CHAPTER 1
Discourse, teaching and learning
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What Is Discourse?
The term discourse implies a dialectic of both linguistic form and social communicative practices. One can talk of discourse in terms of oral and written texts that can be examined after the fact and socially situated practices that are constructed in moment-to-moment interaction (Fairclough, 1992; Gee, Michaels, and O'Connor, 1992). Thus, use of the term discourse implies a decision about how classroom communication is to be theoretically positioned in research on teaching and learning.

A literary theorist and philosopher of language and interpretative sciences from the former Soviet lands, Mikhail Bakhtin, wrote at length about such issues as these. Contrasting his own work with the work of linguists and philologists interested more in the formal structure of language, Bakhtin (1981, 1986) developed a theory of language centered around dialogic utterances as opposed to grammatical sentences (see also Morson and Emerson, 1990). Whereas sentences were defined by their formal structure (as has been described by any number of linguists), utterances were defined by changes of speaking subjects. Hence, the unit of analysis for studies of language became a unit of social communication:

The terminological imprecision and confusion in ... linguistic thinking result from ignoring the real unit of speech communication: the utterance. For speech can exist in reality only in the form of concrete utterances of individual speaking people, speech subjects. Speech is always cast in the form of an utterance belonging to a particular speaking subject, and outside this form it cannot exist. (Bakhtin, 1986, p.71)

Bakhtin, and other scholars of language and linguistics who share his theoretical perspective on language, would acknowledge that words can have semantic content, what one might refer to as their 'dictionary meaning,' and that sentences can have stable grammatical form. However, once a word, phrase, or sentence is uttered or written, it assumes meaning that is inherently social in nature. As Bakhtin wrote, an utterance has 'expressive intonation' and receives its meaning by virtue of its position in a chain of speech communication (1986, pp. 90-91). Vygotsky (1986, 1987) made a similar point when he wrote that words have meaning (i.e., dictionary meaning), but only speech has sense. In other words, spoken and written language acquires meaning only through social usage. Meaning is socially constituted.

Many educators who explore relations between classroom communication and children's learning draw upon a model of language as a cognitive resource. Language unquestionably serves as

a symbolic mediator of children’s thinking and learning, indeed, this is the central theme of the sociocognitive (or social constructivist) research that has emerged largely in response to Vygotsky’s writings on ‘mind in society’ (1978) and ‘thinking and speech’ (1986, 1987). The topic of how language mediates children’s learning will also emerge as a centerpiece of the present review. At the same time, it is crucial that language not be depicted solely as an intra-individual symbolic resource, a cognitive abstraction that is similar in kind to the mathematical formalisations developed to describe numerical relationships. Drawing upon the work of Bakhtin and the subsequent work of numerous theorists of language and meaning (e.g., Fairclough, 1989, 1992; Gee, 1990, 1992; Gumperz, 1982; Halliday, 1978; Halliday and Hasan, 1989; Hymes, 1974; Lemke, 1990), I will assume that language is an inherently social construct and that its meaning is constituted relationally between speaker and hearer or between author and reader. This theoretical depiction of language and meaning is a fulcrum for the review of research on classroom communication that follows.

Two important aspects of this theoretical perspective on discourse deserve elaboration before I move forward with the review. The first concerns the duality of discourse as textual products (both oral and written) and constitutive discursive practices (see Fairclough, 1992). Classroom interactions like whole class discussions, sharing time, journal writing, and science problem solving result in oral and written texts that can be examined after the fact. Moreover, oral and written texts in the classroom have stable generic forms associated with particular activity structures. Children need not learn anew every day the forms of discourse associated with Morning Circle; this knowledge becomes part of a shared history within the classroom. The existence of such stable discourse genres is a symbolic resource that enables teachers and children to construct what Edwards and Mercer (1987) refer to as ‘common knowledge’. At the same time, classroom discourses are not ‘givens’ but, rather, social constructions. Classroom contexts like Morning Circle can be examined in terms of how they are constituted by discourse and joint action. Comments by Erickson and Shultz (1981) about the meaning of context could be considered equally true of discourse:

> Contexts can be thought of as not simply given in the physical setting – kitchen, living room, sidewalk in front of drug store – nor in combinations of persons (two brothers, husband and wife, firemen). Rather, contexts are constituted by what people are doing and where and when they are doing it. As McDermott (1976) puts it succinctly, people in interaction become environments for each other. Ultimately, social contexts consist of mutually shared and ratified definitions of situations and in the social actions persons take on the basis of these definitions (Mehan et al., 1976). (p. 148)

This duality of discourse has been manifested in research on both the social interactional processes constituted by discourse (Dorr-Brenme, 1992; Erickson, 1988, 1996; Hicks, 1994; Yackel, Cobb, Wood, Wheatley and Merkel, 1990) and the discourse organisation or thematic content of the texts produced from those interactions (Gee, 1986; Lemke, 1990, 1992; Mehan, 1979; Michaels, 1981). The latter research lens on discourse has drawn upon theory and method from the fields of sociolinguistics (see Cazden, John and Hymes, 1972; Gumperz and Hymes, 1986; Hymes, 1974) and social semiotics (Halliday, 1978; Halliday and Hasan, 1989) in which the emphasis is on relations between community membership and linguistic form and function. The former has emerged out of a tradition of interactional sociolinguistics (Erickson, 1988; Gumperz, 1982, 1986) in which the emphasis is on how discourse and joint activity are con-
Discourse is constitutive of everyday life. Taken together, these two perspectives offer complementary means of exploring how classroom knowledge is 'talked into being' (Green and Dixon, 1993).

