Learning To Read and Write through Classroom Talk.
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Noting that conversation between adults and young
children is a well-known stimulus to language development, but that
conversation is seldom fully used in the classroom, this paper argues
that conversations can and should be used more. It presents a range
of research findings and classroom examples to support that argument.
Chapter 1 examines the role of talk in the learning process and
chapter 2 discusses Vygotsky's theory of sign operations and
cognitive development. Chapter 3 explains Bruner's thesis of a
Language Acquisition Support System. Examples of literacy activities
in the classroom are presented in chapter 4. Chapter 5 examines the
role of teacher-child conversation in the development of writing
skills in a study of children during their first formal year of
schooling. Chapter 6 offers an example of how a young child uses
spoken language to control such mental processes as attention and
memory and uses these skills in the process of learning written
language. The final chapter proposes that teachers develop a
familiarity with their students that is tied to classroom activities
and situations in order to encourage more productive types of talk in
the educational setting. (TJQ)
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The Role of Talk in Learning

While there has been widespread interest in the way that conversations between adults and young children contribute to spoken language acquisition, very little interest has been shown in what would seem to be a similar relationship; the influence of teacher talk on the development of written language. However, where studies of classroom talk have been done the results have been consistent. They indicate that schools do not generally provide environments which foster the language development of children. Teachers dominate classroom interaction, they ask most of the questions and make most of the requests, they choose the topics for discussion and decide how those topics are to be developed. Furthermore, the questions teachers ask are frequently not real questions which allow children to make genuine contributions to class discussions. Instead, they require children to display knowledge the teacher already possesses. Such questions have been variously called display questions, test questions and pseudo-questions.

Teacher dominance of talk in school is also reflected in studies of the structure of classroom discourse. A number of these studies have identified a characteristic Initiate-Respond-Feedback exchange structure as the basic unit of discourse in most lessons, especially those involving large groups of children. In such exchanges the teacher both initiates the interaction and provides feedback. The pupil, for the most part, only plays the role of respondent (Sinclair and Coulthard 1975).

Other studies have drawn comparisons between the child's experience of language use at home and at school. McLure and
French (1981 pp. 205-239), for example, make the point that children do not encounter unfamiliar interactional routines when they enter school for the first time. The data collected during the Bristol Language Development Study showed that, since the types of interactional structures found in the formal educational setting (including pseudo-questions) are also used by parents at home they are not foreign to children when they begin school. Nevertheless, the demands of managing interaction with large groups of children often causes teachers to use language for such purposes as the management of group attention, the allocation of conversational turns and monitoring the children's progress in learning. This means that children not only speak less with adults at school than at home, but also have briefer conversations, make fewer requests and rarely initiate exchanges or ask questions.

What would seem to be lacking in the child's school experience, then, seems to be extended transactional exchanges between adult and child which permit the negotiation of joint meanings within an intersubjectively constructed frame of reference (Bridges, Sinha and Walkerdine 1981 pp.115-166). In other words, there seem to be limited opportunities in school to participate in the forms of discourse which seem most likely to lead to the development of comprehension and the construction of meaning (Bruner and Haste 1987). If this is true, then the predominance of these patterns of discourse in our schools might well be inhibiting the learning opportunities of children at all levels of education.

Another perspective on the structure of classroom talk was developed in a classic study by Mehan (1979) who says that a classroom lesson, like other forms of discourse, requires participants who do not just take part in the lesson, but mutually construct it in accordance with tacit rules of conduct. On the basis of his analysis of a series of videotaped lessons of a teacher working with a class of children in their first year of school he developed a detailed description of the classroom lesson as a sequentially and hierarchically organised structure with a three-part Initiate-Respond-Evaluate exchange as its basic unit. He also described the ways in which the children gradually learned how to behave appropriately within the structure of such lessons. Like McLure
and French, he noted that there is some overlap between the language of schooling and the language of everyday life. But, Mehan says, the

'...differences between interaction in events inside and outside the classroom reminds us that the academic aspect of schooling is enmeshed in a normative web.' (Mehan 1979 p.195)

There are tacit rules governing what it takes to be a competent student and academic success therefore depends upon learning a form of communicative competence specific to schools.

