

Research on the Role of Classroom Discourse As It Affects Reading Comprehension

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In the current research climate favoring rigorous experimental studies of instructional scripts using randomly chosen treatment and control groups, education and literacy researchers and policy makers will do well to take stock of their current research base and assess critical issues in this new context. This review of research on classroom discourse as it affects reading comprehension begins by examining 150 years of research on classroom discourse, and then findings and insights shaped by intensive empirical studies of both discourse processes and reading comprehension over the last three decades. Recent sociocultural and dialogic research supports claims that classroom discourse, including small-group work and whole-class discussion, works as an epistemic environment (versus script) for literacy development. New studies examine situated classroom talk in relation to educational outcomes and cultural categories that transcend the classroom.

To a great extent, the language used by teachers and students in classrooms determines what is learned and how learning takes place.

—Wilkinson & Silliman (2000, p. 337)

Introduction

In its zeal to reform American education, the Department of Education's Institute of Education Sciences (IES) is promoting a rigorous research agenda emphasizing experimental studies and randomized trials explicitly modeled after FDA clinical trials for new drugs. Current IES requests for proposals (RFPs) require researchers to organize their studies to test proposed instructional "treatments," one variable at a time, against standard pedagogies. This approach to education research echoes the National Research Council's (NRC) claim that "the world of education, unlike defense, health care, or industrial production, does not rest on a strong research base. In no other field are personal experience and ideology so frequently relied on to make policy choices, and in no other field is the research base so inadequate and little used" (NRC, 1999, p. 1). Citing the NRC report, Grover Whitehurst, Director

of IES, concedes that research on reading and learning to read is adequate for guiding early elementary-school instruction, but that such a research base falls off for reading "at later points in schooling" and is totally missing for all other areas of instruction, including science, math, and writing (2002, p. 2). Whitehurst goes on to argue,

The extent of our ignorance is masked by a "folk wisdom" of education based on the experience of human beings over the millennia in passing information and skills from one generation to the next. This folk wisdom employs unsystematic techniques. It doesn't demand scientific knowledge of mechanisms of learning or organizational principles or social processes. It is inefficient, and it is hit or miss. It lets us muddle through when the tasks to be learned are simple, or in a highly elitist system in which we only expect those with the most talent and most cultural support to learn advanced skills. But it fails when the tasks to be learned are complex or when we expect that no child will be left behind. (2002, p. 2)

In the current research and policy climate calling for "evidence-based" pedagogy, we would do well, as researchers and educators in language and literacy education, to assess just what we know, where we are, and how best to respond to these challenges.

In this review essay, I examine the role of classroom discourse and particularly discussion as it affects student learning in English language arts instruction and reading comprehension in American schools. This is a useful focus because empirical research on classroom discourse is especially ample, beginning well over a century ago, and has recently documented how different types of classroom discourse, and primarily the teacher's discourse role, affect different kinds of student learning. While considerable recent work supports the NRC's contention that the existing education research base is little used in schools, research also strongly suggests that this conception of education research is, in the case of the pedagogical effects of classroom discourse, inappropriate, and even counterproductive. Effective classroom discourse needs to be understood and practiced not as an executed instructional "treatment" yielding daily measurable achievement gains, but, rather, as a medium for instruction. Its effectiveness, depending on what is being taught, can be quickly lost when—and precisely *because*—it is tightly scripted (Nystrand, 1997). The positive effects of classroom discourse are best understood not mechanistically—*x* practice producing *y* effect—but, rather, as organically related to the epistemic environments various modes of classroom discourse create for learning, or in Cazden's terms, "the language of learning" (Cazden, 1988). Desirable educational effects, particularly in English language arts, are often oblique rather than direct.

This review begins by examining the rich history of research on classroom discourse, surveying its pedagogical uses in American classrooms, which have re-

mained remarkably unchanged over the last century and a half. Current accounts and empirical research on classroom discourse date from the early 1970s, during roughly the same period that new programs of research focused on reading comprehension and discourse processes. My review of the role of classroom discourse on reading comprehension therefore proceeds by first examining the research context shaped by these latter areas of empirical investigation. I conducted this review by updating previous extensive reviews (Nystrand, 1986, 1997; Nystrand, Greene, & Wiemelt, 1993) with information drawn from technical reports and papers from the Center for the Study of Reading (CSR); the Center for the Improvement of Early Reading Achievement (CIERA); the Santa Barbara Classroom Discourse Group, and associated Web sites; and numerous personal communications with leading researchers in these fields, including, most recently, the Group Discussion research project at Ohio State University (Wilkinson, Murphy, & Soter, 2002, 2005). Finally, I discuss the prospects and challenges for researchers and educators in the current research and policy climate.