A second point of elaboration concerns the embodiment of ideologies in discourse. Discourses can never be neutral or value free; discourses always reflect ideologies, systems of values, beliefs, and social practices (Fairclough, 1989; Foucault, 1972; Gee, 1990). As James Paul Gee writes, discourses are identity tool kits replete with socially shared ways of acting, talking and believing. An example that Gee has used is a simple but powerful one: if I (a female, middle-class academic) walk into a motorcycle bar, I may speak the language of that setting, but I don't speak the discourse. I would be immediately recognised by my appearance, actions and language use as a non-member of the social group that is identified with that setting. Gee (1989, 1990) uses the term *Discourse* (as opposed to its lowercase variant) to describe the 'tool kit' that participants in a community share. Gee and other social theorists (Rosaldo, 1989, for instance) also make the point that social actors can participate in multiple Discourses, some of which may be conflicting identities for them. For instance, my own working-class roots can be in conflict with the Discourses that I must assume for the purpose of being an academic; similarly, academic Discourses may be in conflict with the Discourses that are associated with my being a woman (Ellsworth, 1989; Hollingsworth, 1994).

It is important to add that academic discourses also embody such ideologies; they are also Discourses. Thus, learning to 'talk science' or 'talk math' involves more than just learning a set of linguistic forms; it also involves learning beliefs and values (Lampert, 1990; Lemke, 1990; Yackel et al., 1990). Gee (1989, 1990) and Lemke (1990) both point out that the ideologies embodied in such academic discourses may be in conflict with some children's home and community discourses. Minimally, these academic discourses may be unfamiliar to children who have not experienced at home what Scollon and Scollon (1981) term *essayist literacy*.

In discussing how discourses embody ideologies, I have come full circle to the discussion that began this section: that of Bakhtin's writings on dialogic utterances as the 'real' units of language and meaning. Central to Bakhtin's theory was the premise that utterances retained ideological remnants of their past usage within sociohistorical contexts. Although the forms of inquiry Bakhtin used were grounded primarily in literary analysis, his theories are nonetheless extremely relevant to current research on classroom communication. As the review of research that follows will make clear, viewing discourses as value-laden ideological systems has become a major theme within the field of research on discourse and classroom learning. It is a particularly important dimension of current research on *intertextuality*: the ways in which texts derive their meaning 'against the background of other texts, and the discourses of other occasions' (Lemke, 1992, p.257).

**Discourse as a mediator of children's learning**

In his book *The Forbidden Experiment*, Roger Shattuck (1980) describes how a young French doctor named Jean-Marc Gaspard struggled to bring the 'wild boy of Aveyron,' captured in the woods in the year 1800, to a more socialised state of existence. Central to the motives of the young physician were his efforts to teach the boy, named Victor, language. Although the physician's efforts were only partially successful, his ambitious goal of educating a completely unsocialised and therefore speechless child attests to the importance placed upon language as a symbolic tool of society. Throughout the history of psychology, language has been viewed as a crucial link in explaining how children become fully functional members of a social world.
In the field of psychology, language has been most consistently depicted as a symbolic system used by children to construct abstract representations of events, semantic categories, and hierarchical and sequential relationships. For instance, Katherine Nelson and her research colleagues (see Nelson, 1986, 1989) have done extensive work on how children construct abstract event representations through their recurrent participation in social events partly constuted by language practices. This type of theorising about language and cognition has achieved prominence in the cognitive constructivist theories and pedagogies now prevalent in the field of education (Fosnot, 1989; Magoon, 1977; von Glasersfeld, 1989).

The publication of English translations of the collected writings of L.S. Vygotsky (see Vygotsky, 1962, 1978, 1986, 1987; see also Kozulin, 1990; Wertsch, 1985a; Yaroshevsky, 1989) has profoundly influenced recent cognitivist research on language. Vygotsky referred to his theory of development as a sociocultural or sociohistorical one, and he positioned social speech as the primary unit of psychological analysis. His sociocultural and sociohistorical theories of learning were grounded in his intense interest in how language and other culturally significant symbolic systems mediated human thinking. Unlike animals, who were limited to lower and biologically determined forms of thinking, human thinking was transformed, or interrupted (Emerson, 1993), by the introduction of language. Since the appearance in the 1970s and 1980s of Vygotsky’s collected writings, there has been a deluge of research and writing conducted from a sociocognitive perspective. In such research, language and literacy have been explored as ‘cultural amplifiers’ (Cole and Griffin, 1980), and learning has been depicted as a process of apprenticeship into social practices (for examples of sociocognitive/sociocultural research and theorising, see del Río, Alvarez, and Wertsch, 1994; Forman, Minick, and Stone, 1993; Minick, 1989; Moll, 1990; Rogoff, 1990; Tharp and Gallimore, 1988; Wertsch, 1985b, 1991). Social constructivist research on teaching and learning is also rooted in such sociocognitive/sociocultural theories (see O’Loughlin, 1992).

Sociocognitive research has been extremely informative about how discourse is a mediator of children’s learning in classrooms and other educational settings. Studies of caretaker and child interactions in home settings and teacher and student interactions in classroom settings have drawn upon sociocognitive theory to explain how children learn in what Vygotsky termed the ‘zone of proximal development’ (Vygotsky, 1978; see also Rogoff and Wertsch, 1984). A central metaphor that has emerged from this work is that of scaffolding (Wood, Bruner, and Ross, 1976). As caretaker and child engage in joint activity, the more capable adult or peer initially physically structures the activity for the child or provides explicit verbal directions that direct the child’s activity. At this early point in the history of the child’s participation in a social activity, the child’s situational understanding may be quite different from that of the adult’s (Wertsch, 1984). However, through repeated joint participation in an activity structure during which the adult gradually does what Cazden (1983) terms ‘upping the ante,’ the understanding of child and adult become more similar (Wertsch, 1984). Through her or his repeated engagement in activity that is often mediated by discourse, the child’s situational understandings are shaped so that she or he can be a full participant in a social world.