The position is, then, far from clear. There is agreement that an overlap exists between children's experience of talk before and after they begin school. At the same time it is recognised that adult-child exchanges at school differ from those in the home, especially in the fact that adults dominate and direct school talk. Tizard and Hughes (1984), for example, note that a belief seems to exist among nursery school teachers that language can be fostered through questioning and that staff-child interaction appears to be driven by this belief. They go on to note that

'The dialogue that ensues [in nursery schools] is very different from conversation at home, and often seems educationally ineffective. This is because the children frequently fail to answer, or become confused by the staff's questioning, and fail to contribute to the conversation themselves. The puzzling mind of the four-year-old has no outlet in a setting where the child's basic role is to answer and not ask questions.' (Tizard and Hughes 1984 p.255)

This is just one expression of the concern that is felt over the potentially stifling effect of adult talk in educational settings. On the other hand, the point is reasonably made that talk in schools, like talk in every other social setting, has its own patterns of discourse which must be learnt by children as a pre-requisite to being viewed as competent participants in that setting. One of the benefits of a clear lesson structure, it has been said, is that it allows
participants to attend to content rather than procedure. Cazden (1988) states the position as follows:

'To the extent that a lesson structure is consistently enacted by the teacher (with flexibility for improvisations...) and learnable by her particular students, it can become sufficiently familiar and predictable to offer clear cues to the shifting contexts, and to the talk that is appropriate within them. Management problems will thereby be minimised, and teacher and students can all give more attention to the academic focus of the lesson.' (Cazden 1988 p.48)

However, Wells (1986) argues that the language of schools should be more like language outside the school. It is not possible, he says, to specify in advance the sequence a child’s learning will follow. The child’s role as partner in the educational process should, therefore be acknowledged. Instead of conceptualising teaching as a process which requires an adult to carefully select and sequence input for a child, teaching should be viewed as

'...essentially a matter of facilitating learning, and where that learning depends on communication between the teacher and the learner, the same principles apply as in any successful conversation. The aim must be the collaborative construction of meaning, with negotiation to ensure that meanings are mutually understood.' (Wells 1986 p.101)

In other words, interactions between teacher and child should more closely approximate interactions between mothers and their pre-school children. This is a view of the educational process which remains to be seriously tested in schools. In this chapter we will attempt to examine some of the ways the patterns of discourse that existed in one kindergarten classroom contributed to the growth of the children’s control over literacy. But before that can be done it is necessary to explain the nature of the theoretical positions which provide the basis for our analysis.
Vygotsky: Sign Operations and Cognitive Development

In Vygotsky's account (1978) of cognitive development it is the capacity to use signs which distinguishes humans from animals, even the most closely related species of apes. The crucial feature of the sign operation, he says, is that it permits human beings to control psychological processes like perception, attention and memory from the outside. Instead of responding to the dominant stimuli in the perceptual field, human beings are able to introduce links between stimuli and responses which inhibit direct impulses and allow complex psychological processes to develop in their place. These links, voluntarily introduced into a situation to replace natural stimuli as the causes of behaviour, are 'signs' according to Vygotsky's use of the term. To use one of his own examples, tying a knot in a piece of string as a reminder that something must be done extends the biological limitations of memory. Remembering is transformed into an activity which is controlled externally by a voluntarily generated sign; the knot. Through the deliberate production of such signs human beings are able to remember in a more controlled and goal-oriented manner.

Another example of how the sign operation works can be found in the difference between the disorganised shopper at the supermarket who wanders around selecting items on impulse, and the shopper bearing a list of items which are needed for specific purposes. The shopping list acts as a mediating influence on natural memory, helping the shopper to resist immediate impulses and to search instead, for items which might not be obviously
displayed on the shelves. It operates to control not just memory, but attention and action as well. It re-structures the mental processes as they relate to shopping, and consequently gives a new shape to the activity.

The voluntary generation of signs does not just facilitate problem solving. It also has an impact on cognitive development. The restructuring of mental processes and behaviour through the use of signs, Vygotsky says, leads development

'...away from biological development and creates new forms of a culturally-based psychological process'. (Vygotsky 1978 p.40)

The cognitive processes of the individual, he claims, are determined largely by what the culture makes available. Alexander Luria, one of Vygotsky's colleagues, investigated the impact of the cultural changes that had occurred in remote rural communities in Russia after the revolution. He concluded that the social and cultural changes that had taken place (including the mastery of literacy) had led to major shifts in human mental activity which were

'...not limited simply to an expanding of man's horizons, but involve the creation of new motives for action and radically affect the structure of cognitive processes.'(Luria 1976 p.161)

According to Vygotsky, this is also how individual cognitive development proceeds. The child's growing control of the sign systems of the culture produces new forms of cognitive development. It is possible, of course, for people to create and use idiosyncratic signs like the knot in the string, but it is the acquisition of spoken and written language which causes the distinctively human forms of cognitive development to occur.

In fact, it is the acquisition of language which Vygotsky says provides a paradigm for the problem of the relationship between learning and development. It illustrates the ways in which external operations, which occur first on the social level, are gradually internalised. Language is a sign system which is first learnt by children in order to communicate in culturally appropriate ways.
VYGOTSKY: SIGN OPERATIONS AND COGNITIVE DEVELOPMENT

with the people in their immediate environment. Then, over time, their language is re-constructed until it becomes a mental process in its own right which serves to organise their thought. According to Vygotsky every one of the higher psychological processes develops in this way, as sign operations are transformed from interpersonal processes into intrapersonal ones. Learning comes first, and leads on to types of cognitive development which would not have occurred without it.