Classroom Discourse in American Schools

American education research over nearly the last century and a half has documented the historic and widespread prevalence of recitation as the instructional method of choice for promoting textbook recall in American schools. As early as 1860, Morrison complained that young teachers are very apt to confound rapid questioning and answers with sure and effective teaching (1860, p. 303; quoted in Hoetker & Ahlbrand, 1969, p. 153). In a 1908 study contrasting American and European pedagogy, Burstall (1909) found that European classroom teachers mainly used lecture to “build up new knowledge in class,” whereas American teachers were more likely to organize their classes as recitation by serving as chairs “of a meeting, the object of which is to ascertain whether [students] have studied for themselves in a textbook” (Burstall, 1909, p. 158). Some researchers (e.g., Thayer, 1928) claimed that recitation was a progressive reform enabling teachers to gauge the mastery of large groups of children by checking the knowledgeability of relatively few, and that they were more democratic than lectures because they potentially gave every student a chance to participate in lessons. Other researchers were less sanguine. Stevens (1912) claimed that the widespread practice of recitation made “the classroom the place for displaying knowledge instead of a laboratory for getting and using it” (p. 16). Colvin (1919) estimated that “only about five percent [of the teacher questions he studied] could be considered in any way genuine thought questions” (1919, p. 269). Writing about the same time, Miller (1922) complained that teachers were unable to “endure the silence that must prevail while the pupil is thinking and organizing his material” (quoted in Hoetker & Ahlbrand, 1969, p. 154). Benjamin Bloom (1954) found that the teachers he studied talked about 50% of all instructional time. Bloom, whose

first book was *Teaching by Discussion* (1948), promoted discussion as ideal for problem solving. Bellack, Kliebard, Hyman, and Smith (1966), as well as Hoetker (1967) found that teachers talked about two-thirds of all instructional time, and that more than 80% of all teacher questions sought to test students’ recall of textbook information in recitation format. Subsequent studies have repeatedly found similar results (e.g., Duffy, 1981; Durkin, 1978-79; Goodlad, 1984; Guszak, 1967; Hoetker & Ahlbrand, 1969; Marshall, Smagorinsky, & Smith, 1995; Sarason, 1983; Tharp & Gallimore, 1988). Recently, Nystrand and his associates (1997) reported in a large study of 8th- and 9th-grade English language arts classes that 85% of the instruction observed was some combination of lecture, recitation, and seatwork.

Today, English language arts teachers and students are generally aware of the instructional potential of discussion, though discussion practices vary widely among classrooms, from teacher elaborations during question-and-answer recitation, or what Wells (1993) calls IRF (Initiation-Response-Followup), to debates, to open-ended sharing of ideas, including multiple turns uninterrupted by teacher test questions (Roby, 1988; see also Alvermann, O’Brien, & Dillon, 1990). Commeyras and DeGroff (1998) found that 95% of English language arts teachers value peer discussion in literature instruction. In addition, their students report that such discussion helps them understand their readings (Alvermann et al., 1996), yet only 33% of their teachers regularly make room for it (Commeyras & DeGroff, 1998). Indeed, Nystrand and Gamoran (1991) found that open-ended whole-class discussion averaged a scant 15 seconds a day in the 58 9th-grade classes they observed, and of the five classes that had any group work, only 11.1% of this work was judged either to be wholly autonomous or to display significant student interaction in producing the outcomes; most of the rest was collaborative seatwork (Nystrand, Gamoran, & Heck, 1993).

Classroom Discourse and Reading Comprehension: What the Research Says

Conceptual foundations for current understandings of classroom discourse were laid by Britton’s (1969) cognitive concept of “talking to learn” and Barnes, Britton, and Rosen’s more social (1969) distinction between recall and open questions enacting, respectively, *transmission* and *interpretation* pedagogies (Barnes, 1976; Barnes & Schemilt, 1974). Transmission-oriented teachers, Barnes claimed, view their role as providing information to students, whereas interpretation-oriented instructors view their role as stimulating students to go beyond right-and-wrong answers, especially in such a way that gestures towards students’ experience beyond the classroom; in this context, classroom talk functions as “an instrument for reshaping experience, that is, as a means of learning” (Barnes, 1976, p. 84).

