (e) displays of environmental print noted; (f) researchers' curriculum rating; (g) teacher interviews; and (h) teachers' ratings of children's oral language. School recordings are coded. A test battery is administered at the children's homes when they are in kindergarten. Another battery, administered in school, include oral language tasks, a narrative production task, picture description, definitions, comprehension, vocabulary, and spelling tests.

Different researchers involved in the study have presented different results. Dickinson and Tabors (1991), for instance, concentrating on 5-year-olds, found support for the model of decontextualized talk as influential in literacy development; found that homes and schools contribute to early language and literacy skills; and found that vocabulary, story understanding, definitional skill, and print knowledge "seem to be correlating with similar home and preschool predictors" (p. 42). They further conclude that studies examining single settings such as book reading at home may have overemphasized the importance of such settings when other kinds of

talk in other settings may also have contributed to literacy support. Beals, DeTemple, and Dickinson (1994), whose data reflect a cohort of 38 children when they were 3-, 4-, and 5-years old, tested the hypothesis that verbal interaction in early childhood would be a precursor of later cognitive and linguistic activity when the children were in kindergarten. Of the variety of data mentioned earlier, this research reports only mealtime talk, home book reading, and school book reading. At age 5, this cohort of children were administered the PPVT to measure receptive vocabulary; a story comprehension task; a narrative production task; and print skills assessments. The researchers found that the proportion of explanatory talk and the number of narratives occurring during mealtime talk when children were age 4 correlated positively with PPVT scores at age 5. The amount and proportion of nonimmediate talk (decontextualized talk) at age 3 correlated with the children's Concepts About Print scores. The amount of nonimmediate talk in book reading at age 3 correlated with a child's ability to tell a story, and children who provided information without assistance had better story comprehension. From the school book-reading data, the researchers determined that challenging talk at age 4 carries over to story comprehension at age 5; nonimmediate talk at age 4 correlated with PPVT scores; and specific content of talk and not overall amount of talk is what is crucial. Total amount of talk about a book at age 4 is unrelated to vocabulary or story comprehension.

Along somewhat similar lines, a 5-year study by Linda Baker, Robert Serpell, and Susan Sonnenschein, as well as other contributors, explored the interrelationships between sociocultural contexts in conjunction with looking at preschool home experiences and emergent literacy competencies related to different aspects of reading development, including word recognition, comprehension, and motivation. Participants (initially 43 but eventually 24) were caregivers and children (including equal numbers of males and females of African American and European American descent) drawn from 6 schools in communities associated with varying income levels in the Baltimore area. The children were all born in 1988 and were scheduled to begin kindergarten in 1993–94. A focal point of the research was the overlap between home and school and how they might interact to support literacy development especially across African American families and European American families varying in income level. The initial data collection included an "ecological inventory" of socialization activities and resources derived from interviews, diaries maintained by caregivers, and observations; ethnohistories developed to detail the parent and teacher beliefs, values, and practices; co-constructive processes through which children appropriate literacy resources based on interviews and videotaped observations; and assessments of a range of developing literacy competencies,

including orientation to print, narrative competence, phonological awareness, motivation, and word recognition in the later grades. As they stated:

A general hypothesis guiding our research is that children from different sociocultural groups may have different home experiences because of the characteristics of their niche (such as, parent belief about child development, available material resources, and general activity patterns of the family) that can lead to differences in subsequent reading development.

Their findings suggested that children may receive different degrees of certain types of literacy experiences and that these "niches" appear to be related to income level and the advantages that some children may have over others across all three years of schooling. Where literacy is a source of entertainment versus skill those niches are significantly more highly correlated with the development of literacy competencies (orientation to print, narrative competence in Year 1 and word recognition in Year 3 as well as motivation to read). These niches were most closely related to low-income situations.

The ongoing contribution of meaningful reading experiences versus an isolated skill emphasis also emerges from their analyses of the interrelationship of various measures acquired across Grades 1 through 3. Whereas orthographic knowledge and phonological knowledge were not found to make a significant contribution to word recognition in Grade 3, nursery rhyme knowledge and frequency of activities such as storybook reading, visits to the library and abc book reading did. As the author concluded:

Providing children with enjoyable print-related interactions with a variety of genre of books is likely to be of more lasting value than enforced practice on isolated letters and sounds. (Baker, Mackler, Sonnenschein, Serpell, & Fernandez-Fein, 1998, p. 9)

Looking more broadly on home influences, Weinberger (1996) traced the influence of early literacy experiences on later development. She was a teacher in a nursery school in England where she collected data on 24 boys and 18 girls. The children were white and all but one spoke English as a first language. Twenty-seven came from working-class homes, and 15 from middle-class homes. She collected data over 5 years at 2-year intervals. Data consisted of an interview with parents in their homes when the children were 3-years old. She garnered information about family background, literacy resources and activities, access to reading material, book ownership, experience of being read to, parents' approaches to reading and writing with their children, and details of children acting like readers and writers. When the children were 5, they were given school entry

assessments of vocabulary, writing (writing their first name and copying a phrase), letter knowledge (children were presented with letters out of sequence), access to stories at home (parents were asked if they read with their children at home and how often), and their uses of books at school (the teacher recorded her observations of whether children chose books and looked at them voluntarily). At age 7, children and parents were interviewed to update family information from previous contacts. Outcome measures included: (a) the child's level of reading book; (b) assessment of literacy difficulty including their placement on Young's Group Reading Test; (c) a writing score that included story writing and expository writing and the level of independence in these tasks; (d) levels reached on Standardized Assessment Tasks for English; and (e) anecdotal information from their teachers regarding problems. What Weinberger considers significant in her study was not statistically significant. She states that children's favorite books prior to school may not be statistically significant but they are educationally significant. She found that children who read well were those whose literacy was well resourced at home.

Purcell-Gates' (1995) case study of the literacy learning of an urban Appalachian mother and child, over 2 years in a clinical reading context that encapsulated, too, home and community contexts, is rich data for the field of literacy—especially in terms of class and cultural issues. Purcell-Gates is critical of a middle-class world view of literacy, and this criticism is supported by the experiences of Jenny and her son, Donny (a second grader for 2 years during the study), who did not learn to read even though they live in print rich worlds. Purcell-Gates explores the world of illiteracy, from the perspective of the participants in her ethnographic study. One can see Donny's literacy development as part of two worlds: a school that does not seem to see either Donny or his mother, and their home world, which is not mediated by print. Purcell-Gates calls for a consideration of one's assumptions regarding children's literacy experiences prior to schooling and the need to address an expanded consideration of literacy practices when children's situations that are tied to class and culture may not have enabled the learning of implicit rules of literacy practiced in schools.

Biliteracy research has stressed the importance of a home-school bridge including its social, political, and economic character. Moll's (1992) research with teachers who document and make use of literacies or "funds of knowledge" used in Latino homes, posits that curriculum becomes reduced in schools of children from working class families. As teachers document how knowledge is enacted and built in homes of Latinos, they come to see that language use is cultural practice, and cultural practices build social networks among communities. Biliteracy home-school bridges play out very differently in research. Moll takes a "strengths" view of knowledge

sources and treats literacy as cultural practice. He also locates the teacher centrally in bridging home and school cultural practices.

Biliteracy research opens up provocative ways of viewing not only biliteracy but literacy, in general. Valdés (1998) writes, "the teaching of English is not neutral . . . the key tenet of the discourse of ESL teaching—that it is possible to just teach language—is untenable because it is impossible to separate English from its many contexts" (p. 15). Valdés asked, "Why is it that so many non-English-background students fail to learn English well enough to succeed in school?" (p. 4). She documented how two girls recently immigrated from Honduras and Mexico negotiated their ways in United States schools. At ages 12 and 13, neither knew much English when they arrived in California. Teachers' pedagogies fell flat in ESL classes. Critical thinking questions and engagements were usurped by time communicating how to fold paper, for instance, which exhausted teachers and didn't build necessary comprehension skills in the students. The students were used to strict teachers and considered those who seemed nice, weak rather than kind. Class sizes were 35 to 38. Teachers had little mechanisms for figuring out how much English students knew and could not easily evaluate their instruction, either. In the first year, Elisa was quiet and spent a lot of time on her work, whereas Lilian was energetic and out of her seat a lot. The teacher felt Lilian had a learning problem and might need special education. In English class the first year, students were not given advanced organizers to help them know what to listen to and language seemed to be directed at more fluent speakers of English. Little practice in oral English occurred. They pointed at objects and drew and colored shapes for their direct language instruction. By the end of the year, neither girl had progressed much. Elisa, however, was pushed by her mother to use English. Elisa approached the ESL teachers and asked to be let into regular classes, even enlisting the researcher's help. Elisa didn't get into classes on her merits; she had to finish her class materials. The next year, though, when an abundance of immigrant students arrived at the school, Elisa was able to attend a regular math class due to overcrowding in the ESL program. Once admitted to regular math, much language was needed and she had great difficulty writing the longer prose necessary for problems. Lilian learned less English because it tangled too greatly with her identity to accept teachers' definitions of her as her own. She later moved and attended an ESL program all day long, which meant not mixing with many students other than ESL students. Lilian's mother did not know how American schools worked and she, herself, had not known social mobility growing up. Lilian never did escape "the ESL ghetto" (p. 12), did not finish high school, and knows only enough English to work at a fast food restaurant. Elisa, who could not get out of ESL on her own, enlisted, again, the help of the researcher to get into another school. She later enrolled in a college-bound program.

Valdés's research shows how difficult it is to study literacy "development" in classrooms where practices arrest development. Her work points to the increasing visible problem of seeing literacy development as an accomplishment outside of the sociopolitical nature of schools. What home and school literacy research has in common is that it redefines literacy as cultural practice and, by no means, monocultural practice. Nonetheless, monocultural literacy is put forth through curricula and mechanisms of standardized tests. Thus, home and school research does three things: it complicates singular and stable definitions of literacy by providing description of the numerous uses and economies of literacy in specific cultures; it makes visible the middle-class assumptions of literacy; and it leaves researchers, educators, and policymakers with an unanswered question: If it is schooling that administers certificates of status in the form of standardized literacies, how can these be made available to all cultures?

LONGITUDINAL STUDIES OF READING AND WRITING IN LATER YEARS

The number of longitudinal research studies quickly diminishes as the focus becomes the student moving through the elementary school, high school, or college. As the child's learning moves away from beginning reading and writing, extrapolations about development have tended to depend almost solely on comparisons of sophisticated and less sophisticated learners, experts and novices, good and poor, knowledgeable and less knowledgeable or younger and older students. Such dichotomous comparisons have offered researchers worthwhile descriptions of what students might aspire to, but they have offered only highly speculative insights into how a student might advance his own learning toward the aspirations which were set. Indeed, an interesting ramification of this void are educational practices that naively pursue the eradication of those behaviors associated with novice-like performance or that assume that expert-like behavior can be explicitly taught by carefully mimicking such behavior. What seems missing are those understandings and appreciations of student behaviors that emerge when researchers follow development of the same individual across time and when researchers ask themselves to identify the students' views of literacy.

There do seem to be a some exceptions to this trend. First, there are a number of case studies of readers and writers. For example, Bissex (1980) extended the case study of her son through his elementary schooling experience. Numerous case studies have been pursued of professional writers by biographers. Holland (1975) offered case studies of a college student's reading. Petrosky (1976) and Cooper (1985) have pursued case studies of

readers' responses to stories. These tend to be more descriptive than biographical so that a longitudinal perspective is less forthcoming.

STUDIES INVOLVING A LONGITUDINAL METHODOLOGY AND PERSPECTIVE

Essentially only a small number of studies exist that adopt what might be viewed as longitudinal methodology and longitudinal perspective. Studies by Wells (1986) and Loban (1967) are among the most notable. Beginning with children at the age of 15 months and continuing with a subsample of these children through the end of elementary school, Wells reported his attempt to address the question: Why were some children, usually lower in socioeconomic status, failing to become literate and failing at school? Wells chronicles their language development by referring to data acquired by interviews, tape-recorded conversations, and assessments by the teacher. A number of recurring themes developed. One theme is the notion that children need to be equal partners in conversation if they are to succeed. He argued that the types of partnership that parents have with children are lacking from schools. As Wells stated, "schools are not providing an environment that fosters language development. For NO child was the language experience of the classroom richer than that of the home—not even for those believed to be 'linguistically deprived'" (p. 87). He argued that a child's contributions should be taken seriously, that he or she should be viewed as and encouraged to be an active meaning maker.

A second theme was tied to what Wells described as the most striking finding from his longitudinal study—namely, that achievement of children varied little from the time they entered elementary school to the time they ended. Students who were assessed as high at age 5 were high at age 10. Moreover, the explanation for differences entering school seemed governed by the values developed for literacy. Wells argued that it was not the mechanics of literacy that were important, but the purposes for reading and writing that the child had acquired.

A third major theme developed by Wells was that the single most important activity that parents could pursue was reading or telling stories:

We are the meaningmakers—every one of us; children, parents, and teachers. To try to make sense, to construct stories, and to share them with others in speech and in writing is an essential part of being human. For those of us who are more knowledgeable and more mature—parents and teachers—the responsibility is clear; to interact with those in our care in such a way as to foster and enrich their meaning-making. (p. 222)

While Wells' longitudinal study has no counterpart in other countries, a longitudinal study conducted by Loban in the 50s and 60s has numerous parallels. Loban (1967) pursued a 13-year longitudinal study of over 200 students during the entire course of their schooling (kindergarten through Grade 12). The study was concerned with the use and control of language, the rates of growth and interrelationships of language abilities. As Loban stated:

From the outset, the basic purpose of the research has been to accumulate a mass of longitudinal data on each aspect of linguistic behavior, gathering the information in situations identical for each subject and using a cross-section of children from a typical American city so that findings could be generalized to any large urban area. (Loban, 1967, p. 1)

In particular, Loban delineated patterns of growth in language and details on how proficiency was acquired. Taped oral interviews and a wide range of tests and inventories including lists of books read were used to measure reading achievement, listening ability, written language abilities, as well as ability and fluency in oral language (on an annual basis). Loban found similar findings to Wells in that later success followed from earlier achievements. Just as Wells argued that later success was dependent on the quality of home experience, so Loban argued that a strong oral language base, especially the ability to use language flexibly, seemed to be tied to a student's success as a reader and writer. As Wells also found there appeared to be marked differences in the oral language of students in families of lower socioeconomic status. Like Wells, Loban lamented what appeared to be the gulf between home and school that seemed to detract from facilitating ongoing language learning.

LONGITUDINAL STUDIES OF DIGITALLY BASED LITERACIES

Longitudinal studies of the emergence of digitally based literacies by individuals and groups have extended the vistas of literacy research. Certainly, we have a growing body of critiques on the impact of these technologies on the nature of text and societal development. But, detailed examinations of literacy development for groups have been restricted to studies such as analyses of engagement of groups on websites, listservs, etc.

In terms of studies of the impact of technology on the literacies of individuals, Tierney has been engaged in a long-term study and follow up of a rather unique set of children who had almost unlimited access to state of the art software (including hypertext in the Apple Classroom of Tomorrow)

at a high school in Columbus, Ohio. In particular, a series of papers by Tierney and his colleagues (Tierney, 1996; Tierney, Bond, & Bresler, 1998; Tierney, Kieffer, Whalin, Desai, & Moss, 1990; Tierney, Stowell, & Desai, 1990) report the exploration of the impact of high computer access on selected high school students across 4 years of high school as well as in their experiences after graduation. A major focus of their longitudinal study was an examination of literacy acquisition tied to viewing digital technologies as different medium with semiotic, cognitive, and social dimensions. In particular, they focused on the extent to which computers afforded students alternative ways to represent ideas, access different learning routines, achieve various outcomes, and prompt various collaborations.

The students selected for the case studies represented the first two cohorts of students to complete the high school program offering high computer access and several students who were graduates from various classes. These students represented a cross-section of students in terms of ability and came from primarily working-class homes of a variety of racial origins. The physical arrangement of the high school classrooms was largely self-contained. Most of the classroom periods were taught in one of three or four rooms involving team-teaching situations (e.g., science and math; English and history). Within each classroom, each student had various workspaces that afforded opportunities for individual or group computer use, printers and other media, and access to a range of software available over the 4 years. For example, in their science class or history class, they might pull together projects using PageMaker, HyperCard, and SuperCard, using a mix of scanned images, video, and multilevel stacks of ideas. They also had access to computers at home where they could pursue classwork or projects that they decided to initiate themselves. Researchers' observations and interviews served as the cornerstone for delving into the nature of literacy acquisition.

Emerging as key areas for consideration were major shifts in students' thinking about text, attitudes toward text, and approach to the representation of ideas. Whereas students in Years 1 and 2 tended to approach their composition from brainstormed lists of ideas that were then used to develop drafts and be refined, in Years 3 and 4 they developed stacks from their vision of the dynamics and visual dimensions of their texts. The students in the high access classroom explored images, sound tracks, and text interconnected in very complex ways (i.e., multifaceted, multilayered ways) using a smorgasbord of image, sound, and print. The researchers were able to demonstrate that the technology increased the likelihood of students' being able to pursue multiple lines of thought and entertain different perspectives. The technology allowed students to embed ideas within other ideas, as well as to explore other forms of multilayering and interconnections between ideas. The students spent a great deal of time considering

how ideas laid out—that is, how the issues that they wrestled with could be explored across an array of still pictures, video segments, text segments, and sound clips. The introduction of desktop publishing, scanning capabilities, and hypermedia contributed to some major shifts in how students represented ideas and approached the integration of ideas from various sources. The graphic capabilities of technology afforded the students a means of developing and testing theories at the same time as it became a way to pilot and assess the potential of certain technologies for such purposes. Furthermore, the shifts in approach to representing ideas continued beyond their high school years to their studies at tertiary institutions and in jobs they pursued outside of school. With the technology they were able to do things they might not have otherwise done and were astutely aware of the potential utility of these tools for their own advancement and, in turn, their families'. They also seemed to have a sense of their own expertise, a recognition of various functions technology could serve as well as an appreciation of the skills they needed, including the ability to work with others. The researchers found that students had goals for technology that transcended the classroom (e.g., all of the students viewed the expertise as affording them advantages in the workplace or college, some had begun using their computer expertise to help family members with projects or for their own profit), and the use of the computers assumed a role that might be best described as socially transforming.

The researchers demonstrated that the students became independent and collaborative problem solvers, theorists, communicators, recordkeepers, and learners with the computers. They developed a repertoire of abilities to explore possibilities that were either too cumbersome or difficult to attain without the technology. The researchers predicted that longitudinal studies of societal engagement with these new literacy genres could possibly set the stage for some shifts in how literacy abilities are defined, affecting outcomes of literacy development.

CONCLUDING REMARKS

In the introduction we argued that longitudinal studies were crucial to the advancement of our understanding of how literacy develops. To date, research on reading and writing has been dominated by extrapolations about development based on a comparison of literacy learners at different ages, ability levels, and so on. We have stressed that such comparisons may be problematic if our goal is to understand how a literacy learner advances from one age to another or from one ability to another, etc. A number of the longitudinal researchers attest to the fact that when they studied the same literacy learners across time that their hunches about development

were often challenged and subsequently revised. Some were taken aback with the speed with which literacy developed, the repertoire of literacy learning abilities children had and used at very young ages, the flattening out of certain literacy learnings, the extent to which the relationship between certain variables changed across time, and the extent to which some variables remained closely related to the child's literacy learning across time. At the same time, case studies of diverse cultures that are frequently looked past in schools reveal how slowly literacy develops when uses for literacy assume a middle class family existence.

Repeatedly researchers seem to be sensitive to the child's active construction of meaning-making systems and ongoing negotiation of meanings. Across the various studies the picture of meaning making that emerges is one in which the child is not becoming a meaning maker; the child is already a meaning maker. Some meaning makers, though, do not make meaning of school literacies that are culturally incongruent with their own and they need explicit instruction regarding implicit rules they don't have access to. When classroom culture is engaging, meanings seem to be negotiated by the child using a variety of cues and systems simultaneously, and the child's increasing facility with these cues and systems comes from being involved with experiences that challenge the child in the context of making meaning to use these cues, skills, and systems. Meaning making, once seen as a natural entity of the child, is now seen as dependent on a meaningful context where, when help is needed from a more knowledgeable expert, it is made available.

Despite the fact that longitudinal research seems essential to answer questions regarding how literacy develops, such pursuits are neither straightforward nor problem-free. Indeed, longitudinal research seems plagued by many of the same problems of any research pursuit. Studies are limited by the researchers' view of literacy, selected biases, and awareness (or lack of awareness) of previous research. These can shape the questions that are asked, the variables included for study, the methods used to assess these variables, and the procedures for analysis and interpretation. Across the various studies relatively widespread use was made of instruments that lacked precision or offered a somewhat distorted glimpse of the variable being assessed. In some cases the method used to assess a predictor variable given one name seemed to closely match that used to assess a criterion variable given another name. Obviously, some of the problems seem unavoidable—particularly, problems devising methods of measuring or describing facets of literacy at an early age or facets that seem amorphous.

Longitudinal research is riddled with problems related to the interpretation of findings. In a number of studies, researchers had a tendency to move from statements about relationships between variables to statements of

causality. In a number of cases, a license to make causal inferences seemed to arise whenever multiple regression procedures and the use of path models were enlisted to afford a "best fit." Researchers should be reminded that, regardless of the sophistication of the statistical analyses, these data remain correlational. The limitations surrounding the use of path analysis procedures is not restricted to just ascribing causality. The use of path analysis models oftentimes preclude the consideration of alternative constellations of variables or ways of configuring relationships that are less straightforward. Researchers using path analysis should acknowledge the extent to which their approach adopts an a priori model that is then validated, rather than a more open-ended approach to modeling a configuration of variables. Wells (1986), in the introduction to the *Meaning Makers*, stated:

There can be no true stories. The evidence is never so complete or so ambiguous as to rule out alternative interpretations. The important criteria in judging the worth of a story are: does it fit the facts as I have observed them and does it provide a helpful basis for future action? (p. xiii)

It should be stressed that longitudinal research is not excluded from the various problems associated with generating reasonable interpretations. Just as in any study, there are constraints on the generalizability of findings to other sites, subjects, times, and so on. There may be a danger of assuming that comparisons across age levels, cultures, genders, classes, and abilities will avail themselves. Certainly longitudinal studies do not involve making inferences based on a comparison of the responses of different individuals, but despite the fact that the individuals might be the same, the context, including time, is not. If the individual can perform only as context allows, and if contexts for schooling are ever more restrictive and prescriptive, then research and literacy instruction reduces possibilities for an individual's, and oftentimes, a whole culture's literacy development. What longitudinal literacy research says about literacy development, and what literacy development has to say about research is that they are both delimited by the historical-political discourses that afford and constrain particular literacy practices. One has to question focusing the lens solely on learners, texts, and their immediate social environments, and development may be better understood as contextual affordances for performance.

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CHAPTER 5

Case Studies: Placing Literacy Phenomena Within Their Actual Context

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Within the past 30 years, case study as a mode of inquiry has gained increased credibility in English language arts research. A scan of the literature reveals hundreds of inquiries in which researchers recount how children acquire and develop language, as well as hundreds of others that characterize their histories and processes as speakers, listeners, writers, and readers. Still other studies have examined individual issues, texts, concepts, programs, and curricula. This chapter provides an overview of case study inquiry, the history of case study research, the use of case studies in literacy research, and concludes with a discussion of trends and future directions.

CASE STUDY INQUIRY

Although traditional, quantitative approaches to measurement are appropriate for evaluating activities and behaviors that can be counted or measured, they are less effective in analyzing complex, multidimensional characteristics of a phenomenon. For this reason, qualitative approaches such as observations, open-ended interviews, and case studies are often selected as a way to situate findings within a specific context. The advantage of a

qualitative approach is that it allows a more in-depth exploration of the research questions. This chapter focuses on one specific type of qualitative inquiry, case studies.

Case study is defined here, following Yin (1981), as an empirical study that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident and when multiple sources of evidence are used. In addition, to qualify as a case study, the data must be in some way representative of the phenomenon under scrutiny. As Shulman (1986) cautions, an exclusive description of an individual or event does not qualify as a case study.

Whereas some researchers consider the case an object of study (e.g., Stake, 1995) and others consider it a methodology (e.g., Merriam, 1988), a case study is an examination of a bounded system. By bounded system, we mean that the case or cases being studied are fixed in time and place and have identifiable confines such as a program, an event, an activity, or an individual.

Lincoln and Guba (1985) set forth other crucial characteristics and advantages of case study as a mode of inquiry. Contrasting naturalistic with positivistic inquiries, they note that case study inquirers tend to reconstruct the respondent's constructions (*emic* inquiry), whereas positivistic inquirers "tend toward a construction that they bring to the inquiry a priori" (*etic* inquiry). Case studies build on the reader's tacit knowledge, thus providing "a measure of vicarious experience because case study presents a holistic and lifelike description, like those readers normally encounter in their experience of the world. Case studies are effective in demonstrating the interplay between inquirer and respondent. They provide the reader opportunities to probe for internal consistency. The case study provides what Stake (1994) defines as "thick description," so necessary for judgments of transferability. They provide a grounded assessment of context.

Researchers who use case study approaches hope to identify what is common as well as what is unique about the case. However, the end product of a case study regularly results in something unique. As Stake (1994) points out, this uniqueness is likely to be related to:

- The nature of the case.
- Its historical background.
- The physical setting.
- Other contexts, including economic, political, legal, and aesthetic.
- Other cases through which this case is recognized.
- Those informants through whom the case can be known. (p. 238)

As with other forms of research, researchers who use case study methodology must first decide on the research questions. They must then decide

on the unit of analysis. This is often a difficult task as researchers ask themselves about data they might collect from individual students, classrooms, schools, or communities. Once the unit of analysis has been decided, most researchers use purposeful sampling to identify the case(s). Purposeful sampling provides the researcher an opportunity to obtain different perspectives on the issue, problem, process, situation, or event. Purposeful sampling can also increase variance and thus improve the validity of the findings.

Following the sampling decision, the researcher decides on the types of evidence or data that will be collected. It is not uncommon for case study researchers to use a variety of data collection procedures, including observations, interviews, records reviews, and others. Collecting this array of data lets the case tell its own story (Carter, 1993). Although we are not sure that a case can tell its own story or tell that story well, we do know that, with sufficient data, researchers can assist in relating a story that is reflective of the phenomenon as it occurred in a specific setting.

One of the ways that researchers ensure that the story they relate is valid is through triangulation. In case study work, triangulation is generally considered a process in which researchers use multiple perceptions to clarify meanings. In other words, researchers look either across cases or across types of data collected for evidence of the phenomenon (see Janesick, 1994 for additional information on triangulation).

THE HISTORY OF CASE STUDY RESEARCH

The neurologist Oliver Sacks, in the preface to his *The Man Who Mistook His Wife for a Hat* (1985), traces case study back to Hippocrates, the first physician, and credits Hippocrates with creating the concept of case study through his presentations of diseases as having a course "from their first intimations to their climax or crisis, and thus to their fatal or happy resolution." Sacks suggests, in fact, that the origin of case study can be found, even earlier, in "that universal and prehistorical tradition by which patients have always told their stories to doctors."

In his historical overview, Sacks regards the late 19th century as the high point in the writing of "richly human clinical tales" with the case studies of neurologist Hughlings Jackson (1931) and of the psychoanalyst Sigmund Freud (1956) as exemplars. Within the 20th century A. R. Luria is, in Sacks' opinion, the greatest writer of case study. Luria's case studies of such brain-damaged veterans of World War I as S (1972) and Z (1960) are famous instances.

Within the 20th century, Penfield and Perot (1963), Sherrington (1940), and Bettelheim (1950) have also produced case studies of importance

within the fields of neurology and psychiatry, as has Sacks (1989) himself. In light of this history, it is not surprising that North (1987) in his taxonomy of our field places case study inquirers in a category he terms "clinicians."

Prior to Strang, Robinson, and Emig, case study was not regarded as a legitimate mode of inquiry in English language arts research. A major reason for its lack of status was the domination in the post-World War II period by behaviorist psychology, with its tenet that only large-scale experimental studies conducted under ostensibly controlled and context-stripped conditions provided validity and generalizability of findings (Mishler, 1979).

At first, perhaps consequently, individual case researchers worked in isolation, at times idiosyncratically, without models. Some current surveyors of the field seem unaware in their critiques of early work of this pervading domination by behaviorism, and early difficulty in getting case studies published in the reputable journals of any of the social sciences. Now, however, not only is case study honored, but the case for case study is being made with greater and greater sophistication (Creswell, 1998; Lincoln & Guba, 1985; Neuman & McCormick, 1995; Stake, 1994; Yin, 1994). This change seems to reflect a general dissatisfaction with experimental research as expressed by a National Institute of Education-sponsored committee on teaching, testing, and learning: "we need ways of describing that are more informative and insightful than percentiles or stanines. . . . As we have indicated, descriptive materials are important starting points for much scientific work and for teaching" (Tyler & White, 1979, p. 363).

THE USE OF CASE STUDIES IN LITERACY RESEARCH

Studies of children's language acquisition and development have classically proceeded as case study. Perhaps in part because of the difficulty in finding large numbers of subjects, investigators have studied a few children—frequently their own—as the most available source of data (e.g., Piaget, 1930; Weir, 1970). With the exception of Piaget, case studies of bilingualism occurred earlier than those focusing on monolingual acquisition and development—English and Chinese, for example (Chao, 1951). Other bilingual studies include Bowermann's (1973) of Finnish, Rydin's (1971) of Swedish, and Tolbert's (1971) of Spanish.

The goal of these investigations has been to make apt intra- and interlinguistic characterizations of how children develop and use language. For

the most part longitudinal, many exhibit the characteristics delineated by Lincoln and Guba (1985) as those marking successful case study reporting:

- Repeated purposeful probing.
- Ongoing sampling design.
- Hypothesis generation that is fluid, refined, and grounded.
- Nonexploitive sharing of findings with subjects, or at least, when the subjects are very young, with the subjects' families.

Studies of exceptional language development range from those examining the highly gifted to those examining students with disabilities or children who have been abused. Primary accounts of brilliant writers can take the form of autobiography (Welty, 1984; Sartre, 1964); or occur as exemplars often supporting a general thesis, as with Gardner's (1983) examination in *Frames of Mind: A Theory of Multiple Intelligences* of the extraordinary linguistic abilities of the poets T. S. Eliot and Stephen Spender. Classic among studies of students with disabilities is Luria and Yudovich's (1971) examination of Russian twins; of the socially isolated, Itard's (1962) study of the Wild Boy of Aveyon; and of the abused, Curtiss' (1977) study of Genie.

Listening

Perhaps because of the formidable methodological challenges involved, there have been, to our knowledge, no discrete case studies of listening and attending behaviors and processes involving subjects with normal hearing. A very few studies involving partially or totally deaf students have, however, been made (e.g., Nelson, 1985). Sacks (1989) provides a case study of the status of "sign" as a symbolic modality within the deaf community.

Invented Spelling

Because invented or transitional, temporary spelling can be regarded developmentally as a common precursor of abilities to write, so this brief account logically precedes a discussion of the use of case study in the domain of writing. Beginning with Read (1971) a number of parent/scholars conducted studies of how their children "invented" the orthographic systems of American English. Noteworthy here is Bissex's (1980) study of her son, Paul, making "thick" documentation by collecting and analyzing all texts he produced between the ages of 4 and 9, from signs on his bedroom door, to original newspaper and school writing. In a more formal classroom

setting, Sipe (1998) describes the process and procedures used by a first grader during writing and attempting to spell words.

Writing

Emig (1969) was the first researcher to make a case study of the composing processes of successful English-speaking student writers; Brown (1965) had previously studied how a prototypical French school boy learned to write. Using protocol analysis, Emig examined the processes of eight 12th graders as they wrote in what she called the reflexive and extensive modes. Through interviews she also collected the writing histories of these students. She set her findings against the dicta in the most widely used composition and rhetoric handbooks and developed a tentative profile of the composing processes of 17 year olds. Her case study of Lynn became the prototype for over 1,000 case studies of nonprofessional writers from the ages of 4 and 5 (Dyson, 1988) to 79 (Harrienger, 1988). Others who looked at successful student writers include Berkenkotter, Huckin, and Ackerman (1988), Calkins (1983), Chapman (1996), Fu and Townsend (1999), Lenski (1998), Mishel (1974), and Stallard (1974).

Pianko (1977) and Perl (1979) examined the composing processes of less skilled writers—specifically, college freshmen—as did Sommers (1980), who focussed on their revising practices. Holbrook (1968) had conducted very sophisticated case studies of 13 D-stream, or supposedly limited ability, 16-year-olds in a Cambridgeshire, England, comprehensive school, studies that were accompanied by a psychiatrist's analysis of emotional growth represented by selected student texts. Contributing importantly and eloquently to this set is the intellectual autobiography of Rose (1989), against a powerful analysis of like students whom he teaches in the Writing Center at UCLA.

In recent studies, the processes and outcomes of writing have been examined with greater and greater thoroughness (Hull, 1989; Sipe, 1998). Representative here is Kamler (1980), who scrutinized the complex interaction among Jill, 7-year-old writer; her teacher; a single piece of writing; and the climate for writing within Jill's Second grade classroom. Bell (1999) described in detail a one-to-one writing conference between a graduate student tutor and the person receiving tutoring in a writing center. Kim (1998) described a second-language student's writing process and development over the course of 2 years.

As inquiries into linguistic and specifically writing processes developed, more and more methodological procedures were devised, many with concomitant, not unexpected uses of technology. Perhaps Weir (1970), who audiotaped the presleep soliloquies of her son, Anthony, was among the first here. Pianko (1977) may have been the first to videotape her subjects

as they composed. For the time, a most dramatic use of technology was Glassner's (1981) procedure of having his subjects undergo EEGs as they composed, with the record of their brain waves subsequently analyzed by a computer program that divided these into right- and left-brain activities. In the past decade, writing and revising on computers has become a focus of inquiry (Haas, 1990; Jones & Pellegrini, 1996).

The writing across the curriculum movement, in which teachers of subjects other than English involve students in writing to learn, began in the late 1960s with the work of the London Schools' Council under the direction of James Britton and Harold Rosen. The illustrative documents published by the team used mini-case studies to exemplify how writing could help teach the concepts of science (Medway, 1973) and social studies (Martin, 1980). In the United States, Goodkin (1982) made case studies of instructors of nursing, business, and chemistry within a community college to show the uses of writing in teaching such subjects. McCarthy (1987) analyzed the differing, even conflicting, demands made on a college freshman by examining writing requirements in his composition, literature, and biology classes.

One of the most perceptive and thorough efforts to deploy case study in examining the writing of children is represented by the work of Dyson (1983, 1987, 1992, 1995, 1999). She states the thesis she is exploring as follows:

Children's major developmental challenge is not simply to create a unified text but to move among multiple worlds, carrying out multiple roles and coordinating multiple space/time structures. (Dyson, 1988, p. 2)

Reading

In 1910, Huey wrote, "We have surely come to the place where we need to know just what the child normally does when he reads, in order to plan a natural and economic method of learning to read" (p. 9). Yet in the next half century, few heeded what was a clear call for case study. In Johnston's (1985) survey of the methods used to understand reading disabilities, he cited one case study by Morgan in 1896 on congenital word blindness and Olson's (1938) recommendation of case study as the most scientific method available. Yet Johnston concluded nearly 50 years later that case studies remained underrepresented in the literature.

Robinson (1975) and Venezky (1984) provided some reasons for reading researchers' reluctance to engage in case study. With the advent of standardized tests around 1920, researchers moved away from the more difficult and time-consuming task of studying natural reading behavior and toward tightly controlled experimental and correlational studies based in

laboratories. Often these experimental psychologists valued the elegance of their design over the relevance of their findings for reading classrooms. Others viewed case studies as "soft science" and too untidy to report in the prescribed format of many of the reading journals.

Kamil (1984) acknowledged the prevailing distrust of naturalistic inquiry into reading but forecast the growth of descriptive and ethnographic studies and a tendency to use case studies in conjunction with experimental research as complementary modes of investigation. Indeed, recent studies have included postexperimental interviews to augment the investigators' interpretations of their quantitative data (e.g., Bloodgood, 1999; Lehr, 1988). In fact, the editors of the *Handbook of Reading Research (Volume III)* (Kamil, Mosenthal, Pearson, & Barr, 2000) elected to include several chapters focused on qualitative research given the "greater impact that qualitative methodologies have had" (p. xi). These editors elected not to include chapters on quantitative research methods due to "the lack of similar impact of quantitative methodologies" (p. xi).

Beyond the addition of case studies to quantitative investigations, a number of case studies in reading have been published within the past several decades. For example, Ryndak, Morrison, and Sommerstein (1999) used a case study approach to document the literacy achievements of a student with a significant disability in a general education classroom. Greenberg (1997–1998) documented the reading development of Betsy, an adult nonreader in her fifties, and compares this with children who are beginning to read. Finally, Chapman (1996), described the development of phonemic awareness as she analyzed data from a first-grade writer. During the past 2 decades, an important outgrowth of the early-reader studies has been the many investigations of emergent literacy from infancy to the onset of conventional reading and writing behaviors. Many of them have been based on an ethnographic or case study design, and, in some instances employ both (e.g., Chapman, 1996; Crago, 1993).

Clearly, since the early 1970s the number of case studies in reading has grown dramatically, matching the increased use of naturalistic inquiry in all areas of language development. These case studies tend to address an area, or cross over several areas, including:

- Instructional programs and practices.
- Factors associated with successful reading achievement.
- Observations of readers' response to literature.

In spite of the relative paucity of case studies prior to the 1970s, each of these areas had been addressed in at least one case study earlier in the century. Each was undertaken by investigators with closer ties to the classroom than to the laboratory and each of the researchers was or has

emerged as a major figure in the field: Gray, Robinson, Durkin, and Squire. We will describe these studies briefly and then review recent exemplars that have extended areas of inquiry.

INSTRUCTIONAL PROGRAMS AND PRACTICE

In 1933, W. S. Gray published his monograph concerning the outcomes of a multiyear program to improve reading instruction in five Chicago schools. Data included participant-observers' diaries and field notes from conferences and interviews with school personnel and students concerning organization and instruction, yearly reading scores, and students' reading diaries. Ongoing analysis of the data led to refinement in the improvement program. The cyclical nature of collecting data, analyzing them, revising questions and/or hypotheses and collecting new data—the hallmark of case study—was, as Venezsky (1984) commented, unique at that time. More recently, case studies have been used to examine teachers' beliefs about literacy instruction (Thomas & Barksdale-Ladd, 1997), literacy instruction in inclusive environments for students with disabilities (Mathes & Torgesen, 1998), and community literacy (Davis, 1996).

READING ACHIEVEMENT

In 1946, H. M. Robinson published *Why Pupils Fail in Reading*, a study of 30 subjects, ages 6 to 15, of normal intelligence but with low reading scores. A team of medical, psychological, and reading specialists and social workers studied the readers and their families. Additional data came from scores on standardized reading tests, filmed eye movements, and oral reading samples. The multiple evaluations of each subject, followed by reexamination of results to modify treatment, exemplifies the triangulation of data that is another hallmark of case study.

Two decades later, in 1966, D. Durkin published *Children Who Read Early: Two Longitudinal Studies*, based on her California investigations of first-grade early-readers and her New York study of first-grade readers and nonreaders. As Durkin notes, her experiences in the California study, begun in 1958, led her to modify the design of her second study while retaining her original research questions. Her second study of 158 subjects included 30 nonreaders as well as readers for intensive study through parent interview, questionnaires, teacher rating, personality tests as well as intelligence and reading tests. In addition to presenting data for the entire group, Durkin included brief case studies of several subjects.

Apart from her results from this study, Durkin contributed much to the evolution of case study research and to studies of early literacy. First, she recognized the impact of the observer's presence on natural behavior. Second, she acknowledged changes in attitude toward early reading that occurred between 1958 and 1961. Her use of the results of her first study to refine the design and instrumentation of her second study while retaining her original questions is typical of case study (Lincoln & Guba, 1985). Finally, she provided the foundation for subsequent case studies of early readers and writers such as Chapman (1996), Clark (1976), Fu and Townsend (1999), Sipe (1998), Torrey (1969), and Yeoman (1990).

RESPONSE TO LITERATURE

The third area of inquiry—readers' response to literature—led researchers to widen their focus of inquiry to include readers' psychological and emotional responses especially to literature. Although earlier studies, such as Richards (1942), had examined students' reactions to poems upon completion, Squire's (1964) was the first to attempt to examine their reactions while reading. Squire studied the responses of 52 ninth- and tenth-graders to four stories by stopping each reader at five points in the story to explore his or her response while reading as well as upon completion.

To complement his findings from the large group, Squire selected 13 students for case studies. In addition to the quantitative and response data obtained for all of the students, information concerning the 13 focus students was obtained from interviews from school personnel and observations of the students in their classrooms. Although Squire did not present his case studies in his monograph, his frequent reference to them as confirmatory evidence illustrates their value.

The use of case studies to explore the nature of readers' response to literature has also proliferated since Squire first investigated adolescents' interpretations of short stories. The increased interest parallels the shift in theories of literacy criticism, mirroring developments in cognitive psychology and linguistics, and the recognition of the active role of the reader in constructing the meaning of the text (e.g., Iser, 1978; Farnan & Kelly, 1993; Rosenblatt, 1938, 1978; Sipe, 1997). As Rosenblatt's dates indicate, she recognized the active nature of the transaction between the reader and the text decades before other response theorists.

Although many studies have reported investigations of response to literature, most have not been case studies as defined in this chapter (e.g., Applebee, 1977, Beach & Wendler, 1987; Brown, 1977; Hickman, 1980; Purves & Beach, 1972; Studier, 1981). The case studies can be divided into age-related categories.

Preschool studies have included observations of children's changing response to repeated readings of favorite stories (Baghban, 1984; Snow & Ninio, 1986; Yaden, 1988). Case studies of primary, elementary, and middle school students' response to literature have ranged from repeated observations of kindergarten students' browsing patterns in the library (Martinez & Teale, 1988); analysis of a second grader's corpus of writing for stylistic devices that seemed influenced by her reading of literature (Temple, Burris, Nathan & Temple, 1988); a study of a mainstreamed eighth grader's explorations of literature in a class where personal response was encouraged after years of being in skills-oriented classes where correct completion of dittos was valued (Atwell, 1988); and a comparative study of teachers of literature-based reading classes, who believed in whole language, with those who still believed in a subskills philosophy while trying to use a literature-centered approach (Zarrillo, 1989).

At the presecondary level, two studies merit attention, because each represents the two lines of inquiry suggested by Purves and Beach (1972). These are the cognitive and affective states of the reader and the context for reading a text as influences on reader response. Galda (1982) exemplifies the first avenue of investigation and Atwell (1987) represents the second.

Galda examined the responses of three fifth graders to two novels during individual and group discussions of each novel. Using transcripts from the discussions, Galda found that all three subjects tended to evaluate characters and their actions. Further analysis, based on the findings of Applebee (1977) and Petrosky (1976), revealed subtle differences in the overall responses of each of the subjects. These ranged from one subject's typical piece-meal, subjective interpretation of each text, which precluded virtual experiencing of the text, to another's ability to enter the story world and interpret it as a whole.

Acting as a teacher researcher, Atwell (1987) published a study of her eighth-grade student's yearlong progress in a reading-writing workshop where connections between the two processes were fostered. Against this background, Atwell presented case studies of five students and their changes in attitudes and behaviors as they explored literature and their own writing.

At the secondary and postsecondary levels, case studies have focused on either readers' cognitive and affective states or on the context (i.e., stimulus, setting, purpose) as influences on reader response—two areas recommend for research by Purves and Beach (1972). Holland (1975), Petrosky (1976), and Washburn (1979) exemplify the first approach, and Marshall (1987) and McCarthy (1987) exemplify the second.