To illustrate the meditational role of discourse and joint social activity, I will draw upon some interactional data on children’s discourse and learning in an urban first-grade classroom. In this example, taken from a regular morning journal writing activity, the classroom teacher has approached a child who has drawn a horse figure in her journal. This particular example occurred
midyear (January) when children in the classroom were expected not only to draw something in their journals but also to write something using invented (phonetically derived) spellings. Moreover, children had been encouraged, and generally themselves preferred, to compose fictional stories or narratives of personal experience. Suggested “story starters” (e.g., One day a …) had been written in large letters on poster board, and children working together in desk groupings often jointly composed stories around topics of shared interest. Thus, as Teacher Rhoda (as the children referred to their classroom teacher) approached the grouping of desks where Janeen (the child in question) was working, she restructured the task for Janeen so that the activity became one of story writing as opposed to drawing. In Example 1, Janeen acquires a different situational understanding of the task at hand, and discourse plays an important role in the joint accomplishment of this understanding.

Example I: The Mediation Role of Discourse

Janeen (J) is drawing a figure in her journal. Emma (E), to Janeen’s left, is observing and writing about two silkworms on her desk. Christine (C) and Chen Ju (CJ) are seated across from Janeen.

J: 
draws in journal, with pencil
I made a mistake and put this (unclear) [she erases]
wanna be in my play? [J looks to E]
huh?
wanna be in my play? [J turns her torso to E]
draws a single line across bottom of page
this gonna be the grass
colours the lower part of the drawing, often placing her head very close to the journal page

Teacher Rhoda (TR) approaches Janeen’s desk area.

TR: okay Aleisha # how you doin? [J reaches into crayon basket]
J: 

 begins to color
TR: what are you writing about ( ) Aleisha?

I mean Janeen [TR moves directly behind J]
what are you writing about? [TR scratches J’s back]


J: a horse =

TR: = a horse ( ) okay

I want you to put your crayon down now [TR places J’s pencil on journal]
I want you to take your pencil and put the title up there [TR points to journal] # a horse

J: writes The

Teacher Rhoda leaves Janeen’s desk area. Janeen continues to write.

J: 

[begins to write] [turns torso toward E]

[sits back in chair then resumes writing]

Later during Journal Writing, Teacher Rhoda approaches the desk area once again. She moves to Janeen’s desk.

TR: alright now # okay

what’s it [the journal entry] called now?

J: the horse

TR: the horse J: h:: [TR slides journal closer to J]

TR: okay

Teacher Rhoda interrupts her work with Janeen to establish order in the classroom now ( i) the horse
what's the story gonna be? tell me

J: holds pencil poised over journal

TR: how does it start? J: the horse =

TR: was TR: the -

TR: go ahead

the horse was ...

J: begins to write in her journal, as TR leaves the desk area

J: leans back in chair

the horse was [softly]

By the end of Journal Writing, Janeen has composed the following written entry:

Written:
The haerto
The haerto WasWaekingThe
graysen AnD aBaByAnD The BaBy
Jump up AnD hit the har hD

Gloss:
The Horse
The horse was walking on the grass And a baby. And the baby jump up
and hit her head.

The kind of social interchange that occurs in Example 1 is illustrative of the way in which such forms of understanding initially occur relationally between persons before they are internalised (Emerson, 1983; Toulmin, 1979, 1984; Vygotsky, 1986; Wertsch and Stone, 1985) by the child. The discourses and activity structures constitutive of meaning construction are inherently social, such as the story form that Janeen appropriated for journal writing. For sociocognitive theorists, a central research question is therefore that of how children appropriate the discourses characteristic of informal (e.g., home, playground) and formal institutional (e.g., school, church) settings (Gee, 1990; Wertsch, 1991).

Academic Discourses in the Classroom

The following written text was also produced by Janeen, the first grader introduced in Example 1. The text was written during a 6-week unit on silkworms that involved observing and documenting the growth and metamorphosis of these caterpillar-like creatures.

Example 2: Academic Writing

Written:
Facts About Silkworms
1. They turn into moths.
2. When they are little, their eyes are grey and when they are big their eyes are black.
3. The silkworms make cocoon.
4. The silkworms have poop on them.
5. The silkworms have 8 legs.

Gloss:
Facts About Silkworms
1. They turn into moths.
2. When they are little, their eyes are grey and when they are big their eyes are black.
3. The silkworms make cocoon.
4. The silkworms have poop on them.
5. The silkworms have 8 legs.
Probably no educator would take exception with my identifying this piece of writing as a science text. It is essayist in style, it is grounded in observation and description (two very 'scientific' activities), and the topic is one typical of the biological sciences. Disciplines such as science and mathematics are partly constituted by textual genres and discursive practices, and learning science or learning math cannot be separated from these practices. In fact, many educators (teachers and researchers) would view Janeen’s science diary entry as one form of evidence that she has learned science. Similarly, some theorists would suggest that ‘learning science’ is a process that is framed by discourse genres, forms of activity, and ways of establishing semantic links among events, objects and persons (see Lemke, 1988, 1990; Rosebery, Warren and Conant, 1992). Other researchers have explored similar issues with respect to mathematics instruction (Ball, 1991, 1993; Bill, Leer, Reams, 1992; Hiebert and Wearne, 1993; Lampert, 1990; Spanos, Rhodes, Corasaniti Dale, and Crandall, 1988).

Literacy is generally thought of as the ability to read and write. However, some theorists have extended the meaning of literacy to encompass more than just the ability to read and write. Full literacy, according to some, entails mastery of secondary or formal institutional, often academic discourses (Gee, 1989). These secondary discourses typically involve ways of describing, explaining and questioning that are dissimilar to ‘ordinary’ conversation. They entail what Vygotsky (1986, 1987) termed nonsensory forms of thinking and talk, such as explicit focusing on particular kinds of relationships that are verbalised or written and often subjected to public confirmation. The discourses typical of academic disciplines may be thought of as literacies, in this broader sense (Michaels and O’Connor, 1990). A similar theoretical perspective has been voiced in documents like the National Council of Teachers of Mathematics (NCTM) teaching and evaluation standards, which call for the need for children to become ‘mathematically literate’ (NCTM, 1989, p.18). Mathematical literacy in this sense would involve far more than children being able to record their reasoning processes in math journals. It would also involve ways of talking and forms of reasoning that characterise the discipline, such as hazarding a solution to a problem, explaining to one’s peers how one arrived at the solution, and engaging in a dialogue about possible alternative solutions (Lampert, 1990; NCTM, 1989, 1991). A written record of one’s solution processes would then be an additional link in the construction of mathematical discourse.