It is only since the 1970s, however, that researchers have measured how classroom discourse practices affect students' reading comprehension. These more recent studies have benefited from abundant empirical research during the same period on both reading comprehension and discourse processes.

Reading Comprehension Since the 1970s

Current understanding of reading comprehension rests on research largely undertaken by the Center for the Study of Reading (CSR), first funded by the U.S. National Institute of Education in 1976, and, more recently, at the Center for the Improvement of Early Reading Achievement (CIERA). Reading comprehension was also a key focus of early interdisciplinary research in the cognitive sciences (e.g., Kintsch & Van Dijk, 1978). Cognitively, reading comprehension is understood as the processing of textual information relating new information to established schemata, including the following:

- Prior knowledge (Langer, 1982; MacNamara, Kintsch, Songer, & Kintsch, 1996; Recht & Leslie, 1988) and cultural background (Reynolds, Taylor, Steffensen, Shirey, & Anderson, 1982);
- Domain and topic knowledge (Schneider, Koerkel, & Weinert, 1989; Walker, 1987; Yekovich, Walker, Ogle, & Thompson, 1990);
- Discourse and genre knowledge (Graesser, Singer, & Trabasso, 1994; Kucan & Beck, 1997; Meyer & Freedle, 1984); and
- Vocabulary knowledge (Freebody & Anderson, 1983; Nagy & Scott, 1990).

Some researchers define reading comprehension as a function of a writer-reader "contract" (e.g., Tierney, 1983; Tierney & LaZansky, 1980; Tierney & Shanahan, 1991) or a dialogic exchange of meaning or transformation of mutual knowledge between writer and reader mediated by the text (Nystrand, 1986). Other work (reviewed below) has explored sociocultural aspects of reading comprehension. Synthesizing research since the 1970s, the RAND Reading Study Group defined reading comprehension as a cognitive process of "simultaneously extracting and constructing meaning through interaction and involvement with written language," circumscribed by the sociocultural context of reading and experiences of the reader (Snow, 2002, pp. 11-12).

Organizations of classroom discourse based on much of this research on reading comprehension and that have been shown to promote reading comprehension include the following:

- Reciprocal Teaching (Palinscar & Brown, 1984; for review, see Rosenshine & Meister, 1994);
- Transactional Strategy Instruction (Brown, Pressley, Van Meter, & Schuder, 1996; Pressley, El-Dinary, Marks, Brown, & Stein, 1992);

- Questioning the Author (Beck, McKeown, Hamilton, & Kucan, 1997; McKeown, Beck, & Worthy, 1993; Sandora, Beck, & McKeown, 1999); and
- Elaborative interrogation requiring students to relate and elaborate connections between text read and their own experience and prior knowledge (Dole, Duffy, Roehler, & Pearson, 1991; Langer, 1982; Pearson & Johnson, 1978; Pressley, Symons, McDaniel, Snyder, & Turnure, 1988; Woloshyn, Willoughby, Wood, & Pressley, 1990).

The National Reading Panel recommends many of these strategies (Langenberg, 2000) due to their power to contextualize students' reading in terms of the experience and understandings they bring to the classroom.

Discourse Processes Since the 1970s

Contemporary with empirical research on reading comprehension since the 1970s is work by ethnomethodologists, sociolinguists, conversation analysts, and discourse analysts, showing that discourse can be characterized as follows:

- An event—a dynamic, temporal process of negotiation between conversants (Garfinkel, 1967; Sacks, Schegloff, & Jefferson, 1974) in particular, situated sociocultural contexts;
- Co-constructed "on the fly" by the conversants and appropriately understood by the conversants only in the context of its emergence (Goodwin, 1979, 1981; Heritage & Roth, 1995; Jefferson, 1974; Medvedev, 1928/1978; Schegloff, 1984);
- Structured by the terms of reciprocity between conversants (Rommetveit, 1974; Vološinov, 1929/1973), as each conversant reciprocally factors the intentions of the other conversant into subsequent interactions. As such, utterances are "sequentially contingent" upon each other.