Holland used psychoanalytic measures to search for adult readers' personal identity themes and then compared their interpretations of literary texts, obtained in repeated interviews, with their psychological profiles. He

concluded that readers' internal states markedly influenced their perception and interpretation of texts. Petrosky, like Holland, used psychoanalytic measures to profile ninth-grade readers but added Piaget's theory of stage development as an additional framework for his study of four readers' response to fiction and poems. His analysis of their twice-weekly interviews during a 3-month period revealed that readers' level of cognitive development as well as their emotional state combined to influence their interpretation of texts. Washburn furthered this line of research by using a Kelly Repertory Grid to elicit the personal construct system of four high school seniors. He videotaped them as they read four short stories and verbalized their responses, then videotaped their reactions and explanations of their earlier videotaped behaviors.

MULTIPLE EMPHASES DOCUMENTED IN CASE STUDIES

Not all current case studies fall neatly into the categories dividing the first generation of case studies. Instead many studies overlap two or more areas as investigators recognized the connections among language processes and the need to broaden their scope of inquiry to obtain data from as many sources as possible. For example, Wells (1986) drew six case studies from his observations of 32 children as they advanced from 15 months to 10 years and another 128 from 3 or 5 years to 10 years. His data included observations of progress in oral language acquisition, parent-child communication, students' reading and writing development profiles across the period, general academic histories, and exit interviews that included story-telling ability and self-projections about their future. Thus, Well's conclusions about his six subjects were contextualized by his broader ethnographic research as well as his analysis of these children's histories.

Birnbaum's (1982) study of the reading and writing behaviors of fourth and seventh graders offers another example of not only the merging of categories but the need in case study to adjust the initial design to address emerging data. The initial purpose of the yearlong study had been to investigate the reading and writing processes, products, and histories of good readers and writers. The design included at least 40 hours of in-class observation of each subject in language arts activities, multiple videotaped episodes of silent reading and writing behaviors, two audiotaped reading and writing episodes, interviews with parents, teacher, and the students, as well as a review of academic records at the end of data collection. Early data analysis revealed differences in student levels of proficiency; therefore, the focus of the study shifted from a search for shared characteristics

for all subjects to a search for differential patterns. As both Wells and Birnbaum illustrate, the broader the scope of inquiry, the less likely that the study can be neatly pigeonholed. The distinguishing feature of these second generation case studies is that they probed beyond scores, printed curricular goals, and scope and sequence charts to observation of instruction and materials and their effects on students. As more case studies in this area appear, we may move closer to knowing not only what reading programs accomplish but why.

Thus far, reflecting both the assumptions and the emphases of most literature in the field, we have treated case study as an examination or characterization of persons. Yet Yin (1994) notes, in the definition of case study that we espouse that case study investigates phenomena; and in both an actual and a logical sense, persons represent but a subset of phenomena. Within education, other subsets of legitimate phenomena to examine include concepts, issues, curricula, and programs, all of which have also received treatment through case study.

For example, significant issues in the field of English language arts have been examined through case study. One of the most telling and eloquent of these is James Moffett's *Storm in the Mountains* (1988), with its descriptive subtitle "A Case Study of Censorship, Conflict and Consciousness." In his analysis of the vast religious and political complexities of the highly publicized 1974 conflict in Kanawha County, West Virginia, over adoption of a cluster of language arts textbooks, including several he authored, Moffett interweaves historical and media accounts with interviews he holds with many of the parties in the dispute—school board members, politicians, parents, children—interviews that he presents in the form of a dramatic script. He also employs as organizing theme his interpretation of the rhetorical term *agnosis*, thus orchestrating classical and contemporary modes of analysis.

In March 1986, the deaf students at Gallaudet University in Washington, D.C., the sole liberal arts university for the deaf in the world, staged a 7-day uprising when their Board of Trustees selected a hearing president for the school and forced the board to replace her with a deaf president. Through case study Sacks (1989) analyzed this compelling instance of curricular reform, although to characterize the events at Gallaudet merely as an instance of curricular reform would be as inaccurate as to characterize the 1974 events in Kanawha County as an instance of a moment that intertwined issues of theory, research, curriculum, politics, and culture, with consideration of the legitimacy of a communicative modality sign. Sacks served as eyewitness to the events leading within that week to the selection of a president who was deaf, interplaying, as Moffett did for censorship, a rich historical account of sign language with descriptions of the chief participants in the conflict and of their interplay.

The case study of Gallaudet differs from that of Kanawha in major ways, making it worthy of this separate citation. Moffett's account was retrospective, with his return 8 years later to the county to analyze what had transpired. Sacks was present for all the events, serving as an on-site observer, not as an instigator-observer. Also, the issue at Gallaudet was more powerfully one of opposing theories that found their support in research rather than in theology, although in both cases the participants proceeded from deeply held personal beliefs and practices.

TRENDS AND FUTURE DIRECTIONS

Five trends are currently noteworthy within case study inquiry in the English language arts. First, many recent studies are characterized by greater immediacy, with ongoing, recurrent on-site and in-process observations a steady feature. Second, researchers are providing denser and richer contextualizations for the phenomena and subjects under scrutiny. Third, if indeed a clear demarcation ever separated the domains of case study and ethnography, such a boundary now grows increasingly blurred, even to the point, in some cases, of disappearing entirely. Fourth, case study finds itself as a mode more and more contextualized within multilayered, multidimensional inquiries for which it represents but one source of data and of combined qualitative-quantitative knowing. Fifth, substantive studies that feature, in Dyson's term *symbol-weaving*, as between drawing and writing, or of speaking and signing, are growing more common, appropriate in an era more and more concerned with developmental and neuroscientific insights.

We agree with Geertz (1988) that case studies represent, in his recent metaphor, "theaters of language," quite as significantly matters of rhetorical stances, decisions, and style as of methods of data collection and analysis. The rhetorical dimensions of case study, how those case studies are literally written, require more explicit acknowledgment and attention, perhaps using as model Geertz's own analysis of the writing of four anthropologists: Levi-Strauss, Malinowski, Benedict, and Evans-Pritchard.

CONCLUSION

Because case study documents dense and specific human history, the mode may flourish especially under those psychological and political arrangements that honor uniqueness—under, that is, mature democracies and political systems. The status of case study in a culture may well prove then an index not only of investigative but also of societal sophistication.

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CHAPTER 6

Ethnography as a Logic of Inquiry

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The previous version of this chapter concluded with a call for those engaged in ethnographic research in education to contribute to “a critical dialogue about the nature of ethnography in educational settings” (Zaharlick & Green, 1991, p. 223). In the decade since that chapter was published, a critical dialogue has taken place and major changes in the status and understandings of *ethnography in education* have occurred. This critical dialogue has focused in large part around the issue of theory–method relationships related to what does and does not count as ethnography or as the logic of inquiry guiding ethnographic research and reporting.

This chapter will provide a framework for understanding an ethnographic logic of inquiry, so that those joining in the dialogue and those taking up ethnography in education at this point in time may do so in a way that meets the criteria for adequate ethnographic research. While ethnography has been utilized as a research approach by a number of disciplines, the anthropological approach has been the most dominant in education in the United States, and the most systematically and theoretically defined within educational contexts. This approach, has been called anthroethnography by some of those who brought ethnography and education together in its early stages (Spindler & Spindler, 1983). Anthroethnography is

ethnography guided by an anthropological perspective. While this term is not generally used today, the underlying principles still guide those engaging in *ethnography in education*.

THE EYE OF THE STORM: CRITIQUES AND CONCERNS STILL WITH US

The question of what counts as ethnography is not a new question but one that has been part of the ongoing critique of work claiming to be "ethnographic" for at least the past two decades. For example, in 1980, Rist in an article in the *Educational Researcher* argued that much of the work that *claimed* to be ethnographic was in fact observational research, not ethnography. He called this research, "Blitzkreig Ethnography," since it did not meet the requirements of ethnography defined within the field of anthropology. In 1982, Heath argued that researchers did not understand or honor the anthropological traditions that ground ethnographic work, thus calling their research ethnographic when this appellation does not apply.

More than a decade later, Athanases and Heath (1995) reiterated and expanded this concern in relationship to work that has been undertaken in the area of English Language Arts. In their article in *Research in the Teaching of English*, they argue that:

Often . . . educational research labeled ethnography has shown little evidence of being guided by what scholars in cultural anthropology and the ethnography of communication have articulated as sound principles to guide the conduct of ethnographic language research. Part of the problem stems from a lack of clarity among educational researchers about the disciplinary roots and principles of ethnography. (p. 264)

Underlying the critiques raised by Rist, Heath, Athanases and others is a concern that educators have adopted, and at times co-opted, ethnographic methods, without understanding the theoretical bases as well as the purposes and goals that anthropology (and other disciplines) have for engaging in ethnography. (See Hammersley, 1992; Smith, 1990; and Vidich & Lyman, 1994 for discussions from a sociological perspective.) Two factors lead to this critique. The first is captured in the critiques by Rist (1980) and Athanases and Heath (1995), more than a decade later, and focuses on the issue of observational research claiming the label of ethnography. The second stems from the range of qualitative methods and theoretical stances involving participant observation that have developed within education since the 1980s.

For both bodies of work, the issue is not one of the value of the research undertaken but rather whether it meets the criteria for an adequate ethnography. (For an extended discussion of these issues related to education, see Green & Bloome, 1995.) The reasons for the first set of concerns become visible when we consider ethnographic observations in relationship to observation from other perspectives. As Evertson and Green (1986) have argued, there are a range of approaches to observational research, entailing different ways of recording the phenomena of interest, most of which do not involve ethnography: category systems, descriptive systems, narrative systems, and technological records. Category systems are *closed systems* in which all of the *variables* to be observed are defined a priori and the *data* are recorded by tallying occurrences of particular behaviors or by recording a limited set of a priori codes to represent what is being observed. Only the variables in the system may be included, regardless of whether additional ones become relevant in the setting. Some using category systems have found the need to record additional information through narratives or through descriptive notes that are then used as contextual information. Those using category systems often observe for a limited period of time on a given day (often less than 1 hour) and for a limited times across days. Further, these systems are generally used online (live) to record the behaviors, with no opportunity to verify live coding through a video or audio analysis of the observed events.

Descriptive and narrative systems as well as technological records are *open systems* and entail some form of recording of the flow of activity or interaction so that it can be revisited at later points in time. Descriptive systems may have preset categories that can be combined in a variety of ways to construct systematic descriptions of evolving lessons and to segment streams of behavior. Central to descriptive systems is the use of transcriptions of the flow of talk or activity in the context of the observation, making these systems context specific and leading to a representation of the event or activity that can be examined once the researcher leaves the setting (post hoc). Narrative systems are open systems with no predetermined categories. The researcher records broad segments of activity or of events (activities) in a narrative form to represent the unfolding flow of actions. What is recorded in written form on these systems depends on the observer's perception of what is important to record, how, when and in what ways. The narrative record becomes the event that is analyzed. The nature of the record (e.g., specimen records or narrative accounts of the sequence of activity) and the approach to analysis (e.g., using preset codes or developing grounded codes) depend on the goals of the researcher. Technological records (e.g., audiotapes, videotapes, and photographs) are open systems that record sounds and/or actions within the field of the camera lens or the microphone. These records make post hoc analyses possible

but they do not represent all that occurred, and like narrative systems, are influenced by the choice of focus or placement by the researcher. An example of the importance of having either narrative or technological records comes from the work of Marshall and Weinstein (1988). In their study of teacher expectations, they found that two of the teachers' did not fit the prediction, and they reentered the narrative record to reexamine the data. By recontextualizing the data, they found that it was not the existence, or nonexistence, of particular variables but the patterns of use and distribution that made a difference. Without the narrative record as the base for coding, they would not have been able to reexamine why their model did not work for these two teachers.

Narrative systems and technological records *can be* ethnographic tools when used as part of *participant observation*. The mere use of such observation approaches, however, does not constitute ethnographic method (Green & Wallat, 1981; LeCompte & Priessle, 1993; Spradley, 1980). For example, Spradley (1980) argues that an ethnographic observer is always a participant but may take up the role along a continuum of ways, moving from full involvement with a social group over time as a participant observer to a more passive role of observer participant. Further, as will become evident in subsequent sections, such observation is undertaken over an extended period of time, guided by theories of culture. As such, ethnographic observations involve an approach that focuses on understanding what members need to know, do, predict, and interpret in order to participate in the construction of ongoing events of life within a social group, through which cultural knowledge is developed (e.g., Agar, 1980; Ellen, 1984; Heath, 1982; Spradley, 1979, 1980). To obtain such information, the ethnographer records field notes, collects and analyzes artifacts produced by members, interviews participants about their interpretations of what is occurring (whenever possible), and if possible makes audio or video records of the observed actions. In this way, the ethnographic observer records the chains of activity, thus making what members accomplish and produce in and through such chains available to examination at a later point in time. (See also, Emerson, Fretz, & Shaw, 1995; Spindler & Spindler, 1987; Spradley, 1979, 1980.)

An observer who enters with a predefined checklist, predefined questions or hypotheses, or an observation scheme that defines, in an *a priori* manner, *all behaviors* or *events* that will be recorded is *not* engaging in ethnography, regardless of the length of the observation or the reliability of the observation system. Further, if the observer does not draw on theories of culture to guide the choices of what is relevant to observe and record, or overlays his or her personal interpretation of the activity observed, they are not engaging in an ethnographic approach from an anthropological point of view. Thus, the problem arises for Rist (1980), Heath (1982), Athanases and Heath (1995) and others when people conducting these forms of

observational studies *claim* to be engaging in or doing ethnography, when their research is guided by different goals, methods, and theories. (For a further discussion of the differences related to research on teaching, see Erickson, 1986.)

A similar argument can be applied to some of the work labeled “qualitative” research. Since the 1980s, a broad range of “qualitative” perspectives, driven by a number of different theoretical orientations, has been adopted and/or developed within education (e.g., Denzin & Lincoln, 1994; LeCompte, Millroy, & Priessle, 1992). While some equate these approaches with ethnography since they often share common methods, they do not necessarily meet the tenets or share the goals of ethnography. Erickson (1986) described such approaches in relation to research on teaching in the following manner, stating that they are

alternatively called ethnographic, qualitative, participant observational, case study, symbolic interactionist, phenomenological, constructivist, or interpretive. These approaches are all slightly different, but each bears strong family resemblance to the others. . . . What makes such work interpretive or qualitative is a matter of substantive focus and intent, rather than of procedure in data collection, that is, a research *technique* does not constitute a research *method*. (pp. 119–120)

One way of restating the concerns raised is to see them as indicating that methodology is more than technique; it entails theory–method relationships. Such relationships form the basis for constructing knowledge that is the outcome of work of members of what Toulmin (1972) calls an intellectual ecology. Kelly and Green (1998) describe Toulmin’s position about scientific knowledge and changes in such knowledge in the following manner:

Analysis of Toulmin also showed that his view of conceptual change [within a discipline] is based on a theory of rationality of science in which science is viewed, not as a universal set of inference rules or commitments to central theories, but as a collective set of commonly held concepts, practices and actions of members of a group called “scientists.” Thus, conceptual change can be viewed as a theory of rationality in that it makes visible what counts as reasons for changes in knowledge within a group . . .

[Thus,] [o]ne way to understand Toulmin’s argument is to see “Science” as a product of the actions of members of a group (i.e., scientists) who, in the face of a problem-situation, draw on their intellectual history of ideas as well as the social and physical features of the problem-situation to construct understandings of the ‘problematic’ being explored. From this perspective, new phenomena can be viewed as being talked and acted into being through the actions of members of a scientific community (Knorr-Cetina, 1983, 1995; Latour & Woolgar, 1986). (p. 149)

Given Toulmin's view of the construction of scientific knowledge as the product of actions of members within an intellectual ecology, we can see why Heath (1982), Athanases and Heath (1995), Rist (1980) and others grounded in anthropology¹ raise critiques of work that does not honor the intellectual traditions and history of ideas within their intellectual ecology. In other words, these critics do not see this work as guided by the "set of commonly held concepts, practices and actions" (Toulmin, 1972, as cited in Kelly & Green, 1998, p. 149) that constitute a cultural anthropology or an ethnography of communication perspective. The problems raised can be further understood if we examine the argument about ethnography as constituting a discipline within Education as proposed by Green and Bloome (1995). They argue that there now exists a sufficiently large research community of ethnographers grounded in cultural theory and ethnography of communication traditions within the *field of education* to constitute ethnography as a *discipline* (an intellectual ecology) *within Education*. Given this view of *ethnography-in-education*, both those seeking to take up ethnography in a principled way and those wishing to label their work as ethnography are joining a community of practice and are subject to its criteria for appropriate work. (For a discussion of criteria for qualitative research that builds a similar argument about the need to meet the expectations of different traditions, see Howe & Eisenhart, 1990.)

WHAT IS ETHNOGRAPHY?

Having considered the critiques and proposed a way of understanding ethnography as the work of an intellectual ecology, we now present a brief introduction to its development across time. This history is part of the cultural knowledge of those engaged in ethnography from an anthropological point of view. It is *cultural knowledge* needed to locate the current developments within Education in the larger intellectual history of ethnography across disciplines.

Differing Views on Ethnography and Its Historical Development

The answer to what is ethnography is itself contested terrain. Agar (1994) states that "ethnography [is] a term whose Greek roots mean 'folk description'" (p. 54). LeCompte and Priessle (1993), trace its roots as coming "from

¹The same would be true for those working from a sociological perspective, but to date such arguments have been more visible in the UK than in the U.S. (e.g., Atkinson, 1990; Ellen, 1984; Hammersley, 1983, 1992; and Smith, 1990).

ethnos, or race, people, or cultural group, and *graphia*, which is writing or representing in a specific way a specified field" (p. 1); it is a way of "writing about people" (p. 1). R. F. Ellen, a social anthropologist from the UK, captures the complexity of defining ethnography. His description provides a multifaceted view of this term that makes visible the variations in current usage.

Consider, for example, the word "ethnography." This word is used regularly to refer to empirical accounts of the culture and social organization of particular human populations (as in "an ethnographic monography," "an ethnography"). The implication is that of a completed record, a product. But then the sense alters somewhat if we speak of "ethnography" as opposed to "theory," or of "an ethnographic account" (meaning living people) as opposed to an historical or archaeological account. Different again from all of these is the use of the term to indicate a set of research procedures, usually indicating intensive qualitative study of small groups through "participant-observation"... Finally, "ethnography" may refer to an academic subject, a discipline in the wider sense involving the comparative study of ethnic groups... Thus, ethnography is something you may do, study, use, read, or write. The various uses reflect ways in which different scholars have appropriated the term, often for perfectly sound conceptual reasons. We would not wish to suggest that the word be employed in one sense only, even if it were possible to effectively dictate that this should be so. However, it is important to know that the differences, often subtle, exist. (1984; pp. 7-8)

In light of Ellen's argument, we see little value in seeking a single point of view. Rather, we argue that it is important to understand the differences in order to make informed decisions about whether the work being undertaken meets the criteria for ethnography defined within education and related fields.

An examination of different research textbooks and review articles also led to the identification of a range of differing views of ethnography's beginnings and its development across time and disciplines. While the views differ in specific details, what emerges from this analysis is the long history that ethnography has had and how it has developed across centuries, shaping and being shaped by emerging disciplines (e.g., anthropology, sociology, and education). In this section, we present the historical picture that emerged when we considered arguments of those working at the intersection of anthropology and education.

Dobbert (1984) argues that ethnography had its origins in the ways that poets, travelers, missionaries, and historians documented and described "strange-seeming peoples" these writers encountered when they traveled and/or lived far from their own national borders. Both Erickson (1986) and Athanases and Heath (1995) take this argument further, relating its origins

to the 16th and 17th centuries and changes in its development to shifts in Western intellectual history. Erickson (1986) argues that interpretive theory and ethnography are interrelated.

Interpretive research and its guiding theory developed out of interest in the lives and perspective of people in society who had little or no voice. The late Eighteenth Century saw the emergence of this concern. Medieval social theorists had stressed the dignity of manual labor, but with the collapse of the medieval world view in the sixteenth and seventeenth centuries, the lower classes had come to be portrayed in terms that were at best paternalistic. (p. 122)

He ties the further development of ethnography in the 19th century to the emergence of the discipline of anthropology and to interest in colonial expansion and their peoples. He argues that:

Another line of interest developed in the late nineteenth century in kinds of unlettered people who lacked power and about whom little was known. These were the nonliterate peoples of the European-controlled colonial territories of Africa and Asia, which were burgeoning by the end of the 19th century. Travelers' accounts of such people had been written since the beginnings of European exploration in the 16th century. By the late 19th century such accounts were becoming more detailed and complete. They were receiving scientific attention from the emerging field of anthropology. Anthropologists termed these accounts *ethnography*, a monograph-length description of the lifeways of people who were *ethnoi*, the ancient Greek term for "others"—barbarians who were not Greek. (p. 123)

Athanases and Heath (1995) provide additional insights into the historical development of ethnography, arguing that:

By the early twentieth century, key judgments about what was "good" ethnography established the expectation that the researcher would carry out fieldwork in the local language and represent *what was* within a group, and not *what was not* or *what was in need of change* from an outsider's perspective. [Emphasis in the original] In addition, ethnography continued to rely on close ties with political and economic history and to include descriptions of contextual influences on the cultural and linguistic habits of groups. (p. 264)

Dobbert (1984) characterizes this shift as moving from an etic perspective to an emic perspective. She argues that prior to the 1960s, the ethnographer's *own* perspective (an etic or outsider's perspective) on what was being observed framed the description of a group. Since the 1960s, some ethnographers, particularly those guided by cognitive, interpretive, symbolic,

or ethnography of communication approaches within anthropology, have become more concerned with grounding their descriptions in the “folk terms” of a group and in identifying the meaning(s) to members of actions and events of everyday life. This is referred to as an emic or an insider’s perspective.²

Athanases and Heath (1995) identify yet another shift in the 20th century, one that had significant implications for education. They argue that in the 1930s some anthropologists began to study “slices of organizational life within complex societies and encouraged shorter works than the hitherto extensive volumes that had documented lifeways of entire groups” (p. 265). This shift meant that classrooms and small schools became a focus of anthropologists (as well as sociologists). They state further that “by the 1960s and 1970s, such work in the United States was strongly influenced by studies of specific situations for conversation and other types of discourse—oral and written—carried out by ethnomethodologists and sociolinguists (e.g., Cazden, John, & Hymes, 1972)” (p. 265).

This turn meant that ethnographers took a more *topic-oriented* or focused approach to the study of cultural practices, rather than a comprehensive approach, i.e., the study of a whole society Hymes (1982). This shift can be viewed as related to what Ortner (1984) described as a shift to *practice-oriented* theories of cultural activity, with a concern for understanding culture as constituted in and through the everyday practices of members of a social group.³

As this brief history shows, those writing about ethnography tie its evolution to shifts in the history of Western intellectual thought as well as to the development of anthropology and other disciplines (e.g., sociology, education, and social psychology). However, regardless of the view of its origins and development, all agree that ethnography is a complex process that involves the written account of a social group and that such accounts have transformed and become more systematic and scientific in the 20th century. Today, those exploring ethnography as a research approach have a wealth of theoretical perspectives to draw on, each with particular ways of theorizing culture and ethnographic approaches to studying social groups, and thus, what Strike (1974, 1989) calls the expressive potential of a research program.⁴ These include: cognitive anthropology

²Origins of emic—etic are found in the terms *phonemic* and *phonetic*—what is meaningful within a language to the speaker (emic) and external descriptions (etic). (cf., Pike, 1954.)

³These shifts are also related to a growing concern in sociology for the need for grounded theory (Glaser & Strauss, 1967; Strauss & Corbin, 1990) that provides a basis for examining the social construction of reality (Berger & Luckmann, 1966), and everyday life of members of a social group (e.g., Heller, 1984; Schutz, 1970).

⁴By research program, Strike means the program of research of an intellectual ecology, not an individual person’s research.

(Agar, 1994; D'Andrade, 1995; Frake, 1977; and Spradley, 1980), critical ethnography (Carspecken, 1996); cultural ecology (Ogbu, 1974, 1978, 1982), ethnography of communication (Gumperz & Hymes, 1972; Hymes, 1974; Saville-Troike, 1989); ethnography of experience (Turner & Bruner, 1986); interpretive ethnography in education (Erickson, 1986; Gee & Green, 1998; Gilmore & Glatthorn, 1982; Green & Wallat, 1981; Heath, 1982; Spindler, 1982; Spindler & Spindler, 1987); Linguistic Anthropology (Duranti, 1997), and symbolic anthropology (Geertz, 1973, 1983) among others.

Locating Educational Ethnography Within the Developing History

According to Spindler (1955), prior to the 1950s, educational ethnography did not exist. In 1954, a conference was held at Stanford University under joint auspices of the School of Education and the Department of Sociology and Anthropology at Stanford and the American Anthropological Association. The purpose of this conference was to explore the interrelationships between education and anthropology. Attending the conference were 22 noted educators and anthropologists. The outcome of the conference was one of the first books on the potential *inter*-relationships of these fields. This book, *Education and Anthropology*, was edited by George Spindler (1955). In his overview, Spindler (1955) notes that the participants in these two fields, while sharing a concern for the ultimate improvement of society, had different purposes for ethnography and different problems of import. In the next 2 decades, discussions continued, eventually leading to the sole session on "Ethnography of Schools" organized by John Singleton at the 1968 meetings of the American Anthropological Association and the session chaired by Fred Gearing on "Studies of Complex Societies." Gearing was, at that time, the director of the federally funded Program in Anthropology and Education. Hess (1999) states that it was "out of a meeting to describe the Program in Anthropology and Education that CAE [the Council on Anthropology and Education] was born" (p. 404). The formation of the Council of Anthropology and Education in 1970 also led to the founding of a journal, the *Anthropology and Education Quarterly*, which publishes studies of *education* by anthropologists and studies in *education* by educators grounded in anthropology.

The December 1999 volume (V. 30, Issue 4) of that journal revisits this history and discusses the challenges facing educational ethnography in the future. Issues raised include the meaning, role, and value of the concept of *culture* as an organizing principle of ethnography (González, 1999; Eisenhart, 1999). These articles and reflections also discuss shifts in focus of ethnography (Anderson-Levitt, 1999; Singleton, 1999) and in ways that topics are examined. Such shifts include: ethnohistorical roots of gender

ideologies and the historical and material circumstances that shape gender in relation to markets and families (Stambach, 1999); education beyond K-12 settings (Jensen, 1999; Dunn, 1999); and educational reform (Emihovich, 1999). Some articles also address issues in writing *with* or writing *over* voices of participants (Emihovich, 1999); intentions of the researcher (Schram, 1999); types of cultural knowledge studied (Spindler, 1999) and recurrent methodological concerns, e.g., objectivity–subjectivity (Brantlinger, 1999); activism (Brantlinger, 1999); and distance from those studied (Rogers & Swadener, 1999).

The distinction between educators' and anthropologists' goals in engaging in ethnography in relationship to education that was evident in the early years is still important to consider today. Green and Bloome (1995) suggest that to understand the contributions of work at the nexus of ethnography and education, it is necessary to distinguish between ethnography by anthropologists, i.e., *ethnography of education* and ethnography undertaken by educators (e.g., university researchers, teachers, students, and others), i.e., *ethnography in education*. The difference, they argue, is in the questions and purposes for doing ethnography.

What this history makes visible is that the answer to the question, *What is ethnography?*, continues to evolve as new theories and new disciplines develop within and outside of education. It also makes visible, as Green and Bloome (1995) have argued, that the issues raised about what counts as ethnography and who counts as ethnographers transcend the field of Education.

UNDERSTANDING ETHNOGRAPHY AS A LOGIC OF INQUIRY

In the previous sections, we have described the current context in which those seeking to take up or engage in ethnographic research find themselves. In the remaining sections, we present a set of key underlying principles: *ethnography as the study of cultural practices; as entailing a contrastive perspective; and as entailing a holistic perspective*. These principles are central to a range of theoretical positions and can be seen as constituting a *logic of inquiry* for research grounded in a cultural anthropology and ethnography of communication approach. As part of the discussion, we draw methodological implications and present examples of how researchers have used these principles in their research.

Following this, we describe the interactive–responsive process that ethnographers use as they design an ethnographic study, negotiate and renegotiate entry into a site, make ethnographic records, collect ethnographic data, and analyze data related to the questions of interest. This

interactive–responsive process guided by these principles constitutes the ethnographer’s *logic-in-use*. We also propose a way of representing the logic-in-use so that readers unfamiliar with ethnographic research can understand how theory–method decisions are made in relationship to anticipated and unanticipated questions that develop as an ethnographer seeks understandings of what members need to know, understand, produce, and predict in order to participate in socially and culturally appropriate ways within a social group. We conclude this section with criteria for ethnographic research in education.

Ethnography As the Study of Culture: A Practice Oriented Approach

As previously discussed, for *cultural anthropology* and *ethnography of communication*, ethnography is a theoretically driven approach involving a contrastive perspective, through which cultural phenomena or cultural practices are studied. Guided by their particular theoretical backgrounds,⁵ ethnographers seek understandings of the cultural patterns and practices of everyday life of the group under study from an emic or insider’s perspective. Through an interactive and responsive process that is recursive in nature, the ethnographer examines what members need to know, produce, understand, and predict in order to participate as a member of the group. In this way, the ethnographer seeks to “uncover”⁶ the principles of practice that guide members’ actions within the local group (Frake, 1977, as cited in Spradley, 1980). One way of thinking about this is that the ethnographer seeks to make visible the everyday, often, invisible practices⁷ of a cultural group, and to make the familiar or ordinary practices strange (i.e., extraordinary). Thus, the patterns and the principles of practice of members of a social group are viewed as the material resources that ethnographers use to construct a grounded theory of culture. By examining such practices, the ethnographer also seeks understandings of the consequences of membership, and how differential access within a group shapes opportunities

⁵See for example, the discussion in the introduction to *The Anthropology of Experience* by Victor Turner and Edward Bruner, 1986. These perspectives often differ in how etic and emic descriptions are used, the goals that the ethnographer has, the intellectual community in which they claim membership, and the questions that they seek to explore among other factors that shape their *logic-in-use*.

⁶We use the term uncover rather than find or identify to maintain an archeological metaphor from anthropology. The patterns are constructed by members and the task of the ethnography is to make those visible, that is, to separate the figure from the ground and then to see how they are used in other situations of occurrence.

⁷For a discussion of a turn toward practices in the study of culture within anthropology, see Ortner, 1984.

for learning and participation. This is an issue particularly relevant in the study of access to education in today's schools.

Just what theory of culture will be constructed depends on the ethnographer's intellectual history and the particular intellectual ecology (and thus the *logic of inquiry*) in which the ethnographer claims membership. To illustrate how the logic-of-inquiry shapes the logic-in-use of an ethnographer, we present an example from a cognitive anthropological perspective. Although Spradley (1980) died in the early 1980s, his work has been influential within education, both for university-based researchers and for secondary school students.⁸

Spradley (1980) proposed viewing culture as more than a fixed cognitive map. He quotes Frake (1977), who argued that:

Culture is not simply a cognitive map that people acquire in whole or in part, more or less accurately, and then learn to read. People are not just map-readers; they are map-makers. People are cast out into imperfectly charted, continually revised sketch maps. Culture does not provide a cognitive map, but a set of principles for map making and navigation. Different cultures are like different schools of navigation designed to cope with different terrains and seas. (as cited in Spradley, 1980, p. 9)

This view of culture as a set of *principles of practice* that members use to guide their actions with each other suggests that *cultures*, and by implication, *cultural knowledge*, are not fixed but are open to development, modification, expansion, and revision by members as they interact across time and events. Viewed in this way, ethnographers are concerned with developing a descriptive study of a group's customary ways of life at given points in time and from different points of view. Therefore, culture is not a variable or even a set of variables, but a set of practices and principles of practice that are constructed by members as they establish roles and relationships, norms and expectations, and rights and obligations that constitute membership in the local group. To identify these principles of practice, Spradley (1980) proposed a set of conceptual and semantic relationships among and between actors, social situations, and activity that the ethnographer uses as a guide but not a fixed model or "cookbook."

In a book on ethnography for high school students, Spradley and McCurdy (1972) argued that "Cultural knowledge is organized; we discover

⁸For more current views of Cognitive Anthropology see Agar, 1994; D'Andrade, 1995. For a theoretical discussion of an alternative to the cognitive anthropological perspective that has come to be known under the label, Symbolic Anthropology, see Geertz (1973), *Local Knowledge*. For critiques of cognitive anthropology see Geertz, 1973, 1983; Gilbert, 1992, and Gilbert and Mulkay, 1984. For a discussion of the critiques of Spradley in education, see Kelly, Chen, and Crawford, 1998.

meaning by grasping the underlying pattern, the implicit frame of reference that people have learned" (p. 59). Cultural knowledge as learned and, at times, implicit has implications for research. The task of the ethnographer, then, is to uncover the ways in which members view their world; how they construct the patterns of life; and how through their actions (and interactions), they construct values, beliefs, ideas, and symbolic-meaningful systems.

Central to the task as specified by Spradley (1980; Spradley & McCurdy, 1972) is the need to identify how members of a social group *name* and *categorize* their world. Thus, ethnographers who are guided by Spradley's perspective may begin with what he called a *grand tour* of the local setting or social world of the group to identify who the actors are, with whom they interact, when, where, under what conditions, and with what outcomes. This tour enables the ethnographer to examine the spaces, times, objects, events, acts, and chains of activity, among other aspects, that form a ground for subsequent analyses. By engaging in a process of developing initial categories that members of the group use, the ethnographer identifies ways members name their activities, spaces, actors, objects (artifacts), and interactions with actors, thus locating emic or insider categories. This approach enables ethnographers, wherever possible, to avoid imposing their own etic or outsider categories on what they observed. The exception to this approach comes when members do not have a "name" for the observed practice, activity, or cultural phenomenon. At such points, the ethnographer develops an etic term that *describes* the observed cultural phenomenon.

The analysis from this phase of data collection sets the stage for a more focused examination of particular cultural practices, events, or processes. This focusing process is based on a set of principled decisions that enable the ethnographer to move closer to an emic understanding of the patterns of life within the group. Just what will be observed in this phase depends on what members indicate, through their actions, are culturally marked or significant phenomena to examine, not on what the researcher initially planned. This process continues until the ethnographer has sufficient information to identify principles of practice. This process of focusing, Spradley (1980) calls a *developmental research process* or what we (and others) refer to as the *interactive-responsive process* of ethnography. Such responses are an anticipated part of the ethnographers plan from the outset.

Once data are collected at each stage of the research process, Spradley (1980) proposes a domain analysis approach for examining these data. This approach entails constructing a set of part-whole relationships through the consideration of a set of semantic relationships: *x is a kind of y; a place for y; a step in y; a reason for y; a way of doing y; an outcome of y, among others*. The domain analyses form the basis for constructing taxonomies of cultural terms,

practices, and processes. (See Fig. 6.3 later in this chapter for an example of a taxonomy). The goal is not merely to categorize the world, but to construct a cultural “grammar” that may be used by the ethnographer and others in the group without breaking cultural norms and expectations or roles, and relationships, while appearing to meet the rights and obligations of membership. The goal is not to go “native” but to be able to make visible the cultural practices and principles of practice to others who are not members of that group. To accomplish this goal, the ethnographer seeks ways of identifying what members need to know, use, produce, and predict to guide their participation in their everyday world. This approach, therefore, requires a reflexive and recursive approach by the ethnographer, not merely a single instance of identification of a practice.

There are a number of implications of this approach to the study of culture that need to be considered in planning as well as conducting an ethnographic study in education. First, the notion of a developmental research process means that questions are generated and identified across time and events in response to data collection and analysis conducted at different points in the study, with different actors and in different places (spaces). Questions as well as phases and levels of data collection can be proposed in advance, with the understanding that the actual questions relevant to the study within *this* group, and the phases or levels of collection and analysis can only be defined *in the local setting* (in situ). Second, over time observations and participation in the ongoing community are necessary to begin to understand what *counts* as a relevant term, practice, activity, or event, and how participation is entailed within and across such events. Third, the position that the ethnographer takes in negotiating entry and in interacting in the setting is one of *learner*, who studies with people within a local group to seek cultural knowledge that is often implicit or invisible to members. Fourth, what the ethnographer learns can be triangulated with members to see if the analysis matches local cultural knowledge. If there is no match with the understandings of members, it may not mean that the ethnographer is wrong, although this may be a possibility. Since cultural knowledge is often tacit knowledge, by watching the responses of members, ethnographers can assess whether the person with whom they are sharing their interpretation was surprised by the findings, thus suggesting that he or she was unaware of the practice but now affirms the description of the practice as culturally possible (or impossible). Each of these responses can lead to new data collection (e.g., interviewing others) and analyses to assess the adequacy of the description and to clarify, modify, and/or revise the understandings.

One reason that further study may be required is that the person with whom the ethnographer is speaking may not have access to or be aware of the cultural practice, the knowledge required, or the processes involved.

This state-of-affairs comes from the fact that *no individual* holds all cultural knowledge; cultural knowledge is of a group, and individuals, depending on what cultural activities and practices they have access to, will have *particular knowledge of particular aspects* of a culture. Thus, an ethnographer cannot rely on a single informant to assess the adequacy of the interpretations of the data. Multiple points of view or perspectives are needed. For example, a teacher or group of teachers may not have access to all knowledge about the workings of a school. A principal may not have all knowledge either, but the knowledge that he or she does have will differ from that of the teacher(s) in particular ways, given the rights and obligations of each position. The teacher(s) and principal will not have the same knowledge as the office personnel, who help the teachers, administrators, and community (i.e., parents and others). Further, students will have a particular range of knowledge constructed through their participation in the classroom, the peer group, the school, the home, and the community that differs from that of teachers, administrators, parents, and others. Singularly, each provides a situated view, one that is related to the roles and relationships, norms and expectations, and rights and obligations associated with the ways in which they are positioned within the school community. Collectively their knowledge constitutes a broader picture of cultural practices and processes of the school. However, the study of a single class or school provides only a situated perspective and a comparative approach is needed across different classes or schools to understand *what counts as schooling* within the broader society. Within anthropology, the comparative approach is called ethnology and serves as a basis for comparative generalizations (Hymes, 1996).

The existence of differential access, and thus a situated perspective,⁹ is important to understand and to consider in writing a proposal or conducting an ethnographic research study. In the next section, we examine how differences in perspectives and understandings can be productive in the process of uncovering principles of practice across time and events as well as across cultural groups.

Ethnography As Involving a Contrastive Perspective

In this section, we examine three ways in which a contrastive perspective informs the work of ethnographers: contrast as a basis for triangulating perspectives, data, method, and theory; contrastive relevance as a principled way of making visible emic processes and practices; and frame clashes and

⁹For a discussion of a situated perspective on literacy learning see Heap, 1991 and others in the volume edited by Baker and Luke (1991), *Toward a critical sociology of reading pedagogy*.

rich points as contrastive spaces for identifying cultural knowledge. Each of these ways of viewing what is entailed in a contrastive approach provides particular insights and allows the ethnographer to make visible different aspects and practices of a culture. Just which perspective an ethnographer will use will depend again on his or her approach to the study of culture and the goals of the research. The systematic use of contrastive analysis is one area in which those involved in ethnography *in* and *of* education have contributed theoretically and methodologically to ethnographic methods and to theories of cultural practices.

Contrast As a Basis for Triangulating Perspectives, Data, Method, and Theory

Corsaro (1981; 1985) proposes four types of contrast that can be used within an ethnographic study: perspective, data, methods, and theory. These types of contrast form the basis for triangulation. Central to the idea of triangulation is the notion that in juxtaposing different perspectives, data, methods, and theories, the ethnographer will be able to make visible the often invisible principles of practice that guide members' actions, interactions, production of artifacts, and construction of events and activity of everyday life.

As discussed in the previous section, juxtaposing perspectives within a setting provides information that the study from one perspective cannot reveal. While such juxtapositions often involve use of different types of data, methods, or theories, using *perspective* as *the point of contrast* makes visible the differences in types of knowledge and access afforded members of a community. It also allows the researcher to identify new sites and groups to observe so that the repertoire of cultural practices needed by different members of the group can be identified and the consequences of the differences in positions can be explored within and across groups, times, events, and spaces.

To illustrate how triangulation of perspective, data, method, and theory is productive for theory generation, we present an example from the work of Judith Solsken (1992). Solsken contrasted reading in the home with reading across years of schooling in order to construct a literacy biography for individual students and to identify what counted as literate practices in each setting. By contrasting who could read what, when, where, with whom, under what conditions, and for what purposes, she was able to identify patterns in each site (child's room, family homework session, kindergarten and second grade class with female teacher, and first grade class with a male teacher). Thus, she used contrast of practices across actors, times, events, and sites to construct a grounded argument about why one boy in kindergarten said, "No words for me."

She argued on the basis of her observations in the boy's home that he saw literacy as "women's work," since his mother and older sisters were the ones that he observed reading. Because her visits occurred at different points in time across the year before he entered school, she was able to construct a picture of the patterns of literacy work among family members. The father's role in literacy work was not visible to her, leading her to link the boy's comments in the following year (his kindergarten year) to the observed pattern of literacy as gendered work. Additionally, since she traced the boy's literacy development across 3 years of schooling, she was able to see how he responded to a male teacher in first grade as well as to his female teachers (kindergarten and second grade). It was not until he had a male teacher that his engagement in literacy practices in the classroom shifted, and he took up the opportunities for reading and other forms of literacy work more fully.

On the basis of this contrastive analysis, Solsken (1992) argues that:

Luke's pattern of categorizing reading and writing by social relations continued into second grade. The major observable change was in his response to having a female teacher again. He did not resist Mrs. Benedict in conferences as he had in kindergarten, but he also did not seek her attention or support as he had Mr. Sullivan's. The result was that he devoted more of his attention and energy to peer interaction and to his own interests. (p. 179)

The over time look allowed her to build a grounded biography that made visible multiple sources of influence on the student's valuing of literacy as well as what he was willing to take up and display at particular points in time.

In following this student and other across time, Solsken (1992) engaged in all four types of contrast identified by Corsaro (1985) in order to construct a more comprehensive grounded theory of literacy learning and how it is related to other types of learning, including gender and work. Solsken contrasted different theories of literacy in the early years (e.g., emergent literacy, the social construction of literacy, literacy as social status and identity) to develop an orienting framework for her study. Her orienting framework built on the work of Anderson, Teale, and Estrada (1980) and Heath (1983) in which literacy events were identified by observing actions and interactions with and about written texts. However, Solsken's contrastive analysis of the ways in which beginning reading had been approached and her initial analyses of her data led to the identification of a "missing" perspective, the role of individual agency in the take up of cultural resources. This way of conceptualizing literacy learning, once identified, became both an orienting theory and an explanatory framework

that guided her subsequent questions, methods selection, data collection, and analysis approaches, as well as her interpretation of the data. Her data showed the agency of the child within and across literacy situations¹⁰ and led her to new a conceptualization and explanation of what is entailed in learning to be literate:

Each and every literacy transaction is a moment of self-definition in which people take action within and upon their relations with other people. From this perspective, literacy learning would rarely be expected to proceed smoothly or without tension.

The major argument of this book is that the study of beginning literacy in families and in schools must start with the assumption that literacy learning is such a self-defining social act. Adopting this assumption requires that we view children as acting within and upon larger social systems. We tend to associate childhood with innocence, future potential, or even victimization in relation to those systems, but not with agency and choice. (p. 8)

Solsken was able to explore the issue of agency, the "missing" perspective, by contrasting data for each individual and for the group across actors, times, events, and sites. She contrasted perspectives (e.g., child reading alone *with* family reading practices in the home) and methods (e.g., videotape records with field notes, prompted literacy activities, interviews, and artifacts). These contrasts enabled her to identify when, where, and under what conditions reading and writing occurred, how it occurred, who participated, and how members viewed and/or understood and valued such practices. Thus, a strategy of contrastive analysis was a central part of her study of literacy at home and at school.