How do teachers teach and children learn these more formal academic discourses? There have been some efforts to incorporate the explicit teaching of academic genres into literacy instruction (see Reid, 1987, for a discussion of the controversy surrounding ‘genre instruction’). However, a sociocognitive perspective on discourse would suggest that children learn academic discourses through their repeated participation in meaningful social activity (Rogoff, 1990). Classroom teachers set the stage for this learning process by providing the discursive ‘slots’ that enable novice learners to participate in disciplinary practices. This can occur within group discussions in which the teacher orchestrates classroom discourse (NCTM, 1991, p. 35), or it can occur in small group or one-on-one conferences.

It is thus important to note that academic discourses are negotiated situationally within the classroom. Although there are commonalities within disciplines (and these commonalities are reinforced by the publication of teaching and evaluation standards), what it means to ‘talk science’, ‘talk history’, or ‘talk mathematics’ is constructed through locally situated, everyday social interaction. This is graphically illustrated by cross-cultural differences in how teachers orchestrate
children's learning within disciplines (see, for instance, Stigler, Fernandez, and Yoshida, 1992, on the discourse of mathematics instruction in Japan and in the United States). However, each classroom is also a distinct local site for the construction of meaning. In the words of Heidi Brilliant-Mills (1993), a researcher in the Santa Barbara Discourse Group who has studied the construction of mathematics discourse in a sixth-grade classroom,

the words selected, the patterns of interaction experienced, and the range of events constructed by members define what counts as mathematics, mathematical actions, and being mathematicians. Viewing language as social action and meaning making, members of a classroom group construct particular patterns of social performance that make visible how teachers and students understand mathematics. It is important, therefore, to understand the ways in which a register and patterns of interaction are constructed because there is no one register or pattern of interaction for mathematics for students. Registers are situationally constituted through the patterns of interaction that serve to define what counts as mathematics and what being a mathematician means in particular settings. (p.302, italics added)

An example of the situational construction of academic discourse comes once again from my case study of one first grader, Janeen. In Example 2, we saw an example of Janeen's science diary entry, one reflective of the formal discourses of science as an academic discipline (or literacies). Approximately one year before the writing of the science text shown in that earlier example, I documented an episode of science diary writing that was also centered on children's observations of silkworms. I like all the children in the classroom, Janeen had been given several silkworms to observe over an entire cycle of growth and metamorphosis. In Example 3, Teacher Rhoda structures the modes of activity and forms of discourse that constitute scientific work. Through physical movement (hanging Janeen a magnifying glass) and leading questions ('what d'ya see?'), she molds Janeen's observations of and comments about the silkworms. Thus, in Example 3, we see the joint construction of a scientific discourse, one that will later become a means for Janeen's independent science work.

Example 3: Situationally Constructed Academic Discourses

Janean (J) is working on a science diary entry. Thus far, she has written the words 'The silkworm' in her science diary. Emma (E) is seated to her left. Teacher Rhoda (TR) approaches the desk area.

TR: now what d'ya got here?
J: the silkworm # is [reading]
TR: empties silkworms [in a plastic box] onto J's science diary
which one is it?
which one are you looking at?
J: points to a silkworm
TR: take one to look at
okay we really have to look at 'im
J: looks intently at silkworms on her science diary page
TR: now () where is this guy?
here he is [indicates one of the silkworms]
is this the one you wanna look at?
J: nods yes
TR: let's take 'im over here
separates silkworm from other ones on diary page
let 'im crawl right there
E: see # it's not () don't be afraid of touching it
now # you can take a good look at 'im like this too [hands J a magnifying glass]

TR: looks at silkworm through magnifying glass

J: can you see 'im (. ) alright?

TR: nodaes yes

J: yeah (. ) what d'ya see? [takes J's hand and guides her to move the magnifying glass closer to silkworm]

TR: he goin like this [moves her head up and back]

J: he's going like that?

TR: what d'ya think that was?

J: what is that?

TR: he's going like -

J: he was liftin his head

TR: okay!

the silkworm # was [writing in J's science diary]

TR: lifting?

J: his

TR: his head [writing]

alright

This discussion of situationally constituted academic discourses recalls my earlier discussion of the duality of discourses as texts and socially situated interactional processes. It is meaningful to examine both dimensions of discourse, and, with the advent of video technology and micro-ethnographic methods of analysis (see Erickson, 1992), both can be examined after the actual occurrence of episodes of social activity. Indeed, much current work on classroom discourse combines studies of textual products (again, both oral and written texts) and studies of social-interactional processes.

A related theoretical perspective on discourse and learning has emerged in the field of psychology under the rubric of discursive psychology (Edwards and Potter, 1992; Harre and Gillett, 1994) or social constructionism (Gergen, 1985; Shotter, 1993). Although grounded more in postmodernist views of discourse and the self than in the analysis of face-to-face social interaction, such theories share an interest in how discourse is constitutive of social life. In the case of discourse-oriented theories of psychology and education (see, in particular, Edwards, 1993; Edwards and Mercer, 1987; Weller, 1990), the emphasis is on how discursive practices constitute what is more typically referred to as cognition and how speaking subjects are given social identities through their positionings in discourse. Although having different intellectual histories, interactional sociolinguistic and social constructionist educational research sometimes touch upon similar topics of inquiry (compare, for example, Dorr-Bremme's 1992 study of how children's classroom identities are socially constituted with Edwards's 1993 study of how children's conceptual understandings are constructed through talk).