This means, for example, that learning to write marks the beginning rather than the end of a developmental phase. Literacy is not just a set of skills to be mastered. It goes on to create specifically literate ways of thinking. Nevertheless, learning does come first and development lags behind, creating 'zones of proximal development'. Vygotsky defines these zones as the distance between the level of development indicated by the children's capacity to solve problems independently, and the level of potential development indicated by their capacity to solve problems with the guidance and collaboration of other people. Learning which is achieved in a zone of proximal development is a sign-post indicating the direction of future development. As children encounter problems they cannot solve for themselves they turn to others for help. It is through such interactions that children 'grow into the intellectual life of those around them' and lay the foundations for the development of the distinctively human forms of mental functioning.
3
Bruner and the Language Acquisition Support System

Like Vygotsky, Bruner (1983) stresses the importance of social and cultural influences on cognitive development. The peculiar intellectual competence of human beings, he says:

...'is both biological in origin and cultural in the means by which it finds expression. While the capacity for intelligent action has deep biological roots and a discernible evolutionary history, the exercise of that capacity depends upon man appropriating to himself modes of acting and thinking that exist not in his genes but in his culture.' (Bruner 1983 p.23)

This thesis is fundamental to his explanation of the development of talk in small children. While accepting that humans are genetically predisposed to learn language he asserts that those propensities are only realised when children enter into transactional exchanges with adults. He proposes that there is a Language Acquisition Support System (LASS) through which adults structure the child's language input so that children learn, not just the grammar of the language, but also how to use it to refer and mean, and to communicate their intentions. It is the patterns of social interaction, he says, which not only activate the children's genetic predispositions to learn language, but also provide frameworks within which they can discover the ways language can be used to get things done.

The principal feature of the Language Acquisition Support System is the format; a routinized and repeated interaction be-
between an adult and at least one child. It consists of a series of 'moves' that define the context and make it predictable, providing a framework within which the meanings applicable to a specific situation can be negotiated. This standardisation of structure further helps children to make sense of the context by distributing their attention over a series of ordered steps. By working within the familiar boundaries of a format, the adult is able to simplify the situation so that children are able to make functionally appropriate responses despite their lack of knowledge, or awareness of what is expected of them. What is involved is a division of labour and initiative which begins with the adult doing most of the work and providing most of the impetus which is needed to sustain the interaction. Gradually, however, as the children's competence grows, control is handed over to them. In fact, Bruner says that the mother of an infant behaves as a 'communicative ratchet' which works to resist any regressive tendencies. Instead, she constantly 'ups the ante' by raising her expectations in accordance with her child's developing knowledge and skills. A very important part of what the child is learning, in such contexts, is to master the patterns of discourse themselves. The child learns how to function within the format, but as she does so the format itself changes, through a series of transformations, from a restricted and highly structured interaction pattern, to a more flexible one which can be detached from its original context and used to solve other problems in new situations. This capacity to impose structure on an unfamiliar situation becomes an important aspect of communicative and cognitive growth.

In Actual Minds, Possible Worlds, Bruner refers to a study conducted with Wood and Ross (Wood, Bruner and Ross 1976) in which Ross taught small children to build a pyramid out of interlocking wooden blocks. During the tutoring sessions Ross was the one who controlled the focus of attention and kept the ultimate goal in mind. She demonstrated that the demands of the task were not impossible and reduced it to sub-tasks which were appropriate to the children's current capacities. She did the things the child could not do, and she changed the structure of the context so that the children could, with her assistance, do the things they could not do
by themselves. As the tutoring proceeded she handed control over to the children as they showed themselves able to complete parts of the task which were beyond their abilities when the tutoring began. In other words, she worked with the children in the zone of proximal development, allowing them to 'borrow' her knowledge and consciousness in order that they might eventually be able to solve independently the problems involved in the task (Bruner 1986 pp. 75-76).

The same processes were also evident in Bruner's investigations of children's talk which have already been mentioned above. Mothers interacting with their infant children, also act as 'consciousness for two'. They create 'formats' which provide a predictable but flexible interactional structure which makes it easier for the child to learn. In these studies the development of reference was one of the areas of special interest. With Ninio (Ninio and Bruner 1978) he observed a mother engaged in 'book reading' sessions with her infant son as a way of investigating the processes through which naming is managed. During these sessions the mothers produced only four key utterance types which appeared in an order which was said to be 'remarkably stable'. The utterance types and their order were:

1. An attentional vocative. (*Look!*)
2. A query. (*What's that?*)
3. A label. (*It's a horse.*)
4. Feedback. (*Yes*).

Once again, as in Ross's tutoring sessions, the adults try first to establish joint attention. They then try to make the children aware that there is a standard vocalisation which 'stands for' the referent, and then provide feedback that tells the children whether they have provided an appropriate response. Once naming can be achieved routinely by children, the adults move into a new zone of proximal development in which children learn that naming the referent is simply prerequisite to commenting upon it. The adults are not only always sensitive to what children are capable of doing,
but also raise their expectations in accordance with their assessment of children's growing abilities so that a mother, for instance,

'...remains forever on the growing edge of the child's competence.' (Bruner 1986, p.77)

What is of special interest, of course, is the extent to which these observations of the process of language acquisition can be taken to be true of learning in general. Bruner, in commenting on this issue, writes:

'While I think there are enormous differences between the way language is acquired and the ways other forms of knowledge and skill are acquired, I agree with Vygotsky that there is at least one deep parallel in all forms of knowledge acquisition — precisely the existence of a zone of proximal development and the procedures for aiding the learner to enter and progress across it.' (Bruner, 1986 pp.77-78)

Identifying this zone of proximal development for individual children and working with it towards progress and development for each child is the hallmark of successful teaching. This teaching can be observed between adults and children at home as discussed above, as well as within the context of busy classrooms. In the discussion that follows we will examine the patterns of interaction between one teacher and a number of the five year old children she was teaching to read and write during their first year at school. Even though all the children observed could, at the beginning of the school year, recognise and name most of the letters of the alphabet and write several words, they could not read the simplest of texts or write a sentence. However, with the assistance of their teacher, they were able to solve literacy problems which they obviously could not solve by themselves.

From the earliest sessions, guided closely by their teacher, these children were able to produce and read back simple sentences. By definition this places them in a zone of proximal development and it is for that reason that their behaviour, and that of their teacher, might help to throw light on the relationship between learning to speak and learning to be literate. The body of data from which the
sequences are drawn is made up of videotaped literacy sessions involving one teacher and several of her pupils. There are also supporting field notes providing the additional information necessary to understand fully what was happening during the videotaped exchanges.
Establishing the Patterns of Discourse

In order to understand what is happening in the classroom sequences that follow we first need to know about the other literacy activities which occur within the classroom, because it is in those activities that we can discern the origins of patterns of discourse which typify the exchanges between the teacher and individual children. The effectiveness of those exchanges depends upon understandings which have begun to accumulate in the first fortnight of the school year. These understandings include the children's awareness of the displays of print in the classroom and their knowledge of the strategies for writing text which are part of the regular blackboard story sessions conducted in the classroom. The children often do not need to be told explicitly what is expected of them because they know, from repeated experience of the patterns of talk in literacy sessions, what they should do.

A central part of the literacy instruction offered in this classroom is the regular group story writing activity which normally precedes the individual writing session. During this activity the teacher writes a 'story' with the children's 'assistance'. The 'stories' are extremely varied. They include simple sentences like, 'On Wednesday we are having our Pet Show'; reproductions of poems the children knew; letters and jokes. From the beginning of the year the children attend closely to what is being done and participate enthusiastically, although not always productively. As the year progresses the children contribute more rapidly and accurately to
the construction of the text, and the text itself becomes longer and more complex.

In order to give an impression of the nature of these sessions part of one of these writing sessions from early in the year will be described below in some detail. This session is taken about four weeks after the beginning of the school year.

The Blackboard Story Session.
Rhonda, the teacher, starts the session by telling the children what is going to be written:

'All right. Listen to my story today. *Friday is my favourite day*. Remember I told you Friday is my favourite day? (pause) Why is it my favourite day? What do we get tomorrow?'

A child says, 'We get a holiday.'

'We get a holiday. Well that's my story for today. *Friday is my favourite day* because tomorrow we have a holiday.'

Rhonda says, 'Listen again.'

Then she repeats it and says, 'So my first word in my story is *Friday*.'

(In other story sessions this will become a question. 'What is the first word in my story?')

As soon as she says this, some of the children volunteer the first letter to be written, but Rhonda wants to use this occasion to teach them about the process of locating and copying words that are on display in the classroom, so she says:

'Just a minute. What I want you to do is think about *Friday*, and think about if I've ever written *Friday* anywhere in our room. Or if you've ever seen the word *Friday*.'

In fact one of the sentences in the blackboard directly in front of the children is, 'Today is Friday.' Above the blackboard is a permanent display of eight cards. On the first card is written, 'Do you know the days of the week?' To the right of this card are seven others with an outline of a dog on each and the days of the week,
one to a card, each one in a different colour. The details are important because they provide the children with ways of referring to the words even if they cannot name the letters. For example, a child in another session who had been asked where he could find 'Wednesday' identified it by saying, 'It's on the dogs. The yellow one.'

Many of the children look towards 'Friday' on the blackboard.

Rhonda notes their response and says, 'And now I want you to spell the word 'Friday'. What do I write first?'