Without the explicit use for multiple forms of contrast, much of the information she obtained would not have been visible and would have constrained her interpretations and understandings of the patterns within the data. This would have led to a more impoverished view of the complexity of literacy practices and literacy learning available to, and taken up by, the individual students she followed across years of schooling. It would also have left unexamined the child's role and agency in the construction of literacy learning. It was not solely the lack of opportunity that led to the student's performance, since a broad range of opportunities were available in the larger social contexts of home and school, but rather, the individual's agency in valuing particular practices at particular points in time.

Her contrastive analyses, therefore, made visible multiple types of emic knowledge, each related to different actors and social situations. Types

¹⁰For a discussion of socialization of children that has agency of the child as a contributor to the development of society, see Gaskin, Miller, and Corsaro, 1992.

of knowledge included knowledge of practices as represented in the actions of family members; in the actions and interactions of class members and their teachers; and in the actions of individuals within and across different actors, situations, and times. Additionally, by contrasting different theoretical perspectives she was able to add to the field's understanding of early literacy by making visible the relationships between opportunities for learning and individual take up of such opportunities as well as the contribution of gendered practices to such learning. Thus, for Solsken (1992), triangulation was a key principle of practice that guided her *logic-in-use*.

Contrastive Relevance As a Principled Way of Making Visible Emic Processes and Practices

Hymes (1977) proposed the concept of contrastive relevance as a principle of practice of ethnographers. He argues that the use of contrastive analysis provides a means of demonstrating functional relevance of the bit of life, or language and actions within that bit. Contrastive relevance, therefore, provides a way of examining and identifying what counts as cultural knowledge, practice, and/or participation constituting a particular "bit of life" within a group. In discussing contrastive relevance and its value to education, Hymes argues that:

We cannot adequately evaluate language development and the use of language that enters into education without attention to the principle of contrastive relevance—to the demonstration of functional relevance through contrast, showing that a particular change or choice counts as a difference within the frame of reference. . . . To discover what is there, what is happening, one seeks to discover what changes of form have consequences for meaning and choices of meaning lead to changes in form. One works back and forth between form and meaning in practice to discover the individual devices and codes of which they are a part. (p. 92)

Defined in this way, contrastive analysis depends on analysis of the talk and actions among members from an emic perspective. As in triangulation, this task involves the constant use of contrast to build grounded interpretations. The use of contrastive relevance requires ethnographers to ground their analysis in the choices of words and actions members of the group use to engage with each other within and across actors, events, times, actions, and activity that constitute the social situations of everyday life. (See Gee & Green, 1998 for examples and an extended discussion of discourse analysis in relationship to reflexivity as a basis for contrast from an ethnographic perspective.)

Rich Points and Frame Clashes As Contrastive Spaces for Identifying Cultural Knowledge

Previously, we discussed the ethnographic understanding that members may not have the same interpretation of all actions or events, given the issue of differential access to different aspects of the social life within a group. Agar (1994) proposes the concept of *rich points* to capture what is made visible through differences in the frames of reference (what Mehan, 1979, and others call *frame clashes*). For Agar (1994), a rich point can occur within a group; it can happen when visiting a new place; or it can occur when the ethnographer's cultural resources and background do not allow him or her to see and understand the actions and activity within the social group under study from an emic perspective. A rich point, he argues, is a place where *culture happens*. That is, at such points, the ordinary is made extraordinary, since the actor(s) can no longer proceed as usual.

Rich points in an ethnography, therefore, are points at which the differences in understanding, action, interpretation, and/or participation become marked. At such points, the cultural practices and resources that members draw on become visible in their efforts to maintain participation. Two examples of rich points and what each made visible will be presented. The first comes from the work of Green and Harker (1982). In an analysis of an event in a kindergarten classroom called "News & Views" from a year-long ethnography, Green and Harker describe how one of the students read only some of the cues to the activity and not the full range available. In describing the unfolding event, they identified James as reading two sets of cues but not a third set. Their analysis showed that his actions indicated that he viewed the talk as being about a classroom event called News and Views, and that everyone would get a turn to share. However, James' actions showed that he did not read the event as one that was talking about *what we do in News & Views*, or as an introduction to that event. Rather, his actions showed that he had read the task as *doing News & Views*; that is, he began to share something. The teacher's statement, "Excuse me, James" and her actions of continuing to present what the task would be to members of the class told James that what they were doing was not News and Views but *getting ready* to do News and Views. Through discourse analysis of pronominal reference, propositional ties present and past reference to activities, events, and actions, and Green and Harker (1982) argue that James was drawing on prior cultural knowledge to take action but not on the action that was under construction. Thus, James anticipated the event that would take place next and acted as if he were in that event.

The contrast between James' actions and the teacher's expectations for action formed a rich point that signaled to James, and other group members, just what was expected and how James, and by implication others,

were to participate. It made visible to others in the group, as well as to the ethnographers, what actions were relevant in the local moments. Contrastive analysis of this moment with previous ones provided a basis for understanding the cultural knowledge that James drew on to guide his attempt to begin sharing, i.e., that he would be the first to share given his position in the circle. Further analysis showed that James often invoked norms for participation on the group, e.g., "talk one at a time" even if he did not follow the norms. Thus, James' actions are understandable through contrastive relevance, both in the moment and over time.

The second example is drawn from a year-long ethnography by Tuyay and her colleagues (Tuyay, 1999; Tuyay, Jennings, & Dixon, 1995), who show how rich points are part of a process of shaping opportunities for learning in a bilingual classroom. While they provide a number of examples to build an understanding of how *opportunities for learning* are constructed in classrooms and how individual actors take up the opportunities in particular ways, one example will be presented here. This example focuses on a small group of students (3 boys), one a bilingual speaker who acknowledged his bilinguality, one a bilingual speaker who preferred to be viewed as an English speaker, and one Spanish dominant speaker. The three boys were working on a collaborative writing project in which they were to compose a fictional planet story. The event was part of a 33-day cycle of activity focusing on the solar system in a variety of ways. This event occurred approximately two thirds of the way through this cycle of activity and was one of the first opportunities in which students were to write fiction based on scientific fact (see also Tuyay, 1999).

As the teacher approached the small group, she noticed that only two of the boys were involved, given that the talk was all in English. The Spanish dominant student was watching but not participating in the composing process. Using Spanish, she asked the group whether the boy who only spoke Spanish knew what they were doing. One of the boys speaking English answered in Spanish that he [meaning the Spanish dominant speaker] was "only playing." In response to this, the teacher asked the boys again in Spanish "¿Cómo puede decir ideas si no sabe lo que está escribiendo? ¿Es possible?" (How can he tell you ideas if he doesn't know what you are writing? Is that possible?) They answered "no" and she then asked "¿Entonces qué puedes hacer tú?" (So what can you do?). What followed was a shift in language, both oral and written, to include Spanish. The final product the three boys produced was bilingual in form and substance with the Spanish dominant student contributing the illustrations for the story.

This brief exchange (approximately 30 seconds) between the teacher and the three students was a rich point in two ways. First, it made visible to the boys (and the ethnographer) that both languages were a resource for academic work and that the choice of language by two of the students

(the bilingual students who chose to speak English) served to exclude one member of the group. Second, because the teacher elected to use Spanish in speaking to the group, it became a rich point in which the three students had an opportunity to clarify the task, as well as the roles and relationships and norms and expectations among members. These actions enabled them to take up new positions as participating members of the group. It also provided an opportunity to revisit classroom rights and obligations for participation and to revise the activity to include all, a right *and* obligation.

Both examples show how rich points are places where the norms and expectations, roles and relationships, and rights and obligations for group membership and participation become visible to members as well as to ethnographic observers. Without such rich points, both researchers and members alike would not have had an opportunity to learn about what *counts as membership* and *appropriate participation*. Further, the second example suggests that issues of access are constructed locally and not just at a macro level by school systems. These examples show how small actions among members may have large consequences for participants, and how actions make visible what counts as appropriate participation and cultural practice. Without contrasting the patterns of discourse and activity across time and events, the nature of these brief interactions as being rich points would not have been visible. Thus, rich points involve examination of what is occurring in the moment and then contrasting the observed moment with what has been seen in similar events across times and actors. In this way the present and historical contexts of actions are part of the ethnographic analysis. Ethnography, therefore, involves a part-whole approach to building a grounded theory of activity and meaningful symbolic systems.

Ethnography Involves a Holistic Perspective

The problem for those seeking to understand the nature of part-whole relationships within an ethnography is one of understanding what is meant by the term "whole." Some ethnographers argue that "whole" refers to the community level (e.g., Lutz, 1981; Ogbu, 1974), while others argue that "whole" does not equate with size but with the identification of a "bounded" social unit (Erickson, 1977; Gee & Green, 1998). Erickson (1977), for example, argues that ethnographic work is "holistic," not because of the size of the social unit, but because the units of analysis are considered analytically as wholes, whether that whole be a community, a school system . . . or the beginning of one lesson in a single classroom" (p. 59).

Holistic, in this instance, does not mean that a single event can be analyzed and then reported as an ethnography. Nor that a unit of analysis can be viewed as a variable (e.g., culture as a variable, a cultural practice

as a variable) that can then be counted and used in a statistical equation. Rather, it means that the analysis must consider how the individual parts relate to the broader whole (e.g., beginnings of other lessons, other aspects of lessons, other aspects of classroom life, and beginnings of other types of speech events outside of the classroom). Thus, an individual event may be analyzed in depth to explore and identify the cultural demands or elements of the event (e.g., the ways in which it is accomplished, the social and academic demands for participation, the roles and relationships among members, and the communicative requirements for participation). However, the exploration will not stop with the analysis of the individual event. Rather, the information obtained from this analysis will be used as the basis for the exploration of other aspects of the culture or phenomenon. In this way, a "piece of culture" can be examined in depth to identify larger cultural issues and elements.

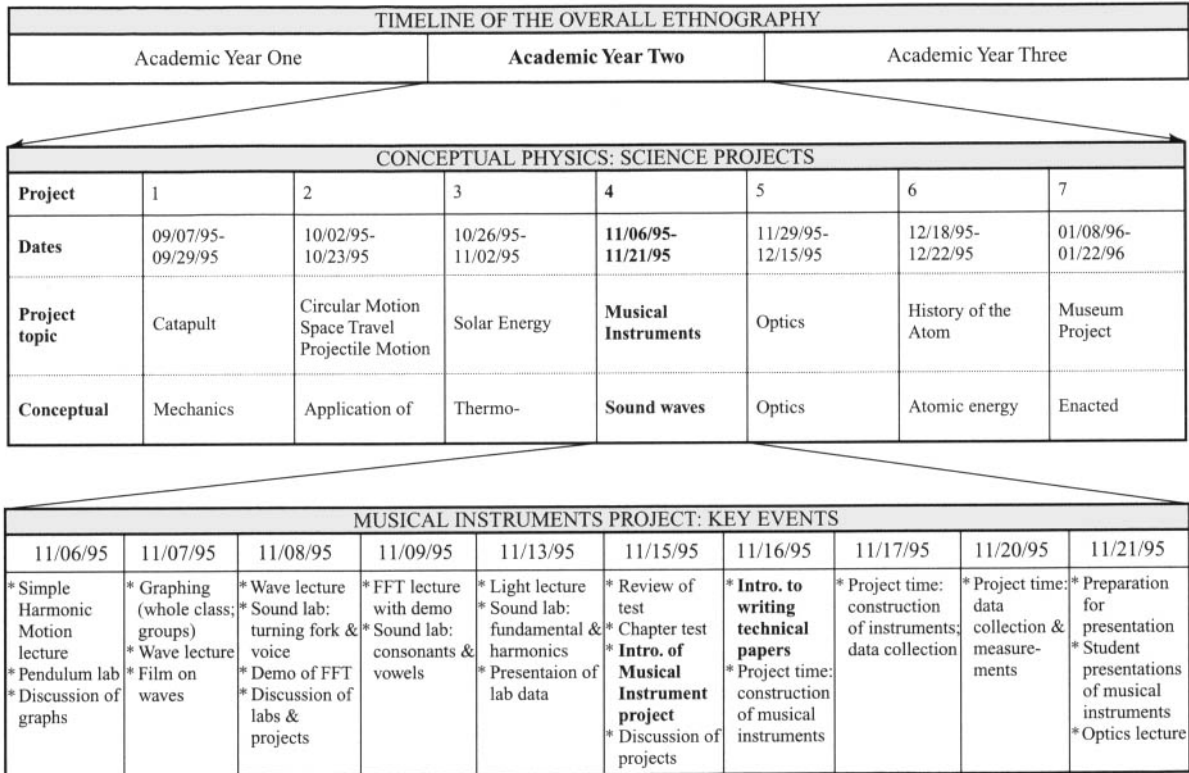
The notion of holistic has methodological implications for the study of everyday life in cultural contexts (e.g., school, home, church, and playground). Observations made of individual "wholes" are compared to other similar wholes and to larger wholes within the group under study. For example, an ethnographer might elect to study reading within the social unit called classroom. Once this decision has been made, the ethnographer would then need to observe the period of classroom life called "reading" by the participants, as well as all other classroom activities to identify the embedded nature of "reading" in other types of events (Green & Meyer, 1991). (For a discussion of how this process works in mathematics, see Moschkovich & Brenner, 2000; and in science, Kelly & Crawford, 1997).

To explore the nature of "reading" in the everyday life-world, or culture, of the classroom, the ethnographer would need to examine the beginning and ending boundaries of events as defined by the actions of the participants in the local setting. Once the boundaries of events are established, the ethnographer would then explore what occurs within the events, both those defined as reading and those in which reading is embedded. These analyses would then be undertaken for a complete cycle of activity. A cycle of activity in a classroom would be a series of purposefully tied events (e.g., completed lessons that form a "unit" of instruction. Unit is used here to refer in an analytic sense of tied events, not in a curriculum sense of a predefined set of instructional activities, although the two may overlap.) The length or boundaries of a cycle depend on how this aspect of culture is defined by the participants and not on predetermined criteria set by the ethnographer. Thus, while *reading* as an activity in the daily life of the classroom might occur throughout the year, it is also composed of *cycles of activity* (e.g., instruction) within the larger whole. Further, within cycles of activity other than those officially labeled as reading, the ethnographer would identify a broad range of literate practices that count as reading in and across disciplines, events, actors, and times. These cycles can be explored

in their own right and then the findings compared across instances of occurrence to obtain a more "comprehensive" understanding of "what counts as reading" in the local context for the local participants. (For examples of this type of analysis see the Santa Barbara Classroom Discourse Group, 1992a; 1992b.) In addition, once a unit of observation is determined within the local setting, the ethnographer can take a more focused look at how the local event(s) are accomplished withing reading in the classroom (e.g., contrast high group reading practices with low group reading practices). The focus will depend on the question being explored. The ethnographer might then select a "representative" event and contrast the social and academic demands and structure of the events. (See, for example, Collins, 1987; Cook-Gumperz, 1986; Egan-Robertson, 1998; Erickson, 1982; Rex, Green, & Dixon, 1997; and Rex & McEachen, 1999.)

The part-whole approach to the study of reading from a sociocultural perspective differs from those of other perspectives in which the definition of reading is assumed prior to entry into the context of the study or is assumed to be stable across all instances of occurrence. While the ethnographer may elect to focus on reading and may derive information from the literature about the nature of reading in classroom contexts, the ethnographer will not begin with a preset definition of "reading." Rather, the ethnographer will examine whether participants in the social group have an event called "reading." He or she will then explore how it is accomplished, what counts as reading, when and where it occurs, who can participate, what functions and purposes it serves, and what the outcomes are of participating in the events called reading (e.g., Bloome & Bailey, 1992; Gee, 1996; Heap, 1991). In instances where the cultural group does not have a "formal" event called reading, the ethnographer will make *principled decisions* about how to locate instances of reading in the group under study. The principle of practice guiding this aspect of ethnographic analysis is the concept of part-whole relationships, guided by a practice-oriented perspective on culture. That is, by examining the local practices involving the production and interpretation of "text," the ethnographer constructs a situated view of what counts as literate practices in the local group across actors, times, events, and spaces (see Anderson, Teale, & Estrada, 1980; Barton, 1994; Bloome & Egan-Roberston, 1993; Heath, 1983; and Street, 1984, 1993; for a discussion of the issue of locating literacy events).

The challenge facing the ethnographer in writing about such part-whole relationships is one of finding a way to represent this aspect of the logic-in-use. To illustrate one of the ways in which part-whole relationships have been represented in recent work, we draw on research by Kelly and Chen (1999) who studied the construction of science as sociocultural practices in a high school physics class. Their study examined different dimensions contributing to the writing of a technical paper on the physics of sound (the Musical Instruments Project). These ethnographers used textual analysis



* Kelly & Chen, 1999.

FIG. 6.1. Timeline situating "Musical Instruments Project" in three years of Ethnography*.

of student papers to examine how students used evidence in their papers to make claims, and discourse analysis of how students appropriated and used the scientific practices and content available within and across cycles of activity. Figure 6.1 is their representation of the part-whole relationships from their published article.

As indicated in Fig. 6.1, Kelly and Chen used three levels of mapping to situate the project analyzed, The Musical Instruments Project, in the ongoing academic year, and within the ongoing ethnography (a 3-year study). Each of the three *maps*, while representing different periods of time, provides increasing detail from the Timeline of the Overall Ethnography (Map 1) to the Key Events (Map 3). The *Key Events Map* shows the greatest detail by describing the general range of activity within the Musical Instruments Project and the emic names for types of events within this cycle of activity. Together, the three maps locate when in time¹¹ particular events occurred and present a general statement about what was undertaken at each point in time. This form of graphic representation makes visible key part-whole relationships that were considered in the analysis and provides evidence of the data used as a basis for interpretation. Thus, this approach to representing relationships among the parts makes visible the *logic-in-use* of these ethnographers for both the larger project and the particular analysis presented in the article. Further, it lays a foundation for understanding important interactive and responsive decisions made in selecting this event as the focus for this article.

Ethnographic Fieldwork Involves an Interactive-Responsive Approach

As discussed previously, ethnography is not the linear process that is generally associated with many forms of educational research, in which all decisions about a study are made prior to beginning data collection, and analyses are not undertaken until all data are collected. Rather, ethnography is a dynamic, interactive-responsive approach to research, involving a reflexive disposition and a recursive process. Through this process, questions are generated, refined, and revised, and decisions about entry into new settings and access to particular groups, as well as data collection and analysis, are made as new questions and issues arise in situ that need to be addressed.

Central to this reflexive process are the key theoretical and conceptual principles presented previously that guide the ethnographer's research

¹¹The concept of being "in time" builds on the argument by Adam (1990) that people within a social group construct time(s) and that it is culturally appropriate to speak of "times" and not "time" in some abstract sense.

practices. These principles form an *orienting theory* that the ethnographer uses to initiate a project, to take action throughout the project, and to analyze data on which claims about cultural practices will be made. Further, as indicated previously, an ethnographic project entails a developmental research approach that cannot be completely preplanned but that constitutes the basis for the design of the study that emerges from the decisions made across times and events. Additionally, we argue that this process and the emergent design are the result of the reflexive nature of ethnography as well as the ethnographer's logic-in-use. Such changes are an anticipated part of this reflexive, responsive, and contrastive process.

In this section, we revisit this process and explore further how the interactive-responsive approach shapes and reshapes the direction that a study takes. As part of this discussion, we will present a way of graphically representing the logic-in-use, so that decisions about question-theory-method relationships can be made accessible to readers of ethnographically-based research. We argue that the principles that frame the logic of inquiry within cultural anthropology and ethnography of communication form an orienting theory to a *practice-oriented study of culture* that entails a contrastive and reflexive approach, part-whole, relationships, and a holistic perspective.

This framework enables the researcher to enter a context, to ask "what's happening here" in order to unearth or uncover what counts to participants (an emic perspective), and to "bracket" their own cultural expectations about what will occur or what they will "find" (an etic perspective). (For a discussion of how context is viewed across different theoretical perspectives, see Duranti & Goodwin, 1992.) From this orienting theory, culture is not found, it is constructed and written through the theoretical and methodological decisions and actions of the ethnographer as he or she interacts with those within the social group (cf., Clifford & Marcus, 1986; for a discussion in Sociology see Atkinson, 1990). Through these processes and practices, the ethnographer *learns about what counts* to members as relevant issues, processes, practices, events, times, spaces, and values. It also enables the ethnographer to examine who has access to each "bit of life," when, where, under what conditions, with whom, using what artifacts, and with what outcomes. As indicated previously, these decisions and the resultant actions of the ethnographer constitute the ethnographer's *logic-in-use*.

Further, and perhaps critically relevant to education, such actions provide the ethnographer with resources to *learn about the consequences for members* of the patterns of interaction within and across times, actors, events, and practices. Thus, ethnographic research goes beyond *mere description* to ask about the impact on members of their participation in local communities of practice, whether a lesson, a small reading group, a class, a school, or other social institution (e. g., family, peer culture, social clubs,

gangs, or religious organizations). As part of this discussion, we draw distinctions among *doing ethnography*, *adopting an ethnographic perspective*, and *using ethnographic tools* (Green & Bloome, 1983, 1995).

Representing the Interactive–Responsive Approach as a Logic-in-Use

Decisions to modify the research design are *deliberate decisions* guided by the ethnographer coming to understand what is relevant to members of the group, not what his or her initial plan (or proposal) assumed to be relevant. From this perspective, as the researcher interacts with participants and data, it may become necessary to modify the research design in order to be responsive to the local context. Decisions to modify the initial design, to address new questions, and to seek new data are expected to occur (i.e., they are anticipated in the design), and are grounded in understandings of *what counts* to members obtained through sustained participant observation, and wherever possible, interviews and artifact analysis (see also Ellen, 1984 and Spradley, 1979, 1980). These decisions therefore are purposeful and deliberate. They enable the ethnographer to examine key issues not previously considered or understood to be necessary (e.g., LeCompte, Millroy, & Priessle, 1992; Hammersley & Atkinson, 1995; Heath, 1983; Spradley, 1980; Spindler, 1982).

Figure 6.2, drawn from the work of Castanheira, Crawford, Dixon, and Green (2001), illustrates how an emergent logic-in-use can be graphically represented. We selected this figure for inclusion for two reasons. First, it represents an interactive–responsive research process and makes visible the relationships of an overarching question to the sub-questions used to examine the broader issue, i.e., *what counts as literate practices within and across classes*. Second, it makes visible the decision frame used by these researchers across analyses. The decisions made within each phase of the research process are represented by three different sets of actions: *posing questions*, *representing data*, and *analyzing events*. The link between the different phases of analysis is represented by overlapping boxes. The overlap is purposeful in that the analysis of one phase leads to new questions, and thus to a new phase of analysis. By overlapping the boxes, these researchers show the interactive–responsive and reflexive nature of ethnographic analysis.

This approach to representing a researcher's or research team's *logic-in-use* can be used for a complete ethnography, or as illustrated here, can be used to take a more topic centered or focused look at the actions of members of a group (see Hymes, 1982; see also Gee & Green, 1998). Building on a distinction by Green and Bloome (1983, 1995), this approach can be viewed as adopting an *ethnographic perspective* that can be used to examine a "bit of

Overarching Question: How can we understand the ways in which the literate practices are shaped, and in turn shape, the everyday events of classroom life, and thus, the opportunities that Simon (and his peers) had for learning?

Posing questions: What events were constructed in these classes? Where, under what conditions, with whom, and with what outcome?

Representing data: Constructing time-stamped running record of chains of activity. Creation of two types of event maps. One including phase and sequence units, and one the construction of comparative timelines.

Analyzing events: Review of the comparative timeline to note the flow of activity in each class (Hospitality, Cooking, Machine Shop, English and Math), and to identify what time was spent on and by whom.

Posing questions: What did the physical “whole” of the literate environment look like within and across classes? Where was Simon (the focal student) located within these environments?

Representing data: C-Video framegrab of each change of camera focus to get a picture of shifting activity and the literary environment. Construction of comparative physical maps.

Analyzing events: Use of comparative maps to locate Simon in relationship to the group and compare the physical space and literate practices across classes.

Posing questions: What was the role of the workbook and other texts in framing the opportunities for learning?

Representing data: Domain analysis and taxonomy of the different forms of texts used and the ways in which they were used by teachers and students across classes.

Analyzing events: Comparative analyses of domains analyzed across subject area classes.

Posing questions: How was literacy talked and acted into being within and across classrooms? Who was responsible for the text constructed?

Representing data: Transcribing talk into event maps including identifying who talks, contextualization cues, time, and phases of activity.

Analyzing events: Cross-case comparisons of activities and person(s) responsible for change in activity. Domain analysis and taxonomy construction to identify the types of practices across classes and the opportunities they afford.

Posing questions: What is the role of the individual in the sociocognitive activities identified?

Representing data: Construction of comparative/contradiction tables providing evidence of both the collective and individual practices within and across classes.

Analyzing events: Cross-case comparisons addressing teacher actions/practices that set up and; Simon’s interactions across classes.

*Castaheira, Crawford, Dixon & Green, in press.

FIG. 6.2. Logic of inquiry: Analytic process*.

life." The issue of concern, given the critical dialogues discussed previously, is the level of claim about cultural practices that can be made through such analyses. Just how an *ethnographic perspective* works to guide analysis of less than the "whole" but remains "holistic" is addressed in what follows. We elected to present this approach to illustrate how an ethnographic logic-of-inquiry can orient researchers as they examine the artifacts or records of the everyday life of a social group, even when they cannot, or do not, engage in a full ethnographic study.

The data analyzed were obtained from a larger study of literacy across levels of post-secondary schooling by an Australian Team of researchers (Cumming & Wyatt-Smith, 2001). Portions of these data were sent to 10 research communities in different parts of the world, each representing a distinctive theoretical approach to the study of literacy as sociocultural and/or discursive processes. Members of the Santa Barbara Classroom Discourse Group were invited to participate in this comparative study of research approaches. However, since the data sent to each group did not constitute a full ethnography, but rather selected data (1 day) from a larger study, it is important to understand how an ethnographic perspective guided the general approach used by this group.

The Santa Barbara Classroom Discourse Group has developed an approach to *ethnography in education* that they call Interactional Ethnography (Green & Dixon, 1993; Putney, Green, Dixon, Durán, & Yeager, 2000; Santa Barbara Classroom Discourse Group, 1992a; 1992b). This approach usually requires the over time (1 or more years) study of a social group through the integration of ethnography, guided by cultural anthropological theories, and discourse analysis guided by sociolinguistic and interpretive theories of language in use. However, as will be illustrated, this approach makes possible the study of less than the whole community or pattern of life across times and events. By adopting the orienting theories of ethnography and sociolinguistics, the team was able to examine the life inscribed in the words and actions of members of a social group recorded as the "bit of life" on a videotape (see also Gee & Green, 1998).

The data sent to each research community represented a particular post-secondary education population. The Santa Barbara Classroom Discourse Group¹² received artifacts produced by one student on a single day across five of his classes. These data included video records of the five classes, and

¹²Members of the Santa Barbara Classroom Discourse Group make a distinction between perspective (angle vision) and perception, what some individual person perceived. This distinction makes it possible to examine everyday activity from a particular point of view or angle of vision without claiming that any particular person held that view. In this way, they were able to take an emic perspective on data provided, without interviewing the participants directly.

“official” documents representing the program in which he was participating, the Technical and Advanced Further Education (T.A.F.E.) program (grades 11–12). This program does not exist in the U.S. context, and therefore, necessitated a request for further information in order to locate the videotape record of classroom life and other artifacts in the larger schooling process and to interpret the data from an *emic perspective*. Additionally, to understand how, and in what ways, the data from 1 day were *representative* or *illustrative* of the patterns of life on subsequent days within each class, the research team requested, and obtained, videotape records and artifacts from 2 additional days within the same time period. These data, therefore, formed a corpus that enabled the team to engage in comparative work across classes and across days, to examine what counted as literate practices in each class, and to identify what was *relevant* to do, understand, produce, and predict in the events of each class. Thus, they used an *orienting framework* that can be viewed as an *ethnographic perspective*.

As indicated in Fig. 6.2, their analyses began with an overarching question—*How can we understand the ways in which the literate practices are shaped, and in turn shape, the everyday events of classroom life, and thus, the opportunities that Aaron [the student on the videotapes] and his peers had for learning?* As the study progressed, each analysis raised new questions, which in turn, led to new analyses and interpretations of data. The first analysis involved parallel examination of each of the five classes to locate the events and actors and conditions and outcomes of each event.¹³ The second analysis located what was available to be read within the physical space, an aspect that would not have been visible if the team focused solely on Aaron’s actions. The literate practices inscribed in the physical world provided a link between local actions and the larger social world (e.g., Barton, 1994; Barton & Hamilton, 1998; Egan-Robertson & Bloome, 1998; Street, 1984). The third analysis examined the artifacts produced and/or available to Aaron as a resource for learning, and how they were used. This analysis brought curriculum designers into the classroom through the artifacts and made visible what counted as *disciplinary knowledge* to those who framed the courses (e.g., English, Hospitality, Mathematics, Food Technology, and Industry Studies: Metal). The fourth analysis examined the patterns of discourse and actions in the events recorded to explore how a particular or situated view of disciplinary knowledge (e.g., English or

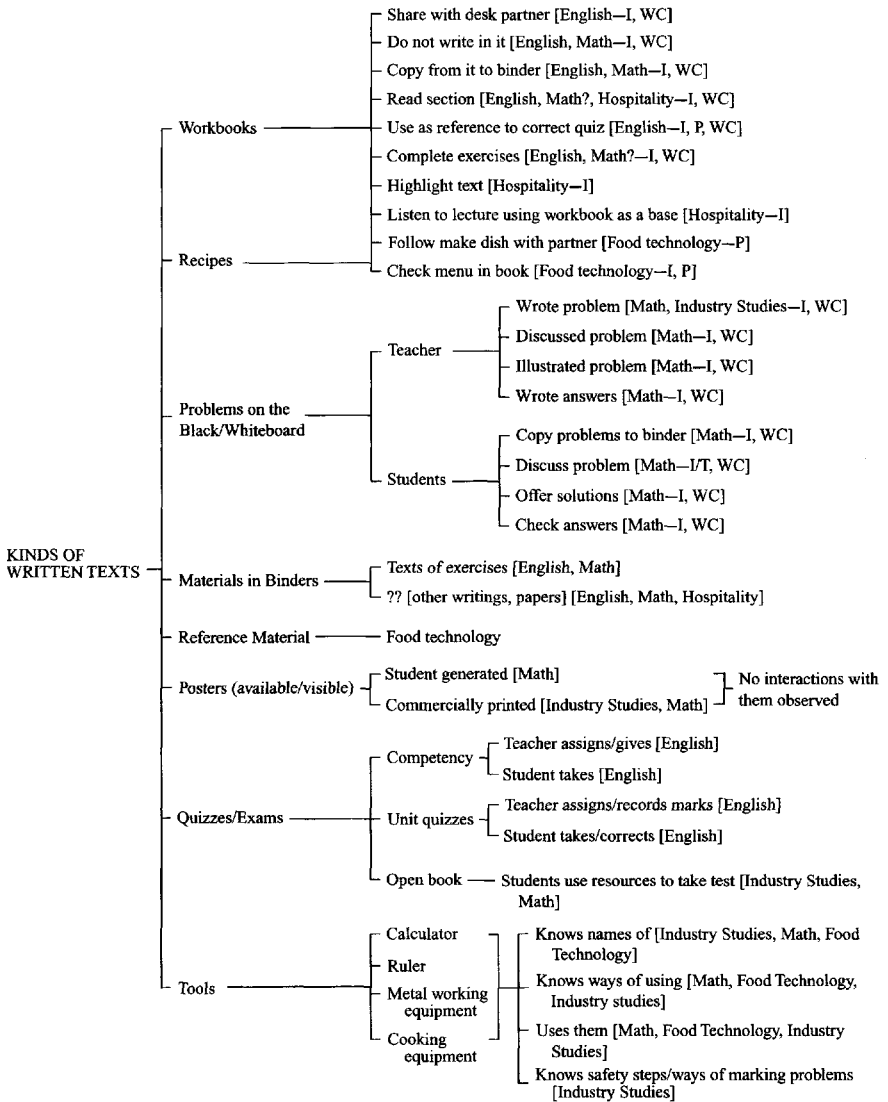
¹³Teams of researchers (2–3 each) focused on one of the five classes (English, Mathematics, Hospitality, Food Technology and Industrial Studies: Metal). In addition to the authors of the article, researchers participating on the teams included: Julie Esch, Marli Costa Hodel, Cynthia Hughart, Pedro Paz, Nuno Sena, and Rosemary Staley. These researchers met over an extended period in the summer of 1997 to analyze the data and to explore how an ethnographic perspective could be applied to videotape analysis to make visible cultural practices from an emic perspective.

Mathematics) was talked and acted into being. This analysis involved consideration of how artifacts were used and referenced in the interactions within and across classes (i.e., discipline areas). The final analysis shifted the focus from examining the patterns of interaction at the group level to examining how and what Aaron did in relationship to the group activity and its consequences for him.

As represented in Fig. 6.2, the analyses were guided by the theoretical constructs presented in the previous sections. The team used a contrastive perspective to identify literate practices within and across events of each class and then examined similarities and differences in the practices across the five classes for one student. They explored part-whole relationships among events within a class and across events and days to examine how one event was or was not tied to others and how the practices constructed in one event supported and/or constrained participation in subsequent events. They used emic terms, wherever possible, and took an emic perspective in the analysis of discursive and literate practices to identify what counted as literacy learning or an opportunity to use literacy within and across classes. Figure 6.3 represents a taxonomy of literate practices associated with written texts identified through a domain analysis as suggested by Spradley (1980). This analysis enabled the team to make a *generalized claim* about how differences in instruction were tied to differences in the literate practices used by the teachers and how these were consequential in providing different opportunities for acquiring literacy associated with different disciplines. This comparative analysis provided a means of examining differences in access to academic knowledge provided by the actions of the teachers in each class.

Building on Erickson (1977) they viewed the subevents of each class period as constituting a whole. Additionally, they approached these subevents as creating a larger whole (an event) that was a *socially relevant* unit of life within the group. Their analysis, therefore, applied an ethnographic perspective that enabled them to examine who could do (know and/or say) what, to or with whom, using what artifacts, when and where, under what conditions, for what purposes, and with what outcomes. By asking these questions, they were able to identify, for the days they analyzed, the social and academic norms and expectations of group membership, the roles and relationships visible among members, and the rights and obligations entailed by group membership. Through these analyses, they were able to examine the literate practices and demands of each class and to engage in a cross-case analysis of literate practices across classes.

What Fig. 6.2 provides, then, is a representation of the logic-in-use that the research team used in their analyses. This way of representing the complex decisions makes visible to the reader how and why new analyses were



*Castanheira, Crawford, Dixon & Green, in press.
 Key: I = Individual, P = pairs, WC = Whole Class, I/T = Individual with Teacher

FIG. 6.3. Taxonomy of kinds of written texts: A comparative analysis across classes*.

needed to build a grounded understanding of the overarching question. These analyses also show how the team addressed the problem posed by the Australian researchers, *How does your research approach inform the study of literacy in classrooms?* By including Figs. 6.1, 6.2, and 6.3, we illustrate how researchers can make visible part-whole relationships, both within the community being studied and within a research project.

Issues of Appropriateness of the Question and Criteria for Ethnographic Study

The previous sections focused on the principles of practice that constitute a logic of inquiry underlying an ethnographic study, how a researcher's logic-in-use can be represented, and the how it influences what can be known. In this section, we examine two final issues: what constitutes an appropriate ethnographic question and what criteria can be used to guide the development of an ethnographic study.

We begin this section with the assumption that the researcher has chosen a problem that can be examined ethnographically. For those not certain that their problem is appropriate for ethnography, we return to Athanases and Heath's (1995) distinction. They argue that:

What was "good" ethnography established the expectation that the researcher would carry out fieldwork in the local language and represent *what was* within a group, and not *what was not* or *what was in need of change* from an outsider's perspective. (p. 264)

From the anthropological perspective, ethnography, therefore, is not associated with intervention studies or definitions of what should be. Rather, ethnographic problems are ones that seek understanding of the cultural practices of members of a social group, how those practices shape access and distribution of resources among members within and across times and events, and what the consequences of membership and access are for members of a social group. To study a cultural group, therefore, is not to ask whether individuals are cultured, or if this group's culture leads to disadvantage in contrast to another group. Rather, to study a group *as a culture* is to ask questions about the practices and what they afford members. Just which cultural practices are examined and how they are studied is determined by the questions and problems of interest. For example, Hymes (1977), drawing on work from ethnography of communication, demonstrates how question formulation within an ethnography differs when the concern is with *social life* rather than *language*. He makes visible this difference by proposing a series of questions from each point of view:

If one begins with social life, then the linguistic aspect of ethnography requires one to ask:

1. What are the communicative means, verbal and other, by which this bit of social life is conducted and interpreted?
2. What is their mode of organization from the standpoint of verbal repertoire or codes?
3. Can one speak of appropriate and inappropriate, better and worse, uses of these means?
4. How are the skills entailed by the means acquired, and to whom are they accessible?

If one starts from language, the ethnography of linguistic work requires one to ask:

1. Who employs these verbal means, to what ends, when, where, and how?
2. What organization do they have from the standpoint of the patterns of social life? (Hymes, as cited in Green & Bloome, 1983, pp. 16–17)

In formulating these differences, Hymes shows how the problem of study shapes the questions asked, and, in turn, the types of data required, as well as serves to foreshadow the types of analyses that will be undertaken. He also makes visible how an anthropological perspective can be used to address different types of questions, each from a particular angle of vision on cultural practices. (For a recent discussion of similar issues see Gee & Green, 1998.)

The importance of an anthropological perspective for educators, therefore, can be seen in the fact that it makes possible examination of the resources students bring to a classroom based on their participation in different cultural groups (e.g., other classrooms, community settings, families, peer groups, church groups, among others). It also makes it possible to understand that their performance in the current classroom draws on cultural knowledge obtained from these other groups. From this perspective, then, each individual brings a repertoire for action constructed by previous opportunities for learning social and academic practices within particular groups. For a discussion of a range of problems that have been addressed through an anthropological approach to ethnography in education, see Bloome (this volume); Green and Bloome, 1995; and Hymes, 1996. For early work, see Cazden, John, and Hymes, 1972; Gilmore and Glatthorn, 1982; Green, 1983; Green and Wallat, 1981; and Spindler, 1982.

Having discussed briefly the appropriateness of the problem, we now turn to a discussion of two sets of criteria for engaging in ethnographic

research, one proposed in Spindler and Spindler (1987) and one by McDermott (1976). While many have written on this subject, Spindler and Spindler (1987) provide a clear set of criteria closely related to the principles of ethnography presented previously. The 10 criteria can be thought of as part of the logic-of-inquiry of an anthropological approach to ethnography-in-education that the ethnographer needs to consider in planning and undertaking an ethnography.

1. Observations are contextualized, both in the immediate setting in which behavior [action]¹⁴ is observed and in further contexts beyond that context, as relevant.
2. Hypotheses emerge in situ, as the study goes on in the setting selected for observation. Judgment on what may be significant to study in depth is deferred until the orienting phase of the field study has been completed. (We assume that the researcher will have searched the literature and defined the "problem" before beginning fieldwork, however much the problem may be modified, or even discarded, as field research proceeds.)
3. Observation is prolonged and repetitive. Chains of events are observed more than once to establish the reliability of observations.
4. The native view of reality is attended through inferences from observation and through the various forms of ethnographic inquiry (including interviews and other eliciting procedures).
5. Sociocultural knowledge held by social participants makes social behaviors [actions] and communication sensible. Therefore, a major part of the ethnographic task is to elicit that knowledge from informant-participants in as systematic a fashion as possible.
6. Instruments, codes, schedules, questionnaires, agenda for interviews, and so forth should be generated in situ as a result of observations and ethnographic inquiry.
7. A transcultural, comparative perspective is present though frequently as an unstated assumption. That is, cultural variation over time and space is considered a natural human condition. All cultures are seen as adaptations to the exigencies of human life and exhibit common as well as distinguishing features.
8. Some of the sociocultural knowledge affecting behavior [actions] and communication in any particular setting being studied is explicit or tacit, not known to some native and known only ambiguously to

¹⁴We have inserted the term action in brackets wherever behavior is used by Spindler and Spindler because we see what people do with each other as intentional and, for some theories of behavior, behavior does not include or mean intentional actions.

others. A significant task of ethnography is therefore to make what is implicit and tacit explicit.

9. Since the informant (any person being interviewed) is one who knows and who has the emic, native cultural knowledge, the ethnographic interviewer must not predetermine responses by the kinds of questions asked. The management of the interview must be carried out so as to promote the unfolding of emic cultural knowledge in its most heuristic, *natural* form. This form will often be influenced by emotionally laden preoccupations that must be allowed expression.
10. Any form of technical device that will enable the ethnographer to collect more live data—immediate, natural, detailed behavior [actions]—will be used, such as cameras, audiotapes, videotapes and field-based instruments (Spindler & Spindler, 1987, pp. 18–20).

In framing these criteria, the Spindlers show that the ethnographer does not enter the field without theory, or as a “blank slate” but rather enters in an informed way, while leaving himself or herself open to modifying and revising his or her understandings based on ethnographic analysis and experience. Additionally, they describe an ethnographer as grounded in prior research that guides the initial problem formulation. They also argue that the problem itself, not only method, can and is often modified, revised, or even abandoned based on ethnographic analysis and consideration of what the data show to be culturally relevant or significant. Further, they indicate that decisions about field methods, tools, and schedules of data collection are principled ones, responsive to the needs of the ethnographer as defined in situ. They also make visible the anthropological understanding that *culture* is of a group, not held by any individual. In fact, they argue that some individuals may not have access to particular cultural knowledge, or may have only partial knowledge. The cumulative picture of ethnography that emerges from these criteria, and from the discussion of the principles guiding an anthropological *logic-of-inquiry* is one of a *systematic, conceptually driven* approach to the study of the sociocultural practices and processes of a group. It also demonstrates that the mere use of field methods does not constitute an ethnography or entail an ethnographic perspective. (For a recent discussion of these issues, see Hymes, 1996.)

The criteria proposed by Spindler and Spindler (1987) address the overall conduct of an ethnographic study. However, they do not provide criteria that specify how an ethnographic description of practices can be developed. While different theoretical perspectives within an anthropological approach may vary in the ways in which they identify patterns of practice,

McDermott (1976, as cited in Green & Bloome, 1983) argues that ethnographic descriptions need to articulate:

1. How members of a group, through words or gestures, formulate a context.
2. How members act out a context in form as well as content.
3. How contexts are behaviorally oriented to or patterned by members at certain significant times.
4. How members hold each other accountable (p. 15).

These criteria, like those of Hymes (1977) previously presented, hold the researcher accountable to the actions of members and to constructing a *grounded* interpretation of the social and cultural practices from an emic perspective. (See also, Duranti & Goodwin, 1992.) In other words, the ethnographer uses members' actions and words to make visible the patterns of activity and to frame his or her interpretation of what counts as membership and participation within and across time and events for the group being studied. This approach is also referred to as a *situated perspective* (Heap, 1991).

This discussion of criteria shows that within the intellectual ecology of those who engage in ethnography from an anthropological perspective, there are standards of description and accountability that define what *counts as an appropriate account* as well as *appropriate ways* of collecting and analyzing data. These criteria also suggest ways of understanding further the critiques presented previously and how ethnographic work is different from other forms of observational work, whether or not it involves participant observation or the use of field methods.

A CLOSING AND AN OPENING: DEVELOPING AN ETHNOGRAPHIC PROPOSAL

We conclude this chapter, by proposing a framework to guide decision making involved in developing a proposal for ethnographic research that builds on the principles identified and on the interactive-responsive nature of ethnography. This framework will pose theory-method issues discussed in this chapter that need to be addressed when writing a proposal. We conclude with this framework to help readers take the next step to move from understanding to taking actions in ways that will enable them to become a members of the intellectual ecology in education we have called *ethnography-in-education*.