This concludes my discussion of theoretical perspectives on discourse and learning. I might summarise this section by stressing that discourse is an inherently social construct that mediates, indeed partly constitutes, the teaching and learning that take place in classrooms. Through meaningful classroom activity, children appropriate the discourses that situationally define 'what counts' as knowing within disciplines. In the following section, I turn to current research on classroom discourse. I explore prominent classroom genres, such as the Initiation-Response-Evaluation(IRE)/Initiation-Response-Follow-up(IRF) instructional sequence; efforts at educational reform tied to discourse; the 'embeddedness' of classroom discourses in community-based discourses; and the heterogeneous discourses that are woven into one text or turn of talk. Each
of these topics is elaborated through reference to work of current researchers in the field. Because of the breadth of this field, I cannot hope to cover all of the research that would fall under a given topic. Rather, I provide exemplars that will, I hope, enrich readers’ understanding of the research topics currently being addressed within the field of classroom discourse.

**RESEARCH ON DISCOURSE AND LEARNING IN THE CLASSROOM**

This section begins with a limited discussion of children’s appropriation of discourse in the preschool years. A discussion of preschool language development will orient the reader to the importance of understanding how community-based discourse practices that children experience at home later become a means for their participation in classroom activities. Many sociolinguistic researchers believe that community-based discourse practices are a primary conduit through which children structure their school experiences. If these practices are consonant with those found in formal classroom settings, children typically learn academic discourses with ease. If not, then children may encounter difficulties. The tenet of most educational standards that all children have access to academic learning is invoked here as I discuss differences in the discourse-related experiences that young children bring to their classrooms.

**Discourse and social activity in the preschool years**

In the first section of this review, I discussed current thinking on how discourse mediates children’s learning. I noted that as children participate in repeated social events, they gradually assume more control over their activity. Activity that was once performed with extensive input from a caretaker can later be performed independently by the child. The term repeated is an important one to emphasise. Social events such as listening to bedtime stories, taking a bath, having dinner, and going to day care become routine aspects of children’s lives. As they participate in the day-to-day routines that make up their preschool lives, children also learn the forms of discourse associated with those routines.

An example from the literature on young children’s language and literacy development is illustrative of how children internalise forms of discourse that initially occur as part of their daily routines. This example is drawn from language data recorded by a prominent child language researcher, Catherine Snow, as she interacted with her then 3-year-old son, Nathaniel. In the example, mother and child are jointly reading a Dr. Seuss book, *Hop on Pop*, that is a familiar one to Nathaniel. The mother structures the book reading so that Nathaniel can successfully fill in the conversational ‘slots’ left open by her pauses at the ends of familiar phrases from the text.

**Example 4: Discourse Development in the Preschool Years**

<table>
<thead>
<tr>
<th>Printed text:</th>
<th>Conversation at 37 months, 26 days:</th>
</tr>
</thead>
</table>
| Hop on Pop    | M: hop on pop by ...
c: Dr. Seuss  | N: Dr. Seuss                 |
| PAT PAT       | M: Pat pat                       |
| They call him Pat. | they call him pat               |
| PAT SAT       | M: Pat sat                       |
| Pat sat on hat. | N: the hat                      |
| PAT CAT       | M: Pat cat                       |
| Pat sat on cat. | N: a cat                        |
In the same way that young children gradually assume more and more control over their activity, they become more adept at the use of discourse forms that they encounter in such repeated episodes of social activity. Discourse genres like the book-reading dialogue above, along with social roles and activities, become part of the child’s increasingly complex repertoire of language knowledge and practices. Social discursive routines that are initially quite simple later become part of a more complex system. For instance, the very young child’s participation in social routines such as ‘peekaboo’ and ‘hide and seek’ later emerge as the differentiated social roles and speech forms that the child assigns to various characters in her or his symbolic play (Rubin and Wolf, 1979; Wolf and Hicks, 1989). Young children in the preschool years develop a repertoire of discourse types linked to specific recurring social activities (see, in particular, Julie Gerhardt’s analysis in Nelson, 1989, of one child’s development of a repertoire of discourse types).

Ways with words

The segment of mother-child dialogue in Example 4 looks much like a discourse genre familiar to scholars of classroom discourse. The pattern in which the mother initiates a phrase from the book and the child fills in the slot left open by her pause resembles what scholars of classroom discourse have termed the Initiation-Response-Evaluation (IRE) (Cazden, 1986, 1988; Mehan, 1979) or Initiation-Response-Follow-up (IRF) (Sinclair and Coulthard, 1975; Wells, 1993) sequence. In the case of the mother-child interchange in Example 4, there is no overt evaluation; the mother does not explicitly label the child’s responses as right or wrong, good or bad. However, the social activity in which the two participate is instructional in nature, the discourse form that ensues is one that entails an obligatory response from the child (although one scaffolded by the mother), and the focus of attention is a written text. All of these factors make this activity one that is highly compatible with the communicative activities that children typically encounter in the classroom. Moreover, like many academic discourses, the talk during this episode is grounded in what Scollon and Scollon (1981) term essayist literacy. Essayist literacy, manifested in written genres such as fiction and scientific texts, entails a more distant relationship between speaker and hearer. A trademark of Western literacy is the way in which authors distance themselves from events by creating an authorial voice removed from moment-to-moment exchange with the reader. Such literary practices have, according to the Scollons, become part of the presentation of self, the ways in which many Western middle-class speakers position themselves vis-à-vis other persons and other texts.

The work of the Scollons, and that of other anthropologists and sociolinguists, has revealed important differences across communities and cultures in children’s language socialisation. Returning to James Paul Gee’s terminology, one might say that children in different communities are enculturated into different Discourses reflecting the language practices, values, and ways of acting and believing characteristic of their communities. Moreover, not all of these Discourses are ones that closely match the essayist forms of discourse described by Scollon and Scollon.