She puts her stick of chalk to the blackboard ready to write and says, 'Friday.'

Some of the children call out 'F' and she writes it.

She asks, 'What comes next?'

A number of children chorus call out the second letter.

Rhonda writes it. Then she turns and looks expectantly at them without speaking.

They call out the next letter and she writes it.

She turns back to them again and is provided with the 'D' and then the 'A' and the 'Y' without needing to turn back again to prompt the required response.

Rhonda runs her finger left to right under the word.

'Right,' she says, 'Friday.'

She looks towards the children again. 'Now I want the word 'is'.'

She makes the sound of the initial phoneme twice.

One or two children call out, 'El' and others follow their example.

Rhonda writes it and then turns back to the group again, saying, 'Ssss.'

Some of the group respond immediately with 'S.'
Rhonda writes it. She turns so that her body is angled to the blackboard but is also half-facing the children.

‘Right. Let’s read what we’ve got,’ she says, and she points as she reads, *Friday is...* ending with a rising intonation.

Some of the children echo her as she reads.

Rhonda pauses briefly before turning to face them, saying with heavy emphasis, ‘...my.’

A few of the children say, ‘M!’

As she writes it she says, ‘And what comes after the ‘M’?’

The responses are confused this time. Some children say ‘S’, others ‘M’.

Rhonda shakes her head and says, ‘No. What’s ‘my’. ‘My’. She exaggerates her articulation emphasising the end of the word.

One child says, ‘I.’

Rhonda writes the letter and then turns back to the group immediately.

On a small table in front of the blackboard is a sentence made up of cards from the *Breakthrough to Literacy* materials. It is clearly in view of the children.

It says, ‘*My mum is at home.*’

Rhonda says, ‘Is it an ‘I’?’

Several children call out various letters.

Rhonda asks, ‘Who’s someone that said another letter...for ‘my’? We know the word ‘my’...My name is...’

(Shes points in the air as she speaks as if indicating the words in a written sentence.)

‘*My mum*...’ We know that because...’

She pauses. ‘Is it an ‘T’?’

The children chorus, ‘No.’ One child says, ‘Y!’
ESTABLISHING THE PATTERNS OF DISCOURSE

Rhonda replies, 'Y. How do you know that Amy?'

Amy's reply is indecipherable but Rhonda responds, 'On your stencils.'

Amy remembers the word because Rhonda has introduced them to it both with the Breakthrough to Literacy materials and through a worksheet.

Rhonda goes on, 'Can anyone see the word 'my' in our room somewhere?'

She looks towards Hannelore, ignoring a boy with his hand up.

'Hannelore. Can you come and show us where 'my' is?'

Hannelore comes to the front of the room and points at a word in the Sentence Maker (a large folder containing the Breakthrough to Literacy word cards.)

Rhonda says, 'No. That one's 'this'. Who knows the word 'my'?

As Rhonda speaks she looks at 'my' in the sentence on the table.

Hannelore follows her gaze but Rhonda does not notice. She turns back to the children and starts to speak to one of the boys who has his hand up, 'Come and show ...'

In the mean time Hannelore has stepped forward and pointed at 'my' in the sentence.

Rhonda notices and turns towards her. 'Yes. Good girl! My'.

She touches the card. 'That was my'

She taps the card lightly with her finger.

The session proceeds from there until the sentence is complete, but we have enough to be able to discern its general structure. Rhonda is establishing a framework that the children will be able to use as they attempt to write their own texts during the individual writing sessions. That framework, as it is displayed above, includes the following features:

1. A clear statement of the sentence to be written.
2. A request for identification of the first word.
3. Regular re-reading of the sentence to keep it in memory and to help to identify each successive word.
4. Development of an awareness of the words in the print environment of the classroom.
5. A search sequence initiated by a question directive of the type, 'Has anyone seen X?' or 'Can anyone show me where X is?'
6. A phonemic analysis sequence within which the teacher identifies the phonemes and the children suggest letters which match the phonemes.

This lesson does, of course, show a pattern of classroom talk which is very similar to that revealed by Sinclair and Coulthard (1975) and by Mehan (1979). It is controlled by the teacher who selects the topic, asks all the questions, makes all the requests and provides evaluative feedback. She also allocates turns to the children and decides which responses are to count as contributions to the activity. The children act exclusively as respondents and their answers to the questions (all of which are display questions) are brief. But it is also provides an interactional framework which is intended to develop the children's awareness of what it means to write a message, and to develop their capacity to become independent, self-regulating writers.

Of course it needs to be understood that the 'blackboard story' is not isolated from other literacy activities in the classroom. It is simply one of a number of activities which complement each other in developing the child's competence as a writer. For example, when Rhonda asks the children to think about whether she has ever written the word 'Friday' anywhere in the room, she is really reminding them that she had written 'Today is Friday' on the blackboard only fifteen minutes earlier. Consequently she is able to use it to demonstrated how print in the classroom can be used in the construction of a written text.