Table 6.1 represents the parts of an ethnographic proposal and the questions that researchers need to address as they develop their initial
(continued on p. 188)

TABLE 6.1.
The Research Proposal: Categories and Questions Guiding Decisions

<i>Categories for Inclusion</i>	<i>Purpose of the Study</i>	<i>Questions Guiding Decisions</i>
Framing the study	Purpose and rationale for the study This category reflects the information and decisions made in framing a study.	What will be studied? What is the rationale for engaging in this study? What issues, interests, or concerns will this study address? What is the educational significance of the proposed study?
	Locating the study in the field This category reflects the information and decisions made in locating a study in the field.	What information or literature exists from studies in similar cultural settings? What information exists about the processes or phenomena that will be observed (e.g., language, discourse, literacy, language arts, classroom processes, schooling, curriculum, etc)? How do you conceptualize the phenomena to be examined? And, how does it match or vary from existing conceptualizations? What theoretical perspective(s) will you use to guide your research? And, why are they appropriate?
Designing the study	Describe population parameters This category includes a description of the group to be studied and the site of the study. Describe ways you gained access	Who will you study? And, why? When and where? Under what conditions? What types of involvement and /or contact have you had with the group that will be studied?
	This category includes types of involvement and /or contact you have had or plan to have with the group being studied, as well as the negotiated or social contract that will guide your work with members.	What steps will you take to gain access and entry to the group you plan to study (e.g., access to homes, schools, public agencies, people, special ceremonies or service groups)?

Describe the role(s) you plan to assume in the ethnography

- Who will be your contact person (if appropriate)?
- What type of social contract will you negotiate with the participants (e.g., What will they receive to participate? How will they participate? Will they receive services in return for participation?)
- How will you address the ethical and human subjects issues (e.g., protection of participants, community)?
- What types of formal permissions will be needed? How will they be obtained?
- In what ways do you plan to study this social group, phenomena, and/or cultural practice?
- Will you have a co-investigator who is a member of the group or will you need to establish a local consultant, key informant, or advisory group from the local social group?
- In what ways will you participate in the settings? Which of the following roles will you assume, and why?
- participant observer
 - observer participant
 - interviewer
 - insider or member of the group (e.g., teacher, specialist)
- With which group in the setting will you be aligned or identified (e.g., students, teachers, administrators, visitors, parents) or will you craft a different role within the group?
- How will the role(s) you adopt influence access to certain groups and information?
- How will your role change over time, events, and actors?
- How will gender issues that might influence access to information and particular settings be considered?

(Continued)

TABLE 6.1.
(Continued)

<i>Categories for Inclusion</i>	<i>Purpose of the Study</i>	<i>Questions Guiding Decisions</i>
	Describe the tools and techniques that you plan to use to collect the data	<p>Which of the following field methods (tools and techniques) do you plan to use in the study and how will they be used?</p> <ul style="list-style-type: none"> • field notes (descriptive, personal, theoretical, methodological) • recording devices (e.g., audiotapes, videotapes, still photographs) • interviews (e.g., formal, informal, structured, open-ended) • surveys • questionnaires • artifacts (e.g., materials and objects found in the setting) • types of observations (general, topic-focused, focused on an individual) • natural experiments to explore specific observed phenomena in more “controlled” ways • diaries (e.g., participant research) • other
	Describe the schedule for data collection and analysis that you plan to use at the outset of the study	<p>How will the data collection techniques be sequenced?</p> <p>What timeline will you use for each type of data you plan to collect?</p> <p>How will you index the data so that you can organize and retrieve information and begin analyses? Will you need:</p> <ul style="list-style-type: none"> • a system for cross referencing data (fieldnotes, videotapes, artifacts, interviews, diaries, experiments, photographs)?

- a system for transcribing fieldnotes and video/audiotapes?
- a way of recording events observed and the participants, topics, organizational structure, participation structure (constituent phases or major subparts of the event), roles and relationships of participants, content summary to permit data retrieval for comparative analysis within and across events in the study?
- time-date code added to your videotapes?

Will you use a computer data management system (e.g., Ethnograph, Notebook 2, File Maker, Qualog, Nudist, C-Video, or other technological tool)?

Do you have a plan for data analysis?

Will you do a "pilot" or protoanalysis to explore:

- theory-method-analysis relationships?
- whether the data you collect will provide you with the information needed to answer your questions?
- whether the scope and design of the study as initially planned is manageable and feasible?
- whether the types of data, length of time, placement of equipment, types of interviews possible, literature, and analysis strategies/techniques (e.g., domain analysis, linguistic/discourse analysis, statistical analysis, content analysis) are the most appropriate ones?

If you do not include a pilot or protoanalysis, provide a rationale for the theory-method relationships that you propose for data collection and analysis.

proposal. As indicated in this table, like any research proposal, the ethnographer needs to specify the problem of interest and how the problem is located within the field. These two actions establish the import of the problem, provide a rationale for its study and indicate what the researcher anticipates will be gained from engaging in the study of this issue, interest, or concern. While all studies include a design component, the design of an ethnographic study contains unique elements. Within any study you would describe the population parameters and the tools and techniques that you plan to use to conduct the study. However, in an ethnographic study in which you will be entering a social group to learn about its practices and processes, you will have additional steps and issues to address. These include issues of gaining access to the group, as well as to particular aspects of the cultural world of this group. As part of gaining access, you will also need to negotiate a social contract with the members, a contract that will be renegotiated throughout the developing ethnographic study. You will also need to consider the range of roles and relationships you will assume and /or negotiate at the beginning phase of the study, understanding that these will change across time and events.

Although all proposals will include a schedule for data collection and analysis as well as a description of these processes, and ethnographic study frames a *potential* schedule, one that you anticipate will be revised in situ as issues of cultural relevance of the proposed topic are examined. Viewed in this way, a proposal for an ethnographic study is a beginning point. This fact makes it imperative that the researcher maintain a decision log throughout the study so that the rationale for any changes can be provided and the logic-in-use can be reconstructed, and thus, made visible. Through these actions, the ethnographer in education can describe the theoretical and practical changes needed to address the overarching question from an emic or insider's perspective.

In taking these actions *and* in making visible the principled decisions that were made throughout the interactive-responsive process of the ethnography, the researcher presents a theoretical and methodological argument focusing on (a) how the study was undertaken, (b) why the method(s) were appropriate to use given the question(s) posed, and (c) what can be learned through this approach. In this way, the researcher provides a way of understanding the *expressive potential* (Strike, 1974) of ethnography and thus the contributions that this approach makes to research on the teaching of the English Language Arts and disciplines.

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CHAPTER 7

Teacher Researcher Projects: From the Elementary School Teacher's Perspective

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It is no secret that positivistic research, which traditionally emphasizes quantitative measures and experimental designs, has not only been ignored by public school teachers, but has alienated them as well. Such traditional research designs have attempted to break down the teaching-learning environment by isolating and controlling its variables. If successful, such experimental procedures yield a design that is "pure" and "findings" that are reported in journals edited by and written for other researchers. However, these studies have failed to make visible the rich complexity of classroom life as children and adults experience it. For many teachers, these studies have findings, but no meaning. And after-all, meanings, not findings are what ultimately make a difference in education.

Fortunately, naturalistic, phenomenological, interpretive, and critical forms of research have made a significant impact on the field of educational research (see, for example, Denzin & Lincoln, *The Handbook of Qualitative Research*, 1994) allowing for multiple reconceptualizations of what constitutes good research. The focus of the teacher researcher movement is one such example. Teacher research as an effort to get teachers "off the bench and into the game" has produced a growing number of independent teacher researchers (e.g., Threatt, et al., 1994) as well as numerous teacher

research communities such as the School Research Consortium supported through the National Reading Research Center (Baumann, 1996), Project START (Student Teachers as Researching Teachers), and the Philadelphia Writing Project (Cochran-Smith & Lytle, 1993).

BACKGROUND OF THE TEACHER RESEARCHER MOVEMENT

The idea that teachers should be active producers of research knowledge is not new (Corey, 1953, 1954; Shumsky, 1958; Wann, 1952) and the roots of teacher research can be seen in earlier forms of action research as promoted by social psychologist Kurt Lewin (McKernan, 1991). Recently, however, the interest in professionalizing teaching (Lieberman, 1988) and in collaboration between universities and schools (Darling-Hammond, 1994; Holmes Group, 1990) has prompted renewed discussion, debate, and clarification around the purposes, methods, and epistemologies of teacher research (Baumann, 1996; Hollingsworth & Sockett, 1994; Olson, 1990; Patterson, Santa, Short, & Smith, 1993; Wilson, 1995; Wong, 1995).

Historically, conceptual work on the teacher researcher focused on the methods or procedures that teachers should use to conduct experiments in their own classrooms. For example, Corey (1954), a follower of Lewin, believed that the intent of the teacher researcher differed from traditional experimental research, the ends being the improvement of practice rather than the discovery of educational laws, but he saw no difference procedurally, defining both as following what he called the "scientific method." These procedures usually involved a linear progression through the following stages:

1. Identification of a problem.
2. Generation of hypothetical solutions.
3. Experimental testing of solutions.
4. Critically examining the results and choosing the best solutions.
5. Retesting.

The emphasis on a set of traditional, positivistic methodological procedures, the teacher researcher roles that accompanied these procedures, and the devaluing of such research within conventional research communities proved to be the demise of this first experiment with action research (Hollingsworth & Sockett, 1994).

Meanwhile, in England, a different foundation was being laid for teacher research, and, to date, much of the theoretical literature regarding

teacher research comes from or draws on earlier work from England (May, 1982). Though the work of English scholars like Stenhouse and Elliott (in Hollingsworth & Sockett, 1994) also emphasized a scientific method, their orientation to teacher research was embedded within a tradition of collective teacher autonomy and, thus, "challenged hierarchical models in professional workplaces" (p. 6). This orientation placed teachers as central decision makers and participants in school reform leading both Stenhouse and Elliot to a belief in, "the centrality of teacher-selves in research" (p. 6), a position that eventually, "undermined the kind of objectivity espoused by traditional researchers working with a natural science model" (p. 6).

Thus, the groundwork was laid for a new approach for teacher research leading scholars like May (1982) at the Center for Action Research in Education at the University of East Anglia to distinguish between the teacher-as-research-student and the teacher-as-researcher. The teacher-as-research-student perspective holds that teachers should strive to fit what they do into a traditional experimental framework in much the same way Corey (1953) did with the teachers he worked with in the United States. In contrast to this view, May describes the teacher-as-researcher perspective, grounded in a naturalistic paradigm, as a more desirable approach:

It seems at once clear that the language which the naturalistic paradigm demands of the teacher is that of the everyday practice of teaching. True, the techniques by which data is collected in the process of such research are not part of the everyday practice of most teachers. Nevertheless, they are techniques which may readily be understood and could be used by teachers inclined towards researching the experiences within their classrooms without their having to adopt any narrowly prescriptive theoretical perspectives. (p. 281)

In the past, at least in the United States, being a teacher researcher merely meant that with some training and encouragement classroom teachers could also do the same sort of traditional experimental studies that university professors had been doing for decades. However, the work of Schwab (1973), which illuminated the inseparable relationship between curriculum and human deliberation and the concept of teachers as engaging in *knowing-in-action* as described by Schon (1983), engendered new ways of thinking regarding the production and form of teacher knowledge. These influences in combination with new epistemological paradigms (critical, feminist, postmodern, etc.) opened the door to new forms and purposes for teacher research. As a result, many different conceptions of teacher research have developed, all which act to challenge and redefine basic epistemological questions regarding professional knowledge and teaching practice (Lytle & Cochran-Smith, 1994).

Within the following sections we describe what we believe to be important components of teacher research by: discussing the purpose and the nature of teacher research itself, and considering the psychological processes involved in doing teacher researcher studies.

DEFINING TEACHER RESEARCHER STUDIES

Simply stated, teacher researcher studies are attempts to illuminate pedagogical acts by researching experience. The aim of the teacher researcher is not to create educational laws (as is sometimes done in the physical sciences) in order to predict and explain teaching and learning. Instead, the teacher researcher attempts to make visible the knowledge that teachers often implicitly employ—knowledge, as described by Posch (1992), that embodies the complex, relational, and constantly negotiated risk between teachers and children in a particular context. This is an emic, or insider, form of knowledge (Lytle & Cochran-Smith, 1994) in which teachers “draw on interpretive frameworks built from their own histories and intellectual interests, and, because the research process is embedded in practice, the relationship between knower and known is significantly altered” (p. 29).

Teacher researchers accomplish this through a process of theorizing. Theorizing, when defined as the articulation and critical examination of directly experienced phenomena leading to increased understanding (Vallance, 1982), is at the very center of doing research as a classroom teacher. This is a view that Stenhouse and Elliot endorsed early in the teacher researcher movement (Hollingsworth & Sockett, 1994) when they concluded that teaching was constant theorizing and that teachers were inevitably researchers. Additionally, Van Manen (1990) described research and theorizing as pedagogic forms of life and therefore inextricably related to teaching pedagogies and decisions. Thus, teaching, theorizing, and research are all intimately bound together.

Teacher researchers believe that they can best serve the larger educational community, as well as their classrooms, by placing at the center of their inquiry the daily challenges and teaching questions that are part of the complicated and demanding context of real classroom life. Rather than embrace the naive empiricism that characterizes a removed, often environmentally controlled, and reductionist approach toward researching teaching and learning, teacher researchers not only observe, but actually manage the multiple demands and constantly shifting factors that characterize educational experiences and necessitate minute-to-minute decision making. Consequently, the knowledge they generate emanates from and is replete with this complexity. Jackson, as early as 1968, recognized the

holistic nature of the knowledge that teachers possess and called on teachers to speak as theorizers and researchers within the academic community, stating that:

the growth in our understanding of what goes on in these environments need not be limited to the information contained in the field notes of professional teacher-watchers. In addition to participant observers it might be wise to foster the growth of observant participators in our schools—teachers, administrators, and perhaps even students, who have the capacity to step back from their own experiences, view them analytically, and talk about them articulately. (pp. 175, 176)

Although linking the idea of the teacher researcher to the process of theorizing is intriguing, there is still a need to be more exact about what teacher researchers actually do. Drawing on phenomenology, psycholinguistics, Deweyan philosophy, and our own experiences as teacher researchers, we have characterized what teacher researchers actually do as they conduct classroom inquiry (Burton, 1985, 1986). This characterization involves action, reflection, and their reciprocal nature.

ACTION AND REFLECTION: TEACHER RESEARCHER PROCESSES

We believe that to be a teacher researcher means to be both teacher and learner, a mode of consciousness described by Freire (1985):

I consider it an important quality or virtue to understand the impossible separation of teaching and learning. Teachers should be conscious every day that they are coming to school to learn and not just to teach. This way we are not just teachers but teacher learners. It is really impossible to teach without learning as well as learning without teaching. We cannot separate one from the other; we create a violence when we try. Over a period of time we no longer perceive it as violence when we continually separate teaching from learning. Then we conclude that the teacher teaches and the student learns. That unfortunately is when students are convinced that they come to school to be taught and that being taught often means transference of knowledge. (pp. 16–17)

When teachers systematize a way to consider the effects of their teaching on student learning they engage in a process of action and reflection that is the essence of being a teacher researcher or, in Friere's words, a "teacher-learner."

Action within this mode of consciousness is situated within a phenomenological framework (e.g., Stewart & Mickunas, 1974) that argues that to be conscious is to be conscious of a particular phenomenon. As such it can be distinguished from the rote or technical definition that suggests a type of behavior that is ritualistic or a sort of habitual response, because it embodies both intentionality and observation. Teacher researchers experience a sense of meta-awareness about their goals for children and are intentional, or purposeful, in their work. Drawing from multiple possibilities they choose particular pedagogies or make particular curricular decisions to support children's progress.

Action within a teacher researcher's work is not only purposeful, it is also characterized by a style of observation that maintains a necessary degree of uncertainty—observation that Carini (1979) describes as "impressionistic observation." Through observing the effects of their actions, teachers gather impressions that mediate further decisions and prompt more systematized examination of the phenomenon—or in the case of teaching, student growth. For example, Fred, one of the authors of this chapter, while conducting research in his class, asked Alan, a sandy-haired, freckled 9-year-old to try doing some writing. After a week, he had produced virtually no text. Fred's impression of Alan for the week was that writing was not a way he preferred to express his knowledge (whereas he was quite "fluent" in art and drama).

Fred's intentional action to support Alan's writing and the following observation and impressions of Alan's abilities or preferences represent the beginning of teacher research, but not its entirety. Teacher researchers must go beyond their actions and their impressions to reflect in a manner that Schutz (1967) best describes:

When, by my act of reflection, I turn my attention to my living experience, I am no longer taking up my position within the stream of pure duration, I am no longer simply living within that flow. The experiences are apprehended, distinguished, brought into relief, marked out from one another, the experiences which were constituted as phases within the flow of duration now become objects of attention as constituted experiences. (p. 51)

In order to understand the multiple layers of meaning and the fullness of actions and impressions in his classroom, Fred must reflect on Alan's writing behaviors in a systematic, disciplined manner. As he returned to his reflective journal and discussed his observations and reflections with colleagues, he discovered that his earlier impression of Alan was misdirected. It was only through the processes of acting and reflecting over time that he later began to view Alan as a "methodical" rather than a "reluctant" writer.

Because his actions provide substance for reflections, and because these reflections inform his future encounters with children, there is a reciprocal

relationship between the two processes of action and reflection. Action is the content of reflection; reflection is the driving force behind action for it strengthens and gives intentions sustenance and elevates them from their status as mere impressions. Reflection is not merely an act of looking backward to what is known, nor is it an exercise in short-term memory. Instead, it is grounded in the impressions gathered and sifted out while acting in the classroom. These impressions are then systematically reflected on in order to produce fresh, new meanings—that then point to new actions.

TOOLS FOR TEACHER RESEARCHERS

Whereas the tools that teacher researchers use to conduct their studies may involve quantitative measures, it is more likely that data gathering will involve ways that evoke the qualitative dimensions of classroom life (Baumann, 1996). Tools such as field notes, artifacts, audio and video tape recordings, short- and long-term lesson plans, outside observations by colleagues, and record keeping by students have long been used by anthropologists and others using a naturalistic research paradigm. Field notes, usually the most commonly used form of data gathering, often take the form of teacher journals maintained over time. While there are some very fine examples of different formats and styles for teacher journals (Armstrong, 1980; Bohstedt, 1979; Cochran-Smith & Lytle, 1993; Hubbard & Power, 1993), we will offer some examples and explanations of field notes taken from our own experiences as a teacher researchers. These specific examples come from Fred's inquiry with his class.

Fred's field notes are usually divided into two levels: general narrative notes and what Carini (1979) calls "reflective observations." General narrative field notes are mostly descriptive of the larger classroom context that frames the more specific acts of the children. These notes include information about the nature of long-term (usually 8 to 10 weeks in duration) integrated class studies (e.g., "Folktale Study," "Middle Ages Study") as well as direct and indirect teaching events such as a planned book sharing event, which would sometimes lead to an unplanned discussion of literary structure. These notes also contain Fred's methodological notes to himself, what he calls "thought ramblings," for example, notes concerning how he is feeling about the year or specific times such as his annual frustration with the disruptive nature of having to administer a week of standardized tests to his class. Some examples of his general narrative fieldnotes follow:

4/5—Decided on theme for next week, "The Human Body." There is a twist. Earlier, we studied note-taking and organization. So an information-oriented unit seems logical, however, I'd like the kids to utilize creative

reporting methods. I want them to use unique formats and am using existing informational books as models and examples. Some books and their corresponding formats are:

<i>Book</i>	<i>Format</i>
Paddle-to-the-Sea	journey
Unbuilding and Castle	narrative
Wild Mouse	journal
Animal Fact/Animal Fable	Q & A
All Upon a Sidewalk	journey
If You Lived With the Sioux	Q & A
Ashanti to Zulu	ABC
Charlie Needs a New Cloak	fiction

I'd like to see kids impart information through narrative. Doing so they would be dealing with informative and poetic functions at the same time. They must attend to information and to the story structure itself. Will go to the Grandview library tonight.

2/6—In order to get the ball rolling on the human body drafts, I gave/made extra time for working on them today. We didn't have read aloud although I did read Tim's published book, *World War II*. His reaction was like most of the authors/kids—impressed, embarrassed, but proud that I was taking the time to read his book to an audience and that I was taking it seriously.

While kids worked on the human body study drafts, I conferenced with 4–6 kids. There was a buzz of talk, but most if it seemed related to their work. About 20–25 minutes into the writing time, I gathered them into the meeting area primarily for the purpose of building momentum. As kids shared, they reinforced on a collective level that we do have a class study—i.e., that each individual is contributing knowledge to the group and through feedback, the group is contributing to individual kids.

2/23—Notes to Myself

Immediate tasks:

1. Revise literary links chart
2. Begin thematic analysis
3. Portrayal
 - a. a chronological portrayal of single kid
 - b. thematic portrayal

- either way, my purpose is to tell stories that reveal and exemplify my categories, themes, motifs
- tell story of larger context

4. Read

- a. introspective & retrospective analysis
- b. Carini
- c. Spradley

In contrast, reflective observations are focused on specific writing and literary events as well as children and their various projects. They represent an intentional reflective gaze, and, thus, are a form of data analysis as well as actual data. Carini (1979) describes the process that produces reflective observation.

Through description of the person's projects in the world—that is, through the mediums that the person is drawn to and uses and the motifs that recur in his representations, the observer begins to hear the convergent viewpoints offered by the world setting and by time. To do this, the mediums and motifs need to be reflected upon to determine the range of meaning they hold and can preserve. Within this range, it is then possible to describe the particular person's relationship to both medium and motif. (p. 63)

Teacher researchers use reflective observations to construct a portrait of a child—specifically attending to multiple contexts to capture their particular strengths, problems, dispositions, and preferences that might inform the teaching decisions to be made. While many reflective observations are a result of specific interactions with children, insight can often come through reflecting on artifacts from children's projects, such as their art work or their written compositions. Many of Fred's field notes contain reflective observations on interactions with children as well as artifacts of their work. Some example of both types follow:

9/26—Alan never seems to be with the group and often plays alone. He has received a lot of attention from me lately, unfortunately, most of this attention has revolved around negative behaviors—e.g., wandering out of the meeting area or simply not starting to work during writing time.

9/28—In an individual writing conference with me, Alan discusses an idea in which he plans to write a modern version of the "Cinderella" story. He appears to be shaping/creating his story as he talks—perhaps through his talk. At one point in the conference, he describes what is going to happen. As he does so, he orally edits and revises and says that certain

parts of his description may not actually come out in his writing. I am glad he wants to share this with me—anything to improve our relationship.

12/11—Alan started an untitled story about 1 and 1/2 months ago, around Halloween. The setting of this story is “trick-or-treat” night. He has created an eerie mood much like (in his words) William Sleator’s *Into the Dream*, a book I had read aloud to the class earlier.

2/23—Jane and Kinthia

J and K set about doing a 3-D map of the setting of *The Green Hook*. They started it about 4 weeks ago, right after we finished reading the book. I simply suggested that someone might like to do a project with the book. After brainstorming with the class, J and K decided that the map idea was good. They worked on it steadily over the weeks. Occasionally, the rhythm of their work would be interrupted by a disagreement (see earlier notes) or “acts of God”—e.g., J went to Florida for a week. And now it sits here in the school gym to be viewed tonight during the school “Achievement Fair.” It will be interesting to see the comments of the outside “judge.”

Although the project is clearly theirs, it certainly has my stamp on it too. After all, I was the one that slowed them down when they were gluing and taping down pine needles to the cardboard. It didn’t look very aesthetic.

I was also the one who asked them and encouraged them to revisit the book. They have shown care for the details. Boulder Valley, the mountains, the lake, huts, and the gardens of the original book are all part of their map.

As I observe their project, one other thing seems apparent—i.e., the writing to go with it seems so hurried, they crammed it in on the day that the project was due. Nonetheless, it was done, and I’m not sure that it would have been much different if they would have had more time. As it stands, the writing is primarily descriptive. Captions are done to show, tell, reveal bits about the book. The joy seemed to be in the crafting of the model, not the writing.

3/12—Amy—Analysis of her story, *The Glass Eye*

Background: Since about the last week in January we have been studying the human body. The last 6–7 weeks have consisted of the following general activities in roughly this sequence: 1) choosing a topic; 2) gathering and reading resource books; 3) going through a note taking process; 4) making sketches; 5) more artwork and models with more care; 6) listening to informational books read aloud and used as models; 7) writing drafts of reports using a variety of formats; 8) sharing products along the way; 9) speakers and dissections interwoven; 10) display; and 11) bookmaking and illustrations.

Background on Amy: Amy is a thin, tall girl with dishwater blond, stringy hair. She giggles a lot. I get the impression through our conversations that she has a lot of responsibility at home and also that she has a close family. She walks her younger sister, Caitlin, home every day.

Reflection on the writing itself: Amy's piece appears to reflect her experience—literary and life. The obvious literary connection is her reference to Beverly Cleary's book, *Dear Mr. Henshaw*, a book we had read aloud and just finished. According to X. J. Kennedy's textbook on literature, this is a literary allusion—i.e., a direct reference to a person, place, or thing in fiction. Kennedy argues that such allusions "enrich" story. Although she hasn't shared it yet, my guess is that the class will notice the allusion.

Her opening, which I think has been influenced by Peter and Sherry, strikes me as particularly effective. Those first 3 lines draw you in as a reader. Looking across her other pieces (e.g., *The Search for the White Stallion's Parents* and *My Sister and the China Horse*), she has not used this direct entry into story through dialogue in the past. Instead, she used an opening similar to that found in many folktales. This willingness to experiment marks a point of growth for her. Other points of interest: passage of time; her description of the hospital based on her experience; the dream as a harbinger; her character names—e.g., Dr. Rock; Nurse Able; Nancy Chin.

Dewey's (in Archambault, 1974) statement that "thought confers upon physical events and objects a very different status and value from those which they possess to a being that does not reflect" (p. 214), captures the role that intentional reflection plays within teacher research. It is this intentional reflection that supports the discovery of previously unseen patterns and, thus, produces a more complete and complex picture of a child's learning and development and the accompanying curricula and pedagogies that support that growth.

WHY DO TEACHER RESEARCHER STUDIES?

Teacher research can be seen as a powerful and distinct genre of research (Patterson & Shannon, 1993). As Cochran-Smith and Lytle (1993) contend, the nature and source of teachers' questions, the theoretical frames teachers bring to inquiry, the practical and theoretical utility of what is learned, and the ownership of the research itself distinguish teacher research from other forms of educational research and create a particular epistemological stance. This particular stance positions teacher research at a number of complex intersections including that of theory and practice; of accountability

for individual and group progress; and of external and internal sociological influences, to name a few. This is perhaps the most powerful reason for conducting teacher research. As observer-as-participant studies in education, they hold potential for generating insider knowledge useful to educators in a manner that does not disrupt the classroom nor reduce the complexity of the teaching and learning ecology, but instead captures theories of practice and stories of teaching and learning as they occur in real time in real classrooms. Such research offers practicing classroom teachers rich information for improving their own teaching as well as provides valuable theoretical and practical knowledge to the educational community in general.

In addition to providing a particularized form of knowledge, ongoing inquiry, as an orientation to teaching, promotes a continual process of learning and discovery that prevents teaching from becoming a mundane and unexamined routine. Britton (1983) describes the importance of the metacognitive quality of teacher research.

As human beings, we meet every new situation armed with expectations derived from past experiences or, more accurately, derived from our interpretations of past experience. We face the new, therefore not only with knowledge drawn from the past but also with developed tendencies to interpret in certain ways. It is in submitting these to the text of fresh experience—that is, in having our expectations and modes of interpreting either confirmed or disconfirmed or modified that learning, the discovery, takes place. (p. 90)

Thus, when teachers engage in research they are also involved in a form of professional development that holds far greater promise for improving their practice than does most external, traditional models of professional inservice. Furthermore, when teachers engage in inquiry together—in collaborative designs or in communities of inquiry—they create powerful structures that support and scaffold greater expertise.

Finally, another reason for fostering teacher researcher inquiry is that these studies may be an important step in defining a paradigm of research that is truly educational rather than being haphazardly adapted from other disciplines. According to Stenhouse (1981), this would be research “in” rather than “on” educational settings or as described by Lytle & Cochran-Smith (1994) “inside/outside, knowledge that calls attention to teachers as knowers and to the complex and distinctly non-linear relations of knowledge and teaching as they are embedded in local contexts and in relations of power that structure the daily work of teachers” (p. 23). Although research “on” educational settings is undoubtedly necessary (e.g., historical, philosophical, psychological, and sociological studies), research “in” classrooms seeks to understand and to portray the educational intentions of the participants.

CONCLUSION

Teachers who “research” their own experiences and those of children as well find that their teaching provides substance for their research and that the act of research enriches and illuminates their teaching. Doing research, then, is not something extra that teachers might do. Rather, research is something teachers must do if they are to become tactful observers and participants in the classroom culture that they are continually helping to create a new with children every day of the school year.

NOTABLE EXAMPLES OF TEACHER RESEARCH PROJECTS

The following are some notable examples of teacher researcher projects that were initiated and conducted by teachers themselves or in collaboration with colleagues both inside and outside the United States. Some are books comprised entirely of teacher researcher projects.

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CHAPTER 8

Teacher Inquiry Into Literacy, Social Justice, and Power

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Too frequently, parents, teachers, and the general public portray classrooms and schools as separate from the world outside schoolhouse walls in phrases like “out there in the real world” and “wait till you get a taste of life out there.” The implication is that the world within classroom walls is somehow different from, probably easier, and perhaps even more just than the world beyond those walls. This portrait of schools as being something other than of the worlds in which they exist creates a false, problematic, and ultimately dangerous frame for imagining pedagogy. By failing to acknowledge the way classrooms are about making meaning of the word and the world (Freire, 1970), we perpetuate a pedagogy of denial that will reify inequities rather than moving society toward more symmetrical relations of power. For anyone who has ever contrasted classroom life to “the real world,” we offer the following vignettes.

Vignette 1

Barbara Michalove, teaching fourth grade in a university town at a school that serves mainly low income families, wrote about how students acted

in ways that were less about creating an inclusive community and more about replicating the stereotypes prevalent among adults:

I saw students excluding both the Hispanic students and the students with hearing impairments. Sometimes the exclusion was obvious: The students struggled so they would not be next to Amy when we lined up for recess or lunch. Amy had severe facial imperfections and could hear very little, and her speech was almost unintelligible. Further, she was only with us part of the day, so the kids really didn't get to know her. They treated her as someone with a deformity they might catch if they stood next to her. There was taunting specific to the Mexican students (e.g., "Ricardoo, you smell like doo-doo."). I was surprised and dismayed as I watched a student-written skit shared during writing workshop in which one character referred to another as "a tortilla-eating fool"; the author asked Ricardo to play the character referred to. (Michalove, 1999, p. 23)

Vignette 2

Griselle Diaz-Gemmati, working with eighth grade students in a multicultural urban setting, saw opportunities for dialogue around complicated issues of race degenerate into sessions that alienated rather than galvanized students. As she wrote:

Then something altered the discussions. I happened to be sitting in on a circle discussion when a major disagreement erupted between two of my top students. The word *nigger* offended the White students in the circle much more than the Black students. Shelly, who is White, brought up this point in the discussion. In not so many words, she let her circle know that it was one of those words everyone knew, but did not use. Nancy, who is Black, resented Shelly's taking offense.

"I don't see what the problem is," she sarcastically responded to Shelly. "No one ever called you guys nothing, but 'Master.'"

Shelly insisted, "Doesn't it bother you to see that vulgarity in print?"

"No, why should it?" retorted Nancy. "We know where we come from."

At this point I asked Nancy if she or people she knew addressed each other by the term *nigger* and how she felt about it.

"It don't bother us. We mean no harm by it."

"Then why does it tick you off when I get offended by it?" Shelly persisted.

"It takes on a different meaning coming from you," Nancy snapped. (Diaz-Gemmati, 1999, p. 62)

Vignette 3

Diane Waff, a special education teacher holding "girl talk" sessions with young women in a culturally diverse urban high school, noted how

creating communities of trust in informal situations allowed her to learn about and through her students in ways that had impact on more formal academic situations. As she explained her own shift in perspective:

I also stopped trying to interpret their lives by using my own as a backdrop. The girls' journals gave me a lens on a wide variety of personal issues that were not being addressed in the formal classroom setting. Juanita and her sister, Iris, two Latina girls, were poor attenders and chronically late to school. They were not behavior problems, but when they came, I knew I had to spend time fitting them back into the class routine.

When I read their journals, I was able to listen as they shared their hearts. Juanita wrote:

When I met Jose I was afraid to look at him. I was scared to talk to him, and I was scared to kiss him. I've kissed and I've love[d] him. Now I'm going to have a baby and I'm scared I'm going to lose him. My mom says I might lose my baby too. My sister Iris has a baby and she's not going to take care of two babies plus my sisters and brothers. I'm really scared . . . (Waff, 1994, pp. 197–198)

Having read these and other journals by Juanita and her sister, Diane also learned of a fire that essentially left the family homeless. As she went on to write, "Once I learned about their struggles, I understood why they were always absent or unprepared. Buying paper and pencils would not be a high priority item for me either" (Waff, 1994, p. 198).

RECOGNIZING THE SOCIAL IMPERATIVES

By clustering these three vignettes, we suggest that classrooms are the "real world." Further, the world outside the classroom transacts daily with the world inside the classroom and each reflects, shapes, and is shaped by the other. Such has always been the case. But too few educators, as John Dewey (1938) argued, have considered the ways students' experiences—e.g., cultural identity, socioeconomic circumstances, family language and culture, political issues, religion—transact with their efforts and opportunities to learn. Because the uglier aspects of modern society such as racism, classism, and sexism don't get discussed in complicated ways in many classrooms, there is a tendency to believe that these societal monsters also don't exist there. However, Michalove, Diaz-Gemmati, and Waff—teaching different grade levels in different social contexts with different student populations—didn't invoke issues of controversy and struggle that had never crossed the classroom threshold. They merely brought into the open issues and inequities that previously had been either denied or tacitly condoned.

There is a clear and immediate need for insight into the ways social issues transact with literacy classrooms. Several factors make this insight imperative. One factor is the changing demographics of the United States. In the near future, the number of new immigrants and people of color in the United States will outstrip the number of European Americans. Given this great degree of cultural diversity, schools cannot continue a monocultural approach to learning, if that were ever a viable option. Another factor is that our understanding of what constitutes teaching and learning grows more complex daily. Gulfs in society created by economic disparity such as access to quality education, information technology, and adequate health care are widening. Rapidly changing expectations of the job market (Gee, 2000) call for a flexible and learning-centered workforce, suggesting a pedagogy built on collaborative problem-posing and problem-solving practice, and all members of society need equal access to that pedagogy. Finally, the current repressive environment fostered by programs of high-stakes accountability supported by high-stakes assessment creates situations in classrooms that are rife with unchecked pressure, inequity, and alienation. To ignore these factors is to ignore the future of American education.

TEACHER RESEARCH

Given this critical need to gain deeper social-contextual understandings of the ways issues of power, equity, and social justice transact with literacy in classrooms, we focused this chapter on what we are learning in those areas from teacher research. Teacher researchers bring unique vantages to research centered on social justice issues. It's not that teachers see better or with more insight than university researchers, but that they see differently. To begin with, teacher researchers don't need to gain access or schedule time in the field; they live in "data world" (Allen & Shockley, 1996). Because of this proximity, teachers are aware of the shared history of the students, the classroom, the school, and the neighborhood. Indeed, the teacher has helped to create that history, and is both actor and observer. Because of this unique positioning, teachers can act from their intense, daily relationships and use them to develop a sense of the ongoing context, developing trust and evolving classroom processes in ways that few outsiders can hope to achieve.

Perhaps most important, the process of inquiry unfolds from the teacher's sense that the dissonance within her or his practice must be embraced and interrogated. Almost without exception, teacher research begins because some student and/or set of circumstances in a classroom compelled a "systematic and intentional" look into practice (Cochran-Smith & Lytle, 1993). The classroom social dynamics spark research questions that

then drive subsequent inquiry into those dynamics with a seamlessness that only intimacy with that classroom's struggles can produce.

The pool of teacher research studies from which we wrote this chapter has deepened considerably over the last 15 years. Since the publication of *Reclaiming the Classroom* (Goswami & Stillman, 1987), *The Art of Classroom Inquiry* (Hubbard & Power, 1993) and *Inside/Outside* (Cochran-Smith & Lytle, 1993)—books that arguably spearheaded the teacher research initiative in the United States—teacher research has proliferated in many directions. The educational community has benefited from teacher research anthologies (e.g., Freedman, Simons, Kalnin, Casereno, & the M-Class Teams, 1999; Banford et al., 1996); books written by a single teacher researching her or his classroom (e.g., Ballenger, 1998; Gallas, 1998; Gaughan, 1997; Goldblatt, 1995; Wilhelm, 1995); edited volumes from various student, teacher, university researcher collaborations (e.g., Allen, 1999; Allen, Cary, & Delgado, 1995; Branscombe, Goswami, & Schwartz, 1992; Graham, Hudson-Ross, Adkins, McWhorter, & Stewart, 1999; Hubbard, Barbieri, & Power, 1998; Hudelson & Lindfors, 1993) and at least one teacher research book series, The Practitioners Inquiry Series of Teachers College Press. There are journals and listservs devoted solely to teacher research, most notably *Teacher Research: The Journal of Classroom Inquiry*. In addition, established journals like *Harvard Educational Review* and *Language Arts* publish teacher research with increasing frequency. Local and electronic teacher research networks such as the North Dakota Study Group, The Philadelphia Teachers Learning Cooperative, National Writing Project sites, the Literacy Education for a Democratic Society inquiry group, the University of Georgia Network for English Teachers and Students, and The Bread Loaf Rural Teacher Network flourish as local and electronic sites of teacher research, as do countless groups in individual schools (e.g., Chandler, 1997).

Pertinent to our intentions here, handbooks of educational research have largely ignored the voices and perspectives of teachers (Cochran-Smith & Lytle, 1993). Recently, however, several handbook or yearbook chapters have illuminated the range of questions, methodologies, and issues related to conducting teacher research and have explored implications for the broader research community (e.g., Baumann, Bisplinghoff, & Allen, 1997; Cochran-Smith & Lytle, 1999; Hollingsworth & Sockett, 1994; Lytle, 2000; Zeichner & Noffke, in press). However, to our knowledge, no one has yet examined the considerable knowledge base being generated by teacher researchers, nor is teacher research commonly integrated in literature reviews by university-based literacy scholars. Because of our own interest in issues of equity and social justice (e.g., Allen, 1999; Allen, Michalove, & Shockley, 1993; Fecho, 1998, 2000) and because of the social imperatives argued earlier, we focus this chapter on the insights into literacy practice and social justice issues *emic* voices provide.

Although much teacher research remains local and/or published in newsletters or other in-house organs (Lytle, 2000), there remains a broad range of more widely published literature. Therefore, we restricted our search in several ways. In addition to identifying equity and social justice issues related to literacy, we included only studies conducted by K–12 teachers in their own schools without coauthorship by university researchers. Our intent was not to discount collaborative studies or university researchers who investigate their own practice—we both have been involved in various aspects of that work—but rather to highlight the unique perspective and voices teachers bring to inquiry. In addition, although we kept in mind Marilyn Cochran-Smith and Susan Lytle's typology (1993) that includes as teacher research teaching journals, oral inquiries, and essays, we primarily focused on examples that went beyond the reporting of classroom practice and, instead, situated those practices within wider societal and educational discussions. Also, although we never set out with this criterion in mind, all the studies are qualitative in design because that is all we encountered. Finally, with some exceptions, we restricted our search to major book publishers with a record of publishing teacher research, publications of the National Council of Teachers of English, the journals *Teacher Research* and *Harvard Educational Review*, and in-house publications of some long-standing teacher networks. The studies provide a sense of what this research can contribute to current critical discussions of ways to approach "literacy and justice for all" (Edelsky, 1996).

TEACHER RESEARCH OF SOCIAL JUSTICE ISSUES IN LITERACY CLASSROOMS

Although this section includes five areas of inquiry that we identified, we acknowledge that any categorization is problematic—first because the studies overlap and speak to each other in interesting and complicated ways, and second because there are so many other possible groupings. We hope that the following organization of teacher and student investigations—(a) literacy, language, and power; (b) educational equity; (c) literacy, identity, and power; (d) communities within schools; and (e) school and community intersections—proves a useful point of departure for other ways of organizing these studies.

Teachers and Students Confront Issues of Literacy, Language, and Power

James Gee (1986) suggested that language arts teachers play a crucial gatekeeping role in our society and could either see themselves as keepers of the museum of language or guides into the complexities of language

learning. In particular, he noted that those teachers who failed to view the political nature of their practices opened themselves to being pawns at the hands of those who both saw and exercised their political views of the classroom. Many teachers who take inquiry stances on their practice embrace the concept of classroom as a place where language, literacy, and power intersect in ways that can be enabling or stunting. Accordingly, these teachers seek to understand what it means to teach and research language and literacy in ways that call attention to these political and power issues.

Talk and Silence

A key tool for understanding classroom dynamics is listening to students talk. One of the most prolific and influential researchers in this area is Vivian Paley, a teacher who helped teach the educational community not only to listen to young children, but to interpret their worlds in relation to social issues. Hailed by a diverse range of child advocates such as Robert Coles, Derrick Bell, Bruno Bettelheim, and Courtney Cazden, Paley writes in a direct and engaging manner that appeals to the general public as well as to educators. From her vantage as a kindergarten and preschool teacher in the Laboratory School of the University of Chicago, she has documented, interrogated, and elucidated a broad range of equity and social justice issues. She taught many of us that it is an affront and an injustice to say of our students “I don’t see color,” when in fact color, gender, religion and other cultural aspects are critical to understanding each child (Paley, 1979). Fifteen years later, she put those insights on the line by engaging in honest and pointed conversation with one of her former students, Sonya, about Paley’s limitations as a “white teacher” in *Kwanzaa and Me* (Paley, 1995). And in *The Girl with the Brown Crayon* (1997), Paley demonstrated that the quest for “border crossing” (Giroux, 1992) requires relationships with cultural informants—fellow teachers, children’s parents and grandparents, and others—that are honest, open, and self-revealing.

Although all her books include this deep self-reflection, Paley is above all a keen observer of the worlds of children. A transcendent theme across her inquiries is fairness: fairness in the doll house, in dramatic enactments of student stories, in playing, learning, and teaching. In works that build on each other, Paley teaches us how to listen to and talk with children (1981), to understand gender differences and examine our own prejudices about them (1984), and to bring a child from the margins of the classroom into the social circle through story worlds as children dictate and then enact their own stories (1990). Paley (1988) documented the importance of fairness in the child’s value system in *Bad Guys Don’t Have Birthdays*, but became a powerful actor herself when she made the rule “You can’t say you can’t play” (1992) and with her children explored the moral implications of that rule. Paley makes visible—and critical—what teachers and society have to

learn from her citation of Rabbi Yehuda Nisiah: "The moral universe rests upon the breath of schoolchildren" (Paley, 1999).

From the tradition of Paley, Karen Hankins (1999) skillfully intertwined memories of struggling classmates Bobby and Big Hazel and critique of her own schooling in "the good old days when every child learned to read" with insightful analysis of current teacher attitudes that, if unexamined, may silence their students. Five African American first-grade readers who lived in low-income, high-crime neighborhoods responded to a book about a middle-class African American family with what Hankins first interpreted as disdain and disengagement; as she studied the transcript of the discussion, she learned a great deal about her students and her responsibility to listen across cultural settings. She concluded, "Just as surely as my 2nd grade teacher missed what Bobby and Big Hazel brought to school, just as surely as the teachers at the lunch table miss what 'that kind of kid' brings to 'our' school, I missed what Ivey, Diounte, and Terrence brought to *Storm in the Night*" (1999, p. 71). Hankins provides educators with ways not only to listen, but to hear.