Research that illustrates this point comes from Shirley Brice Heath’s ethnographic study of the language socialisation of children in three communities in the Piedmont. Heath (1982, 1983) found that as children participated in differing kinds of social events, they were socialised into different ‘ways with words.’ Heath focused, in particular, on the narrative practices, or talk about
events, that she uncovered through research in three communities: two working-class communities, one Black and one White, of present and former millworkers and one community of 'townspeople,' White and Black middle-class members of a nearby town. This work, spanning nearly a decade, revealed narrative practices that were important links to children's later participation in classrooms. For instance, children from Tracton, a Black working-class community, were participants in rich oral language traditions. Heath noted the amazing abilities of some of the young members of this community to engage in verbal repartee and story telling. However, events were not subjected to 'stop-action' framing and verbal elaboration; adult caretakers did not break up events and place them in a narrative frame in a way that would resemble an instructional conversation ('now let's see what happens when we mix in the flour'). As one elder member of the Tracton community elaborated in reference to her grandchild Teegie's learning:

He gotta learn to know 'bout dis world, can't nobody tell 'im. Now just how crazy is dat? White folks uh hear dey kids say sump'n, dey say it back to 'em, dey asks 'em 'gain 'n' gain 'bout things, like they 'posed to be born knowin'. You think I tell Teegie all he gotta know to get along? He just gotta be keen, keep his eyes open, don't he be sorry. Gotta watch hixself by watchin' other folks. Ain't no use me tellin' 'im: 'Learn did, learn dat. What's dis? What's dat?' He just gotta learn, gotta know: he see one thing one place one time, he know how it go, see sump'n like it again, maybe it be de same, maybe it won't. He hafta try it out. (Heath, 1983, p.84)

Heath found that in classroom settings, children from Tracton found 'known information' questions unfamiliar and difficult. Worksheets that required them to siphon off subparts of words and sentences or to single out one particular aspect of an event were dissimilar to the ways with words of their community. Children from Roadville, a working-class null community, also experienced difficulties with school language practices. The need in the later elementary years to expand upon facts, providing explanation and elaboration or engaging in fictional story writing, was difficult for children whose primary language socialisation had involved 'sticking to the facts'.

Such ethnographic forms of research on preschool language socialisation within communities provide important detail on issues that are often associated with educational achievement, such as time spent interacting with books (Wells, 1986). For instance, Heath (1982, 1983) and Miller (1982; see also Miller, Nemoianu, and Delong, 1986) found that working-class mothers engaged in book reading with their children. However, the emphasis in these book-reading sessions was often on the labeling of items ('what's that?') or on the recall of information directly from the text. Such book-reading sessions did not resemble the instructional conversations (Tharp and Gallimore, 1988) that characterise middle-class language socialisation practices and that characterise the discourses within many academic disciplines, extending from the given or known to the realm of the hypothetical or fictional.

I will return to this topic of the 'ways with words' children bring to their primary grade classrooms in a later subsection, where I discuss the intersection of community discourses and learning that occurs in classrooms. In that later section and in my concluding statements, I will point out that classrooms cannot be viewed as divorced from the community-based language practices of children. If the goal of allowing all children full access to academic knowledge is to be met, researchers across disciplines must look seriously at how children's primary discourses do or do not mesh with the expectations of formal schooling. First, however, I need to provide an overview
of the forms of classroom discourse, or genres, that are linked to both ‘traditional’ instruction and instruction grounded in recent reform efforts.

**Discourse genres in the classroom**

As any primary grade teacher knows, one of the biggest tasks facing young children entering school is that of mastering the forms of discourse and social activity appropriate within different settings. Participating in a whole class discussion involves a different set of social roles, forms of discourse, and modes of activity than, for instance, engaging in symbolic play with peers. Each form of classroom activity has an associated set of participant structures, ways in which participants in the activity socially and linguistically orient themselves to one another and to the activity at hand (Au, 1980; Erickson and Shultz, 1981; Harness-Goodwin, 1990; O’Connor and Michaels, in press). Erickson (1996) provides a fascinating study of just how difficult the process of ‘learning the ropes’ is. Children must learn not only what to say and how to say it but also when to say it. Appropriate timing can be as critical as getting the ‘right’ answer; children have to be attuned to any number of contextualisation cues (Gumperz, 1982) in order to participate successfully in classroom discussions. In class discussions, what counts as ‘right’ may depend as much on the social appropriateness of a response – its adherence to the exigencies of a certain discourse genre or participant framework – as on children’s academic ‘content knowledge’ (Edwards, 1993).

Intimately linked to participant frameworks are the forms of discourse that are partly constitutive of them. Classrooms, like any other social setting, are characterised by stable discourse genres: forms of talk and writing that can be attributed to particular groups of speakers or writers doing certain things at a given location, often at certain times of the day (see Bakhtin, 1986, for a theoretical discussion of speech genres). Speakers, typically unconsciously, recognise bounded events as speech activities (Gumperz, 1982) that are defined by modes of discourse and forms of activity. As I noted earlier, children entering the classroom in the early morning hours do not need to be told how to participate in Morning Circle, they know through repeated participation the forms of talk and participant structures that define that speech activity. Without the existence of these ‘relatively stable types of ... utterances’ (Bakhtin, 1986, p.60), classroom communication and learning would be impossible.

**IRE/IIF: the unmarked case?**

Across the literature on classroom discourse, certainly the most robust form of talk documented has been that of the Initiation-Response-Evaluation (Cazden, 1988; Mehan, 1979) or Initiation-Response-Follow-up (Sinclair and Coulthard, 1975; Wells, 1993) sequence. This genre has come to be viewed as what linguists call the unmarked case; it constitutes somewhat of a norm. Perhaps the robustness of the IRE/IIF sequence across classroom settings can be related back to the example of mother-child interaction shown in Example 4. There, as the more capable adult in that example assumed an instructional role, she provided conversational slots so that the child could successfully participate in joint book reading. The provision of such slots or openings for learners may be a means through which caretakers, and teachers, provide access to discourses and forms of knowledge beyond the child’s independent means.