Insights and methods from much of this research have helped illuminate the character and dynamics of discourse in classroom environments.

Sociocultural Context and Classroom Discourse as a Reading Environment

Numerous studies have investigated the role of classroom discourse as an environment for literacy and reading comprehension, mainly at the middle and secondary levels. Much of this work has its foundations in extensive sociocultural research (Gee, 2001) documenting discourse and literacy practices in community (e.g., Heath, 1983) and family contexts (Snow, 1993), as well as in social interaction and everyday routines as they shape children's literacy in the preschool years and beyond (see, for example, Clay, 1966; Heath, 1982; Stallman & Pearson, 1990; Teale

& Sulzby, 1986). Raphael and McMahon (1994) have documented the literacy environments of book clubs. Within schools, Greenleaf and Freedman (1993), Hicks (1996), Marshall et al. (1995), Rogers (1991), Sperling and Woodlief (1997), Wells (1990, 1999), and others have documented the indirect effects of a rich discourse environment on developing literacy skills. Daniels (1994) and Short and Pierce (1990) have studied the use of literature circles. Other studies show how the conversations teachers lead with their students define the literature curriculum as taught (Applebee, 1996), as well as what counts as reading and literacy (Bloome & Green, 1984; Green, Dixon, Lin, Floriani, & Bradley, 1992).

Much sociocultural research on the pedagogical role of classroom discourse draws from Vygotsky's (1934/1962, 1978) theory of sociogenesis, which claims that cognitive growth is "more likely when one is required to explain, elaborate, or defend one's position to others, as well as to oneself; striving for an explanation often makes a learner integrate and elaborate knowledge in new ways" (Vygotsky, 1978, p. 158). Within this framework, effective teaching requires identifying students' zones of proximal development (Vygotsky, 1934/1962) that define the immediate sociocultural context for learning, and appropriately scaffolding instructional activities (Bruner, 1974, 1975; Cazden, 1979) as well as classroom discourse (Almasi, 1994; Almasi, O'Flahavan, & Arya, 2001). Lee (1993, 1995, 1997) has investigated oral signifying as a scaffold for literary interpretation. Such situated instructional moments are themselves circumscribed by literacy practices transcending the classroom and mediated by the cultural tools (Vygotsky, 1978; Wertsch, 1998) of the larger sociocultural community. A consequence of learning to read is gaining an identity within this world (Gee, Allen, & Clinton, 2001).

Social Interaction and Reading: Small-Group Work and Whole-Class Discussion

A number of studies show that reading comprehension is enhanced by the classroom interaction of students with their teachers and peers, including both small-group work and whole-class discussion. In a study of 58 12th-grade students, Sweigart (1991) found that student-led small-group discussions of nonfiction were superior to both lecture and whole-class discussion in helping students recall and understand essays they had read.

A recent meta-analysis of 49 studies examining the effects of various types of small-group discussion approaches to high-level thinking and comprehension found that, in the most productive discussions, teachers retained considerable control of text and topic while allowing students considerable interpretive flexibility and the opportunity to elaborate their ideas for extended periods of time (Soter & Rudge, 2005; Wilkinson & Reninger, 2005; see also Nystrand, Gamoran, & Heck, 1993). Notably, this problem-solving organization of classroom discourse

had strong effects for below- and average-ability students (Murphy & Edwards, 2005).

In research on whole-class discussion, Van den Branden (2000) found that discussion promotes reading comprehension when problematic and difficult passages are the focus of sustained interaction. He found stronger effects for collective negotiation than pair negotiation. Discussion is helpful, he concludes, when "the learners themselves are actively involved in signaling their problems and in trying to solve them . . . It is exactly in bridging these gaps [between the learner's current level of language proficiency and the proficiency needed to comprehend the input with which the learner is confronted] that learning may come about" (p. 438).

Van den Branden (2000) found that the discussions he examined benefited L2 as well as L1 speakers, a result supported as well by a number of earlier studies (e.g., Ellis, Tanaka, & Yamazaki, 1994; Gass & Varonis, 1994; Loschky, 1994; Pica, 1994; Pica, Doughty, & Young, 1986; Pica, Young, & Doughty, 1987). Saunders and Goldenberg (1999) found that both fluent and limited English proficient students in three 5th and two 4th grade classrooms involved in instructional conversation scored significantly higher on both factual and interpretive comprehension than a control (i.e., read-and-study) group.