This importance of inquiring into the silence of our students resonates in the work of Richard Meyer (1995) who tells his teaching-life story through a series of classroom narratives. His insights from each demonstrate the power of critical self-reflection. As a student teacher in a New York City Headstart, Meyer was captivated by Leo, a previously silent child, and his enactment of *Caps for Sale*. Rather than the well-rehearsed literary scene of the peddler wordlessly finessing the return of his hats from the monkeys, Leo used a more direct approach, demanding, "You motherfucking monkeys. You give me back my goddamn hats" (p. 277). This led Meyer to a continuing inquiry regarding home language, school language, and issues of power.

Karen Gallas (1994, 1997) studied the dimensions of silence in the classroom from a variety of perspectives and her work amplifies that of Hankins and Meyer. Within the frame of Gallas' investigations, silence is seen as both trap and power stance, as window and as wall, as defense and as offense. Like Meyer's Leo, Jianna barely spoke at all initially. However, once she shared some family stories that were not considered "appropriate" for the classroom, other children began to open their lives in meaningful ways. When Jianna told "fake" true stories, she opened the class to the role fictional narratives could play for them in addressing "subterranean issues of the community" that were not so easily addressed head on. Gallas reported, "As the children observed me privileging Jianna's attempts by my silent support and as they took on the role of ratifying her speech, their ethics of social inclusion, rather than school notions of inclusion, took control of their responses" (1994, p. 180).

In another case study, this one of a student named Rachel, Gallas (1998) analyzed the ways some students use their silence as a means of controlling

the world around them. The silence becomes a stance of power because, as Gallas wrote, “[Rachel] knew I couldn’t make her speak” and the girl could consequently confound any invitations to engage. Gallas (1997) noted similar controlling behavior in Denzel, a second grade student in a multiracial, multiethnic, multilingual school, who would neither look nor listen during story time, although he was committed to learning to read. For Gallas, who believed that listening to stories was a necessary road to literacy, this reluctance on the part of Richard to engage at storytelling time created a conflict. In what is all-too-infrequent in any research literature, Gallas reported in detail her many attempts and her repeated failure to reach Denzel, to “bridge the gap between [his] ‘now’ . . . and the new worlds of the texts” she valued. However, she did learn from the deep reflection on her interactions with Denzel, and went on to apply and study other ways of reaching students for whom storybooks hold no magic nor meaning.

Hard Talk

In Vignette 2, Diaz-Gemmati (1999) illustrated the difficulties of teachers who seek to develop inquiry-based classrooms that reflect democratic ideals. Things get said. People respond. Feelings escalate. In efforts to help students delve into social issues such as racism and sexism, the classroom discourse can alienate students from students, students from teachers, and teachers from colleagues. Both Bob Fecho (2001) and John Gaughan (1996, 1999) spoke to these issues as they recounted classroom experiences that were literature-based inquiries into racism, the former revolving around *Fires in the Mirror* (Deavere Smith, 1993) and the latter around the movie *El Norte* (Nava, 1983). For Gaughan (1996), the revulsion of his student, Misty, toward Latinos was very unsettling, and he explored her feelings with her and with the whole class in an insightful manner through reading, viewing the movie, and extensive writing and sharing. Fecho (2001), as his students inquired into racial tensions between a small sect of Orthodox Jews and mainly Caribbean Americans in a section of New York City, documented the ways colleagues and parents raised concerns about what such study might bring to the surface about Black and Jewish relations. His study shows how he encouraged students through the process of inquiry to interrogate not only the issues of this community, but their own range of prejudices as well. Both Fecho (2001) and Gaughan (1996) demonstrated how confronting complex issues, although anxiety-inducing, creates means for teachers and students to move beyond their entrenched views.

These issues around hard talk are punctuated by the studies of Vicki Zack (1991) and Tricia Taylor (1999). Zack (1991) dealt thoughtfully with the criticism that events like the Holocaust contains horrors not suitable for children, and demonstrated how they can be not only suitable but vital for the individual readers as well as for the collective memory and

conscience of a society. The children's sophisticated questions echo those of adults: Why didn't they take action? Why didn't people listen? How could they do that to innocent people? In her classroom, Taylor (1999) confronted a more covert horror when one of her fourth-grade students asked her and the rest of the class, "Is there anyone here who does not have a problem with [homosexuals]?" She had been leading the students for weeks in discussions of social issues, including prejudice, but here her students drew the line. Taylor, however, could not accept that line, even though she suspected that her own views would not be accepted in this conservative, rural area of Georgia. What she hadn't been prepared for was how to handle this situation, nor for the disapproval of her university classmates. She asked, "If I tell my students that I am completely against any type of discrimination, set up a forum so that we may discuss such issues, and bring in literature that addresses discrimination, how can I then deny them the opportunity to discuss homophobia... If I ignored intolerance of homosexuals, wouldn't I essentially be condoning it?" (p. 42).

Language and Culture

Looking at the ways language and culture transact both inside and outside of classrooms is a prevalent theme in the teacher research we reviewed. In particular, researchers from the Brookline Teacher Research Seminar, with its emphasis on listening closely to and learning from the interaction of children, often write about the way language and culture figure into the learning life of the classroom. Jim Swaim (1998) and Anne Phillips (1997) are examples of that Brookline tradition. Swaim's (1998) look at third-grade student Pamela, who created an inclusive community in writing and sharing her re-vision of the world, recalls Karen Gallas' work with Jianna. In a way similar to Jianna, Pamela taught Swaim to listen more closely and to learn from his students. This interaction led Swaim to create a new metaphor for literacy and revision. In her work, Phillips' (1997) case study of a gifted young African American poet from Roxbury reveals how important another pathway—poetry—can be for expressing deep feelings, and how listening helped Phillips and her students understand each other better.

Another Brookline teacher, Cindy Ballenger (1998), inquired into her practice in a Haitian preschool in Boston, posing questions about how language figured into the ways learning occurred across cultural borders. From closely studying the children's interactions in a writing center, she was able to contrast her intended curriculum—the functions of print and how it works in our language system—with the children's "shadow" curriculum, "using letters to represent and interpret their relationships" (1996a, p. 321). She had to understand their purposes and values of print,

which were very different from her own and other children she had taught, in order to teach. This insightful analysis also led to a systematic look into storybook sessions (Ballenger, 1996b). What stood out for her was how the children viewed and valued books and book worlds in very different ways—or so she thought at first—than she did as their teacher. Eventually, she realized that the children used books as springboards for talking about their lives, just as many adults do. Understanding the children's actions and responses in relation to their cultural traditions was vital for this understanding.

In a secondary urban classroom in Philadelphia, Bob Fecho (1998, 2000) and his class of African American and Caribbean American students focused on their perspectives regarding home and mainstream codes. Creating a yearlong critical inquiry into language, Fecho documented the ways his students saw language intimately tied to their identity, how a range of perspectives about language existed across his students, and how their ambivalence about learning mainstream power codes transacted with their acquisition of those codes. Crossings of multiple cultural boundaries led Fecho to the understanding that critical inquiry classrooms must be ones where diverse perspectives are not only entertained, but encouraged.

Issues of language and culture are also central to teacher researchers in rural areas. One issue of the *Bread Loaf Rural Teacher Network Magazine* focused on the complex relationships between language and culture. On an isolated island in Alaska, all 90 students and many of their parents and grandparents in the village of Tununak created the Yup'ik encyclopedia project, a bilingual, multimedia archive of tribal stories, knowledge, and skills that has engaged students in deep inquiry into the power of language in their changing society (Dyment, 1997). Through their electronic network, BreadNet, rural teachers have designed several cross-site research projects, such as one on "the language of power" designed by middle and high school teachers Gary Montañó (New Mexico), Sharon Ladner (Mississippi), and Stephen Schadler (Arizona). In this study students discussed online their home languages in relation to the "language of power," or edited English, in order to make informed decisions about the relative uses and value of both (Schadler, Ladner, & Montañó, 1997). Related work has been done by Renee Moore, an African American teacher in rural Mississippi. She and her high school English students and their parents investigated issues of African American culture in relation to their learning of edited English. She has developed a grounded theory of Culturally Engaged Instruction (Moore, 1996).

These studies, taken collectively, remind us of the power that language awareness brings to the classroom. More important, we learn more about the many overt and nuanced ways language, literacy, and power transact almost moment to moment in all classrooms. Particularly, these studies

encourage the educational community to inquire into, rather than ignore, the silences and anxiety-producing discussions that occur when subjects of social relevance become part of the classroom agenda. To this effect, we know more about the ways classroom discourses can silence or encourage students, the ways silence can be both disabling and enabling, the ways perceptions of disengagement can shift, and the ways all of this is connected to asymmetrical power relations.

Teachers and Students Confront Educational Equity Issues

Perhaps owing to their immersion in their contexts, teacher researchers frequently focus on equity issues as they relate to their classrooms and schools. Issues of tracking or other forms of ability grouping merit special attention from teachers, as do choices of materials for classrooms. In addition, some teacher researchers are problematizing privilege and creating opportunities for learners to interrogate their own privilege and what that means for learning, especially in the wake of the violent reactions to alienation in schools across the country.

Material Consequences

Teaching from a critical stance, Linda Christensen (1989, 1990, 1993) has inquired into issues such as the hegemony of standard English, the ways learning can flourish in untracked classrooms, and how students make meaning via critical inquiry into the texts of their lives. In this body of work, Christensen provides insight into the ways critical pedagogy works within classrooms. Each snapshot shows how politically steeped theoretical issues get played out in the practice of a teacher who is a critical learner. Christensen and Bill Bigelow (1992a), with whom she team teaches, espouse a mission to be educational and social change agents. They work to create classrooms as centers of equality and democracy, not only within classrooms, but in response to broader social issues. For example, their students role played social injustices and struggles such as the Cherokee Indian Removal and a textile workers strike in 1912; they related those historical injustices to current ones in their lives and then to social movements that have changed American society. They studied the hidden curriculum of obedience and conformity at their own school. When Bigelow realized how powerless students felt in uncovering power without resistance, he designed the "organic goodie simulation" in which they examined power, complicity, and possible ways to resist corrupt social structures.

Bigelow (1992b, 1997) has also used his *emic* stance as a teacher to analyze popular teaching materials. For example, his analysis of the teaching

tool *The Oregon Trail* CD-ROM reveals it as “sexist, racist, culturally insensitive, and contemptuous of the earth” (1997, p. 85). He called for both critical computer literacy and for the important role of the teacher in asking questions that prompt students to critique materials. In a similar study, Bigelow (1992b) analyzed how Columbus is portrayed in children’s literature, finding blatant examples of distortion and indoctrination. This kind of research, with curriculum materials the focus rather than teacher/student interactions, nonetheless has profound implications for those interactions.

Problematizing Privilege

Teachers who find themselves working with gifted classes or in high schools that reflect largely upper socioeconomic status (SES) student populations are not always comfortable with their own or their students’ privilege; therefore some teachers have created learning experiences that problematize privilege. To this purpose, Jeff Schwartz (1992) and a team of high school teachers at affluent Sewickley Academy and economically depressed Clairton High School designed a History of Pittsburgh course in which students conducted original research and corresponded with each other via email about what they were learning. Students struggled to get beyond their economic differences and stereotypes, shared a diverse range of resources, and learned not only about their city, but about themselves and each other.

Mollie Blackburn (1999) and Patricia Goldblatt (1998) both developed inquiries in their gifted classes that allowed students to interrogate their own privilege. Goldblatt (1998) took over a course dubiously titled *Third World Literature*, changed the title to *Postcolonial Literature*, and documented the ways the students’ initial resistance to reading about other cultures shifted to a realization of the possibilities of understanding diverse perspectives through literature. When Blackburn (1999) was assigned to teach a language arts class for “gifted” sixth graders despite her strong beliefs that academic tracking was wrong, she decided to help her students examine the educational system that privileged them. They read the novel *Queenie Peavy* (Burch, 1987) about a very bright girl who was “from the wrong side of the tracks,” and debated whether Queenie would be in their gifted class. This inquiry into socioeconomic status and its intersection with race led the students to some very sophisticated interpretations of why students get into—or are excluded from—gifted classes.

Issues of ability grouping play prominent roles in studies conducted by Joan Cone (1992) and Wilbur Sowder (1993). Cone (1992) essentially opened her advanced placement secondary English class to any student who wished to enter and documented the ways students were able to rise to

higher expectations. Sowder (1993) decided to take the same student-centered, discussion-based pedagogy that was emblematic of his advanced placement class and use it with classes labeled as average seventh graders. The pedagogy in both cases focused on establishing layers of talk and proved successful for both teachers despite the perceived differences in abilities.

In some ways, Susan Threatt (1998) took critical pedagogy where it has not gone before. Teaching in a California middle class suburb of Oakland, Threatt raised questions about who needs critical pedagogies and what oppression might look like in suburbia. By problematizing stereotypes of the suburban landscape, she has the educational community wonder what critical pedagogy brings to our understanding of suburban life and the alienation and stratification becoming more and more evident in suburban schools.

The studies in this section begin with two assumptions about schools: one is that they frequently are not places of social equity and the second is that, despite the first condition, schools have great potential for becoming spaces where equity prevails. Therefore, the critique rendered in these studies is not about abandoning our public schools, but instead points in directions that will make those schools more enabling of empowerment for all who enter.

Teachers and Students Inquire Into Issues of Literacy, Identity, and Power

Social contextual issues of literacy—the ways in which we both shape and are shaped by the texts we encounter and generate—figure prominently in teacher research. Historically, Sylvia Ashton-Warner (1963) taught young children through a “keyword” approach that she developed from listening to and valuing what was important in the lives of Maori children. Her belief that who we are needs to be evidenced in our literacy learning provided a guiding principle on which she based her pedagogy. In problematizing issues of race and gender, current teacher researchers often work in the tradition of Ashton-Warner by providing the opportunity for students to learn about themselves through the investigation of their own textual lives as well as those of others.

Problematizing Race

Disturbed by the intolerance her predominantly African American fourth-grade students displayed toward Hispanic classmates as well as those with hearing impairments (Vignette 1), Barbara Michalove (1999) created an interdisciplinary immersion into prejudice and discrimination.

Through biographies, fiction, a video on the history of intolerance in America, interviews with family members, and shared stories, her students learned not only about the various groups who have been the brunt of discrimination in our country since its inception, but also about themselves. It took time to "circle in" on their own prejudice, but once they did, students were honest in their recognition of intolerance and decisive in their actions. They created rules for their own conduct as they successfully changed their classroom.

Like Michalove, Maria Sweeney (1997) felt personally challenged by Carol Edelsky's concept of "education for democracy." She consequently asked her fourth-grade, suburban students "to consider alternative views of events past and present, . . . To look for missing or silenced voices" in their reading materials, and to question constantly, "Is this fair? Is this right? Does this hurt anyone? Is this the whole story? Who benefits and who suffers?" (p. 279). As part of this social justice stance, her students studied the end of apartheid and the elections in South Africa. This interdisciplinary, multimedia study led to extensive writing; one piece grew into a play, "No Easy Road to Freedom." They performed it for the rest of the school and community, and urged the audience to get involved with fighting racism by actions such as giving money to the Africa Fund and joining antiracist groups. Like the intensive inquiry in Michalove's classroom, Sweeney's efforts resulted in positive action on the part of her students.

In the immigrant and working class second grade Toronto classroom of Andrew Allen (1997), students took part in an "intentional, developmentally appropriate" approach that nudged them toward a deeper "awareness of social and political issues" (p. 518). Recognizing that his students were often accepting his thoughts and values uncritically, he developed an antiracist/antibias approach that addressed the silencing of student voices. This approach, influenced by Lisa Delpit's (1988) work on power relationships in classrooms, included helping students identify biases in classroom materials, making time for discussion of social issues, and encouraging students to respond to inequities and validate divergent perspectives. Students identified omission and stereotyping in children's literature; learned to name instances of race, class, and gender oppression; and rewrote problematic texts.

Problematizing Gender

Teacher research networks frequently develop themes of research. We've noted how the Brookline Teacher Research Seminar often focuses on issues of crossing culture. Several teacher researchers of the Philadelphia Writing Project (PhilWP) have centered on the ways gender transacts with literacy instruction within urban classrooms (See Bowers, 1998; Brown,

1998; Pavalko, 1998; Winikur, 1998). In her work, PhilWP teacher researcher Diane Waff (1994; Waff & Yoshida, 1996) has wondered what it means to invite young women to explore their own identities through literacy discussions that go beyond the limitations of classroom literary talk. She established "Girl Talk" sessions with a culturally diverse group of young women of Leadership House, a school within a school comprised of "mildly handicapped special education students" (1994, p. 192). Waff and her students, as Vignette 3 indicates, came to see the power of literacy in terms of creating gender identity. The rich personal talk that characterized these sessions enabled Waff to deepen her sense of the lives of these young women and brought this insight into the classroom. Since males outnumbered females nearly four to one in Leadership House, Waff (1995) eventually brought similar discussions to mixed-gender classrooms, but always with the intent of providing further opportunities for the woman to feel empowered within this male-dominated community.

In a similar fashion, Jennifer Tendero's (1998) detailed and hopeful report on one Write for Your Life Project tells how 14 middle school girls investigated a major social issue in their own lives—teen pregnancy. As teacher, Tendero provided insightful facilitation as these Hispanic and African American girls from one of the poorest, most violent, and least educationally successful areas of the country read articles, novels, and informational books; wrote poems, short stories, and "tips"; and published a 40-page booklet for others in their school encouraging them to wait until they are ready for babies. Tendero presented problems like having boys overpower a meeting—leading to a girls-only rule—and dealing with topics with which the teacher was uncomfortable providing information (e.g., abortion). Framed by Freirian teachings, Tendero's study, like that of Waff (1994), shows the power of literacy in the girls' lives.

Working in a very different setting—an all-girls private school in suburban Ohio—but with similar intention, Maureen Barbieri (1995) studied the ways middle school girls transacted with literature and how such transactions shaped their sense of selves. By immersing these young women in literature that spoke directly to their lives and encouraging them to create their own literary responses, Barbieri created a curriculum that urged her students to inquire into the world by using literature as the focus. Through interrogation of literature, students also came to interrogate their own perspectives on issues such as duplicity, vengeance, and homophobia.

By explicitly problematizing issues of race and gender as played out in diverse classrooms, these studies chart a range of responses to these issues. With particular power, evidence is provided here that thoughtful investigations into issues of gender and race can lead students and teachers into more complicated perspectives that get beyond platitudes and stereotypes.

The result is the creation of learning communities that are communities in deed rather than merely in name.

Teachers and Students Consider Communities Within the School

Teachers, perhaps more than anyone else, understand both the value of creating community in the classroom as well as the complexity of trying to do so. As Paulo Freire and Donaldo Macedo (1996) have suggested, educators need to get beyond the clichés of a “vacuous, feel-good comfort zone” (p. 202) and instead consider the social and dialogical aspects of the classroom. Creating community is not simply a series of activities designed to help class participants feel good about each other, but instead represents a way of knowing that values the manner in which individuals and the group transact with each other in order to make meaning. Many teacher researchers have dedicated themselves to investigating this deep, complex perspective on the creation of community.

Classrooms as Democratic Communities

Given the student-centered orientation of her pedagogy, it is not surprising that the work of Karen Gallas (1994) also comments on attempts to develop and learn from democratic principles within a learning community. Gallas took on the personal challenge of trying to understand why the “bad” boys in her classroom often silenced other students, contested her authority, and controlled the group dynamics. She worried that these were the children, mirroring deeper messages embedded in society, who would become abusive adults. She studied Alex, Tony, Michael, and Charles, and analyzed their words and actions in light of those of her own “bad boy” son. She asked, as countless other teacher researchers have, “How can I . . . explore their point of view as learners and pull them into the mainstream of the classroom?” (p. 56). Through study of stories—not just their oral and written narratives, but also their stories acted out in plays and playground dramas—she began to understand their behavior and consequently changed her own.

My response has moved from a purely visceral, defensive reaction . . . to one of examining what that child is telling me about his needs as a learner and his view of the world. What I find is that bad boys require, and thrive in a classroom that offers expanded opportunities for creative action in all its forms and deep involvement with the content of the curriculum—and that is true of all children. (1994, pp. 69–70, italics in original)

By changing the ways she responded to these students, Gallas created a new dynamic that allowed the students to respond differently.

Other teacher researchers have made explicit inquiries into what it means to teach in a classroom based on democratic principles, particularly as adherence to those principles leads to social action. At the high school level, Audrey Sturk (1992) created opportunities for empowerment by encouraging seniors to "question authority, to think for themselves, and to act democratically, responsibly, and compassionately among themselves in the classroom and within our community" (p. 264). For example, in response to Margaret Laurence's (1993) novel dealing with aging, *The Stone Angel*, students launched 13 projects involving interviews of lawyers and senior citizens, working in senior citizen homes, and studying the history of one group whose Arcadian ancestors had been driven from the country. As a result of their actions, including a 20-minute local television program, living conditions were improved and one nursing home was shut down for violation of the law.

Simon Hole (1998) believes in democratic education, but problematized that pedagogy by asking what happens when the democratic decisions of a classroom get in the way of supporting marginalized students. He recounted the experience of a colleague who used a majority vote to determine who would represent the class on the school newspaper. However, conflict arose for the teacher when a young girl who rarely participated overtly in class expressed an interest in writing for the paper. When the young girl was unable to garner enough popular vote, the teacher was caught between her wanting to pull this marginalized learner into the main of the class and her support of the principles and mechanisms of democracy. The piece concludes by suggesting that teaching is more than just following the rote chants of democracy, but more importantly concerns a willingness to grasp the prickly conundrums that the process frequently reveals.

Classrooms as Inclusive Literacy Communities

Almost all of the studies reviewed here give us insight into what it means to create and function in classrooms that are literacy communities. In this section we spotlight teacher researchers who have investigated particular challenges of creating inclusive communities. How do we work together as readers, writers, and "doers"? How do we work across boundaries of power, position, and social hierarchy that inevitably characterize classrooms? Teacher researchers have investigated ways students break down these hierarchies through peer discussion (e.g., Cone, 1993, 1994), small group work (e.g., Cintorino, 1994), and a focus on meaningful literate activity (e.g., Daniel, 1996). In another instance, Carol Stumbo (1992),

building on Elliot Wigginton's Foxfire principles, created an oral history magazine in the economically depressed, former mining community of Wheelwright, Kentucky. In so doing, students and teachers needed to establish new relationships and new ways of working in order to carry out their project.

An aspect of investigating the creation of literacy communities that is of critical importance is the questioning of "one size fits all" (de la luz Reyes, 1991) approaches to teaching. When progressive literacy educators like Donald Graves, Nancie Atwell, and Lucy Calkins and literacy movements like the National Writing Project revolutionized reading and writing instruction, many teachers embraced—and some school districts mandated—more authentic, learner-centered structures such as reading and writing workshop, student-led discussion, and personal response to literature. Some teachers tried and abandoned these new methods as not effective with "these kinds of students." Teacher researchers took a different approach: They studied the problems and promises of progressive pedagogy within their local classroom communities. In so doing, they have provided sociocultural insights into how learners, particularly marginalized students, respond to such pedagogy and what teachers can do to adapt and reinvent pedagogy that is responsive to the specific needs of their students.

Addressing issues surrounding writers workshop, Jo Anne Pryor Deshon (1997), and Karen Evans (1995) examined and then adjusted their instructional practices. As a first-grade teacher in Newark, Delaware, Deshon became uncomfortable with the instruction she was providing her predominantly poor and African American Chapter I students. Through close analysis of these students during writing workshop, she came to understand the negative impact of her scheduling decisions. Since they came back from their Chapter I class in the middle of writing workshop, they wrote in relative isolation during whole class sharing time, and also missed a highly valued time—sharing with a large audience. Like Deshon, Karen Evans (1995) used her research to consider the ways asymmetrical relations of power were affecting the ways her students learned to be writers. Writing workshop in her fifth-grade classroom was "a disaster," but reflecting on its failure led her to get to know and understand her students' worlds. Most were African American, Hispanic, and Native American, and most lived at or near poverty level, and they were not about to write nice, family stories for "the rich, white lady." Evans had to change her thinking about writing instruction to focus on writing that "took place in a larger context that was interesting to students and served a specific purpose" (p. 268) such as writing to prepare for literature discussion groups or on self-selected social studies topics.

In his study of three struggling, urban high school students as they attempted to become authors, Eli Goldblatt (1995) also called attention to

the ways mainstream interpretive communities transact with local and marginalized communities. Goldblatt focused on how the power of the institution of writing came into play as these young writers tried to imagine themselves as learners who exercised some control when they transferred thought to paper. Concerned with ways that these writers positioned themselves in relation to this "author-ity," Goldblatt felt that DuBois' (1903) notion of "double consciousness" was evident as these students sought to negotiate a range of public and private discourses. He concluded that we need to build a composition theory and writing pedagogy that carefully considers how cultural conditions affect disenfranchised writers.

Guiding her efforts toward another marginalized community—that of struggling readers and writers—Janet Allen (1995) taught and studied ninth-grade students in a remedial reading class. Drawing on her own and student journals, interviews, photographs, surveys, and other artifacts and field notes, Allen developed case studies and documented her attempts, some successful and some failed, to lead her students to literacy through whole language principles and practices. She documented a myriad of specific teaching strategies such as involving students in researching themselves as readers, visiting bookstores, watching videos, and attending plays related to their reading, and reading with younger students. More important, she showed that while no single strategy was effective with every child, these students who believed themselves to be reading failures began to see themselves not only as students who could read, but as people who could use books to explore their life questions.

In considering notions of learning communities, these studies add to our understanding of the ways students transact with peers and adults as they seek to see themselves as readers, writers, and successful learners in school. In establishing their own identities as learners who are capable of transacting with complicated text in a variety of ways, these students are also establishing a social identity of the classroom as a place of support for all their individual investigations into literacy.

Teachers and Students Consider the Intersection of Communities and Schools

As teacher researchers better understand the communities created within classroom walls, they also develop insight into the ways these inside communities transact with the larger outside communities of neighborhoods, rural areas, and cities. Such research creates opportunities for schools to embrace more deeply the local cultures that surround them, but are too infrequently celebrated in pedagogy and curriculum. Getting past the simplistic appreciation of ethnic cuisine and dress, teacher researchers wonder what it means to invite the community into the school and to truly explore

the possibilities of cultural diversity in substantive and complex ways. Conversely, they investigate the ramifications of failing to engage in such exploration.

Multiple Language Communities and Schools

Cindy Ballenger (1998) sets the tone for this section by showing how one teacher crossed cultural boundaries in order to become a better teacher of her bilingual and bicultural students. In doing so, she informed the educational community about what occurs when teachers and students transact across cultural borders. Ballenger took Delpit's (1995) concerns to heart and thoughtfully investigated what it means to teach "other people's children." By taking deliberate steps to make sense of the Haitian culture of her students through learning from the children and adults of that community, Ballenger developed practical insights into the ways that culture transacted with learning in her preschool classroom. As noted earlier, Ballenger analyzed how cultural differences played out in literacy learning. In addition, she discovered how class management improved when she was able to adapt the more directive vocal styles of the Haitian adults.

In like manner, Howard Banford (1996), Myron Berkman (1996), Iona Wishaw (1994), and Jean Gunkel (1991) learned from their students of other cultures in order to learn with them. Banford (1996), in working with Maricar—whom he described as a "phantom student," the kind "whose voices are heard little or not at all in whole class discussions," (p. 3)—illustrated how writing workshop allowed a young woman to "bloom" by building on her strengths, letting her cross culture barriers at her own pace, and allowing her to choose to tell the story of her family when it became important for her to do so. Berkman (1996), in a case study conducted in a high school for newly arrived immigrants, analyzed how group discussion and a range of in-class groupings—from all-Spanish to mixed languages to self-chosen—allowed a student, Marisol, to practice language acquisition in a variety of situations. Wishaw (1994) took it upon herself as a student teacher to have nonnative language speakers write poetry in their native language and then pair with an English speaker in order to devise a translation of the poem. These poetic collaborations accessed poetry conventions of the homeland and encouraged problem solving. Finally, Gunkel (1991) examined how Keisuke, a fourth-grade student from Japan, learned both English and "America" in her classroom through dialogue journals, writing workshop, pullout ESL instruction, reading literature at home as well as at school, a hamster, and a study of the New Jersey community. In these studies, teachers demonstrated how investigation into culture is based on a willingness of the teacher to learn from students of that culture.

This willingness is evident in yet another study by Karen Gallas (1994). Imani came to Gallas' classroom from a small country in Africa; like many immigrant children, her language, culture, and lack of any formal education were at first a mystery to Karen and to the other students. How do teachers bridge so many differences, silences, and walls of misunderstanding and distrust? To this end, Gallas studied Imani's dialect, encouraged her to express herself through drawing and movement, and above all made sure that she was always seen as a part of the classroom community, including share time. According to Gallas (1994), "The artistic process enabled Imani and me to speak further about ideas that . . . she would have been unable to pursue in a discussion" (p. 49) due to language differences. For children like Imani, creative action provides a "chance to communicate about themselves and their most important concerns" (pp. 49–50). Linda Rief (1999) makes a similar case for inclusion of the arts to understand community. Her students, through interdisciplinary inquiry, wrote a musical about their community's past (children working in textile mills) and present (gangs who hung out at the abandoned mills).

Christine Igoa (1995) also employed artistic mediums—primarily drawing and creating filmstrips—to help her explore the inner worlds of the immigrant children she taught in her sheltered ESL classes in Hayward, California. The children represented themselves as animals and objects, protecting their vulnerability, but allowing them to be powerful protagonists in their own life stories. Igoa, herself an immigrant from the Philippines, shared important insights about the phenomenon of being uprooted; she recognized that children's emotions and reactions (e.g., silence, curiosity, culture shock, isolation, exhaustion, and loneliness) are a crucial step in relating to children new to this country. Further, Igoa presented her own dialogues with five children in order for readers to hear the children's perspectives in their own voices and to demonstrate how she had to know the children individually in order to teach them.

School and Community Connections

What stood out for Marci Resnick (1996) was not the ways her school and the surrounding community transacted, but rather how school personnel, through a general attitude of disinvitation, tried to limit parental involvement in the school. Resnick documented her efforts to view parents as resources about the individual histories of their children, as well as resources for learning in the classroom. By seeing parents from a different perspective, Resnick concluded that if "a curriculum of connections between school and families makes sense" then the classroom pedagogy deepens and widens to encompass those beliefs (1996, p. 132). As for so

many teachers, what began as a series of activities grew into an epistemological stance.

The importance of reaching out to parents is evident in the work of Deborah Jumpp (1996), Carole Chin (1996), and Betty Shockley (1993), all of whom created ways to involve parents more directly in the life of the classroom. Through portfolio response in Jumpp's inner city high school classes, suggested writing in Chin's urban elementary school, and a set of "parallel practices" in Shockley's first-grade classroom, parents were invited to contribute to the curriculum in meaningful ways. As Jumpp's (1996) parents responded to the work of their children, they became "mediators in their children's learning" and consequently empowered so that they could communicate to her "what they felt their children needed from [the teacher] to improve their writing" (p. 141). In similar fashion, Chin (1996), who became known as "The Teacher Who Gives Parents Homework," documented the ways parents, many of them first generation immigrants, saw these writing assignments as ways to take part in the learning of their children, but also as ways to advance their own study of language. Shockley (1993) invited parents—who responded with overwhelming levels of involvement in this "low SES" school—to share family stories and to read and write with their children three times a week all year in Family Reading Journals. She responded to each entry with a genuine respect for families as equal partners in the literacy education of their children.

Resnick, Jumpp, and Chin were all participants in the Urban Sites Writing Network of the National Writing Project, where issues of community was a dominant theme. Two other Urban Sites participants, Paula Murphy (1994) and Marceline Torres (1998) also reflected community themes through their teacher research. Murphy (1994), in a particularly well-written case study of a 13-year old Latino with reading difficulties, spoke to the importance of understanding the individual story of each child and also sought to interrupt stereotypes of the homeless by describing the care and love evident in this young man's family. Like Tendero (1998), sixth-grade Bronx public school teacher Marceline Torres (1998) got her students involved in self-selected projects investigating "important questions and concerns about the world in which they live" (p. 59) such as drugs, AIDS, teen pregnancy, and homelessness. She also got their parents involved, first by having students dialogue with their parents in "letters home," and second by holding monthly "celebrations" where students presented their research findings to their parents. Family members became valuable resources as, for example, one student interviewed his uncle who had AIDS and another got technical information about the disease from her father who was an X-ray technician.

For Karen Hankins (1998), learning from families began with learning from her own. She blurred the borders between her own experiences and

the experiences of her students in work that is important both methodologically and substantively. As she explored and interrogated forgotten, hidden, or never-before-discussed events of her own family, she looked at the lives of her students with deeper, more personal understandings. Her grandfather's loss of his hand in a mill accident and subsequent alcoholism helped her understand how circumstances of hopelessness can lead people to addiction, as it had the families of three children in her room with fetal alcohol/cocaine syndrome; her family's joys, frustrations, and denial about her sister's mental handicaps allowed her to empathize with children with similar problems and their families; and her observations and questions about racial prejudice led her to new insights about crossing cultural borders. Throughout, she showed not only how she learned to see and think differently, but what difference her insights made in how she taught these three children.

In contrast to these very personal entrees into community, Paul Skilton-Sylvester (1994, 1999) described a critical pedagogy he enacted in a third-grade Philadelphia classroom. He documented how students interrogated their own neighborhood by creating a classroom economy called Sweet Cakes Town and exploring such issues as injustice, successful entrepreneurship, homelessness, and cooperation. By problematizing the image of the charismatic teacher, Skilton-Sylvester offers that those of us with less charisma can engage students by directly involving them in substantive and pointed investigations into the workings of their own community. Rather than creating a cult of the individual, the class instead created a culture of inquiry.

Involving students in learning about their own communities is a hallmark of teacher inquiry in organizations like Foxfire, with its many in-house publications such as *Hands On: A Journal for Teachers*, and the Bread Loaf Rural Teacher Network (BLRTN), publishers of a magazine written by rural teachers. The work of teachers in these networks helps students learn of their rich cultural heritages, and in the process, students often delve into equity and social justice issues affecting their communities. For example, Juanita Lavadie (1996), a BLRTN teacher at a Bureau of Indian Affairs school on the Taos Pueblo Reservation, wrote about a schoolwide effort to integrate the culture of the Taos Pueblo into the curriculum. The school staff, two thirds of whom are tribal members, surveyed school and community members to learn not only what various community members might contribute to the curriculum, but also to develop a shared decision-making process for both preserving tribal ways and preparing students for a changing world. In doing so they investigated issues of distribution of ownership, responsibility, and shared commitment to their children's education.

By enlarging the classroom to include the community that has a stake in the learning that occurs in that classroom, these studies create images

of places where the voices and experiences of students and parents count in significant ways toward the ways literacy is learned. In addition, by seeing the community as a setting of both advantage and disadvantage, the teacher research described here creates a frame for using community as a window for understanding the actions of the larger, more complex world beyond the neighborhood.

Directions and Implications

Teacher inquiry, like all research traditions, has its limitations, many of which have been discussed in the professional literature. Concerns include such issues as ethics (Hammack, 1997), hierarchical and political struggle (Herr, 1999), methodology and ways of knowing (Ballenger, 1996c; Fenstermacher, 1994; Huberman, 1996), and what constitutes teacher research (Raphael, 1999). However, we see these concerns not as reasons for disregarding teacher research, but as a means for advancing a dialogue that serves to deepen and strengthen research from an *emic* perspective. We agree with Lytle (2000) when she advises that neither uninterrogated celebrations of teacher research nor critique based on normative research frameworks is useful in discussing or assessing what it means to inquire into one's own practice. All research methodology is simultaneously suspect and enabling; the more we come to understand about the limitations of all educational research, the more we'll know about the necessity of accessing a range of research perspectives, voices, and methodologies.

However, in the spirit of critique inspired by the willingness of teacher researchers to raise questions about their practice, our review of this particular literature raises questions about the impact of teacher research on policy and practice related to equity and social justice issues in schooling. How is what teachers are learning influencing education beyond the individual classroom? How is this information being used by policymakers—or is it—at the school, district, state, and national levels? How are the insights, practices, and recommendations generated in this wealth of research on sociocultural and equity issues being incorporated by university-based researchers—or are they? Even university researchers who support teacher research too frequently limit their citations to other university researchers.

Do our questions demand an impact that is inconsistent with the goals of classroom inquiry? The stated or implied purpose of most teacher research is a very specific focus on the improvement of practice in that researcher's classroom, with the notable exception of schoolwide action research (e.g., Allen, Rogers, Hensley, Glanton, & Livingston, 1999; Calhoun, 1994; Wells et al., 1994). Further, most of the research we reviewed for this chapter, like much other teacher research, is qualitative in nature and does not pretend to imply generalizability. Yet given these local intentions and even honoring

the wishes of many teacher researchers to keep their knowledge local, it is puzzling why so much first-hand knowledge seems to be ignored by policymakers and academics. This is especially puzzling when we consider the quality of the work discussed here. We wonder if, similar to the schism that exists for some between qualitative and quantitative research, teacher research is relegated by many academics and policymakers to the margins of acceptable research practice. Or is it simply, like the persistent critique plaguing all educational researchers, that we in the research community have no real impact on teaching and learning (Miller, 1999; Wideen, Mayer-Smith, & Moon, 1998)?

Perhaps we are looking in the wrong places. Perhaps we are thinking of impact in outdated and ineffectual terms—number of citations in research journals, direct links to district policy statements, or influence on textbook content. Some who study school change are suggesting that while official educational policies change rapidly and may give lip service to being “research based,” change in practice occurs in a much different manner. It has to be locally constructed. “Truths,” even about such widely accepted concerns as providing equity in teaching and learning, are generated one teacher, one classroom, and even one student at a time.

Does this mean that we should expect no influence of the insightful researchers cited in this chapter beyond their own classrooms? Not at all. It means that fostering and following that influence is a much more complex task than previously imagined. Hubbard and Power, who have supported teachers all over the country through publishing their work, are now “channel[ing] our energies away from helping teachers write up their work for academic journals, and towards more political, proactive vehicles” (1999, p. 288). They and others are searching for meaningful forms and forums for increasing the impact of teacher research on policy and practice.

So what might this impact look like? There is a potential for influence not only whenever another researcher, policymaker, or educator reads something written by a teacher researcher, but whenever the teacher next door to Cindy Ballenger asks her, “Why don’t these kids like picture books?,” or the teacher across the hall from Betty Shockley asks, “How did you get these parents so involved?” There is a potential for influence whenever a teacher reads about what another teacher has learned and responds, not by adopting the exact approach or practice, but by investigating equity and social justice issues and practice in his or her own classroom. There is potential for impact every time school leadership puts their broad commitment to educational equity into action and creates structures wherein teacher researchers have teaching loads and schedules that accommodate rather than limit their capacity to inquire.

There are other questions. The researchers reviewed here are predominantly European American women. Why are there fewer males and

teachers of color of either gender conducting teacher research—or are they not being published? This somewhat narrow range—or at least more narrow than it perhaps should be—of researchers raises questions about representation and what interpretations we make through research that largely depends on interpretation. How might an African American or Latina teacher represent children, their language, and their cultures differently than do European American teachers? Given that there are multiple ways of “reading” any data, how can those of us working across cultural boundaries find ways to provide the most insightful and culturally authentic representations of students? When Allen, Michalove, and Shockley (1993) wrote about African American children, one of the children’s teachers, herself African American, took great exception to the use of Shannon’s dialect. “You make all Black children sound ignorant when you use that language,” she argued. The authors met with her, considered her opinion, but published the study using the children’s language. Did they have the right to represent Shannon and the other children this way? Did they have a right not to?

This leads us to ask the entire research community what we are ignoring or misinterpreting by not inviting and hearing other voices as we make sense of classroom-based research. One answer is that we need to look more to in-house publications for these voices. The National Writing Project has been fertile ground for diverse voices, especially in its urban and rural sites. The Bread Loaf Rural Teacher Network includes African American, Native American, Alaskan Native, and Latino/a teachers writing about their schools and communities. Publications such as *Rethinking Schools: An Urban Educational Journal*, *Democracy and Education*, and *Teaching Tolerance Magazine*, while they have national distribution, are somewhat outside of mainstream academic writing. Yet they often contain articles written by teachers dealing with equity and social justice issues; one whole issue of *Rethinking Schools* (Perry & Delpit, 1997) devoted to “The Real Ebonics Debate: Power, Language, and the Education of African American Children” included African American teacher voices, voices conspicuously absent in the national debate.

In addition, we need to actively engage in dialogue across cultures. Part of this query speaks to the greater general diversity of race, ethnicity, and gender to which we’ve already referred. Specifically, however, we also need to pull students into research roles. Frequently, we who research represent students in our studies—whether we are working across cultural boundaries or not. However, what are we losing by not including them as coresearchers? If teachers provide an *emic* voice on teaching, students must be the voices of learning, and resisting learning (e.g., Branscombe, Goswami, & Schwartz, 1992; Egan-Robertson & Bloome, 1998; Oldfather et al., 1999). How can we enlarge the roles of those who are underrepresented

or better understand why some who are members of underrepresented groups elect not to participate?

These questions are critical but they do not diminish the unique and necessary perspectives teachers bring to educational research, theory, and practice. The research in this chapter comments on some of the most compelling issues in educating a diverse society that aspires to democratic principles: the ways literacy and identity are intimately woven together, the ways students come to understand themselves by making meaning of the texts in and of their world, how cultural boundaries are crossed by teachers and students, how difference matters and how understanding of difference matters even more, and what it means to take an inquiry stance on learning. By doing so, it serves as a model of descriptive/interpretive research that takes substantive stances with compassionate perspectives and that in many cases results in changes in teaching and learning.

In risking both their research methodology and their pedagogy, teacher researchers continue to embed their investigations in problems that rise out of the circumstances of their own teaching. Their first audience is most always themselves. However, we are seeing more and more examples of how teachers are sharing this knowledge with others. Given these circumstances, in what ways can the broad educational community in schools, universities, state departments, and other agencies learn from, extend, and employ the insights of teacher researchers to make the literacy education of our children equitable and the applications of their literacies engines of social justice?

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CHAPTER 9

Synthesis Research in Language Arts Instruction

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When William S. Gray was cataloging reading research more than 50 years ago, do you think he could have foreseen the explosion of research in language arts since the end of World War II? Gray's annual summaries of research became a major contribution to the profession, and the annual summary of research in reading has been carried forward over the past 20 years by Sam Weintraub and his associates. Today, it is almost inconceivable that a language arts dissertation or major study would not make use of current annual summaries in reading, English, and instruction.

Summaries and syntheses of research hold treasures for many people besides those who are writing their dissertations. Teachers and administrators who wrestle with daily decisions about curriculum and instruction can find guidance in documents that examine research across numerous studies on the same issue. This chapter defines synthesis research and offers criteria for judging the value of a synthesis paper. It also gives examples of language arts synthesis documents in categories that may be useful to teachers.

*The ideas in this chapter from Dr. Klein are based on "Research and Practice: Implications for Knowledge Synthesis in Education" (Klein, 1989) and do not necessarily reflect the views of her employer, the U.S. Department of Education.

Knowledge synthesis is here defined as a cluster of activities often called literature review, research review, interpretive analysis, integrative review, research integration, meta-analysis, state-of-the-art summarizing, evaluation synthesis, or best evidence synthesis. It involves pulling together related extant knowledge from research, evaluation, and practice on specified topics or issues.