The IRE/IIF organisation of classroom lessons has been documented largely for group discussion activities in which the teacher asks a question, a child (or a group of children) responds, and the teacher follows through with a comment, often evaluative in nature. The following
example from Courtney Cazden’s own teaching illustrates the typical triadic structure of classroom lessons. In this example, the teacher has been eliciting children’s birthplaces as a means of helping them learn about geography, distance, and family origins. One student, Prenda, has been called on to identify her birthplace and then to find it on a map.

**Example 5: The IRE/IRF Sequence in Classroom Lessons**

Teacher: Uh, Prenda, ah, let’s see if we can find, here’s your name. Where were you born, Prenda? [initiation]

Prenda: San Diego. [response]

Teacher: You were born in San Diego, all right. [evaluation]

Teacher: Uhm, can you come up and find San Diego on the map? [initiation]

Prenda: (goes to board and points) [response]

Teacher: Right there okay. [evaluation] (Cazden, 1988, p. 32)

In some cases, the IRE/IRF sequence has come to be associated with broader teaching practices or philosophies, such as the direct instruction of skills or the elicitation of so-called known-information questions, questions where the teacher is seeking the ‘right answer.’ The IRE sequence has, for some educational researchers, come to be associated with a ‘skill and drill’ mode of instruction, and reform efforts have therefore made such modes of communication one of their primary targets of change. However, Longo (1994) and Wells (1993) point out that more directive or evaluative instruction can coexist with the forms of talk associated with inquiry learning or ‘teaching for understanding’ (for discussions of discourse grounded in inquiry, see Ball, 1991; Hiebert and Wearne, 1993; Lampert, 1990, Tharp and Gallimore, 1988). This is particularly the case when one extends the IRE sequence to include all forms of discourse that are triadic in structure, which ultimately is the case for most classroom discourses.

In his article ‘Reevaluating the IRE Sequence,’ Gordon Wells (1993) describes how one classroom teacher moved between direct modes of instruction involving a triadic form of discourse with explicit evaluation and discourse that resembled more what Tharp and Gallimore (1988) refer to as an instructional conversation. This can be illustrated by the following two examples from his article. In the first, three students in a third-grade classroom have been developing methods for measuring time. They have access to a science textbook, as well as various artifacts (bottles, measuring jugs). The teacher holds a conference with the students to make sure that they understand the goals of the cooperative task.

**Example 6a: Reevaluating the IRE Sequence**

The teacher (T) and students (Emily [E], Lily [L], Veronica [V]) have been looking at the textbook they are using, in which instructions are given for performing the activity.

T: Here the picture (a cartoon of children doing the activity) suggests that you can clap, but are there other ways that you can use to figure out how long it takes for the bottle to empty?

E: Stamp your feet

T: Stamp your feet, good (.) another way?

E: Ez snap

T: Snap...

OK, besides using your hands and feet, what other methods could you think of?

T: Stop watch

L: No, you’re not supposed to use a clock and a watch

V: (unintelligible)
T: OK, so I put the problem to you: Think of as many ways as you can (.) to figure out the time it takes (.) for you [Emily] to empty the bottle compared to her [Lily], compared to or Veronica. Now the next problem I would like you to think about is (.) what are (.) what the three of you are doing (.) is it a fair test? The meaning of ‘fair test’ is if you empty a bottle–say if you [Emily] fill the bottle half (.) and Veronica fills her bottle full (.) would it be a fair test?

V: No

E: No (.) you have to – if I filled my bottle half and to make that a fair test she would fill her bottle half

T: That’s right. . . . (Wells, 1993, pp. 18-19)

This example illustrates a fairly direct mode of instruction in which the teacher overtly evaluates students’ responses to her questions. In a later conference, however, the discussion resembles more an instructional conversation. This conference occurred after Emily, Lily, and Veronica had worked cooperatively to devise ‘fair’ methods of measuring time. In Example 6b, the teacher’s role has shifted to one of a conversational partner inquiring about the work of the three students. Her follow-ups to students’ responses often take the form of further questions, clarifying the students’ ideas or revoicing them (for slightly different depictions of revoicing, see Bill et al., 1992; O’Connor and Michaels, 1996). In Example 6b, the teacher’s follow-up questions or revoicings allow the students to have the last word.

Example 6b: Re-evaluating the IRF Sequence

T: So how are you all doing?

E: Fine

T: What did you all do?

E: Well, what we did was we used cups and then we started um – I start clapping when we (got back) and we counted the exact with the cups –

V: Like whenever anyone –

E: and then we started pouring the bottles

We [Emily and Veronica] were about the same (.) three and she [Lily] had four And right now we’re wondering why she had four because probably she um (.) poured out slowly (.) or – and probably we poured it out real fast

T: You used these containers? (pointing to plastic cups)

E: No, we used the Five Alive-

T: The Five Alive bottles?

E: Yeah, these [cups] are to keep the beat

T: OK, so you – so that is a good observation – you observed (.) that Lily’s count (.) was much (.) less–more or less?

E: More

T: – more (.) than both of you (.) and you figured that it’s because of the way she poured it.. . . (Wells, 1993, p. 23)

Wells (1993) concludes that the IRF discourse genre can encompass a number of different instructional functions depending on the tasks and goals in question. It may be that the IRF genre is an overarching form of discourse organisation (the unmarked case) reflecting the teacher’s greater authority and more mature understanding of disciplinary practices and concepts. However, if one extends the IRF to include all forms of triadic discourse (or IRF), as Wells has done, this genre can be viewed as encompassing a constellation of quite heterogeneous speech activities. In other words, although the discourse structure of the IRF may be constant across instructional settings, its functions may vary widely.
Other classroom genres
Triadic forms of discourse may characterise much of classroom instruction, even instruction that is more conversational in nature. However, teachers or students sometimes engage in a more monologic form of talk. A child in a mathematics classroom may be asked to elaborate on how she arrived at her answer to a problem. As the child speaks, she constructs a short history of her solution to the problem, what Paul Longo (1994) refers to as a ‘mathematical narrative.’ A child in First Circle or Morning Circle might be invited to tell a narrative of personal experience. Other children seated in a circle on the rug area listen as the child relates a personally experienced event, sometimes centered around an object that she has brought to school. In these kinds of communicative interactions, the speaker is given the floor for a much longer period of time. The rules of the game— the participant frameworks that define social roles and obligations— have shifted somewhat so that the speaker no longer expects an immediate response. Moreover, the responses from both the classroom teacher and fellow students often serve to clarify or extend points from the speaker’s narrative rather than evaluate the correctness of the speaker’s answer.