This is just one example of the way the print in the classroom is used as part of Rhonda's program of literacy instruction. The notices include 'This is the door', 'Here is the piano', 'Mrs. Fisher sits here', 'When is your birthday?', and 'Do you know the days of the week?'. Rhonda regularly directs the children's attention to
these notices, and asks the children to read them. She also asks the children to find and read copies of their own 'stories' which are displayed on notice boards in the classroom. The familiar poems displayed on sheets of coloured cardboard are also read from time to time, and there are lessons when Rhonda asks the children questions like, 'Where could you find 'play'/'circus'/'kangaroo'?' in order to initiate searches for words which are part of the classroom print environment. These searches are collaborative activities which are guided, if necessary, by Rhonda's clues to the location of items. These clues range from directed glances, to references to the circumstances under which the target word was recently written or read. And every day before the children return to their desks to write their 'stories' Rhonda asks each one in turn what they intend to write. On one such occasion Deborah says that she is going to write about riding on her bike. Rhonda asks, 'Where could you find 'bike'?' When Deborah can't manage to answer this question, Rhonda enlists the aid of Kate, who has used the word in one of the displayed texts. When Kate has identified the word by pointing to it, Rhonda asks, 'What does bike start with?' Several children reply appropriately.

Rhonda also conducts group reading sessions using 'big books'. These are large format books which can be placed on an easel so that a large group can see the picture and print clearly as it is read. Small but identical copies of the book are available in the classroom for the children to examine individually. Rhonda uses these sessions for a variety of purposes. On one occasion about four weeks after the beginning of the school year she read The Magic Fish with the class. The story is already familiar to the class. The children identify 'fish' in the title. Rhonda says, 'What's on the end of fish? Someone asked me yesterday about 'sh'. Fish.' Then she asks, 'How does it start? A lot of stories start like this.' A child volunteers, 'Once upon a time.' Rhonda reads the first sentence which contains the word 'fisherman'. She covers 'fisher' and asks, 'What does this say?' Some children recognise 'man' because it has been one of the words Rhonda has taught them before. She draws attention to the pictures as she reads. 'How does the picture help us?' she says. 'Even without the story you can tell he's a fisherman.' As she reads, the
children are encouraged to join in and say the repeated parts of the text. When the story is finished she asks, 'Is this a real story?' She follows this by telling the children that the stories they write don't have to be real either. 'Why do we have to make our stories interesting?' she asks. So they can be published a child says. 'What do people do with them when we publish them?' They read them, the children say. Even at five years of age these children are learning how to talk about books and writing.

All these activities help to contribute to the children's knowledge of literacy. That knowledge includes knowing the patterns of dialogue they can employ to solve their literacy problems in collaboration with a more knowledgeable partner. The blackboard story session, in particular helps to develop these discourse skills. Each child will vary in their knowledge and competence, and not all children will be able to make full sense of what is going on all the time during the writing sessions but that does not necessarily matter. As Bruner observes in his discussion of the growth of reference, asymmetries of knowledge always exist in any dialogue. Although Rhonda knows much more about literacy than the children, all that is needed to begin with is that the children should know enough to be able to sustain a dialogue. Their participation in the blackboard story sessions, for instance, helps them to do that. And if dialogue can be sustained, it is probable that labels will be assigned to referents in the context, meanings will become more specific, understandings will be negotiated and the children will gradually move towards greater control over the literacy process.
In our examination of the role of teacher-child talk in the development of writing we have focused on exchanges between the teacher and individual children. The discussion below deals mainly with the development of a 'search and identify' exchange which occurs repeatedly in the data. We will discuss the developments that are evident in the nature of these conversations over the first five months of the school year by discussing sequences which are representative of general trends.

The children involved in the study are just commencing their first year of formal schooling. At the beginning of the school year they range in age from four years and eleven months (Emily) to five years and six months (Kate and Hannelore). They were selected for observation because, although they were not yet literate, they seemed likely to benefit from literacy instruction in the first months of school. This judgement was made on the basis of interviews conducted during the first week of the school year which established that they could name most of the letters of the alphabet and understood the basic conventions of written language. They could write and recognise a small number of words, but none of them was able to write a simple sentence or to read the simplest of prose texts. Video-tapes were made of the teacher helping these children to write. Some whole class sessions were also recorded. Field notes were also made which recorded the features of the immediate physical context of the classroom, the nature of other types of literacy lessons conducted by this teacher, and details of
the videotaped sessions which might not otherwise have been recoverable at the time of later analysis.

In the first sequence Rhonda is helping Emma, (5:2) to write 'Stirling is having a birthday'. Emma has only been at school for two weeks. Consequently, she has had limited exposure to the routine activities of the classroom. Although she is not able to write a sentence independently at this stage of her development, she has framed her own sentence for this writing session.