WHERE TO START

English language arts education has so many individual pieces of research that it is difficult for individuals to know where to start when they examine research questions. Under the broad headings of reading, writing, and teaching language arts, each one could generate 10,000 studies, assuming a person had access to all the major research databases, such as ERIC, Psychological Abstracts, Education Index, and so on. Modern computerized search techniques make it possible to refine a library search and thus limit the available studies to the specific interests of the researcher. One can then locate documents that pertain to a question about "the value of prewriting activities on composition performance in the junior high school," and similar narrowly defined topics. But even then, the list of available studies may far exceed the time or the energy that the researcher can devote to analyzing all material. That's where synthesis research enters the picture.

As the number of studies on a particular topic multiply, it becomes increasingly valuable to have and to use resources that summarize or synthesize that research. Then, for example, the annual summary of research in English and the annual summary of research in reading become invaluable. For the same reason handbooks, such as this one, and the *Handbook on Reading Research*, offer educators summarized and synthesized views of the broad literature. Besides the pertinent studies that answer an individual's research question directly, it is helpful to have the same question seen in a broader perspective through the summaries prepared by individuals and by organizations such as federally funded educational labs and the ERIC/Reading and Communication Skills Clearinghouse.

Cyclical trends in education remind educators of the value of reviewing past research as well as present studies. Doctoral dissertations, for instance, could serve the profession well through their literature reviews by offering syntheses of the topics under consideration and by placing these topics in historical perspective. An historical view of a particular issue might reveal the manner in which old questions keep arising and how research has changed our perception or knowledge of a particular issue. The use of children's literature in the curriculum, for example, and the integration of the language arts were major concerns in the early 1960s and became issues

again in the 1980s: A synthesis of that research over those 25 years can give insight into the similarities and the differences of those two issues in two separated decades. Merely reading a half-dozen studies of recent vintage would deprive the researcher of an important perspective and might limit the value of his or her conclusions.

In an article on how to use research evidence from many studies, Light and Pillemer (1984) suggest two major strategies for synthesis research and conflict resolution: "One strategy is to read through the various findings and reach a series of impressionistic conclusions. A second approach is to apply precise analytic procedures to the collection of studies." Among the specific benefits of synthesizing data, they found that it increases the power of the data. It is well known that the larger the sample size, the more likely an effect will be detected as statistically significant. By pooling the information from a number of smaller studies into a single analysis, it is possible to improve the power of statistical tests. As an example, Light and Pillemer discussed two studies that measured the number of books in a child's home and correlated that information with the child's achievement test scores. In the first study, which included homes having mostly fewer than 200 books, there was no noticeable effect on school performance. But when they added a second study asking the same question, they found a significant effect as the number of books in the home rose into the 200 to 400 range. Then there was a significant increase in the achievement scores (p. 181). As the number of books in a home pushed beyond 200, there was a corresponding increase in school grades. But those effects were noticeable only when the data from the two studies were meshed together.

Another value of synthesis research is that it helps us to view conflict in a constructive way. Suppose that two studies reveal conflicting outcomes. Synthesis research gives us an opportunity to look for explanations about divergent findings. Were the treatments different in some significant way? Were data collected in a similar fashion? Were the populations different? Thus, conflict acts as a warning to the reviewer, indicating that a more detailed analysis needs to be conducted, Pillemer and Light suggest that an investigator may find a resolution to conflict in other content areas where similar studies have been conducted.

PURPOSES OF KNOWLEDGE SYNTHESIS

The general purposes of knowledge synthesis are:

1. To increase the knowledge base by identifying new insights, needs, and research agenda that are related to specific topics.
2. To improve access to evidence in a given area by distilling and reducing large amounts of information efficiently and effectively.

3. To help readers make informed decisions or choices by increasing their understanding of the syntheses topic.
4. To provide a comprehensive, well-organized content base to facilitate interpretation activities such as the development of textbooks, training tools, guidelines, information digests, oral presentations, and videotapes.

In the 1975 *Catalog of NIE Education Projects*, Spencer Ward categorized 72 of the 660 catalog entries as knowledge synthesis products. Most of these knowledge synthesis products were developed by the ERIC Clearinghouses and Research and Development (R&D) Centers and Laboratories (Ward, 1976, p. 12). A recent search of the Office of Educational Research and Improvement/National Institute of Education (OERI/NIE) project information database from 1979 to 1988, indicates a wide variety of knowledge synthesis projects ranging from an inexpensive commissioned paper to an elaborate metaanalysis.

An examination of the ERIC *Resources in Education* (RIE) database as of 1988, indicates that 2,030 U.S. Department of Education sponsored documents were classified as Information Analysis Products and/or identified as knowledge synthesis, information analysis, literature review, meta-analysis, integrative analysis, integrative review, evaluation synthesis, or state-of-the-art reviews. (Because all types of ERIC Clearinghouse produced documents are coded as ERIC Information Analysis Products, this total for knowledge synthesis documents is inflated.) This federal contribution represents 12% of all such knowledge synthesis documents in the ERIC RIE database. Putting this in a larger perspective, it is interesting to note that 6% of all documents in both the RIE (16,805) and *Current Index to Journals in Education* (CIJE) (20,891) ERIC database fit this broad knowledge synthesis definition.

In 1977, Ward addressed the problem of the uneven quality of synthesis papers by organizing a conference to plan follow-up research. Information on much of the subsequent R&D is described in *Knowledge Structure and Use: Implications for Synthesis and Interpretation* (Ward & Reed, 1983). In addition to developing useful synthesis products in a wide variety of areas ranging from mathematics to school desegregation, the NIE dissemination group developed models that use a consensus building process for synthesis work. The "Research Within Reach" series supported by this group demonstrated how a consensus process can be used to identify and respond to teachers' questions. The viability of this approach is indicated by *Research Within Reach: Secondary School Reading* (Alvermann, Moore, & Conley, 1988). The dissemination group's most recent R&D on knowledge synthesis was a project by Harris Cooper covering 1982 to 1985. Cooper surveyed knowledge synthesis producers (including authors of

ERIC Information Analysis products). Survey questions addressed reviewers' content expertise, knowledge synthesis goals and procedures (Cooper, 1983, 1986a, 1986b). Some of this work is also reflected in *The Integrative Research Review* (Cooper, 1984), which describes how general research methods may be used to guide knowledge synthesis work.

While researchers supported by the NIE dissemination group used meta-analyses and other synthesis approaches for their substantive work, some researchers refined these methods or developed new synthesis approaches. For example, through his work at the Johns Hopkins R&D Centers, Robert Slavin (1986, 1987) developed a knowledge synthesis procedure called "best evidence synthesis." Numerous other researchers, such as Gregg Jackson, Robert Rich, Herbert Walberg, Richard Light, and their colleagues produced many synthesis products and wrote thoughtfully on the synthesis process (Light & Pillemer, 1984; Jackson, 1980; Rich, 1983; Walberg & Haertel, 1980).

WHAT HAS BEEN LEARNED ABOUT IMPROVING KNOWLEDGE SYNTHESIS?

The profession is starting to learn about the characteristics and potential indicators of quality knowledge synthesis because the federal government has funded a great deal of knowledge synthesis; and individuals are conducting some research on knowledge synthesis practices and examining R&D on knowledge synthesis.

The discussion of these characteristics and indicators will be grouped into four criteria clusters that are based on similar clusters developed by Klein (1976) for the review and selection of knowledge interpretation products such as instructional or training materials. Additional quality indicators were based on results from Klein's 1987 survey of ERIC Clearinghouse knowledge synthesis practices and criteria, a review of research on knowledge synthesis in education and related areas, and discussion with managers of knowledge synthesis work.

Intrinsic Qualities

The intrinsic quality of a knowledge synthesis document may be judged by experts. Often it is necessary to use different reviewers for these different criteria. For example, it may be advisable to have one or more experts in the content area covered, experts in the knowledge synthesis methodologies used, experts in writing, and educational equity experts for the social fairness criteria.

1. *Nature of Knowledge Synthesis Content.*

- Is the coverage sufficiently comprehensive and inclusive or at least representative?
- Is the evidence sufficiently central or pivotal to the topic? (Cooper, 1986b, p. 17)
- Is the topic not too small or too large for this comprehensive coverage? (Katz, 1986)
- Is the evidence (information) based on extant research, development, evaluation, and /or practice?
- Is the evidence sufficiently current and timely and of cutting edge interest?
- Are significant variables, assumptions, interactions, and analytic questions clearly defined and addressed?
- Are the evidence, analyses, syntheses, and conclusions accurate and appropriately qualified and interpreted (i.e., with context, size and validity limitations) so that the reader will not reach wrong conclusions?
- Are the evidence and analyses free of bias with respect to particular views? However, it may be appropriate for the author(s) to take either a neutral or espousal position when stating conclusions and implications (Cooper, 1986b).

2. *Technical Quality.*

- Were appropriate knowledge synthesis methodological procedures for acquiring, evaluating, analyzing, combining, and describing exact evidence used—whether it was quantitative, qualitative or both?

There are now many well developed procedures for various types of synthesis for quantitative and qualitative evidence. These are described in many guides on meta-analyses, a book on meta-ethnography (Noblit & Hare, 1988), articles on evaluation synthesis (Chelimsky & Morra, 1984; Slavin, 1986; 1987) and books on research review (Cooper, 1984; Light & Pillemer, 1984).

- Were these appropriate knowledge synthesis methodological procedures for acquiring, evaluating, analyzing, combining, and explaining the evidence described in the body of the knowledge synthesis or in an easily accessible appendix?
- Were the context and assumptions for the analytic framework and relevant variables presented so that the syntheses of the evidence is meaningful?
- Was it clear whether the synthesis was intended to serve as an honest broker or advocate and whether it was intended to present evidence for alternatives or “best” solutions?

Cooper (1985) pointed out that two of the seven AREA research review award winners from 1978 to 1984 were espousal rather than neutral in their presentations.

- Is the information balanced in that it resolves, rather than obscures, inconsistencies in the evidence being synthesized? (See Cooper, 1986b, p. 7; Roberts, 1983, p. 479.)

3. *Social Fairness.*

- Does it adhere to standards for the elimination of social group bias?
- Does it report relevant information regarding sex, race, ethnicity, age, and socioeconomic status in evidence covered, and in the conclusions?

4. *Communications Quality.*

- Is the knowledge synthesis well written? Developed logically? Appropriately focused, clear, and organized for the intended readers? Internally congruent and consistent?
- Does it adhere to document design guidelines for clear writing such as those discussed by Landesman and Reed (1983)?
- Is the level of detail (parsimony) and terminology appropriate for key audiences?

“As reviewers move from addressing specialized researchers to addressing the general public, they employ less jargon and detail while often paying greater attention to the implications of the work being covered” (Cooper, 1985, p. 7).

- Does it adhere to professional writing standards such as appropriate use of the American Psychological Association style manual, use of requested type size, format, length, permissions relating to copyrighted material, and so on, needed by the publisher?
- Is it dry and mechanical, or interesting and stimulating?
- Are creative formats such as discussing the evidence in terms of alternatives, or in terms of user questions and answers used when appropriate?

Desirability, Utility, Effectiveness

These criteria can be judged by potential and actual users of the knowledge synthesis.

1. *Desirability.*

- Is there a need or demand for a current knowledge synthesis on a given topic or would the work be redundant with existing syntheses?

- Is there a sufficiently large evidence base that would involve many institutions and states?
- Is the knowledge synthesis likely to address its intended purposes such as increasing knowledge in an area?
- Do those who are sponsoring the knowledge synthesis work, or doing it, feel that the topic is educationally significant?

2. *Utility Practicality.*

- Is the product appropriate for its intended users such as specialized scholars, general scholars, practitioners, policymakers or general public? (Dervin, 1983)
- Is the knowledge synthesis presented in a physically appealing way so that recipients will want to read it?
- Is the knowledge synthesis product user friendly? For example, is it appropriately self-contained so that its use does not depend heavily on other resources?
- Is the size of the topic manageable in terms of user comprehension? (Katz, 1986).
- Is the knowledge synthesis formatted and developed in such a way that it will be accessible to potential users (i.e., a chapter in a handbook or encyclopedia article, or published as an easily available monograph, book, or review journal article)?
- Is the knowledge synthesis appropriately marketed or better yet, distributed for a sufficiently low cost or for free? (It may be possible to judge user satisfaction to some extent based on sales, but purchases may be limited because of a "thin market" audience or because the document is not part of an established "product line.")
- Is the knowledge synthesis appropriately linked to one or more knowledge interpretation efforts to increase its visibility and potential utility?
- Does the knowledge synthesis contain a sufficient amount of appropriate interpretations?

Research suggests that the utility of the knowledge synthesis is generally increased by clear interpretations (Cooper, 1986b), but such interpretations may simplify the information so that scholarly detail is omitted.

3. *Effectiveness.*

- Can the users comprehend the knowledge synthesis and remember what they have read?
- Is there any evidence that the readers learned from the knowledge synthesis as indicated by cognitive or behavioral tests?
- Is there any evidence that the readers confirmed or changed their attitudes about a topic based on the knowledge synthesis?

- To what extent was knowledge synthesis information used in knowledge interpretations or for direct decision making?
- To what extent was knowledge synthesis information used to supplement the working knowledge of the reader? (Kennedy, 1983)
- To what extent has the knowledge synthesis been cited in other work?

Knowledge Synthesis Development Options

Aside from adhering to the logical technical synthesis procedures suggested in the intrinsic quality criteria, little is known about what constitutes an effective knowledge synthesis process. Thus, the following are provided as exploratory questions rather than quality indicators.

1. *Who Should Do the Knowledge Synthesis?*
 - Experts in the content area? Multidisciplinary experts? Experts in synthesis methodology? Experts in writing for specific audiences? Potential knowledge synthesis users? A combination of any of these?
2. *Should Multiple Individuals or Groups Be Involved in the Synthesis Process?*
 - Does the use of multiple participants increase the credibility of the work? (Ward, 1983, p. 553).
 - If so, should the synthesis process be structured for consensus development and iterative reviews, collaborative work, or adversarial work? (Klein, Gold, Stalford, 1986; Stalford, 1987)
 - Glaser (1980, p. 79) suggested the value of developing a state-of-the-art consensus document by iterative reviews and revisions of the drafts by multiple contributors.
 - Vian and Johansen (1983, p. 494) suggested ways that computer conferencing may be used for collaborative synthesis work.
 - Should the synthesis process be structured to obtain guidance from specific audiences such as potential knowledge synthesis users?
3. *What Systematic Knowledge Synthesis Processes Are Best?*
 - Chelimsky and Morra (1984, p. 78) note that one of the characteristics of evaluation synthesis is "that designing backward from the information needed is both feasible and likely to ensure the relevance, timeliness, and use of the work performed." This approach differs from some research syntheses where the topic is determined based on the availability of the data.

CONCLUSIONS

The questions and criteria provided can help individuals evaluate a particular document. Since purpose, breadth of coverage, and the nature of the analysis all contribute to the value of a synthesis paper, those criteria should be applied as appropriate.

When an important decision about instruction or curriculum development needs to be made about language arts, the decision makers want information. Knowledge synthesis documents offer that kind of summary information. Whether the issue concerns children with specific reading disabilities, process writing strategies, the effect of using children's fiction in a reading program, or the impact of sociocultural influences, there are synthesis studies available. Appended to this chapter are samples of synthesis documents arranged in several frequently used categories. They include only a small fraction of the synthesis papers available in the ERIC database and are presented here merely to indicate the variety that might be useful to language arts educators. (A more complete list of language arts synthesis references is available as a published bibliography from ERIC/RCS, Indiana University, Bloomington, IN 47405.)

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Appendix: Representative Synthesis Documents

Reading

AN: EJ349079

AU: Dehart, Florence E.; Pauls, Leo W.

TI: Computerized Searches on Articles Reporting Reading Research: A Closer Look.

PY: 1987

JN: Reading Horizons; v27 n3 p209-17 Apr 1987

AV: UMI

DE: Databases; Language Usage; Online Searching; Psycholinguistics; Reading Instruction; Reading Research

ID: Computerized Search Services

AB: Compares the terminology used in three different computerized search services—CIJE, LLBA/Online, and PsycINFO—and shows how the choice of terminology used by them impedes retrieval. Suggests compensatory measures. (FL)

AN: ED276970

AU: Manning-Dowd, Alice

TI: The Effectiveness of SSR: A Review of the Research.

PY: [1985]

NT: 8 p.

PR: EDRS Price—MF01/PC01 Plus Postage

DE: Elementary Education; Research Needs

DE: Reading Attitudes; Reading Comprehension; Reading Instruction; Reading Research; Sustained Silent Reading; Teaching Methods

AB: In the past two decades, sustained silent reading (SSR) has gained attention as a component in many schools' reading programs. Some advocates of SSR differ slightly in their recommendations of specific rules, but most agree on the following guidelines: (1) no interruptions; (2) everyone reads, including the teacher; (3) students choose their own reading material; (4) no required reports; (5) a wide variety of reading materials should be available in the classroom; and (6) the time period should be

increased gradually. Research conducted to determine the effects of SSR has produced mixed results, but most researchers seem to agree that SSR has a positive effect on reading comprehension and on students' attitudes about reading at all grade levels. However, research is less conclusive on the effect of SSR on students' reading achievement. Of the studies considered, six found SSR to have a significant positive effect on reading scores, whereas five showed no significant improvement. Since SSR appears to positively influence attitudes toward reading, it also appears that its benefits are long range. More research is necessary to determine conclusively the relationship between SSR as a method of reading practice and students' reading achievement. A two-page bibliography concludes the document. (JD)

AN: ED272840

AU: Robinson, Karlen

TI: Visual and Auditory Modalities and Reading Recall: A Review of the Research.

PY: [1985]

NT: 13 p.

PR: EDRS Price—MF01/PC01 Plus Postage.

DE: Comprehension; Learning Processes; Learning Strategies; Memory; Responses; Sensory Integration

DE: Auditory Stimuli; Cognitive Processes; Reading Ability; Reading Research; Recall Psychology; Visual Stimuli

AB: Of particular interest to those exploring student's learning modalities is the relationship between the visual and auditory systems and reading recall. Among the findings of studies that have investigated this relationship are the following: (1) reading competency is dependent as much on auditory processing as on visual processing; (2) when visual and auditory signals are presented simultaneously, subjects generally respond to the visual input and are often unaware that an auditory signal has occurred; (3) auditory stimuli are processed more rapidly than visual stimuli; (4) when preschool children's evaluation and integration of visual and auditory information was compared with that of adults both groups were found to have available continuous and independent sources of information; (5) memory training increases a child's ability to retain stimuli; (6) under audio/video mismatch conditions, memory for audio information is reduced more than memory for video information; however, comprehension and recognition of audio information is similar in the audio only and audio/video match conditions; (7) children recall logical sequences better than illogical ones; and (8) children of all ages show a correspondence between strategy use and metamemory as assessed by verbalization of relationships among pictures during

specific questioning; however, when a more typical general question format is used to assess metamemory; strategy use precedes verbalized knowledge of strategy use. In general, most studies show that visual stimuli tend to dominate other modalities in both perceptual and memory tasks. A 3-page list of references concludes the document. (HOD)

AN: EJ325185

AU: Sippola, Arne E.

TI: What to Teach for Reading Readiness—A Research Review and Materials Inventory.

PY: 1985

JN: Reading Teacher; v39 n2 p162-67 Nov 1985

AV: UMI

DE: Child Development; Learning Processes; Primary Education

DE: Learning Readiness; Reading Instruction; Reading Materials; Reading Readiness; Reading Readiness Tests; Reading Research

AB: Reviews literature on different aspects of reading readiness, then presents a reading readiness material analysis inventory constructed according to the findings of the review. Explains how the instrument can be used by educators to compare readiness program materials. (FL)

AN: ED223971

AU: Spangler, Katy

TI: Readability: A Review and Analysis of the Research.

PY: 1980

NT: 51 p.

PR: EDRS Price—MF01/PC03 Plus Postage.

DE: Comparative Analysis; Literature Reviews, Research Design; Research Methodology; Test Reviews

DE: Cloze Procedure; Readability Formulas, Reading Research; Test Interpretation; Test Validity.

AB: This paper reviews seven research studies on the subject of readability. The first study reviewed is itself an extensive review of 30 readability formulas described by George A. Klare. Of these, five formulas considered to be interesting, unusual, or classic on the basis of high validity, simplicity or complexity, common or uncommon variables, and other unusual features were chosen for analysis. The five formulas include those by I. I. Lorge (1939), G. D. Spache (1953, 1974), W. B. Elley (1969), J. R. Bormuth (1966, 1969), and Harris-Jacobson (1975). In addition, the initial research on cloze procedure by W. L. Taylor (1953) is reviewed to give balance to the overview of readability research. Each review consists of an analysis of the research backing the formulas, specifically the theoretical framework, the research design, the results, the author's

evaluation, and a summary including comments on the usefulness and the face validity of the formulas. After the reviews, a synthesis of the studies attempts to answer the following questions: (1) What is readability and how is it calculated? (2) How good is the research on readability—what are its strengths and limitations? (3) How do readability measures compare? and (4) What are some practical implications for use of these formulas? (HOD)

AN: EJ297934

AU: Wiesendanger, Katherine D.; Birlem, Ellen D.

TI: The Effectiveness of SSR: An Overview of the Research.

PY: 1984

JN: Reading Horizons; v24 n3 p197–201 Spr 1984

AV: UMI

DE: Program Effectiveness; Research Problems

DE: Reading Improvement; Reading Instruction; Reading Research; Research Utilization; Sustained Silent Reading

AB: Reviews research concerning sustained silent reading and lists factors that are important in determining whether such a reading program is successful. (FL)

Writing

AN: ED240586

AU: Cronnell, Bruce; And Others

TI: Cooperative Instructional Application of Writing Research. Final Report. Volume Three.

CS: Southwest Regional Laboratory for Educational Research and Development, Los Alamitos, Calif.

PY: 1982

NT: 642 p.; For related documents, see CS 208 143–144

PR: EDRS Price—MF03/PC26 Plus Postage.

DE: Annotated Bibliographies; Basic Skills; Elementary Education; Multiple-Choice Tests; Surveys; Test Items; Test Results; Writing Skills

DE: Achievement Tests; Educational Assessment; Language Arts; Minimum Competency Testing; Writing Evaluation; Writing Research

ID: Theory-Practice Relationship

AB: The last of three volumes studying the relationship between writing research and instruction, this four-part report focuses on writing assessment. The first section details specifications for an instrument assessing student writing samples and the following composition skills: word processing, sentence processing, paragraph development,

organizational skill, use of dictionary and reference sources, spelling, and writing mechanics. It also reports on the administration of such an assessment instrument to students from grades 1 to 6 in the Los Angeles Unified School District. The second section discusses specifications for competency based assessment of the following language arts skills: (1) listening, (2) grammar usage, (3) sentence structure, (4) capitalization and punctuation, (5) language expression, (6) spelling, (7) literature, and (8) study skills, media literacy, and nonverbal communication. The third section briefly describes the reading, mathematics, and language proficiency surveys and review exercises administered to entering high school students in the Sacramento City Unified School District, and the final section presents an annotated bibliography of assessment reports. (MM)

AN: ED254848

AU: Davis, David J.

TI: Writing across the Curriculum: A Research Review.

PY: [1984]

NT: 29 p.

PR: EDRS Price—MF01/PC02 Plus Postage.

DE: Higher Education; Learning Theories; Literature Reviews; Writing Processes; Writing Skills

DE: Content Area Writing; Interdisciplinary Approach; Student Attitudes; Teacher Attitudes; Teaching Methods; Writing Research

ID: Writing across the Curriculum

ID: Writing Programs

AB: A review of dozens of journal articles and books on the subject of writing across the curriculum reveals the following basic assumptions that seem to characterize most college writing across the curriculum programs: (1) writing is a complex and developmental process; (2) writing should be used to promote learning; (3) the teaching of writing is the responsibility of the entire academic community and of every teacher; (4) the teaching of writing should be integrated across departmental lines; (5) writing serves several functions in the educational context; (6) the universe of discourse is broad; and (7) the teaching of writing should occur during the entire 4 undergraduate years. Studies also support the assumption that writing increases student learning. It is clear, however, that there is little common agreement on how best to go about fostering writing skills among disciplines operating with quite diverse rhetorical conventions. In addition, few individual faculties seem to have developed a systematic approach giving overall direction to their own practices toward student writing. The apparent broad interest in student writing is accompanied by fragmentation of attitudes, expectations,

and practices in that direction. These studies suggest that English departments would serve themselves and the total campus well by seeking ways to cooperate with their colleagues in other disciplines to accomplish what is obviously a widely shared goal—the development of skilled writers. A 33-item reference list is included. (HOD)

AN: ED225147

AU: Faigley, Lester; Skinner, Anna

TI: Writers' Processes and Writers' Knowledge: A Review of Research Technical Report No. 6.

CS: Texas Univ., Austin.

PY: 1982

NT: 71 p.; Prepared through the Writing Program Assessment Project. Figures may not reproduce.

PR: EDRS Price—MF01/PC03 Plus Postage.

DE: Cognitive Processes; Educational Theories; Elementary Secondary Education; Higher Education; Literature Reviews

DE: Prewriting; Revision Written Composition; Writing Composition; Writing Instruction; Writing Processes; Writing Research.

ID: Theory-Practice Relationship

AB: After a short introductory chapter to this literature review on composing processes, the second chapter examines research that covers the timing and content of planning, planning subprocesses, employing planning strategies, and instruction in planning. Studies in the third chapter are divided into two sections, oral and written discourse production and instruction in producing texts. The sections in the fourth chapter deal with research concerning classification systems for revision changes, revising strategies, why writers revise, and instruction on revision. The final chapter deals with studies that outline the kinds of knowledge a writer possesses about language, the conventions of writing, and a particular writing situation. This chapter argues that examining a writer's knowledge is essential to understanding changes in composing and suggests directions for future research. The studies cited in the document are then listed. (JL)

AN: ED280063

AU: Funderburk, Carol

TI: A Review of Research in Children's Writing.

PY: [1986]

NT: 13 p.

PR: EDRS Price—MF01/PC01 Plus Postage.

DE: Cognitive Development; Cognitive Processes; Developmental Stages; Educational Theories; Language Acquisition; Language Arts; Literature

Reviews; Prewriting; Research Proposals; Surveys; Teaching Methods; Theory-Practice Relationship

DE: Piagetian Theory; Primary Education; Reading-Writing Relationship; Writing Processes; Writing Research

ID: Invented Spelling; Piaget, Jean

AB: Recent research into the composing processes of children owes much to Piaget's postulate that cognitive development is linear—that children progress through stages of development whereby tasks are mastered at certain levels of cognitive understanding. The stages of children's writing processes (prewriting, composing, revising), as well as language development, drawing, and reading have been examined by Donald Graves, L. M. Calkins, and Glenda Bissex, among others. In one study, C. Temple, R. Nathan, and N. Burris concluded that children make the same discoveries in the same order. Susan Sowers detailed her observation of a first-grade class; in which she used the techniques of invented spelling, writing conferences, and writing about assigned topics to compile children's writing for publishing. Issues currently being examined include the use of drawing as a prewriting exercise, and the relationships between scribbling, drawing, and talking. The issues of invented spelling and writing before reading have profound implications for new directions in elementary education. A growing amount of research indicates that reading is a highly abstract task and should follow rather than precede writing instruction. Frances Kane's work advocates the progression of thinking, drawing, writing, and reading. The link between Piaget's stages of cognitive development and its writing counterparts is a promising area of research. (NKA)

AN: ED229766

AU: Mosenthal, Peter, Ed.; And Others

TI: Research on Writing: Principles and Methods.

PY: 1983

AV: Longman Inc., 1560 Broadway, New York, NY 10036 (\$25.00 cloth).

NT: 324 p.

PR: Document Not Available from EDRS.

DE: Elementary-Secondary Education; Higher Education; observation; Research Needs; Research Problems; Student-Teacher Relationship; Writing Processes; Writing Readiness

DE: Experiments; Holistic Approach; Research Design; Research Methodology; Writing Instruction; Writing Research

AB: Designed to alleviate the confusion caused by the existence of a multiplicity of approaches to writing research, the four parts of this book present explicit discussions of research principles and methods used by

researchers actively working within a variety of disciplines. The two chapters in Part 1 describe very broad views of the entire research endeavor. The four chapters in Part 2 show how classical experimental projects are used to examine the processes used by readers in evaluating student composition, the development of writing abilities in children, the writing development of children who are just beginning to write, and the control of writing processes. The three chapters in Part 3 describe the use of observational approaches to study the composing processes of adult writers, the on-the-job writing of workers, and the role of the teacher in the student's writing process. Chapters in Part 4 examine two other approaches, recounting the long tradition of interest in writing disabilities and reviewing approaches to text analysis. (JL)

AN: ED236674

AU: Moss, Kay

TI: The Developmental Aspects of the Writing Processes of Young Children: A Review of Related Research. Instructional Research Laboratory Technical Series #R83003.

CS: Texas A and M Univ., College Station. Instructional Research Lab.

PY: [1982]

NT: 24 p.

PR: EDRS Price—MF01/PC01 Plus Postage.

DE: Elementary Education; Literature Reviews; Teacher Role; Verbal Development; Writing Readiness

DE: Developmental Stages; Language Acquisition; Writing Instruction; Writing Processes; Writing Research

AB: To determine the designs, procedures, and findings of studies related to an investigation of the developmental aspects of the writing processes of children, a literature search was made of documents indexed in "Current Index to Journals in Education" (CIJE) and "Resources in Education" (RIE). A search was also made of the literature in Psychological Abstracts, Comprehensive Dissertation Index, and the Language and Language Behaviors Index. From the analysis it would seem that most of the literature regarding the writing processes of young children has been concerned specifically with developmental aspects. Research conclusions suggest that teachers should question children to help them expand their ideas about writing and options for writing those ideas. Teachers should also encourage other children to set standards for their writing and encourage other children to provide feedback. In particular, the research findings of Donald Graves suggest that children should be encouraged by their teachers to focus on the message rather than on its form and to realize that words are only temporary. His findings also

show that informal classroom settings promote writing and that unsigned writing seems to stimulate boys' writing and results in longer compositions. (HOD)

Integration of Language Arts

AN: ED260409

AU: Froese, Victor; Phillips-Riggs, Linda

TI: Dictation, Independent Writing, and Story Retelling in the Primary Grades [and] Research in Reading and Writing Should be Progressive. A Response to Froese.

PY: 1984

NT: 37 p.; Papers presented at the Colloquium on Research in Reading and Language Arts in Canada (Lethbridge, Alberta, Canada, June 7-9, 1984).

PR: EDRS Price—MF01/PC02 Plus Postage.

DE: Communication Research; Communication Skills; Expressive Language; Language Processing; Language Skills; Research Needs; Research Problems; Speech Communication

DE: Dictation; Integrated Activities; Language Arts; Story Telling; Writing Research; Writing Skills

AB: In addressing selected aspects of the language arts from the context of an integrative language paradigm, this paper focuses on the results of three studies recently completed in Manitoba, which help to shed some light on three modes of expression—dictation, independent writing, and retelling—in the primary grades. The first part of the paper discusses the background and need for the studies—their purposes, methods and procedures, findings, and conclusions and implications. The second part of the paper is a response by Linda Phillips-Riggs, which outlines the main points of Froese's paper and discusses the weaknesses of his paper and of the three studies. Some research ideas are presented, followed by a conclusion. (EL)

Summaries of Research

AN: EJ332975

AU: Marshall, James D.; Durst, Russel K.

TI: Annotated Bibliography of Research in the Teaching of English.

PY: 1986

JN: Research in the Teaching of English; v20 n2 p198-215 May 1986

AV: UMI

DE: Language Acquisition; Reading-Writing Relationship; Rhetoric; Writing Evaluation; Writing Processes

DE: Educational Research; English Teacher Education; Language Processing; Literature; Writing Instruction; Writing Research

ID: Writing Contexts

ID: Text Analysis

AB: Describes recent research studies in the areas of writing (contexts, status surveys, instruction, processes, text analysis, assessment rhetoric), language (processing, development, interrelationships, language and schooling), literature, and teacher education. (HOD)

Children with Disabilities

AN: EJ358541

AU: Barnett, Janette

TI: Research on Language and Communications in Children Who have Severe Handicaps: A Review and Some Implications for Intervention.

PY: 1987

JN: Educational Psychology; v7 n2 p117-28 1987

DE: Language Handicaps

DE: Communication Research; Interpersonal Communication; Nonverbal Communication; Psycholinguistics; Severe Disabilities; Speech Communication

AB: Presents a critical discussion of some contemporary literature on the language development and communication problems of persons with severe handicaps. States that for meaning to be transmitted from one person to another, a social-interactive context is required. Draws implications for caregivers and therapists. (Author/JDH)

AN: EJ344038

AU: Battacchi, Marco W.; Manfredi, Marta-Montanini

TI: Recent Research Trends in Italy: Cognitive & Communicative Development of Deaf Children.

PY: 1986

JN: Sign Language Studies; n52 p210-18 Fall 1986

DE: Foreign Countries; Language Acquisition; Special Education; Total Communication

DE: Cognitive Development; Communication Research; Communicative Competence Languages; Deafness; Exceptional Child Research

ID: Italy

AB: A review of recent research trends in Italy regarding cognitive and communicative development of deaf children indicates that deaf children's potential for communicative and cognitive growth is enormous. This potential may be realized if provision is made for an educational

environment based on a multiple code, gestural communication, spoken language, reading, and writing. (CB)

AN: ED223988

AU: Coats, James H.; Snow, David P.

TI: Understanding Poor Reading Comprehension: Current Approaches in Theory and Research.

CS: Southwest Regional Laboratory for Educational Research and Development, Los Alamitos, Calif.

PY: 1980

NT: 28 p.

PR: EDRS Price—MF01/PC02 Plus Postage.

DE: Academic Aptitude; Learning Theories; Reading Rate; Reading Skills

DE: Decoding Reading; Reading Ability; Reading Comprehension; Reading Difficulties; Reading Processes; Reading Research

AB: Two views of the sources of poor reading comprehension are currently distinguishable in the research literature: a decoding sufficiency view and a comprehension skills view. The decoding sufficiency view argues that decoding is the only skill that must be acquired for general language comprehension. The broader, comprehension skills hypothesis argues that a deficiency in any of several basic component skills could thwart reading comprehension mastery. R. M. Golinkoff's major review of studies comparing good and poor comprehenders posited three components of comprehension: decoding, lexical access, and text organization. Research on decoding has yielded some hypotheses relating decoding speed to comprehension, but problems of study design cast some doubt on these conclusions. Research on lexical access ability indicates that poor comprehenders do not typically lack this ability; however, if cognitive overload during reading is more frequent among poor comprehenders, it is likely that lexical access functioning will deteriorate. Most clearly, text organization research has consistently shown that poor comprehenders are word-by-word readers while good comprehenders employ higher level strategies. (JL)

AN: EJ352216

AU: Goodacre, Elizabeth

TI: Reading Research in Great Britain—1985.

PY: 1987

JN: Reading; v21 n1 p16-29 Apr 1987

DE: Elementary Secondary Education; Foreign Countries; Learning Disabilities; Reading Difficulties; Reading Interests; Reading Materials; Reading Tests; Skill Development; Teaching Methods

DE: Educational Technology; Reading Instruction; Reading Research; Reading Skills

ID: Great Britain

AB: Reviews research in the areas of reading standards and tests, reading development, dyslexia and specific reading retardation, and reading materials and interests. (FL)

Sociocultural Influences

AN: EJ337085

AU: Plant, Richard M.

TI: Reading Research: Its Influence on Classroom Practice.

PY: 1986

JN: Educational Research; v28 n2 p126–31 Jun 1986

DE: Elementary Education; Teacher Responsibility; Teacher Role

DE: Classroom Techniques; Delivery Systems; Reading Research; Research Methodology; Teacher Attitudes

ID: Great Britain

AB: An attempt is made to assess the influence of recent reading research on current classroom practice. It is argued that its overall effect is minimized by a combination of researcher/practitioner disagreement on what constitutes reading, the overreliance by researchers on a particular methodology, and the inadequacy of much of the machinery for dissemination. (Author/CT)

AN: EJ331092

AU: Subervi-Velez, Federico A.

TI: The Mass Media and Ethnic Assimilation and Pluralism: A Review and Research Proposal with Special Focus on Hispanics.

PY: 1986

JN: Communication Research: An International Quarterly; v13 n1 p71–96 Jan 1986

AV: UMI

DE: Ethnic Groups; Research Methodology

DE: Acculturation; Communication Research; Cultural Pluralism, Hispanic Americans; Literature Reviews; Mass Media

AB: Provides an integrated assessment of literature about communication research on Hispanic and other ethnic groups within the context of assimilation and pluralism. (PD)

Teacher Effectiveness

AN: ED233389

AU: Farr, Marcia

TI: Writing Growth in Young Children: What We Are Learning from Research. The Talking and Writing Series, K-12: Successful Classroom Practices.

CS: Dingle Associates, Inc., Washington, D.C.

PY: 1983

NT: 22 p.

PR: EDRS Price—MF01/PC01 Plus Postage.

DE: Basic Skills; Child Development; Child Language; Elementary Education; Language Experience Approach; Language Skills; Language Usage; Models; Oral Language; Writing Instruction.

DE: Classroom Research; Developmental Stages; Language Acquisition; Writing Processes; Writing Research; Writing Skills

ID: Theory-Practice Relationship

AB: Prepared as part of a series applying recent research in oral and written communication instruction to classroom practice, this booklet describes several classroom-based studies that have examined children's writing development and synthesizes what they have shown about the process. The first section of the booklet analyzes the term "writing development"; presents a model of literacy acquisition and use devised by J. C. Harste, C. L. Barke, and V. Woodard; and discusses the work of D. H. Graves and his associates in this area. The second section discusses children's transition from oral to written language and reviews the research conducted by M. L. King and V. M. Rentel. The third section examines how written language growth is related to teaching and discusses King's, Rentel's, and Graves' findings on instructional approaches and S. Sowers' work with the concept of scaffolding. (FL)

AN: ED265576

AU: Phelps, Lynn A.; Smilowitz, Michael

TI: Using Research as a Guide for Teaching Interpersonal Communication Competencies.

PY: 1985

NT: 18 p.; Paper presented at the Annual Meeting of the Speech Communication Association (71st, Denver, CO, November 7-10, 1985).

PR: EDRS Price—MF01/PC01 Plus Postage.

DE: Higher Education; Speech Communication; Speech Curriculum; Speech Improvement; Speech Instruction; Speech Skills

DE: Communication Research; Interpersonal Communication; Interpersonal Competence

AB: Twenty years of research in interpersonal communication have provided teachers with a basis for identifying the competencies that should be taught in introductory interpersonal communication courses, including empathy, social composure, and conflict management. However, other issues such as "performance vs. knowledge," the affective

dimension, and the situational nature of competency are still being researched and debated. Five suggestions for instructors who teach basic interpersonal communication courses are: (1) review various conceptualizations of interpersonal competence and select factors deemed crucial for students to process, (2) select a basic textbook that treats those factors, (3) encourage students to critically examine their own behaviors, (4) use exercises that provide the opportunity to observe others who process useful skills and that provide opportunities to practice in a nonthreatening environment, and (5) allow students to make their own choices. (DF)

AN: EJ313480

AU: Rupley, William H.; Wise, Beth S.

TI: Methodological and Data Analysis Limitations in Teacher Effectiveness Research: Threats to the External Validity of Significant Findings.

PY: 1984

JN: Journal of Reading Education; v10 n1 p8-18 Fall 1984

NT: The Organization of Teacher Education in Reading, 1917 15th Av., Greeley, CO 80631; \$6.00, includes membership.

DE: Classroom Research

DE: Data Collection; Reading Research; Research Methodology; Research Problems; Teacher Effectiveness; Validity

AB: Notes that major changes have occurred in the factors investigated and the data collection procedures employed in teacher effectiveness research and that the generalizability of significant findings continues to be limited by methodological and experimental design problems. (FL)

AN: ED275152

AU: Zamel, Vivian

TI: In Search of the Key: Research and Practice in Composition.

PY: 1983

NT: 14 p.; In: Handscombe, Jean, Ed.; And Others. On TESOL '83. The Question of Control. Selected Papers from the Annual Convention of Teachers of English to Speakers of Other Languages (17th, Toronto, Canada, March 15-20, 1983); see FL 015 035.

PR: EDRS Price—MF01/PC01 Plus Postage.

DE: Classroom Techniques; Diaries; Error Patterns; Higher Education; Research Needs; Second Language Instruction; Writing Composition.

DE: English-Second Language; Writing Exercises; Writing Instruction; Writing Processes; Writing Research

AB: It is important that teachers help students to realize that writing is not simply a product, or a means to an end, but an exploratory, cyclical process. Research has shown that skilled writers conceptualize the effect

of their writing as a whole, as a generative process, whereas unskilled writers are distracted by surface-level features and are less aware of the exploratory nature of writing. In light of these findings, methods are proposed for teachers to involve students in the composing process and thereby better prepare them to become independent writers. Some of these activities include: allowing students to be creative and purposeful in their writing; initiating free-writing activities that develop skills for exploring and discovering fresh ideas; and observing students' writing processes closely and noting areas of difficulty. (TR)

Literature Curriculum

AN: EJ345213

AU: Sawyer, Wayne

TI: Literature and Literacy: A Review of Research.

PY: 1987

JN: Language Arts; v64 n1 p33-39 Jan 1987

AV: UMI

NT: Theme Issue: Literature and Literacy.

DE: Beginning Reading; Children's Literature; Reading Improvement; Reading Strategies

DE: Learning Processes; Learning Theories; Literacy; Literature; Reading Research; Theory-Practice Relationship

AB: Reviews the major theoretical statements regarding the contribution of literature to reading development, noting that they fall into two interwoven strands: the notion of learning to read through literature, and learning to read literature. Evaluates the empirical evidence supporting the claim that literature plays an important role in learning to read. (JD)

AN: ED235506

AU: Sword, Jeane

TI: The What and How of Book Selection: Research Findings.

PY: 1982

NT: 18 p.; Paper presented at the Annual Meeting of the National Council of Teachers of English Spring Conference (1st, Minneapolis, MN, April 15-17, 1982).

PR: EDRS Price—MF01/PC01 Plus Postage.

DE: Elementary Education; Evaluation Criteria; Fiction; Holistic Evaluation; Intermediate Grades; Kindergarten; Oral Reading; Reading Aloud to Others; Resource Materials; Surveys

DE: Children's Literature; Reading Materials; Reading Material Selection; Reading Research; Teacher Attitudes

AB: A review of the literature on read-aloud programs reveals two studies that extensively examine program content and practices and teacher procedures. The first study, conducted in 1969, compiled responses from 582 intermediate teachers of Grades 4, 5, and 6 throughout the United States. The second study, conducted in 1979, surveyed 29 kindergarten teachers in a large northern Minnesota city. Findings from the studies showed that in both kindergarten and intermediate grades the largest category of books teachers read orally to children is fiction. In the intermediate grades study, the quality of teacher selected books was determined by checking the list of titles against two standard bibliographies: "Children's Catalog," and "The Elementary School Library Collections." The kindergarten study used a set of criteria for evaluating the quality of plot, characterization, and style of picture storybooks. In consideration of personal teacher evaluation of a given book, two facts stood out: 85% to 100% of the teachers relied on their own knowledge in book selection; but in regard to quality of literature chosen, only one-fourth to two-fifths of the books selected for the read-aloud programs were categorized as top quality. The most frequently used book selection aids were "The Instructor," for intermediate teachers, and the "Bibliography of Books for Children" for kindergarten teachers. (HOD)

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CHAPTER 10

Fictive Representation: An Alternative Method for Reporting Research

Donna E. Alvermann

George G. Hruby

University of Georgia

Our starting point is simply that research reports do not have to be boring to read, or for that matter, to write. Too often we hear the complaint that researchers write for themselves, or at most, for a small community of scholars whose interests tend to match their own. As researchers, we also know from personal experience the feeling that comes over us when data collection and analysis are over and the task of writing the “final” report is facing us. It’s as if the creative aspects of doing research have ended with the last interview, the last written vignette, the last theoretical memo, and so on. But this need not be the case. Instead, as we will illustrate in this chapter, reporting on research in the field of English Language Arts can be an enlivening, imaginative activity—one that simultaneously helps the researcher and reader interpret qualitative data in ways that begin to approach the richness and complexity of the lived experiences the data are meant to represent.