Narrative discourses, oral and written texts representative of a series of connected events, may be another overarching discourse genre in the classroom, one with many variations in both form and function. A narrative of personal experience or explanation can crop up in nearly any classroom discussion. Indeed, some classroom communicative activities are constituted largely by narrative discourses. Two examples that come to mind are (a) Morning Circle or First Circle and Sharing Time, where children construct narratives of personal experience (Dorr-Bremme, 1992; Kantor, Green, Bradley, and Lin, 1992; Michaels, 1981), and (b) Journal Writing, where children typically write journal entries grounded in fictional or personally experienced events (Dyson, 1989, 1993; Hicks and Kanevsky, 1992).

Some educators and educational psychologists have argued that narrative discourse is developmentally more accessible to young children. Kieran Egan (1988, 1993), for instance, has argued that young children acquire new knowledge most easily when potentially difficult concepts are embedded in story form. An abstract concept such as ‘good versus evil’ is easily understood by young children when it is embedded in the characters of the Teenage Mutant Ninja Turtles (the good guys) engaged in battle against Splinter and his foot soldiers (the bad guys). Others have suggested that narrative discourse be viewed as a constellation of discourse genres, some having story form (‘Once upon a time . . .’) and others representative of more essayist forms (‘This is how I got my answer . . .’). In my own work on narrative discourse and classroom learning (see Hicks, 1993). I have argued that narrative discourses should be examined in light of the speech activities in which participants are engaged. In this sense, narrative can be explored as a family of discourse genres in which children and teachers construct extended oral or written texts that order, describe, explain, or employ events, both real and fictional.

Studies of children’s language use and classroom learning have suggested a relationship between such extended talk about events and children’s successful participation in school tasks (Snow and Kurland, 1996). In large part, such studies have connected children’s narrative performances with their literacy learning. Since oral narrative genres represent extended discourse in which the speaker constructs a text as opposed to a single utterance, studies of children’s oral narratives have been viewed as a possible window on their classroom literacy learning. Such work has often been focused on sociolinguistic differences in the narratives constructed by children from differing communities. Recall that Heath’s ethnographic study of communities’ ways with words
revealed important differences in narrative socialisation. In subsequent studies of children's classroom narratives, Michaels (1981) found cultural differences that supported Heath's work. The Sharing Time narratives of Black children were rooted more in an oral discourse style, where events were connected through linguistic devices like repetition, such as one might find in poetry. The Sharing Time narratives of White children tended to be more essayist or 'literrate' in nature, in that a single topic was chosen and events connected to the topic were related in a sequential manner. Researchers like Sarah Michaels have concluded that differing forms of narrative discourse may provide children with differential access to literacy. As Scollon and Scollon (1981) note in a chapter titled 'The Literate Two Year Old,' preschool children in many middle-class families may be literate long before they are able to read and write.

Research on narrative discourse genres in the classroom, however, is not only important for understanding children's abilities to read and write, as literacy has been traditionally viewed. Extending from the theoretical perspectives that I described in the first section, narrative discourses could be viewed as a window onto children's appropriation of literacies, in the broader sense. Talking and writing science does not simply require the construction of texts with sequenced events; it requires the production of certain kinds of narrative texts. The latter is not always an easy task for young children.

In this discussion of 'other' classroom discourse genres ('other' in contrast to IRE/IRF triadic discourses), I have concentrated largely on narrative genres: stories, reports, and descriptions or explanations that result in an extended turn of talk. There are many other genres of classroom discourse that one could identify. Some of these might be positioned as subgenres of the two larger ones that I have focused on here. Lemke (1990), in his study of classroom science talk, identifies any number of what Gumperz (1982) would term speech activities, in which participants share assumptions about who does the talking and what forms of talk are appropriate. Speech activities such as Going Over Homework, Calling the Roll, and Class Announcements are all repeatedly experienced forms of social activity that are partly constituted by discourse practices. Each of these speech activities can be identified by characteristic forms of discourse that are fairly predictable from the setting. For instance, Calling the Roll or Attendance might be identified by a sequence of exchanges in which the teacher nominates a child to take attendance, the child calls the roll, and other children respond 'here' or 'present.'

It is in this sense that written and oral discourse genres are intimately connected to classroom activity structures (Lemke, 1990; Wells, 1993). A journal entry that has story form, as did Janeen's 'horse' entry in Example 1, for instance, emerges in response to a particular activity structure: Journal Writing. One could examine any number of classroom genres and their concomitant frames of social activity. Instead, I have chosen to focus on two overarching genres that have played an important role in researchers' efforts to understand links between classroom discourse and classroom learning.

Notes

1. The following transcription symbols are used in Example 1 and other examples throughout this review: ‘—’ indicates very short pause or breath intake, ‘—’ indicates longer pause; ‘=’ indicates lengthened vowel, ‘—’ indicates stress on word, ‘—’ indicates increased volume, ‘—’ indicates absence of pause between utterances. Overlapping utterances by more than one speaker are thus marked by their horizontal placement on one line or vertical placement underneath one another.

2. Janeen is a member of an urban African American community that makes use of grammatical forms typical of what sociolinguists refer to as vernacular Black English or simply Black English (see Wiefenbach and Fasold, 1974, for
discussion). In my gloss of Janeen’s science diary writing, I have maintained these grammatical forms rather than attempting to ‘correct’ them to mainstream standard English.

References