Other studies supporting whole-class discussion of texts as a way of enhancing reading comprehension include the following:

- Discussion-based envisionments of literature (Langer, 1992; 1995; 2001);
- Instructional integrations of writing, reading, and talk (Nystrand, Gamoran, & Carbonaro, 2001; Sperling & Woodlief, 1997);
- Instructional conversations (Saunders & Goldenberg, 1999; Tharp & Gallimore, 1988); and
- Collaborative Reasoning (Anderson, Wilkinson, & Mason, 1991; Chinn, Anderson, & Waggoner, 2001; Reznitskaya & Anderson, 2002).

Some research has drawn upon the dialogism of Bakhtin (1981, 1986), Rommetveit (1974), and Vološinov (1929/1973) to understand the role of interaction in both learning generally and reading comprehension specifically. These studies highlight the interaction of teacher, students, and peers ("refraction" of "voices") dynamically figuring things out in class—face-to-face, teacher and students together (Alexander, 2004; Dyson, 2000; Nystrand, 1997; Wells, 1999). Discourse is dialogic because it is continually structured by *heteroglossia*, the productive tension and conflict between the conversants. It is this juxtaposition of relative perspectives and struggle among competing voices that gives shape to discourse and hence governs comprehension as a dynamic, dialogic event. Dialogically organized instruction involves fewer teacher questions and more conversational turns

than recitation, as teachers and students alike contribute their ideas to a discussion in which their understandings evolve during classroom interactions. Open-ended discussion and the exchange of ideas are at the core of the dialogic classroom.

Working within this framework, Nystrand and Gamoran's research (Gamoran & Nystrand, 1991; Nystrand, 1997; Nystrand & Gamoran, 1991), involving thousands of 8th- and 9th-grade students and hundreds of class observations in a diverse sample of American English Language Arts classes, found strong effects on student learning for the overall dialogic quality of discourse, as measured by time devoted to discussion (open exchange of ideas among students and/or between at least three participants lasting longer than 30 seconds); proportion of authentic questions (open-ended rather than the usual [default] known-answer test questions); and proportion of uptake (e.g., follow-up questions). In these classes, students recalled their readings better, understood them in more depth, and responded more fully to aesthetic elements of literature than did students in more typical, monologically organized classes, where the default mode of instruction is some combination of lecture, recitation, and seatwork. These results are both striking, because the classes they observed engaged in so little discussion—on average less than a minute a day—and ironic, because it is recitation, not discussion, that specifically targets recall.

These results were largely replicated by subsequent research by Applebee, Langer, Nystrand, and Gamoran (2003) in a one-year study of 974 students in 64 middle- and high-school English classrooms in 19 schools in five states. Using hierarchical linear modeling and controlling for fall performance and a variety of background variables, the study found that discussion-based instruction, in the context of high academic demands, significantly enhanced literature achievement and reading comprehension.

Applebee (1996) and Nystrand (1991, 1997) argue that classroom discourse significantly shapes literacy skills due to the way it establishes classroom epistemology. What counts as knowledge and understanding in any given classroom is largely shaped by the questions teachers ask, how they respond to their students, and how they structure small-group and other pedagogical activities. In dialogic terms, the relative ineffectiveness of recitation and other monologic practices in teaching reading comprehension, compared to discussion and instructional conversation, is that meaning is realized only in the process of active, responsive understanding (Vološinov, 1929/1973). But it is just such active, responsive understanding that teachers fail to practice when they determine prior to a given class the sequence of questions they will ask and what answers they will accept, and when they respond to correct student answers with a mere nod before moving on to the next question, often changing the topic of discourse.

Horizons for New Research

Taken together, the results from all the studies reviewed above strongly support the potential of classroom discussion to enhance reading comprehension instruction. The overall support of these studies is particularly noteworthy given the range of perspectives they represent, including cognitive, sociocognitive, sociocultural, and dialogic. The studies also represent a wide range of research methodologies, including survey, case-study, meta-analysis, and quasi-experimental approaches. The power of the survey studies is their description and documentation of discourse patterns across a range of contexts, classrooms, activities, and periods of history. These descriptions, useful, suggestive, even incisive as they may be, however, typically work only with static macro variables—reporting, for example, overall figures for discourse patterns, fall and spring achievement scores, demographic statistics such as SES, race, ethnicity, and so on. This power can be amplified by quantitative methods like regression and hierarchic linear modeling to uncover significant relationships among variables, including both discourse (e.g., time spent in class discussion) and achievement variables controlled for a range of factors (e.g., socioeconomic status, ability group, teacher experience, etc.).