PERSPECTIVE AND RATIONALE

Although we do not believe there exists any representational form of lived experience that is capable of fully capturing that experience, we do

subscribe to the notion that current conventions for reporting research in the social sciences largely obscure what is of human interest and value about such experience. In making this observation, we draw primarily from the work of scholars in a variety of disciplines who write at the intersections of fiction, social science, ethnography, and cultural studies (e.g., Eisner, 1997; Ellis & Bochner, 1996; Lawrence-Lightfoot & Davis, 1997; Richardson, 1993, 1997; Tierney, 1997). Their work with alternative modes of expression, and particularly their experimentation with fiction as a mode of expression suitable for academic discourse, garnered a good bit of attention in the decade of the '90s.

Critics of this unconventional use of fiction argued that its application in the social sciences threatened the entire research enterprise (Cizek, 1995; Kauffman, 1993). Claiming that it involved the researcher's imagination and thus made any pretense of construct validity a sham, these critics and others like them (e.g., Levine, 1994) argued against turning facts into fiction. Some, like Locke (1992, as cited in Banks & Banks, 1998), grudgingly noted that fiction might have a role in research but only if used within a postmodern framework.

Proponents of bringing techniques used by fiction writers to the research table have redoubled their efforts, largely in light of this criticism. For example, Ellis and Bochner (1996) have written a book that demonstrates the versatility of nontraditional forms of representation, including the fictional and the poetic, for the purpose of reporting research that makes a difference to the reader. To their way of thinking, "interpretive authority ultimately lies with the community of readers who engage the text" (p. 7). Others (Barone, 1995, Barone & Eisner, 1998; Denzin, 1997), have argued that educational storytelling deserves its own textual breathing space. We tend to agree.

In fact, a partial rationale for the stance we have chosen to take in this particular chapter is illustrated in Bochner and Ellis's (1998) introduction to Banks and Banks's (1998) *Fiction and Social Research*, which is part of a series titled *Ethnographic Alternatives* and published by Altamira Press, a division of Sage Publications. In that series, authors purposefully attempt to blur the boundaries between the social sciences and the humanities. In their introduction to *Fiction and Social Research*, the series editors, Bochner and Ellis, wrote:

Taken as a whole, the chapters of *Fiction and Social Research* ask readers to contemplate new possibilities for social research, where the prose is poetically crafted, where the author is construed primarily as a writer rather than exclusively as a researcher, where the reader is invited into the subjective and emotional world of the author, where at least as much attention has been given to the imagination as to the rigor of the inquiry, and where the

texts that depict social life have the sound and feel of lived reality, giving context to the lives and actions they detail. (pp. 7–8)

Evoking the subjective and emotional texture of the researcher and the researched is largely foreign territory to those of us schooled in the rigors of academic writing for education journals. And, even when we are disposed to try our hand at writing in a more creative style, we frequently lack the experience and literary background (in terms of course work) that novelists, short story writers, and poets bring to their work. In our particular author team, Donna had the requisite academic writing skills and educational background for factually reporting the research she conducted, but she was finding, like Anna Banks (Banks & Banks, 1998), that “facts don’t always tell the truth, or a truth worth worrying about” (p. 11). George, on the other hand, whose work prior to entering the doctoral program at the University of Georgia included writing for and editing an award-winning college literary magazine, reporting for a suburban newspaper chain, penning a syndicated new-wave humor column, and writing published and anthologized fiction, was interested in acquiring the skills of an academic writer. It was while working together on a research project (Alvermann & Hruby, 2000) that we began exploring ways to make the written product of our collaborative research more interesting, more accessible, and more aesthetically engaging.

FICTIVE REPRESENTATION

In this chapter, we focus on how fictive representation—a form of representation that employs the traditional qualities of good storytelling, qualities like character development and figurative language—lends context and depth to the portraits of our research participants and thus makes their actions more believable. As used here, fictive representation allowed us to show rather than tell (Denzin, 1997; Frus, 1994; Wolfe & Johnson, 1973) about what George Hruby learned in his interview with Jerry Harste and Harste’s graduate student advisees at Indiana University on the topic of graduate student mentoring in literacy teacher education (Alvermann & Hruby, 2000). Using fictive techniques such as interior monologues and flashbacks, Hruby was an observer of his own acts as researcher as well as an interpreter of Harste’s actions. This dramatic (Burke, 1966) approach to the data allowed us to capture with a certain degree of vividness much of what would have been lost or remained unspoken in a more traditional form of reporting. It also made possible a subtle and nuanced layering of the participants’ mentoring experiences. Finally, it contributed to richer readings that forced our sample readers to avoid simple motivational explanations of complex human relationships.

It should be noted that fictive representation is not synonymous with fiction per se, or fictional representation, the latter being a creative fabrication to represent more general delineations of a situated truth or reality (cf. Lawrence-Lightfoot & Davis, 1997). By contrast, *fictive* representation attempts to use the techniques of fiction to frame and present factual data that has been gathered with all of the methodological rigor appropriate to qualitative interview research, but presents this data in an aesthetically effective (and affecting) manner. In this sense, fictive representation attempts to provide the reader the pleasures and engagement found in such similar forms as new journalism, fictionalized history and biography, or the traditional travelogue. All of these forms share the use of fictive and dramatic technique to make the author's often veiled selectivity (and, after Burke [1966], deflectivity) of the reporting method explicit. Moreover, an author's moral culpability for such choices is usually made explicit as well, often by way of a narrator of dubious reliability (e.g., Thompson, 1971). It must be borne in mind, however, that fictive representation is also equally vulnerable to the sort of criticism new journalism and other analogous forms have received (for a partial review of these strengths and weaknesses, see Denzin, 1997, particularly chapters 2, 5, and 7).

George's visit to Indiana University, Bloomington, spanned 3 days and involved in-depth interviews with Jerome Harste and five of his students. These interviews were tape recorded and the recordings were later transcribed for detailed review and analysis. A group interview with Harste and four of his graduate students was videotaped. George also took extensive notes during and immediately before and after each interview, and kept a record of personal observations of the physical, social, and cultural environments he encountered during his visit to Bloomington. He also collected such local artifacts as photographs, brochures, postcards, receipts, local newspapers, fliers, and other miscellaneous items he thought noteworthy and useful for later rekindling of his memory.

When invited by Donna to be "creative" in his site visit write-up in the manner of the new journalism, George was at first unsure what might prove sufficiently entertaining yet faithfully factual. In order to preserve the integrity of the data, he chose to quote his subjects at length and verbatim from the tape transcripts. His descriptions of events were drawn closely from his field notes. However, for the tone of voice he chose for his report, George initially selected a casual, happily idiosyncratic travelogue narration. His goal was not to attempt the impossible feat of using language to produce an objectively factual representation of an interpersonally constructed moment in time. Rather, George attempted to present an indexical account of his personal impressions of that moment with the added glosses of hindsight. Subsequently, the initial draft was reworked with concessions to stylistic and dramatic effectiveness in pursuit of an engaging account. Constrained by the need to preserve the integrity of the data, George

chose to restrict major manipulations of fact to the representation of the narrator.

Thus, emerged a narrator markedly more insecure, neurotic, and defensively caustic—and hopefully more interesting—than the author himself. This narrator plays a jester-like “fool” to the principal subject’s “king,” and the narrator’s inner Imp echoes this narrative device as trickster inside the trickster. Why create such an undependable narrator? Quite simply, for the dramatic tension and textual complexity it provided. Dramatic tensions (and the implicit promise of their resolution) have long been recognized as a basis for reader engagement (Aristotle, 1999; Booth, 1983; Burke, 1969, 1966; Gardner, 1983; Nabokov, 1980; Turner, 1996). The unreliable narrator allowed George as author to construct a dramatic tension between the demands of the interview and the confidence of the interviewer, as well as contrast the seemingly coherent person of the subject with the scattered person of the narrator. The unreliable narrator is also a useful device for contrasting the difference between telling and showing: the narrator *tells* the story, often with a great deal of gratuitous, self-serving spin or, alternatively, naivete, while the author *shows* sufficient discrepancies in this account to tip off the reader to the error, danger, or irony to be recognized. In a work of fiction this is perhaps more obvious; no one confuses Celie for Alice Walker (1992), or Holden Caulfield for J. D. Salinger (1991). The narrator is but another, if major, character in a larger story woven by the author.

The tension created between narrator and author is but one manifestation of the unreliable narrator. As Rick Beach pointed out in an earlier critique of this chapter (personal communication, October 27, 1999), another point of tension created by the use of the unreliable narrator is one between the invited or implied audience and the actual reader. Presupposing an audience’s knowledge or understanding of narrative conventions, the author is free to play with this tension. Thus, in the narrative that George crafts around his interview with Jerry Harste, the presumed audience would have to know something of the rudimentary conventions of storytelling and to engage in what Rabinowitz (1987) calls the rules of notice and signification for the unreliable narrator convention to work. That is, the presumed audience would have to acknowledge its role in interpreting the text created through the unreliable narrator, thereby playing along with the author’s purpose for employing such a convention. If, however, the presumed audience and the actual reader are not one and the same person, a tension could evolve, as in fact it did in one of the responses to the text George created.

Waiving for the purposes of clarity the fiction writer’s dictum to “never explain,” we emphasize, then, these three caveats:

1. Every effort has been made to preserve the integrity of the data by quoting verbatim and adhering closely to actual events.

2. The reader should distinguish between the narrator and the author.
3. It is the reader's interpretive responsibility to produce the read text—the reading that results from the transaction of the reader and the text cannot be laid at the feet of the author alone (Rosenblatt, 1994).

Beyond that, we can be certain that each reader's response will be appropriate for that particular reading, the mediating constraints of which are beyond our immediate control. We presume our readers are aware that texts that employ fictional techniques have different intentions and place different demands on the reader than do more "purely" informational texts (hence Rosenblatt's [1994] distinction between aesthetic and efferent stances in reading). Similarly, stylistic anomalies like the interpolation of other inter- and intrapersonal voices "layered" through the main interview, distinguished in the following by italics, should not be perceived as a typographic intrusion to be resisted but as a literary strategy to be judged on the basis of effectiveness.

IMAGINE HERE A PREFACE ... GEORGE G. HRUBY

Imagine here a preface in which the writer depicts a graduate student-as-researcher being mentored in his research by a highly regarded academic. Imagine the uncertainty of that graduate student, the trepidation, the intimidation of having to commence a research project on that very subject: to wit, the mentoring of graduate students by academic professionals. Imagine his doubts, second thoughts, and misgivings coalescing into a private counterpoint to the foisted expectations of the role he believes he's expected to play as researcher, that inner perspective taking on a voice all its own. Imagine the dissonance between that voice struggling to retain a dubious autonomy and that more appropriate if less authentic outward voice of polite, postured nice-making. Imagine these voices, and others besides, struggling toward eminence in this graduate student's quest for self-definition as a professional academic researcher researching the development of graduate students' self-definition as professional academics. Just imagine. . . .

PROFESSOR CARPY

"It's like they say," said Professor Carpy, taking a long drag off his Winston on the walkway outside the Wiggely College of Education, "If you don't stand for something, you'll fall for anything." I nodded dutifully, playing

the objective interviewer, but once again I found myself struggling with the Imp. He and my trickster-self were horsing around in my mental vestry while the rest of the congregation, including my serious researcher-self, was trying to pay attention to the sermon.

"You know, you need to take a stand. You have to . . . That's what I try to make my students do: find out what they stand for. They need to find that out. That's what it's . . . That's what it's about . . ."

Taking a stand. Sly Stone's "Stand." Outstanding student; outstanding in the parking lot smoking cigarettes. "Smoking up good, like a researcher should." Gah, baloney. Isn't that the problem anyway? Too many academics cluttering the discourse with untenable stances. Of no import. And for no reason better than professional self-definition. "Hey, here I am! Look at me! Hey, mom, look at me!!!" Yaaaah! Who is this guy anyway? . . .

You know, in education there's this notion of eclecticism as scholarship, and I just think that's a bunch of malarkey, really. I just think eclecticism is a disease curable by taking a position, quite frankly. I think one of the problems, you know, I don't know if you've had much experience in working with teachers out in the field, but one of the real problems I think in why teachers can't position themselves as learners is because they don't take a position. . . .

Take THAT position? Well, bless my sockets! Hush! Enough! Gad, by the time I'm finished here I'm gonna need a shrink. Big brimming bowl of fluoxetine. Must be something about the midwest. I need to watch myself, watch him . . .

It had been a long first day of interviews, starting with a grueling self-interrogation about 3 A.M. that went on for hours. Then an appropriately institutional breakfast in the student union building where I was quartered. By 8 I was casing the Wiggley College building, locating myself in an empty office to set up my tapes and questions. At 9 it was Anna. At 10 it was Mariana. At 11 it was Sharon. At 12 it was lunch with Professor Carpy himself, which turned out to be an impromptu interview sans notebook or tape recorder. At 1:30 it was Alex. At 2:30 it was Jane. And now, at 3:30, it was Dr. Carpy again, first in his office, then down for a cigarette break to the parking lot. I was punch drunk with interviewing.

Okay, nod. What's he saying, now? Pay attention. Something about taking a stance. On what? Just listen. Eye contact. Nod. Now you be HYP-no-tized!

"By [taking a] position I don't mean you've got to be ornery . . . I simply mean you've got to take your best shot at what it is that you think you currently know and then I think you've got to say, you've got to put that on the line and then you've got to look at what happens."

Strike a pose! Take the . . . Shhh!

And so this is how it went at Bladderburg University, in the heart of the eastern midwest. My asking anemic questions and looking by turns

engrossed and credulous, just like they do on *60 Minutes*, except with all the boring outtakes left in. My own proffered "insights" ham-fisted, off-key, trivial. Much, I presumed, to the private derision of my subjects, thinking me an idiot, which is certainly how I felt. But trying to look sly. Suitably humble, the promising graduate student researcher. Nodding and frowning thoughtfully, Peter Faulk-style, collecting all the pertinent information in spite of my clumsiness and the suspect's dubious estimation of my intellectual wherewithall. The Columbo of qualitative research, that was me.

But meanwhile, off camera, a symphony of distractions performed by the Imp and my trickster-self . . .

(Columbo starts to leave the room, then turns: Ah, yaah, well, thank you, professor. You've been very helpful. But, ah, just one more question . . .)

But by taking a position, by anchoring yourself someplace—I don't care, you don't even have to be anchored right, you've just got to be anchored someplace. And then you've got to deal with the data you collect or what happens, what the kids are doing, and you've got to rethink and then . . . it's not . . . You need to criticize where you currently are but also develop your own personal model.

Anchor, get anchored, collect your data.

Carpy stepped on his cigarette, making apologetic noises on the subject of quitting, though admitting he knew he wouldn't. He led me to his car to give me a tour of the town. A professor's car, well this side of rattle-trap, but lived-in. I was disappointed not to find any stance-taking bumper stickers on the rear fender. There was an empty pack of Winston's on the floorboard of the passenger seat.

"I think this process is fundamentally observation, reflection, and theorizing, and I think that cycle . . . I want that cycle in place. I don't really care about what, the person's theorizing may in actual fact violate everything I've been doing for years, but I want that cycle in place."

Carpy was the genuine article, all right, and had the potential to be a gristly pain in the ass for the profession. You could see that in a minute. Built solid, like the midwestern, 20th-century industrial-gothic architecture of the campus, he resembled a pastiche of masculine principles: a sinewy shot of George C. Scott, a stoic dollop of Papa Hemingway, and a giddy dash of Fritz Mondale all rolled into one. Wisened eyes. Narrow patrician nose. Silvered beard yellowed with nicotine around the maw. A pain in the ass perhaps, by virtue of his eagerness to call in to question and reconstruct, but there was a weathered kind of generosity about the man, a tolerance approaching kindness. He clearly made an impression. Even the Imp was starting to focus.

Like Jane's report: "You know, when Carpy comes down the hall in the morning or you see him around, you know, he's always saying the most outlandish things in the loudest voice. It sets a sort of a tone for the graduate students. It kind of promotes a level of comfort. And we have these real informal conversations about the stuff I'm working on, and he just basically asks me a bunch of questions and its deceptive . . . the conversions are deceptively simple because I always feel as if, well, what did he say that was so profound? Well, nothing, except that what he says somehow pushes me against the wall on a notion I'm trying to take somewhere. And he says, well, what about this? You know, and you're stopped dead in your tracks and rethink it."

Mentoring. When I first heard about what you were up to, I go, what the hell do I know about mentoring? I don't know anything about mentoring. That's my first reaction to all of this, but I suppose I do know some, I don't know. I tend to just live it. I tend to just live the model and I tend to invite students . . . I arrange . . . I guess I put in place structure so that students find the kind of support, experience . . . I assume that the experience of that will sell them on the idea. If it doesn't, that's fine, too.

A light, early spring rain spackling the windshield. Driving across the still winter-bare campus, naked parchment branches, dampened cherry blossoms, wet loam, reawakened turf. Like an oversized cemetery, BU is strewn with moon-beige sandstone monuments, highrise classroom towers, spaced out over seemingly unreasonable distances: the midwestern love of space. We are quiet. I'm feeling vacuously meditative, but I try to sound intelligent.

"Does it seem to transfer through, that structure, to follow them into their professional lives?"

Yeah. It's very . . . I find . . . well, I find that I have connections with graduate students from years and years that I've been . . . that we still maintain conversations in various ways. Last night we had a teleconference with doctoral students who got out of here in the '80s, and they have worked with people and have, you know, have a collective that they're working with. We're now connected over e-mail and I have a study group with new faculty up in Bloodworthy, some of whom are my doctoral students, and we're inviting other people in to support our writing and our research.

Working together in collectives. That's his thing. Like the story Alex told me:

"I wrote Carpy and I can't remember what I actually wrote in this inquiry letter, but just said that I was aware of his work and would be interested in working with him and what is he working on now, I think. And he sent me a paper he had just written, and it was just a rough draft, and he said, well, you know, if you're interested in what I'm working on, here's this paper I've just written. So, he was maybe implying

I should respond, but he didn't expect a response. So I went through and read it real carefully and there were some wonderful things in it and some things I really questioned ... things I didn't particularly like ... very minor things ... overall I thought it was great. So I just really spent some time analyzing it, taking notes, and then I thought, well, I'll write this up and give it to him. I hesitated for a moment ... I thought, well, you know he didn't really invite criticism and here I am criticising his paper ... is this ... you know, should I do this? And I finally thought, well, if he's a person I really want to work with, he won't mind. And it turned out that he not only didn't mind, but sent back this wonderful encouraging letter saying this is some of the best feedback I've gotten on this paper, thanks a lot, and why don't you tell me what you're doing and meanwhile I told him that I had seen one of his videos. So this exchange started.

"So, uh, how would you characterize the role you play? If you had to think of a handy descriptor, what might it be? Would you say you're a coach? A choreographer? An instructor? A colleague? An assistant?"

Carpy's thick frame undulates effortfully under his sweater.

A benevolent slave-driver? An eager voyeur? A bull in a china shop? An overly self-reflective researcher? Hey, I said: Shhhh!

Well, you see, the problem is that I don't know that I do any of that very consciously. I tell you what I do is I can be a fairly productive guy myself, right? And I tend to be involved in my own sort of program of research and a lot of people come to participate in that, and I include them. I don't particularly go out of my way to invite people who don't want ... If they don't want anything to do with me, that's just fine. Nor am I particularly looking at instructing them, in a sense. I mean, I would much prefer to have their perspective. I think I treat people as colleagues, and I think we're enriched by that perspective and try to find out what interests them in what I was doing and what perspective they can bring that can push our thinking forward.

Like his student, Anna, told me:

He has far greater theoretical knowledge than I do, but I'm willing to argue more with him. We have greater debates than I do with other professors. He's revered because I respect him, but he's not revered in the distance way. He really wants to know what I think. And that's been kind of interesting. Because the first time it happened, I thought, okay now, does he really want to know? What's going on here? So I think it's been equal footing in that respect. But when I'm sharing my concerns about my project in Bloodworthy, then it's very much the professor/student role of him saying you should check out this resource or have you ever considered that. And even in those moments where he's asking for my input, it's also a teaching role in the respect that I'll say something and then he will restate it in a clearer way. I always try to listen to how he says things because he says it so much better. But he has a good sense of humor, too, you know. I think it's a very friendly relationship.

Anna was cool. Nice eyes. All smiles.

But I think, if anything, I'd let the group instruct, not me. I wouldn't... I'd let the group talk about what it is we're on to, and work with them... bring them into the thought collective, I guess. I use the word thought collective. It's out of Fleck. Rudolph Fleck? And I mean it's... I think you've just got to be immersed in the environment... The thing that... we were talking about that over lunch, but the thing that always bothers me is that sense of community which I think is very strong and very powerful in the notion... and I think which violates academia generally. I think the notion that you don't ever have to work alone is basically a violation of what academia is built on and... But, yet, I think that's really a very powerful part of what it means to be a professional.

Carpy fumbled forth another cigarette as he spoke, burning it off the dashboard lighter.

I think probably what a good graduate program does is connect people to the profession. And I think by connected I mean, you know, connected into a thought collective. But also connected into professional organizations; connected to other people, other groups that are thinking like you. And when I look at the differences between doctoral programs, what I see is, you know, some places just don't work at that. It's just, they go through the program, but they're not... They haven't put in place structures whereby people can talk and form, you know, a group or thought collective bigger than themselves. I mean, it's not... I think it's important to connect. I mean, I think it's important to work with students so that they have opportunities where they work to do that... Get into thought groups. People who are working along the same lines but differently... Getting them tied into the profession differently so that they're part of the profession, not just part of a program, but a part of that broader kind of field.

Well, okay, so after a couple of hours of listening to the man and resisting myself, I have to admit I like his style. Indeed, by interview's end, the Imp has been quieted. Not at all the famous sociocultural egghead I'd anticipated. No, an altogether different kind of academic icon. Kinder, gentler, wiser, animated and animating—as a grad student myself I could see Carpy as a mentor. In the course of one day he had safely conducted my inner counterpoint from Schönberg to Bach. I even liked his unrealistic self-deprecation.

Carpy, on the parapet of a local restaurant: “What else do I mean by mentoring? I don't know what mentoring means, but I think it's that working together.”

CODA

At the English Hut, over a sandwich and a beer, between CNN reports and waitress smiles at the bar, pondering my experience at Bladderburg U.

More telling than the truths we perceive and report, are the truths we deny, or worse, cannot muster the perspicuity to warrant.

What do I mean by that? Confronting the taken-for-granted assumptions we never challenge or kickover, I guess. And what brought that to mind? My mentor for a day, of course, Carpy.

You see, I figure a guy like Carpy brings his graduate students into the profession by making a safe thought space for them. He's part of this thought collective, too, of course, but he has a special role. He has, you might say, the metasocial awareness necessary to orchestrate the potential interpersonal dynamics to generate productive work and disciplinary insights. He's reassuring even as he's challenging. In the embrace of that kind of environment, his students can feel more secure in letting go of the thought scaffolds and foundational biases they depend on, that they in fact have held dear as their intellectual selves. To become something more than what we are, we have to let go of the person we've been. Not entirely, but to a much greater degree than our illusory self-continuity suggests. I think about Alex's struggle with his transformation as a professional, and I think of my own. When I was a child, I spoke as a child, but now it's time to put away childish ways and actually do some damage. Or something like that.

I stare blankly at the inflatable news anchor presiding over a muted succession of horrors, many of them for sale, no doubt, at a store somewhere nearby. From the juke box the Shirelles are singing "Will You Still Love Me Tomorrow?" I can't figure out if the waitress is making goo-goo eyes, or if she's just a little tipsy. But the roast beef au jus sandwich is damn good. I stare through the bottom of my glass darkly, and order another. This mentoring research stuff is going to be knotty business, I warn myself.

WHO DOES THIS ACCOUNT OF "PROFESSOR CARPY" THINK YOU ARE?

Who a film thinks you are is a key concept in film and media studies. It is a concept film theorists technically label *mode of address*. As such, it gets at the question of how viewers are positioned within relations of power associated with race, class, ethnicity, gender, sexuality, age, ability, and so on. Mode of address also gets at how audiences, acting as their own agents, take up and use a film's address to fashion different social and

cultural identities. In a series of essays, Elizabeth Ellsworth (1997) uses mode of address, along with psychoanalytic literary criticism, to examine teaching and the teacher–student relationship.

In this chapter, we draw heavily from Ellsworth’s (1997) work on mode of address, as applied to pedagogy, to explore what this analytic concept might mean for us as researchers reporting our data using fictive techniques. In a nutshell, who does the text “Professor Carpy” think you (the reader) are? Is there a meaningful distinction to be made between who the narrator thinks you are and who the author thinks you are? And, what is it about mode of address that argues for fictive representation as an academic writing style? Before considering some answers to these questions, a summary of Ellsworth’s work on mode of address in pedagogical studies is in order.

Pedagogy and Mode of Address

Elizabeth Ellsworth was a student of film studies in graduate school before she joined the faculty in curriculum and instruction at the University of Wisconsin, Madison. In her words:

I got hired out of communication arts and into a school of education to teach video production and media criticism for educators. It’s been a cross-cultural experience. I didn’t speak the language of educational research. I didn’t know the stories or characters of the field.

Most alien and alienating of all was having to learn the theories and practices of this new academic world called “curriculum and instruction” in the complete absence of suspense, romance, seduction, visual pleasure, music, plot, humor, tap dancing, or pathos. . . . What I’ve learned most from my decade-long encounter with education as an academic field is, I don’t want to teach or learn in the absence of pleasure, plot, moving and being moved, metaphor, cultural artifacts, audience engagement and interaction. . . . That’s where mode of address comes in. (Ellsworth, 1997, p. 21)

Reading this about Ellsworth prompted us to wonder if there weren’t traces of her longings lurking within each of us. Often over the past 2 years while writing up the data from our mentoring project (of which Professor Carpy was a part), we talked about the possibility of using plot, metaphor, cultural artifact, and humor to make our report more interesting and accessible—always, of course, with the half-guilty feeling that we would be writing largely for ourselves, for our own amusement. But need that be the case? Is there no audience for fictive representation as an academic writing style in education research? And if not, how might mode of address be useful as an analytic tool for arguing the value of such a writing style?

According to Ellsworth (1997), mode of address has not been taken up in education but should be. She advocated using it “to shake up solidified and limited ways of thinking about and practicing teaching” (p. 2). Worried about what gets erased or ignored (and at whose expense) when educators act as if there is no mode of address in teaching—as if teaching were a seamless and transparent activity devoid of plot, intrigue, and the lot—Ellsworth has argued that “mode of address is one of those intimate relations of social and cultural power that shapes and misshapes who teachers think students are, and who students come to think themselves to be” (p. 6). Because it is impossible to obtain an exact fit between the perceiver and the perceived, mode of address is more an event than a visible, locatable relationship. In pedagogical terms, mode of address is the space or difference between the *who* the teacher thinks a student is and the *who* that student enacts through her or his verbal responses and nonverbal actions. This difference or “misfit” between address and response is a social space, one which teachers can neither predict nor control, but one which they can use as a resource to feed the questions and curiosities that will forever keep themselves and their practices unsettled.

Applied to our current interest in using certain conventions of new journalism to write a research report, we see the so-called misfit between address and response as a social space in which to negotiate how the stances or positionings of an audience are constituted through different discourses (Beach, 1997; Fiske, 1994). In writing up his report of his interview with Jerry Harste, George avoided a “scientific” discourse in which the audience is distanced for the sake of establishing what would appear to be an objective space between the researcher and the researched. Preferring, instead, a more personal style of writing—one that employs certain rhetorical strategies and tropes common to fiction—George sought to negotiate the space between address and response in ways that kept Fiske’s (1994) concept of audiencing fluent. For example, at one point in his write-up, George used a gendered discourse that Donna and Kit (two of his responders) picked up on. In doing so, he destabilized a text that up to that point neither Donna nor Kit had questioned, at least not in terms of their own sense of social identity and social relation to the author.

Who Does the Text “Professor Carpy” Think I Am?

We propose first to explore this question through Donna’s response to George’s account of his visit to Indiana University to interview Jerry Harste and several of Professor Harste’s doctoral students on the topic of mentoring. In her response, Donna analyzes how George’s use of fictive techniques

to characterize Harste ("Professor Carpy") and to distill the significance of his mentoring style resulted in a product that packaged "truth" much more memorably for her than would have been the case had George reported the interview data in a conventional form. She also analyzes the text's mode of address. Then, in keeping with our understanding of mode of address as an *event*, we re-explore the same question from the perspective of three new readers, none of whom George had in mind when he initially wrote "Professor Carpy." In each of the three instances, treating mode of address as an *event* signals our belief, after Ellsworth (1997) and Masterman (1985), that it is something that occurs in the social space between the *who* the author imagined or intended the reader to be and the *who* that reader thinks he or she is.

In traditional research exposition, the mode of address presumes an audience of similarly educated scholars. The authors of such pieces take great pains to write with a professional style stressing objectivity, reason, intelligence, authority, and profundity (whether the content deserves such treatment or not). In a sense, academic authors create an implied author who is the very caricature of a scholar. Not for vanity alone is such a voice maintained; the compliment is equally to the reader who is, as noted, presumed to be similarly noble. This academic mode of address is formulaic and required, and so is nearly invisible due to its dependable ubiquity. The result is a standardized discourse form that robs the text of any idiosyncratic humanity that might cast doubt on the implied omniscience of the report. By contrast, in creative narration the mode of address and other stylistic matters are variables to be manipulated for aesthetic and dramatic effect, and idiosyncrasy and humanity are at a premium. A well-practiced evaluator of creative writing, therefore, is one who takes nothing in the text at face value, least of all its mode of address. In traditional academic discourse the author presents him or herself as a scholar and seems to want you to believe the same. In a work of creative writing, the author may well wish for the reader to find the narrator believable, but not necessarily synonymous with the author. The author may also wish the reader to find the narrator an undependable source of information or analysis, and possibly not even a likely target for sympathy (Booth, 1983).

Determining mode of address in works employing fictive techniques, then, is a tricky business. Who the author thinks you are is not the same thing as who the narrator might think you are, if indeed the narrator is presuming a reader at all. And making matters messier, this same indeterminacy that confounds the intentions of the author works in reverse to double the slippage as the reader attempts to determine who the author is, or what the author intends, and who the author thinks the reader is. Since we focus here on the responses of readers, we will refer simply to whom *the text* seems to think a reader is, according to the reader.

Donna's Response

George wrote "Professor Carpy" initially with me as his only intended reader in mind. The two of us were in the early stages of our research collaboration on the mentoring project (Alvermann & Hruby, 2000), and we were experimenting with different forms of fictive representation. I found his write-up from the Indiana University interviews to be more interesting and memorable than my recollections of other reports of interview data. This led me to wonder what it was about this style of reporting that prompted me to favor it over more traditional forms. I was put in mind of Kenneth Burke's (1945, 1966) pentad, the five elements of dramatic action and motivation—act, scene, agent, agency, and purpose. That these five elements correlate so closely with a journalist's concern for the who, what, when, where, and why in stories is not surprising. Coupled with balance and distance, the "five w's" are said to foster credibility and acceptance in the reader of a report. Haarsager (1998) described the relationship this way:

Through the lens of Burke's dramatic pentad, reporters might be described as trading in words that: 1) name the act (what happened in a thought or deed); 2) name the scene and background of the act; 3) tell what person or kind of person (the agent) performed the act; 4) describe the means or instruments (agency) of the act; and finally, 5) tell why the act happened or was resolved the way it was or will be resolved (the purpose). The combination, and the relative weight given certain of the elements as a rhetorical strategy, also opens a window on the narrator's purpose, motivations, and worldview. (p. 57)

However, as noted by James Wertsch (1998), the implications of Burke's pentad for reportorial, literary, and scientific method are more profound than merely a reprise of the journalist's five w's. Burke's pentad provides a "perspective on perspective" for textual analysis (Gusfield, as cited in Wertsch, 1998). Burke's hope is to elude the monistic reductionism that so often bedevils positivistic and critical research in accounting for human behavior. While a purely sociological account of human action would stress the influence of scene (social context), and a psychological account would stress the influence of the individual (agent), a more complex embrace of human action would use all five of the pentad's terminological screens as tools for analysis. Wertsch (1998), a self-confessed Hegelian, claims that to employ more than two of these screens in an analysis is to beget impossible complexity, and so remains wedded to a dialectical analysis employing pairs of perspectives (e.g., the interaction of scene and agent, or agent and agency). But, by presenting his research data in fictive form, George attempted to employ all five. He provided scene (the campus, Carpy's car, a

local eatery, etc.), act (the interview with Carpy), agents and counteragents (the researcher and his participants), agency (the interview methodology, active dialogue, reflective monologue), and purpose (research on the mentoring of graduate students in literacy education, trying to get a handle on both the research process and his central subject). In this way he attempted to suggest the multiple motivations behind the actions described in his report. Following Burke (1969), George resisted the urge to clarify the ambiguous, choosing instead to “clearly reveal the strategic spots at which ambiguities necessarily arise” (p. xviii).

Using these elements and various tropes to maintain perceptions of credibility while not losing the power of the narrative, George put a “human face” on the interview data. For instance, he showed, rather than told, what Professor Carpy believed mentoring entailed, and he did this through extensive use of direct quotations, colorful language, and precise wording. With the help of his trickster-self and the Imp, George also opened a window on his own worldviews. By revealing his personal thoughts on the academy, academic research, and mentoring, he made it possible for me to identify and connect with him on several issues. What this connection accomplished in me, as a reader, was a willingness to suspend any doubt that Professor Carpy could be anyone other than the character George showed him to be.

But there is more to be said. Cutting across the various fictive techniques in “Professor Carpy” was a mode of address that acted on me in both predictable and unpredictable ways. Predictably, I took up several of the most obvious positions offered me. As researcher, I applauded Carpy’s insistence that graduate students take a stance, that they “anchor themselves someplace”; as mentor, I knew the text wanted me to cringe at the unequal power arrangements that exist between professors and students, and I dutifully acquiesced; as academic, I took up my position as veteran intellectual; and as former doctoral student, I identified with the sense of fraudulence that budding academics almost always feel. Interesting, I mused, that the author knew his reader so well!

Of course, this reader was never only (or fully) who the text imagined, either. At times I would find in “Professor Carpy” the most grating of insinuations. Who does this text think I am, I would whine. Surely, I’ve not given cause for such allusions. . . . For instance, I bristled at the proffered position of “academic as sociocultural egghead” and subsequently dismissed any attempt by the text to make up for the brush-off. At other times I was unpredictably mellow, so much so in fact that I surprised myself. Take for example how surprised I was at experiencing little or no discomfort with the text’s decidedly masculinist mode of address. Later, in reflecting on this unexpected response, I tried to rationalize it. Perhaps, I reasoned, it was due as much to my knowing (or *thinking* I knew) the author as it was

to any slippage in my normally intact feminist stance. Or, and this seems more likely, I may simply have found sufficient room in the social space between the text and myself to imagine and try on a new identity. Theories about mode of address being an event, rather than a relatively static concept, would suggest the latter.

Joel's Response

Since its initial reading by Donna, "Professor Carpy" has been presented twice: once in a session at the annual meeting of the Invisible College (Alvermann & Hruby, 1998), and again, in an alternative format session at the National Reading Conference that involved Jerry Harste (Professor Carpy), George, Donna, and three other individuals who were part of the mentoring project (Hruby & Alvermann, 1998). Because we did not take notes on the audience's response to either session, we had no way of retrieving that information for analysis here. Consequently, in preparing to write this section of the chapter, Donna invited one of her colleagues, Joel Taxel, a professor in English Education at the University of Georgia, to read and respond to "Professor Carpy" and then to meet with her to discuss his response.

The meeting between Joel and Donna took place in Joel's office. After some initial awkwardness over the most appropriate form for the encounter, Donna and Joel decided on a conversation, rather than a formal interview. Donna and Joel have known each other professionally for over 18 years, so the informality a conversation offered seemed appropriate. It also seemed appropriate to invite Joel to read Donna's analysis of his response. He graciously agreed to do so, and thus what follows is a jointly constructed response.

Joel began by talking about a session he had attended at a recent meeting of the American Educational Research Association. The session had focused on the pros and cons of writing a dissertation using various modes of fictive representation. Admitting that he was not altogether comfortable with the idea of dissertations becoming stand-alone works of fiction, he was quick to point out that he could see the merits of such an approach if it were embedded in the larger discourse that informed a particular field or discipline. Joel then asked how the text "Professor Carpy" would be presented. When he learned that it was to be part of a chapter in the second edition of *The Handbook of Research on Teaching the English Language Arts* and that it would be situated in such a way that readers would have a context for interpreting it, he was enthusiastic and proceeded to describe several things he found appealing about the piece.

Mostly, Joel was impressed with what he had learned about mentoring as a result of reading "Professor Carpy." He commented on how surprised

he was to find that he had never really given much attention to how he mentored—or, if he thought about it at all, he guessed he had seen it as an extension of how he teaches. However, after reading “Carpy” and discovering that he agreed with the professor’s insistence on doctoral students taking a stance—any stance—so long as they could defend it, Joel said he was inclined to like the piece even more. Consequently, he said he read it again, looking for more things about mentoring that may have escaped him in the past.

When Donna remarked that Joel was attending more to the content of the text (mentoring) than with the style in which it was written, he nodded in agreement. This observation led to further speculation that the use of fictive techniques to represent social science data may not be as distracting as one might predict. Joel attributed his ability to focus on the content as being partially due to the fact that he was learning something about himself as a mentor by attending to Professor Carpy’s philosophical take on the topic.

Joel also commented that he found the piece provocative and insightful. He asked about the author, and when he did not recognize the name, asked more questions about George’s background. Joel was particularly interested in whether or not George had given serious thought to writing his dissertation using some of the techniques of new journalism. On learning that George had created the text for a research project that involved experimenting with different forms for writing up one’s data, Joel remarked once again that he found the “Carpy” piece extremely provocative and insightful. He added that he found it a powerful way to draw the reader into the text. He also found it enjoyable reading, something out of the ordinary—something one doesn’t typically associate with research reports.

Margaret and Kit’s Responses

Margaret Hagood and Kit Crowder met each other in a summer session class in 1998. In the summer of 1999, they were together again in a class that focused on the uses of representation in writing up qualitative research. In fact, they are still part of a writing group that grew out of the qualitative research class. Both are also doctoral students at the University of Georgia—Margaret in Reading Education and Kit in Educational Psychology. We asked them to respond to the introductory portion of this chapter and to the “Professor Carpy” piece. Here, we present verbatim segments of their conversation, supplemented in part by notes that Margaret took and by information gathered in a follow-up conversation with her.

Both Margaret and Kit were in agreement that the authors of this chapter assumed that they were good readers and that they were sufficiently

steeped in traditional educational research methods to appreciate the authors' interest in presenting an alternative way of reporting research. Beyond that initial point of agreement, the two women's responses held little in common. Kit, for example, responded by pointing out the differences between the mode of address used in the introduction to the chapter and that used in the "Professor Carpy" piece. In her words:

In the introduction, the authors assume I am open-minded about new and various ways to represent data, but they also assume that new forms of data representation should conform to established forms of scholarly writing (e.g., citation). Furthermore, the authors' writing style in the introduction adheres to formal, scholarly prose by stating an argument and then by trying to develop rationally that argument. A sense of humor is not detected, nor do I feel from the introductory portion that this is an insider's piece. I am to be instructed on how this concept works; however, I did not feel the same way about the fictive portion of the chapter. . . . [It] thinks that I, as a reader, am an insider. The authors assume that I am someone who conducts or is interested in reading how educational research is conducted, which means that I am interested in being privy to the researchers' early ramblings of the head, as opposed to just reading the polished version. This understanding between the authors and the reader of how qualitative research works allows the authors to poke fun at and have a sense of humor about qualitative research (e.g., inside jokes, such as being punch drunk with interviews). The authors also think that I am someone interested in academic life and the ways in which professors mentor students. From an insider's perspective, they assume that I have respect for professors and can handle the way that they poke fun at Carpy. But they think that beyond that I can get the point about mentoring.

Margaret, on the other hand, did not draw comparisons between the different modes of address in the introductory and fictive portions of the chapter; nor did she focus on the topic of mentoring, *per se*. By her account, she read in a holistic manner, attending to how the text positioned her as a knowledgeable and interested reader of research. In Margaret's words:

I read the piece holistically and did not think about differences between the introduction and the fictive portion. . . . The authors assume that I am familiar with the recent thinking about alternative forms of data representation and have been thinking about how to reach a broader audience by writing in more accessible ways than the standard research report procedure. Presenting this information up front, the authors think that I am open to different ways of thinking about research. But to ensure credibility with me as the reader of research, they use citations. . . .

The authors think that I am interested in the personhood of alternative forms of data representation, and by providing an example of their own form of alternative representation, they can show me how the data can be

interesting while maintaining its integrity. Through narrative descriptions they present the struggles between the researcher and the researched, participant data and researcher data, faculty and student, mentor and mentee, mentor and person. But they think that I do not need to have these issues explained to me in these terms. Furthermore, they think that I am interested in what goes into a research project so that the people are seen as people and not necessarily as objective observers or inhuman participants. They assume that I think research to be much more than finding the answer to a question posed by the researcher and that observations beyond traditional forms of data collection can be presented in the write-up to reflect this idea. Examples such as Carpy's smoking, Carpy and George's cursing, and George's head musings provide a behind-the-scene portrait that shows the everyday lived experiences of those involved. The authors assume that I will understand these ideas without need of explicit explanations as to their relevance . . .

Both women also responded to how they believed this chapter's mode of address misread them, at least in terms of how they perceived themselves as readers and researchers. Kit, for instance, noted some doubts that she had about the use of fictive techniques to represent data:

I can easily recall the vivid descriptions, but have to revisit the text and filter through all of these details to get at the point of the research on mentoring. . . . When George describes the women he came in contact with in terms of attraction, I read that as a sense of George's power as an interviewer. It made me want to say, "Why don't you listen to what the woman is saying and not think about her eyes and smile?" If I, as the interviewer, had these feelings about the physicality of an interviewee, I would think it a low point of the interview and would try to overcome it. Maybe I am supposed to be bothered by this because it sets me up as a reader of qualitative research. . . . I don't, however, think that as a qualitative educational researcher I am always interested in learning this kind of information; nor am I always willing to do the sifting through of details to get at the heart of the matter.

Like Kit, Margaret expressed some of her own reservations about fictive representation of educational research data:

The authors mention their desire to explore ways to make written products of research more interesting, more accessible, and more aesthetically pleasing. But I don't think myself one to always want to read texts that make ideas more accessible. I also think that they assume that as a reader I find that fiction is more accessible and easier to read than other forms of writing. I do not think this of myself as a reader either. I believe that reading fiction (e.g., works by Toni Morrison), reading theory (e.g., Gayatri Spivak), reading research (e.g., quantum physics) may all qualify as interesting, accessible, and aesthetically pleasing as the reverse of these terms. In other words, I

think that the authors assume that I think that reading this research as fiction would be easier than [if it were] written in another way. The conversation that occurred in our writing group over this piece begs to differ with this assumption. One person read the piece . . . [as being] about mentoring while the other read it [as being] about the personhood of representing research. So the piece when discussed, although interesting, was not necessarily easily accessible as anything—fiction or research.