When the sequence begins she has written, with Rhonda's assistance, 'Stirling es hay...'. Stirling has volunteered his name card to help her write the first word and she has copied from it. Subsequently Rhonda has broken 'is hav...' into phonemic segments and has helped Emma to locate letters to represent them. Each segment has been represented by a single letter. At the beginning of this sequence Rhonda identifies the next phoneme to be written: 'ing'. Charles, the boy sitting next to Emma, is taking a great interest in what is going on.

**Sequence One**

Rhonda: We've got the 'vuh'. Now we want the 'ing'.

Emma does not respond. She looks blankly into the middle distance.

Rhonda: Ing. She makes eye contact with Charles.

Rhonda: Can you remember this morning in our story what said 'ing'?

Charles: Ing. He breaks eye contact.

Rhonda: Ing. You remember...

Rhonda notices Stirling's name card on the table.

Rhonda: Oh...Stirling!

She makes eye contact with Charles again.

Rhonda: Like the 'ing' on the end of Stirling.

Emma looks at what she has written.
Rhonda: No. Like an ‘*ing*’.
Emma points at where she has written ‘*Stirling*’.
Because Rhonda has been trying to engage Charles in the conversation she does not notice.
Rhonda: *Ing*.
Emma: Oh.
Stirling’s name card is partly hidden by papers and the folders on the desk. Rhonda picks it up and places it on the desk directly in front of Emma.
Rhonda: Which bit would say ‘*ing*’?
Emma: This bit. Emma points at the beginning of the word.
Rhonda: No. That’s the ‘*Stirl*’.
(She runs her finger under ‘*Stirl*’). *Ing*.
(She runs her finger under the ‘*ing*’ as both children look on.)
Emma: Oh yeah.
(She points at the end of the word with her pencil. She runs her pencil across the ‘*ing*’ and back again.)
Those three letters.
Rhonda: (Nods): Those three letters. That’s right.

**Figure 1. Emma (5:2) Sequence One**

![Handwritten text: STIRLING
EXCHANGEBIRTH
JOYHEEZ FIVES](image-url)
This session involves a request with an act of reference embedded in it. It is structured as follows:

1. Rhonda nominates the target phoneme ('ing').
2. She invites Emma to specify the written language form of the phoneme. ('Now we want the 'ing') Emma fails to respond.
3. She makes two attempts to direct the children's attention to parts of the context where written instances of 'ing' might be found ('Can you remember in our story this morning what said 'ing'? and 'Like the 'ing' on the end of 'Stirling') The children fail to respond adequately to these prompts.
4. Rhonda places Stirling's name card directly in front of Emma, thus achieving joint attention.
5. When teacher and child have their attention fixed on the word on the card Rhonda asks Emma to identify the part of the word that corresponds to the target phoneme ('Which bit would say 'ing'?'). Emma is unable to provide an acceptable response.
6. Rhonda provides the required information in the most direct and unambiguous way possible. She points at the required group of letters and names it.
7. Emma responds by referring to a feature of 'ing' ('Oh yeah. Those three letters."

The sequence moves from an initial request for a definition ('What is 'ing'?'); to an attempt to direct the child's attention to instances of 'ing' in the immediate context ('Where's 'ing'?'); and finally to an attempt to establish joint attention on a specific part of a given word ('Which part is 'ing'?'). However, the basic intention of the teacher in the sequence, after the initial request fails to draw a response, is to achieve an act of reference by helping Emma to find a referent for the phoneme 'ing'.

There are parallels between the type of exchange exemplified in this sequence and talk between parents and their infant children. According to Bruner, the adult who is attempting to help the infant child to achieve an act of reference has two objectives and is
prepared to go to some lengths in 'fine-tuning' responses in order to realise them. The first objective

'is linguistic in the sense that she is trying to get [her child]
first to operate on a primitive semanticity hypothesis that vocalisation 'stands for' something that the mother and child are sharing visually and to get him to appreciate that there is a standard vocalisation that is required. These are steps in the direction of becoming a standard speaker of a language. But she also pursues a second cultural goal: communicating to the child that there is a canonical way of negotiating reference, as seen, for example, in little contests over the disambiguation of a referent... The child is being 'trained' not only to know the language but to use it as a member of a cultural community.' (Bruner 1983 pp. 124-125)

Rhonda's objectives in this sequence are very similar. She seems to assume that Emma knows that letters can 'stand for' phonemes but she is trying to get her to appreciate that there is a standard written form for the target phoneme. The outcome of the exchange goes beyond identification of the referent, to a specification of one of its features. Emma ultimately realises that the target phoneme is represented by a group of letters. Her understanding of the alphabetic system of writing has become a little more detailed and precise.