Such analysis of static variables is not a perfect fit for investigating discourse, however, inasmuch as discourse is language in motion, a distinction first made by Saussure (1915/1959) when he contrasted *la langue* (language) and *la parole* (speaking). This dimension of discourse—involving fine-grained, dynamic data—is more suitably studied through micro and conversation analysis, qualitative discourse analysis, and ethnography. The power of such methods lies in their sensitivity to nuance and the dynamics of unfolding activities. The results of a given case study, however, cannot be generalized to classes beyond the focus group to investigate, for example, how discourse in particular contexts tends to start and end, or the effects of defined contextual factors such as demography, participation structures between conversants, institutional settings, and so on, as they generally impact discourse processes in more than individual cases. As Smardon (2005) asks in her review essay on the “microsociological turn” in educational theory, how do the macro realities of race, class, ethnicity, and gender come to pass amidst the micro processes of social action and face-to-face interaction? Surveys offer breadth without depth, it would seem; case studies, on the other hand, offer depth without breadth.

In a recent book, Erickson (2004) cogently argues that both macro forces and micro processes originate in face-to-face interaction, the macro forces composed of “many single instances of local social interaction . . . aggregate[d] across time,” transformed into “global social facts” (p. 159) and, in any given situation, shaping an “overall ecology of topics initiations, turn exchange, and distribution of atten-

tion and listening response” (p. 181). At the same time, each speech genre so configured carries with it certain affordances that allow conversants to “swim upstream” and maneuver “towards ends other than those that are societally approved or expected” (p. 174).

Recently, event history analysis has examined the consequences of these upstream forces and local processes of classroom discourse in subsequent discourse. Any given classroom interaction or instructional event (such as a question and its response) is shaped not only by the inertia, or chain, of immediately preceding interactions, but also by the interactions of previous lessons, as well as by institutional factors (such as tracking and social, cultural, and demographic variables including race, ethnicity, and SES). That is, every classroom interaction and event has a history with both global and proximal antecedents. In addition, the same given classroom interaction or instructional event shapes teacher and student expectations for subsequent classroom interactions and for factors transcending the class, such as student achievement.

Event history analysis is a quantitative methodology used to investigate the structure of such events and especially to assess shifts, or tipping points, in events or the status of individuals. It has been used in sociology to identify and assess the causes (antecedents) of marriage and divorce (Hannan, Tuma, & Groeneveld, 1977); job mobility (Felmlee, 1982; Sørensen & Tuma, 1981; Tuma, 1976); childbirth; infant mortality (Trussell & Hammerslough, 1983); rate of premarital birth (Wu, 1996; Wu & Martinson, 1993); and, in one of its few uses in educational research, contextual effects on student attention (Felmlee & Eder, 1983; Imai, Anderson, Wilkinson, & Yi, 1992). Political scientists have used event history analysis to assess changes in city government (Knoke, 1982); political timing (Box-Steffensmeier, Arnold, & Zorn, 1997); the political effects of economic crises (Gasiorowski, 1995); and to analyze the causes of revolutions, wars, and international conflicts. Its power resides in its capability to systematically analyze large datasets—many cases—with attention not only to static macro variables (e.g., SES, gender, race, ethnicity, class size, etc.), but also to dynamic micro variables that vary within lessons as well as across lessons (e.g., teacher discourse moves, use of class time, proportion of authentic teacher questions, uptake, etc.). Whereas case studies describe the nuanced sequences of events in individual encounters, discourse event history analysis,¹ as a method of quantitative discourse analysis, complements such studies by providing a more generalized understanding of how genres of discourse unfold, as well as assessing the salient factors, both macro and micro, at work in shaping them.