In reflecting on Margaret's and Kit's responses, it bears repeating that the text's mode of address is neither stable nor predictable. For instance, Kit commented at length on how the introductory and fictive portions of the text positioned her differently. Although Margaret did not draw these distinctions, she resisted the fictive representation of the data as a way of making the text more interesting, accessible, and engaging. The responses of both women suggest once again that readers are not positioned by the text alone but in fact act as their own agents in fashioning different positions for themselves. In this instance, Margaret and Kit viewed themselves as competent readers who had an interest in research on educational issues. They also viewed themselves as sufficiently invested in how data are represented (as a result of enrolling in a class on that topic) to take a position relative to the author's mode of address in "Professor Carpy." In using their agency as readers, Margaret and Kit fashioned responses that speak not only about alternative methods for writing up research but also about who they are as people. For instance, their responses gesture toward the emotional as well as the intellectual, and toward the embodied as well as the abstract. In short, in negotiating the text's mode of address, Margaret and Kit reveal aspects of themselves that might not otherwise have surfaced had they been responding to a conventionally written research report.

Our analysis of Margaret's and Kit's responses turned up other points of interest as well. For example, Kit's response to the physicality present in the "Carpy" text contrasted in interesting ways to Margaret's, Joel's, and Donna's responses. Whereas Kit was troubled by the masculinist overtones in references made to the women's eyes and smiles, Donna rationalized her reaction to the same information, and Joel and Margaret did not find (or at least did not mention) any discomfort with the allusions George made to the women's eyes and smiles. It is interesting to note, however, that both Kit and Joel (neither of whom knew George) asked several questions about his physical appearance. Ironically, what may be of importance here is not that Kit responded the way she did to the physicality described in the text, but rather that the text evoked (at least in some of its readers) a visceral response quite different from that which would be expected from traditional research reporting.

Another point worth considering is Margaret's explanation of how fictive representation of the data (at least as it was used in the "Carpy" text) missed the audience on two counts—both as research and as fiction. As she pointed out, this method of reporting research, while interesting, did not make the data any more accessible, and in fact, seemed to invite quite disparate readings of the research. It is important to note here that Margaret and Kit did not have access to the entire chapter's contents when they read the "Carpy" piece. Having only information from a rough draft of the introduction as a scaffold, they were left to their own devices in terms of how they would interpret research written up using fictive techniques. Had they been privy to information subsequently added to the chapter that explained such techniques, it is possible that the text would have been more accessible. We believe the situation to which Margaret has referred demonstrates clearly the need for researchers who use fictive representation to embed it in a manner that gives readers sufficient background information—a point Joel Taxel emphasized in his response to "Professor Carpy."

Finally, from our perspective, the fact that the "Carpy" piece missed its audience might be considered a plus. It could be argued, for instance, that the different readings Margaret and Kit took from the piece made for a more interesting (and possibly more productive) conversation between the two of them. If nothing else, the situation points out how a text that *shows*, rather than *tells*, produces qualitatively different readings. It also stands as a reminder that narrative should not be read as exposition—the form in which research is traditionally written. Not surprisingly, different ways of writing call for different ways of reading.

FICTIVE REPRESENTATION: AN ACADEMIC WRITING STYLE?

Standardized ways of reporting research are part of the legacy of our field. For decades, language and literacy researchers clung to the styles and formats in scholarly discourse that promised a certain distanced objectivity. The result was a sterile form of reporting in which neither subjects nor researchers were present. With the introduction of ethnographic methods of inquiry in education, researchers attempted to make their participants' presence felt by transforming the data in ways that seemed more "natural" and hence more representative of the participants' everyday meaning-making activities. In truth, however, such transformations may have been more the researchers' stories than the participants' (Bochner & Ellis, 1996; Denzin, 1997). This critique of the modernist goal of representing lived experience, labeled by some as the crisis in representation (Clifford & Marcus,

1986; Denzin, 1994), led to dramatizing narratives as a means of structuring and envisioning data that show, rather than tell about, participants' lives. The products of such experimentation resulted in written reports that also showed how researchers' lives intersected with the lives of the people they studied (Alvermann & Hruby, 2000; Ellis, 1997; Jipson & Paley, 1997; Miller, 1998; Richardson, 1993; Tierney, 1993).

Interest in developing alternative forms for reporting research that make use of various dramatizing techniques are not new. The term *literary journalism*, defined broadly as "extended digressive narrative nonfiction" (Kramer, as cited in Haarsager, 1998, p. 59) has been in use for the last half century. Over 2 decades ago, the well-known historian Hayden White (1978) argued for a greater presence in scholarly journals of "impressionistic, expressionistic, surrealist, and (perhaps) even actionist modes of representation for dramatizing the significance of data" (pp. 47–48). More recently, a number of scholars in the social sciences have continued to press for a style of research reporting that blurs narrative knowing (Eisner, 1997; Polkinghorne, 1997), sociological telling (Lawrence-Lightfoot & Davis, 1997; Richardson, 1997), poetry (Richardson, 1993), and film making (Trinh, 1992).

Because fictive representation entails writing *through* facts, not *in* facts, it is particularly well suited to reporting research meant to move the reader in ways that cut to the quick. Like Ellsworth (1997), we find ourselves growing weary of academic writing that is ponderous in style, blind to mind–body connections, and devoid of the interpretively pertinent arousals aesthetically crafted language can bring to reading. All of which brings us full circle to mode of address.

To our way of thinking, mode of address—a concept typically given little if any attention in academic writing—has much to offer if for no other reason than it argues the case for using fictive techniques in reporting research. It makes the argument in at least three ways. First, because mode of address concerns itself with lessening the distance between writers and readers, it is inherently useful to researchers *who* are intent on reaching a broad audience, one that extends beyond the academy. The distances that separate researchers from their readers—whether ideological, temporal, social, or geographical—could be lessened considerably if reports were written in light of their desired audiences. We can think of very few forms of writing, other than research reports, that take their readers so much for granted.

Second, mode of address calls attention to the power of storytelling for both the writer and reader. Researchers who use fictive representation to move readers are likely to be moved themselves. Textual encounters with what Ellsworth (1997) describes as those things that make us laugh or cry, that create apprehension, that evoke pathos, or that cause us to question

who we think we are in relation to ourselves and others are all part of the humanizing experience made visible by storytelling's mode of address. Neither researchers nor the readers for whom they write are exempt from this process. To act on the assumption that either group is immune to mode of address—the “something” that occurs in the space between the *who* the author imagines the reader to be and the *who* the reader thinks he or she is—would be unwise indeed.

Third, mode of address also calls attention to how all texts miss their audiences in one way or another. This phenomenon, while not specific to research reports, nevertheless is indicative of how mode of address argues the case for using fictive techniques to move readers. Researchers who use tropes, devices, and structures tend to write reports that do more than “tell it like it is;” they also create textual spaces in which their readers can bring both mind and body to bear on the work produced. Although critics of this approach might justifiably claim that creating a tolerance for what is “true” using fictional devices only confuses the reader, it could also be argued that such tolerance produces its own kind of critical reading. Moreover, as the American philosopher Kendall Walton (1990) has observed in his work on the foundations of the representational arts, “although fictionality is not truth, the two are perfectly compatible” (p. 42).

Having made a case for inserting fictive techniques into research reports written for a broadened English Language Arts audience, we would be remiss if we failed to point out some of the drawbacks and dangers associated with doing so. For example, it might mean that research topics not amenable to techniques that dramatize narrative events would be increasingly ignored. Alternatively, it might mean that disproportionate attention would be paid to topics that lend themselves to such dramatization. It might also mean that a researcher's skill in writing and his or her ability to tell an interesting story would overshadow the significance of the data being reported. Finally, inserting the techniques of fictive representation into English Language Arts research reports might contribute to a declining credibility for the field's work in general. A public already divided on the merits of such research might be further inclined to discount a form of reporting that proposes to get at “truth” through storytelling (cf. Haarsager, 1998).

All said and done, we return to our starting point—to the notion that research reports do not have to be boring to read, or for that matter, to write. Perhaps the French philosopher Michel Foucault (1984/1985) expressed our sentiments best when he wrote, “There are times in life when the question of knowing if one can think differently than one thinks, and perceive differently than one sees, is absolutely necessary if one is to go on looking and reflecting at all” (p. 8). We have reached that juncture in terms of our own academic writing styles. In exploring different ways of representing

data, we have come to value what *showing*, as opposed to *telling*, allows us to do. By using fictive techniques to tell our story, we can maintain the integrity of the research while simultaneously working to give it a sense of the richness of lived experience. Like Ellsworth (1997), we place a premium on modes of address that enable both writers and readers to move and be moved, to mingle fantasies with facts, and to partake of some of the more pleasurable aspects of fictional writing.

ACKNOWLEDGMENTS

We thank Rick Beach, University of Minnesota, for his generous and helpful comments on an earlier draft of this chapter. We also thank Kit Crowder, Margaret Hagood, and Joel Taxel for taking time out of their busy schedules to read and discuss "Professor Carpy." Their readings of this text provided valuable response data that we used to strengthen our arguments and to question some of our assumptions. Finally, we express our appreciation to Jerome Harste, Indiana University, without whom there would have been no "Professor Carpy," and to the graduate students with whom Jerry worked.

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CHAPTER 11

Contemporary Methodological Issues and Future Directions in Research on the Teaching of English

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Educational research has contributed substantially to our knowledge about the teaching of English, which includes teaching, reading, writing, composition, and literature. The chapters in this section of the *Handbook* make that point clear through their portrayal of the recent history and development of the research contributions to the study of English teaching.

This section also serves as a prologue to the future of teaching English research and as a provocative source of suggestions about future directions in research, directions that include close ties between researchers and teachers, and between research and practice. These directions also focus on understanding how teachers' and students' cognitive and affective processes, their thoughts and feelings, lead to learning and achievement in teaching English.

The focus on understanding how teachers and students use their strategies, background knowledge, and emotions to construct meaning from teaching leads to fundamental changes in the design and conduct of research studies, and to fundamental changes in teaching English, including reading, writing, composition, and literature. We become less interested in standardized testing, norming, ranking, and comparison of students, teachers, classes, schools, and states, because these comparisons do not

help us much to understand how teaching functions, how students learn, and how we might improve our teaching and their learning. We also become less interested in simplistic input-output models of teaching (e.g., time correlates positively with achievement), not because they are false, but because they do not lead to an understanding of how and why teaching leads learners to construct meanings and interpretations that enhance their achievement.

We become more interested in learning about the interests, background knowledge, schema, learning strategies, and metacognitive processes of our students. Tests that will provide teachers with these types of information have diagnostic value for designing teaching through understanding student thoughts and emotions. We become more interested in models of teaching that go beyond the products of learning to include the critical role of the teachers and the learners' constructive or generative processes in building meaning as they read and write, as they interpret literature, and as they teach and learn.

EARLY CONTRIBUTIONS TO EDUCATIONAL RESEARCH

Since the early empirical educational research studies in America in the first half of the 19th century, teaching English and language continues to be a most important area to study. In 1845, after Horace Mann questioned the effectiveness of teaching in the Boston Schools, a subcommittee of the Boston School Committee decided to examine the children from ages 7 to 14 years in the Boston Writing and Grammar Schools (Travers, 1983, pp. 86-87). To measure achievement in writing, which included handwriting, arithmetic, and sometimes algebra, and orthography (spelling), reading, geography, grammar, and history, the subcommittee developed and used printed achievement tests. The scores on these tests were used to rank the Boston Schools and to compare them with one another.

In this survey, measurement and evaluation of student achievement in grammar, writing, and other basic subjects taught in grammar schools began to be used on a large scale basis to provide empirical data about student achievement. At the same time these data were used to evaluate the effectiveness of the Boston Schools.

In New York, Joseph Mayer Rice, a zealous educational reformer, tried unsuccessfully for several years to convince teachers to accept his ideas, which were not supported with data. Rice singled out one school in New York City, generally considered excellent over 25 years, as an example of needed reform. That school's program was designed to "immobilize," "automatize," and "dehumanize" each student, who was required to stare

straight ahead, presumably at the teacher, from whom came all knowledge. Speed and efficiency were highly valued in school lessons, which were dominated by drill and practice (Travers, 1983, p. 100).

Even though Rice published these comments widely, including articles in *Forum*, a well-read journal, they received very little attention among the public or among professional educators. Two years later, Rice decided that his comments were probably being treated as the opinion of one person, not as objective or scientific findings. In 1895, Rice decided to collect data about teaching and learning, especially about time to learn and its relation to student achievement. He chose spelling as the subject he would study. After some preliminary research, Rice developed a spelling test, consisting of spelling words embedded in sentences, which he gave to about 13,000 children across the country. He found that differences in achievement across schools serving upper socioeconomic and lower socioeconomic levels were small, but differences across age levels were large. He also found that time on task had almost no positive correlation with learning: 10 to 15 minutes of teaching spelling each day produced about the same achievement as did 40 to 50 minutes of daily spelling teaching.

Rice's empirical research on spelling, and later on arithmetic, led to a series of influential articles on teaching, for which he is still remembered today. His research data also changed his own earlier conceptions of student freedom in schools to emphasize the importance of the teacher in the classroom. Rice's decision to collect data on teaching spelling shows the impact that research can have on the public and on the profession. Those research data from students were more convincing than were his earlier comments about teaching practices, which were discredited as personal opinion, even when they presented jarring accounts of rigid and immobilizing teaching procedures in the public schools.

The central role of English and language teaching and testing in educational research appears again in the seminal work of Edward L. Thorndike. Although he is better known for his research on human learning and transfer, Thorndike led in introducing in America statistics that were being developed in Great Britain. In 1904, he published a book entitled *An Introduction to the Theory of Mental and Social Measurements*. His knowledge of research methods and his ability to gather empirical data to evaluate theories of learning and transfer led to some important changes in teaching language.

Thorndike's identical elements theory of transfer of learning stated that transfer occurred when elements present in an initial learning situation occurred again in a later situation. His theory contrasted sharply with the formal discipline theory of transfer accepted by many teachers of foreign language. Formal discipline theory stated that the mind consisted of faculties, such as memory, reason, and will, which are strengthened by the

exercise provided by the most difficult subjects then taught, such as Latin, Greek, and mathematics.

With his identical elements theory to challenge formal discipline theory, and with his knowledge of statistics and research methods to challenge the beliefs of teachers Thorndike (1924) conducted an empirical study on the effects on reasoning of different subjects taken in high school. Mathematics, Greek, and Latin produced no greater reasoning ability than did physical education or drama. However, he found that students in the more difficult courses did have higher reasoning abilities than did other students at the beginning of the study, a factor which he adjusted statistically.

As a result of Thorndike's research on transfer, Latin was largely discredited as a way to increase intelligence and reasoning, and as a way to teach English, or other school subjects. These results decimated the justification for teaching Latin. Without the benefit of Thorndike's expertise in statistics and research methods, the teachers of Latin and English who disagreed with Thorndike were left with the formidable task of mounting equally defensible support for their theories and beliefs. The support was not forthcoming. The study of Latin in high schools declined sharply in the next 20 years, in part because of Thorndike's research.

Thorndike's contributions to the teaching of vocabulary and reading (and to arithmetic) are known and are still influential. Reading consisted of recognizing and comprehending words, he maintained. The comprehensibility of vocabulary was related to its frequency of use in daily life. Thorndike gathered data about the frequencies of words children encounter in reading books, especially classic stories, textbooks, newspapers, and poetry. In 1921, he published the *Teachers Word Book*, which later was expanded (Thorndike & Lorge, 1944).

Thorndike's theories of vocabulary in comprehension still influence the teaching of reading of English and foreign languages and still influence our conceptions of sentence and text difficulty, for example, as they occur in readability formulas.

These examples of early contributions show some ways that educational research has contributed to our knowledge about teaching English. They show some of the power of data and research methods to influence teachers and the public, as did Rice's findings about spelling and Thorndike's findings about teaching Latin. They also show how some of the close ties became established between achievement testing and educational research. They imply how difficult it may be to move to more appropriate research methods for understanding teacher and student thoughts and affective processes not measured by conventional achievement or intelligence tests but nevertheless that are critical to understanding and improving teaching English.

RECENT DEVELOPMENTS

In the early development of empirical educational research, achievement testing and the ranking and evaluation of learners, teachers, schools, and districts were commonly employed research methods. The Boston School Committee used them to study the effectiveness of the Boston Writing and Grammar Schools. Joseph M. Rice employed them to study spelling and to gain public support for his ideas about educational reform. E. L. Thorndike used them to discredit the formal discipline theory of transfer of learning and to change the teaching of foreign language in America.

From these beginnings grew more elaborate and sophisticated empirical methods for conducting educational research. In the 20th century, educational researchers borrowed and adapted research methods from other fields of study. For example, from agriculture came our fundamental elements of experimental design, including experimental groups, control groups, and random assignment of participants. Our basic statistical procedures for analyzing experiments, analysis of variance and analysis of covariance, also came from research on agriculture. These design and statistical techniques were both products of one Englishman, Ronald Fisher.

From biology we obtained correlation techniques (Pearson), path analysis (Sewall Wright), discriminant analysis, and multivariate analysis of variance. From neurology and medicine came the case study. From psychology came a broad array of techniques, including factor analysis, canonical correlation, reliability, validity, Q-sorts, scaling methods, and social interaction analysis. From sociology we derived survey methods, sampling techniques, and latent-structure analysis.

The chapters of this section of the *Handbook* summarize well the progression of recent events in the research on the teaching of English. In these chapters we see how educational researchers used these and other research methods to study and to try to improve the teaching of English.

Educational research progressed from surveys of effective teaching methods in the early 1900s to broadly based curriculum studies in the 1920s, 1930s, and 1940s. In the 1950s and 1960s subject matter-based curriculum reform became prominent. In the 1970s, 1980s, and 1990s, evaluation and policy studies of teaching became widespread in the work of the federally sponsored Research and Development Centers and Regional Laboratories. Throughout these historical developments in the United States, the methods of conducting research described in the previous paragraphs became widely used in research on the teaching of English. These methods led to the current uses of qualitative and observational-descriptive methods, and to the quantitative interventions that characterize contemporary research in the teaching of English.

Before we turn to these concepts, we need to consider a parallel progression of events that involves models of teaching and learning. The research methods I mentioned were employed to study and to test conceptions about English teaching and learning. To understand the changes that occurred in the teaching of English, we need to see the close relations between these conceptions of learning and teaching and the methods of research appropriate for studying them.

The models of learning and teaching English that were dominant in Joseph Rice's times emphasized student verbatim learning and repetition of the teacher's words (Travers, 1983). In those days, there was little concern for student thoughts. E. L. Thorndike, through his model of instrumental learning, stated that learning was the acquisition of specific behaviors by being rewarded for performing them at the right times and in the right places, which strengthened connections between the situation and the behaviors or responses. Later, B. F. Skinner added to Thorndike's model the concept of reinforcement, which replaced Thorndike's notion of reward as the process of maintaining or increasing behavior, and the concept of behavioral objectives, as a way of knowing when to reinforce behavior. This highly influential conception of learning developed by Thorndike and Skinner again stressed student behaviors, that is, things that can be measured on commonly used tests. The model did not emphasize student and teacher thoughts and feelings, cognitions and affective processes, interpretations, comprehension, images, emotions, learning strategies, motives, metacognitions, or relations between literature and experience. These cognitive and affective processes were not considered appropriate for scientific study because they were difficult or impossible to measure objectively.

However, Thorndike's and Skinner's highly influential models led to a focus on teaching measurable and testable specific behaviors, such as facts, vocabulary, and verbatim information. That narrow focus obtained scientific rigor in research on the teaching of English, but at the expense of ignoring, or at least minimizing its essence, the comprehension and understanding that comes from reading, writing, and speaking.

Because Thorndike's and Skinner's models of learning omitted the constructive or generative nature of language learning, they had great difficulty in explaining basic linguistic events among children and adults. These models could not adequately explain how infants create novel sentences, how the implicit rules of language are learned and applied to construct or to understand an infinite set of rule-governed sentences or utterances. For these reasons, cognitive models of learning arose and supplanted these earlier models. These earlier models, however, still impact the teaching of English through their focus on learning measurable behaviors defined and identified by precise objectives, and taught by reinforcers presented frequently, discriminately, and contingently.

In the late 1950s and increasingly, in the 1960s, cognitive models of learning and knowledge acquisition arose and supplanted the model developed by Thorndike and Skinner. Largely through the pioneering works of Noam Chomsky in linguistics and David Ausubel and others in educational psychology, human learning was conceived as a process of construction of meaning by the learners using their background of experience and their strategies of learning. Student and teacher thoughts and emotions became the center of interest within these cognitive models. In the 1980s and 1990s research on these cognitive and affective processes often emphasized learning in social contexts, in which students and teachers study and learn in groups, such as in collaborative learning. In the teaching of English, these models led to fundamental changes. Comprehension and student interpretations of sentences, stories, texts, and plays came to the foreground. Reading became far more than converting graphemes into phonemes. It became a process of constructing meanings and interpretations of text using one's knowledge and experience.

Research on these cognitive and affective thought processes gained scientific support with the publication of Ericsson and Simon's (1980) review of "Verbal Reports as Data." In that review, they report the conditions under which verbal reports, such as think alouds and interviews, provide valid, scientifically useful information. For example, concurrent reports of verbal information that use nondirective probes, such as think alouds, produce very little or no distortion in the information they provide about cognitive processes. On the other hand, retrospective reports, such as stimulated recall, introduce substantial distortion in the information they provide about cognitive processes. These results mean that, under the proper conditions, cognitive and affective processes can be scientifically studied, and valid measures of them can be obtained. Behavioral responses are not the only valid or scientifically useful data available from research in the teaching of English.

The developments of conceptions of learning and teaching coupled with the advances in research methods appropriate to study them influenced curricula and instruction in English in fundamental ways.

John Dixon (1991) reports how standardized achievement tests that were used for predicting college achievement influenced the curriculum and the instruction in literature in junior and senior high school. In the 1930s and 1940s, the high school teachers followed the college curriculum, using classics in senior high school and anthologies in junior high school. The methods of instruction emphasized recitation and regimentation.

Later, during the 1950s and 1960s, methods of teaching English in the high schools changed, but there was still an emphasis on learning isolated facts about authors. Teacher-made tests were still centered on facts, rather

than on interpretations. Teaching of writing still focused on correcting mistakes in students' grammar and syntax.

In the 1970s, the curriculum and the teaching methods changed further. The introduction of women's studies, ethnic literature, and science fiction in the college curriculum paralleled the introduction of greater student choice in reading, increased student and teacher autonomy in the classroom, independent student projects, and active learning. These college curricular and procedural changes also influenced high school teaching practices.

Dixon calls the model that dominated teaching during the 1970s an "objective-driven" one that emphasized "objective measurement." Teaching English in the high school was still driven by the requirements of the standardized tests, which were used to construct objectives for the teachers to attain. Nonetheless, change was beginning to occur in the high school English classrooms. Student-initiated writing, student interpretations of literature, and active, thoughtful learning began to find a place in the English classroom. These changes paralleled the changes in the study of learning and instruction. Dixon's chapter records well the progression of changes in thinking about teaching English and its impacts on teaching practices in high schools.

This section of the *Handbook* begins appropriately with a thoughtful chapter by Sandra Statsky on the meaning and the purpose of research in the teaching of English. Anne DiPardo, in the second chapter, follows with a discussion of the essential specialized knowledge research produces for a profession engaged in the teaching of English. The next three chapters delve into the design and the conduct of different types of empirical research. Robert Calfee and Marilyn Chambliss describe the basic designs of quantitative research and of qualitative research. Robert Tierney and Margaret Sheehy review in detail the distinctive characteristics and unique contributions of longitudinal research to knowledge about the teaching of English. Fredrick Burton and Barbara Seidl discuss the important contributions of teachers and researchers collaboratively engaged in action research. This section of the *Handbook* concludes with two chapters on the reporting of research and on the syntheses of research. Donna Alvermann and George Hruby argue for fiction as a way to report qualitative research studies. Carl Smith and Susan Klein present some of the impressive results made possible only through the methods for synthesizing research findings across studies. In the following paragraphs I discuss the contributions of each of these chapters.

Sandra Statsky writes an excellent introduction to research on teaching the English language arts. They begin appropriately with the purpose of research, which is to develop explanatory generalizations and theories useful or valid for explaining and predicting phenomena in the teaching

of English. Good research improves teachers' abilities to make intelligent decisions about teaching.

Academic research differs from field testing of instructional materials in teachers' classrooms. Academic research differs also from personal narratives, which are not research. The differences that characterize academic research include professional detachment or objectivity, systematic collection of data, and a codified method for conducting research. The authors describe two types of academic research: conceptual inquiry, such as the scholarly writings of educational philosophers, who do not usually gather data; and empirical research, which involves the systematic collection, analysis, and interpretation of quantitative or qualitative data to develop or to test hypotheses and theories. Stotsky considers action research a form of advocacy-oriented classroom investigation that assumes the answers to the problems are known. Action research aims to shape teaching to a specific end by implementing known answers to teaching problems.

Qualitative and quantitative research comprise the two major types of empirical research studies. Qualitative research focuses on reporting the researchers' descriptions and interpretations of the learners' behaviors and cognitions. Qualitative research includes research often called holistic, phenomenological, hypothesis-generating, participant-observational, exploratory, ethnographic, humanistic, naturalistic, field-based interpretive, and hermeneutic. It involves small numbers of subjects. Its data consist of the researchers' own descriptions and interpretations of what they see and hear in the natural situations they observe.

According to the authors, quantitative research focuses on the discovery of the principles of learning and teaching. It tests rather than generates theory. Its data report the behavior and the cognition of learners, not of the researchers. It uses numerical data from representative samples or from random samples of learners, often randomly assigned to systematically different treatments in an experiment. In a carefully controlled way, these treatments compare different methods or ways of teaching English to learners by the manipulation of specific variables that distinguish the otherwise identical conditions of learning. Within specified probability limits, this experimental type of quantitative research establishes cause and effect relations. Quantitative research includes nonexperimental, descriptive research also, which gathers numerical data that describe relationships among correlated variables, such as age and learning.

Stotsky saves for the last part of their chapter one of their most significant contributions to the *Handbook*. That contribution emphasizes the compatibility and the complementarity of qualitative and quantitative research. Both can enhance theories and knowledge. Both try to control bias, to be objective. Both collect, analyze, and interpret data. Both types of

research gather data in the classroom or in a laboratory. Both can and often should be used together in a single study. I would add that both contribute to knowledge and to information useful to classroom teachers. In a profession, such as the teaching of English, description and theory generation as well as intervention and theory testing prove essential. Qualitative research and quantitative research make distinctive and complementary contributions.

In her chapter on "Teacher Professionalism and the Rise of Multiple Literacies," Anne Dipardo delves into the tough problems of characterizing the knowledge base of the profession of the teaching of English. Professions must have specialized bodies of knowledge that go beyond intuitions and speculations. In the teaching of English, these specialized bodies of knowledge include useful, research-based principles and theories regarding the subject matter of multiple literacies, its pedagogy, and its classroom practice, which involves the "person" relations between the students and the teacher. But principles and theories in each of those areas provide an insufficient knowledge base for the profession of teaching English. A sufficient knowledge base includes research-based support for specific instructional procedures and curricula that enable teachers to teach multiple literacies to the different learners in their classrooms. That broad and useful knowledge base includes information about these different learners, their cultures, interests, and background knowledge. That same knowledge base also includes useful information about curricula and instructional materials. The knowledge base should be extensive and specialized enough to require years of formal training to learn it and to learn how to use it. By these criteria we have a long way to go in the study of the teaching of multiple literacies. One of our immediate problems in research on the teaching of English comes from the constructivists' cognitive conception of multiple literacies, which differs from the layman's conception of transmission of knowledge. The constructivist's conception emphasizes the learners' construction of knowledge, which laymen find difficult to understand, or at least to appreciate. DiPardo discusses the difficulty in teaching laymen who have a different preconception of the constructivist conception of knowledge acquisition. But she does not suggest a solution to the problem. From cognitive research on the changing of preconceptions of learners we know that they are most difficult to alter. But we also know that preconceptions can be changed by giving the learners problems to solve that show the shortcomings of their preconceptions and that lead the learners to construct alternative and more useful conceptions.

In this chapter, Anne DiPardo leads us in the proper direction toward a shared vision of a tested, trustworthy specialized knowledge base that will provide the theory and the research a profession needs to guide its practice, in our case the teaching of multiple literacies to different learners.

Robert Calfee and Marilyn Chambliss write their chapter "The Design of Empirical Research" for the graduate student planning a doctoral dissertation on the teaching of English. The design or the planning of empirical research often receives insufficient attention in comparison with the attention given to the analyses of research in handbooks, in graduate research methods courses, and in textbooks.

Empirical research involves the collection of objective evidence under carefully defined and replicable conditions. Its purposes include the determination of factors that affect human thought and action, and the finding of answers to practical questions about teaching. In that sense empirical research differs from scholarship and conceptual analyses that inform practical questions, but that do not answer them specifically. The empirical study of nearly all significant teaching problems involves qualitative and quantitative methods of research in designs that focus on framing the research question, setting an appropriate context to study the problem, and making sense of the data and interpreting its findings. Research findings should be transferable, replicable, and useful to teachers, all of which imply valid results. To be valid, results must mean what the researchers say they mean.

Research design aims to increase the validity of the empirical findings, to reduce the confounding of factors, and to provide control over the factors operating in the study. The validity of the findings refers to their trustworthiness. Confounding refers to the intertwining of the factors, such that one cannot determine the factors that influence the results. Control refers to the elimination of the unintended variations in the procedures or the methods that confuse the findings and complicate their interpretation.

Design, then, plans to maximize the intended differences among the factors we study, and to minimize the unintended differences in the other factors involved in the gathering of the data. As a heuristic for beginning researchers the authors suggest a plan for the conduct of an instructional study. The plan involves conceptualizing and framing the problem, investigating and describing the research context, including developing the tests and the procedures to be used, developing an assessment study, and then conducting the instructional study. The authors provide a useful plan for many researchers that combines qualitative methods with quantitative methods, as suggested by Stotsky in her introductory chapter. Again, *Handbook* authors emphasize the complementarity of quantitative and qualitative methods in research on the teaching of English.

Robert Tierney and Margaret Sheehy examine in depth some of the major contributions of longitudinal research to our understanding of the development of literacies. In contrast to the more frequently used cross-sectional research designs, longitudinal studies follow the same individuals for years. For this reason, longitudinal research produces distinctive contributions not possible in cross-sectional studies, especially in the study of the

development of abilities and of achievement. For example, Schaie (1983) used a longitudinal research design to study the finding commonly reported in cross-sectional designs that human intelligence declines quickly from youth to old age. The results of his study, and of other related studies, indicates that from young adulthood a significant decline does not occur until the late 60s (Willis, 1885, p. 821). The cross-sectional designs had shown an early decline because they used increasingly more difficult, renormed tests with the older groups, which made their performances appear to decline early, when no decline had occurred.

Tierney and Sheehy detail some of the distinctive contributions of longitudinal research to the study of the development of literacies. They ask "How do literacies develop?" From longitudinal studies over the past 40 years, they report some provocative and useful findings that often differ markedly from the findings reported in cross-sectional studies of the same phenomena.

First, they report that early readers, who begin to read before school age, 6 years later maintain their advantage over other readers of the same age. Socioeconomic success and IQ do not predict reading success. But parental encouragement and nurturing of reading interest do predict later success at reading. Parents' time invested in teaching their children to read also predicts success at reading years later. These findings differ from the results of cross-sectional studies.

Because of the current political interest in rote and meaningful approaches to the teaching of beginning reading, the findings of longitudinal studies provide especially provocative results. Longitudinal studies show that children do not learn to read by rote. Instead, children learn to read in meaningful ways, through interactions with their parents, texts, and contexts. Reading develops from social meaning-making experiences that begin at home and in preschool settings.

Writing develops in a similar fashion. The child's invented spellings and invented hypotheses again show the constructive nature of meaning-making that provides the basis for the development of writing ability. Young children write to exchange meaning with one another. They compose for the purpose of conveying meaning. In the beginning school years these processes of meaning-making continue to develop. Again, home experiences contribute to the development of comprehension, which is a separate factor from decoding. In longitudinal studies, by the second grade comprehension often correlates negatively with decoding. Even more striking, longitudinal research indicates that phonics instruction does not lead to increased comprehension in the second grade. Instead, early reading for meaning leads to better comprehension in the second grade. By the second grade, phonemic awareness also diminishes in its contribution to comprehension.

These longitudinal data do not imply that instruction in phonics and in phonemic awareness do not contribute to the learning of literacy. Instead these data do show the great importance of meaning-based early instruction that focuses on learning and using phonics and phonemic awareness to construct and to convey meaning. Meaning making, not rote learning, drives the development of literacy.

These impressive findings show how longitudinal data enlighten our understanding of literacy development beyond a narrow focus on phonics and rote learning methods. These data imply that children actively construct meaning, even in their beginning attempts to learn to read and to write. From the very beginning of language learning, children need meaningful, not rote, contexts and instruction to develop their meaning-making abilities, which lie at the core of the development of literacy.

Fredrick Burton and Barbara Seidl discuss the importance of teacher-researcher projects. They feel that teachers tend to ignore research that uses quantitative measures and experimental designs because it isolates variables and loses the complexity of the classrooms, and therefore loses important meanings. They do not discuss the many important contributions over many years of quantitative research to the teaching of reading. Teachers regularly acquire this quantitative research-based knowledge from textbooks, college courses, and teacher development activities. Teachers continually use the rich and extensive curricular and instructional materials developed from our extensive, quantitative research base. Research often produces its impact on practice, not from one study at a time, but through the cumulative effects of many research studies summarized in useful theory, detailed in textbooks, taught in courses, and implemented in curricular materials and instructional procedures.

Burton and Seidl advocate naturalistic, phenomenological, and interpretive research studies, including action research, that focus on improving practice in specific settings, rather than on discovering generalizations that apply across different settings. These action research studies involve teachers as researchers, elucidate teacher knowledge about teaching, and deal holistically with the complexities of the classroom.

In these studies, teacher theorizing and the refinement of teacher theories distinguishes the research. The action research begins with daily challenges, allows teachers to theorize about their teaching, provides ways to experiment with classroom interventions, and obtains feedback in the classroom about the interventions and about the teacher-generated theory or principle of teaching. In that way teachers learn from their teaching, and become active researcher-theoreticians who contribute to their own understanding of teaching.

The authors present admirable goals and workable strategies. These goals and research strategies complement, rather than compete, with other

types of research, including quantitative and experimental research or qualitative and descriptive research. In a profession, practitioners have important clinical experiences that can and should contribute to its knowledge and to its practice. The practitioners need ways to study and to learn as they practice. For example, in medicine, general practitioners regularly contribute valuable information about the effectiveness of medicines in the treatment of their patients. In psychology, clinicians provide important insights into our understanding of mental illnesses and their treatments. In education, teachers produce outstanding curriculum materials and instructional procedures for the teaching of many difficult concepts in literacy learning.

We need to remember the importance of understanding the complementary nature of different types of research. We do not have to choose only one type of research. In research on the teaching of literacy, quantitative and qualitative, descriptive and interventional, longitudinal and cross-sectional, theory generating and theory testing, researcher and researcher-teacher methods all play distinctive, important, and complementary roles. They do not compete with one another.

We need to understand and to appreciate the complementary nature of different types of research. We also need to be tolerant of different research methods, and to appreciate the need for researchers and teachers to collaborate with one another in our united effort to develop for our profession a solid research base that produces practical and effective classroom teaching procedures and materials. To construct that solid base for our profession requires the intelligent and sustained work of all its members, including researchers and teachers. In our quest for understanding and improvement of the teaching of literacy we have room for all members of our profession to collaborate in research and to contribute to practice.

In their chapter on "Fictive Representation: An Alternative Method for Reporting Research" Donna Alvermann and George Hruby discuss the reporting of research, especially qualitative research, in the English language arts. They find current expository reports of research dull and uninteresting to people who come to education from other fields, such as theater arts. As an example, they cite a graduate student of film studies, Elizabeth, who accepted a beginning faculty position in a curriculum and instruction program within a department of education at a major midwest state university. In this program she found a total absence of the familiar "suspense, romance, seduction, visual pleasure, music, plot, humor, tap dancing, or pathos" that she liked in her former department where she was a student.

To improve the reporting of research in the teaching of English, in their chapter on "Fictive Representation" Alvermann and Hruby suggest that researchers adopt fiction as the way to write at least parts of their journal articles. These authors believe that fiction stimulates interest and

entertainment. A move from exposition to fictional narration, they argue, would provide a different mode of address, broaden the audience for journal articles, and make them more interesting and accessible. To exemplify their argument they present a sample of a report of research about mentoring written as fiction. In another source they comment about fictional reports of quantitative research (Alvermann & Hruby, 2000).

In the communication of theories, models, and principles to lay persons fiction offers some utility, I believe. For example, B. F. Skinner (1948) wrote a novel entitled "Walden Two." In this novel the reader visits a remote and fictional community, called Walden Two, operated according to Skinner's model of operant conditioning, which incorporates his research on positive reinforcement. Although some readers criticized the quality of the writing of the novel, it conveyed to a broad lay audience some of the societal applications and meanings of Skinner's model.

However, the use of fiction for researchers to communicate research findings to one another in journal articles, as suggested by the authors, introduces serious problems and many questions. First, is fiction more accessible than exposition for communicating research among researchers? The authors assume that fiction, familiar to them, compared with exposition, enhances researchers' interest and entertainment in reading research reports. Yet, when the authors queried some people about the use of fiction to report research, those people found difficulty in reading and interpreting the fictional report they read. For example, Margaret commented that fiction did not increase accessibility and that she and her reading group did not support the authors' assumptions about the advantages of fiction for reporting research.

Second, do researchers want or need fiction to make their journal articles more interesting and better conveyors of meaning? The authors assume that many researchers feel, as they do, that expository reports in journal articles should be written as fictional reports. But fiction is not the only interesting and effective form of writing. Expository reports that clearly state a significant problem, suggest a theory-based approach to its solution, test that approach in a real world setting, and report and interpret the authors' findings often stimulate high interest as they effectively, accurately, and efficiently convey meaning. Because people who enter education from other fields, such as film studies, miss the familiar fictional modes of reporting used in their home fields does not mean that educational researchers should abandon their preferred reporting styles. To turn the argument around, would we expect people in other fields to abandon their reporting styles and adopt exposition when educational researchers join their faculties? Some students initially find some great works of fiction difficult to read with understanding. In school it often takes years of study to learn how to read and to appreciate some of the great works of fiction.

Should we rewrite some of the great works of fiction to make them more readable to beginners, or should we teach the beginners how to read these outstanding works?

I think it better to help researchers to learn from one another in the ways that work best for them, not to impose on them ways that others think the researchers should use because other people find them more familiar and more entertaining. We need to remember the primary purposes of reporting research in our profession. These purposes focus on the improvement of the teaching of English language arts through useful applications derived from a solid research base. The form of the journal articles should follow the purposes of the research.

Third, should all research articles be written at a level best for lay persons to read? As a profession grows, its research increases in complexity and in technical sophistication. To do research in a field, to write its results, and to communicate effectively with other researchers requires years of formal training. For example, in the advanced fields of mathematics, biology, chemistry, medicine, and engineering it makes no sense to require researchers to write all their journal articles at the reading level of the layman. The researchers need to communicate accurately and precisely their most complicated findings to other researchers. Although educational research does not embody the technical complexity of these advanced fields and professions, it does embody some complicated vocabulary, methods, procedures, and theories that lay persons cannot be expected to understand or to find interesting. Should these topics be barred from discussion because they do not interest lay persons or beginning educational researchers? We need journal articles written expressly for researchers, just as we need reports, books, essays, and articles written especially for lay persons. One form of writing does not work best for all readers.

Alvermann and Hruby discuss other problems with the use of fiction for reporting research. Will much research be ignored because it does not lend itself to fictional reports? Will the credibility of educational research decline when scholars and researchers outside education, who use other forms of reporting their research, read research reports in education written in fiction? I would add, how will the readers know fiction from nonfiction in a research report? Can we expect schools to introduce into our nation's classrooms new curricula and new types of classroom instruction based on fictional reports of research?

Can other researchers replicate studies reported in fiction? Will fiction function well for the reporting of different types of research, such as qualitative research and quantitative research? We need a common language and a common reporting style to keep our research unified and our researchers communicating with one another, whether they use quantitative methods or qualitative methods.

I think it best to let researchers communicate with one another in the ways that they find most useful. I think it best to write for lay persons in the ways that they find most understandable and most readable.

Finally, Carl Smith and Susan Klein discuss the methods of synthesizing research findings across studies. Contrary to popular understandings, individual research studies rarely directly influence practice. Through the syntheses of research studies, theories and principles either find support or find a lack of it, and then influence practice. From the cumulative results of many studies come a few valid, replicated, and reliable significant findings that we can use for the improvement of the teaching of English.

Smith and Klein discuss the formal methods for synthesizing research studies that can find effects across studies that would not necessarily be found in an individual study. The purposes of these methods of synthesis of research are to increase our knowledge base, to distill large amounts of data, to inform practical decisions through research-based understanding, and to provide a well-organized research base to facilitate interpretations of the data. The authors then discuss what we know about research syntheses, such as literature reviews and meta-analyses, that can improve our understanding of the thousands of studies now available in research on reading, writing, and the teaching of English. After that discussion, the authors append an extensive list of representative recent syntheses that show their contributions to our understanding of a wide variety of topics in language arts. These and related syntheses of research provide valuable links between the original research studies and the development of procedures and curricula for improving the teaching of English language arts in the classroom.

FUTURE DIRECTIONS

The prologue I have presented in this chapter implies a clear direction for the future. The direction is from assessing student behaviors on achievement tests and intelligence tests and from correlating those behaviors directly with characteristics of the classroom, the school, the home, and the society (Wittrock and Baker, 1991). The direction is toward researching and understanding the cognitive and affective language processes of learners and teachers that mediate achievement in language learning and language teaching (Wittrock, 1974, 1978, 1981, 1983, 1987). The move is from input-output models to cognitive approaches that give ideas about how students and teachers think and feel, about how they use their background knowledge and strategies to generate or construct meaning and interpretations from literature and expository text (Wittrock, 1974, 1990).

The move is toward research that uses case studies and observational methods to study the background knowledge and strategies of learners and teachers (Erickson, 1986). The direction is toward measuring and recording the thought processes of learners as they read and write using process tracing and verbal protocols (Ericsson & Simon, 1980). Process tracing involves methods such as think alouds, retrospective interviews, and stimulated recalls. Verbal protocols are written records of learners' responses during learning that can be used to infer their mental operations.

Another direction is toward measuring the number and quality of ideas, sentences, pictures, and the like, constructed by learners in an experiment or other intervention study, such as one Linden and I (1981) conducted on reading comprehension. In that study, we gathered data from school children to evidence their different thought processes, for example, the sentences and the images that the treatments asked them to generate. Those data enabled us to measure how well the treatments were actually inducing the intended cognitions, and how extensively the induced cognitions were correlated to retention and comprehension. These relations among treatments, thought processes, and comprehension can be analyzed statistically with conditional probability analyses or path analyses and other multivariate regression techniques.

In addition to measuring the learners' and teachers' preconceptions and their thought processes during learning and teaching of English, we need to employ appropriate measures and teach knowledge acquisition, including comprehension (Pearson & Johnson, 1978; McNeil, 1987), semantic maps (Heimlich & Pittelman, 1986), and hierarchical cognitive structures (Naveh-Benjamin, McKeachie, Lin, & Tucker, 1986).

Another move is toward multivariate analyses that are appropriate for relating contexts, preconceptions, and beliefs to thought processes during learning, and to comprehension, retention, and affective responses. Some of these multivariate statistical procedures are already available. See Muthén (1989) and Linn (1986) for discussions of them, including structural equation analyses, meta-analyses and path analyses.

SUMMARY

In sum, the study of learning and teaching English involves devising methods to research the mental processes of language. These invisible cognitive and affective language processes were avoided by researchers early in the 1900s. With the recent shift to the study of cognition, we have seen parallel innovations in research methods. The combination of a shift to research on cognition and a concomitant development of innovative research methods to study it brings fundamental language processes into the foreground of

the scientific study of English teaching. The combination also promises to unite the researchers of teaching and the teachers of English in the study of English teaching.

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