In classroom research, event history analysis cannot be used to assess outcomes such as student achievement or reading comprehension. However, depending on the comprehensiveness of the data collected, it can augment methods that can. For example, as a follow-up to their study of the effects of teacher questions

discussion to gains in reading comprehension, Nystrand and colleagues (Nystrand, 1997; Nystrand & Gamoran, 1991; Nystrand, Wu, Gamoran, Zeiser, & Long, 2003) used event history analysis to model the onset and identify the tipping points of these discussions in the same classes. To do this, they assessed which aspects of more than 33,000 “question events” (interactions surrounding teacher and student questions) catalyzed dialogic interaction, including open-ended discussion. The study, which analyzed data from over 200 8th- and 9th-grade English and social studies classrooms in 25 Midwestern middle and high schools, found that such discourse “moves” as authentic (open-ended) teacher questions and uptake (follow-up questions) significantly enhanced the probability of both discussion and dialogic “spells” (phases of classroom discourse intermediate between recitation and open discussion characterized by clusters of student questions). Student questions had the strongest effect of all. Multiple instances of all these dialogic “bids” increased the probability of such shifts.

In these terms, getting a discussion going is “a little like building a fire: With enough kindling of the right sort, accompanied by patience, and along with the spark of student engagement, ignition is possible, though perhaps not on teachers’ first or second try” (Nystrand et al., 2003, p. 190).

The capability of discourse event history analysis to simultaneously assess and compare the effects of static macro variables (Gee’s [1990] “Big-D” Discourse) and dynamic micro variables (Gee’s “little-d” discourse) presents language and literacy researchers with a powerful tool for consolidating and assessing research findings on instructional discourse to date, especially to assess the extent to which alternative forms of classroom discourse can mitigate the negative effects (for example, of SES and urbanicity) on instruction and learning. Consistent with Erickson’s (2004) argument that the affordances of local interactions can mediate the constraints of global factors, for instance, Nystrand et al. (2003) found that authentic teacher questions and uptake, to the extent that they were used, suppressed potentially negative effects of macro variables such as track, SES, race, and ethnicity; this finding clarifies the critical importance of high-quality classroom discourse in English language arts instruction.

Conclusion

Empirical research on classroom discourse and its effects on learning generally and reading comprehension specifically have made considerable progress since Morrison published his observations about teaching in 1860. This research provides useful guidance to schools and teachers on patterns of interaction, categories of questioning, and approaches to discussion and small-group work that benefit reading comprehension, with insight into the role played by classroom diversity.

Yet much remains to be done. Until recently, there have been few large-scale

sion, and these studies have mainly focused on middle and high schools. Murphy and Edwards' (2005) meta-analysis of 49 studies measuring the effects of various approaches to discussion on reading comprehension marks an important contribution in this direction. Nonetheless, we have little knowledge of the national currency or frequency of the most effective approaches so identified. A more complete map might allow us to examine the role of classroom discourse in reading instruction with results that might carry weight in policy debates about effective practice and student learning. Moreover, innovative research methods, both quantitative and qualitative, now offer new possibilities for situating classroom discourse in relation to educational outcomes and cultural categories that transcend the classroom, which Erickson refers to as "ecologies of speaking and listening in everyday life" (2004). As we have seen, event history analysis applied to classroom discourse can also analyze patterns and dynamics of discourse in classrooms that have been shown independently to teach reading comprehension effectively, as well as to identify teacher discourse moves in classrooms that have ameliorated low reading comprehension. Event history analysis can also be used to assess the role of sociocultural context variables that shape dynamic patterns of discourse and to assess the consequences of discourse moves on subsequent discourse. Both of these approaches seek to resolve tensions of abstracted background and achievement categories versus socially situated particulars, which often have divided education researchers by method. Central concepts in both new approaches to discourse analysis are timing and history, a key dimension of the context of all social interaction. These new research initiatives invite a collaboration of research methods that is particularly timely in the present research and policy climate mandating "evidence-based" pedagogies privileging tightly scripted direct instruction ("treatments") supported by large, randomized, controlled clinical trials. In effect, the scripts are given in such studies—indeed, in the requests for proposals (RFPs) themselves—which are designed to assess their effects on student achievement. Yet if, as the research reviewed here reveals, classroom discourse shapes student learning in important yet often indirect ways, we would do well as researchers to assess the use of these scripts as they affect classroom discourse. It is hoped that this review may be used to move research in the teaching of English, of language and literacies, in these new directions.

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NOTE

1. I refer to event history analysis of discourse as "discourse event history analysis" to stress the concept that discourse is an event with a history and that is unfolding in time.

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