It is true, of course, that the sequence also has many of the features of school talk. The teacher does most of the talking, allocates turns, asks all the questions and evaluates the children's responses. Despite this, it is more like a fragment of conversation than part of a lesson because each of Rhonda's contributions is directly related to the children's prior responses. She is not just asking display questions. When it appears that the children do not understand, she tries to arrange and simplify the context to ensure that the demands of the situation are within their competence. Similarly, the children's moves within the structure are not randomly made but are the consequence of their interpretation of Rhonda's utterances and actions.
Consequently, when Emma fails to respond at all to the initial invitation to supply the needed information, Rhonda tries to sustain the conversation by referring to Charles. The word 'going' is part of the blackboard story which was jointly constructed only a short time before. Rhonda’s question is really designed to direct Charles’ attention to this source of information. She apparently judges that he is more likely than Emma to respond to such a prompt. When this fails to produce a response, she refers to another instance of the written form of the phoneme. She glances towards Stirling’s name card, which she has noticed is still on the desk, and says, ‘Like ‘ing’ on the end of ‘Stirling’. If her glance at the card had succeeded in establishing joint attention, this utterance would have represented a specific clue to the location of the needed information. But, although Emma points at ‘Stirling’ in her text, Rhonda decides to establish joint attention with the card as focal point. She picks it up and places it directly in front of Emma. Up to this point the children have clearly been struggling to understand what Rhonda requires of them, and how her utterances are related to the context. But when she now asks, ‘Which bit says ‘ing’?’ there is no doubt that she is referring to the word on the card, or that she wants an answer that refers specifically to that word.

In fact, now that the adult and the child are both focusing on the card, the situation is very much like the ‘book reading’ format identified by Ninio and Bruner (1978). Emma still does not understand exactly what is required, but she is familiar with the structure of the situation and knows what type of move to make. She points at one of the letters. Even though this response is not accepted, communication has been re-established and Rhonda has a basis on which to produce her next response. Apparently judging that Emma is not capable of supplying the right answer, Rhonda provides it herself and she does so by the most direct and unambiguous means. She runs her finger under the appropriate group of letters and provides the matching phoneme. The exchange is, in fact, much more like mother-child interaction than a prototypical school exchange.

Rhonda’s question deserves close attention. It is not like the questions most commonly used by the mother in the ‘book reading’
sessions ('What's that? and 'What are those?'). Instead it takes the
form 'Which one is the X?'. This is more like the questions asked
in the 'Body Parts' game (e.g. 'Where's your nose?') which preceded
the development of 'book reading'. When Rhonda asks which bit
says 'ing', she is providing a category and asking Emma to indicate
an instance, rather than showing her an instance and asking her
to categorise it. Rhonda's responses are finely tuned to the current
competence of the child, and this is reflected both in the way she
structures the physical environment and in the fact that she asks
the child only to identify, rather than name or define the target
item.

It is clear that Rhonda has played the dominant role in this
sequence. Given the asymmetries of power and knowledge in the
situation, and the adult's pedagogical intentions, it could hardly be
otherwise. But it should not be missed that it is Emma who finally
decides what the salient information on the card is, or that Rhonda
acknowledges that the child's response is acceptable and appropri-
ate. Once Rhonda indicated which group of letters represented 'ing'
it might have seemed that the exchange had reached its culmina-
tion; that the teacher had provided the required information be-
cause the child had failed to find it. Actually, when Rhonda runs
her finger under the letters and says, 'ing' she is simply narrowing
the context a little more. It is only when Emma says, 'Oh yeah.
Those three letters' that the nature of her earlier difficulty becomes
apparent. It is at that point in the exchange that Emma seems to
grasp the concept that a group of letters can 'stand for' a phoneme.
The outcome of this particular sequence is not simply that Emma
is now aware that a specific group of letters represents a particular
phoneme, but that she has developed slightly greater specificity in
her understanding of the alphabetic system of writing. She is
taking early and tentative steps in the direction of becoming a
standard writer of the language.

Before leaving this sequence we need also to make some com-
ments on the importance of context. Edwards and Mercer (1987)
define context as an essentially mental phenomenon. It is
...the common knowledge of the speakers invoked by the discourse. 'Features of the immediate physical context, or shared experience, or what was said and done earlier in the conversation, only become part of the context if they are referred to and understood by the participants.' (Edwards and Mercer 1987 pp.63-64 and pp.160-161).

When Rhonda attempts to make the blackboard story part of the context her attempt fails. The children know the story is there because they were involved in its construction, but they apparently don't understand Rhonda's intention in referring to it, or how it is related to the ongoing activity. She succeeds in making the name card part of the context, however, by moving it into Emma's direct line of vision and asking a question about it. Emma still does not know precisely how it is related to what is happening, but she knows that Rhonda's question refers to it and can respond in a functionally appropriate way. It does not matter that she is still uncertain about the purpose of the exchange because communication has been re-established. The word on the card has become the subject of the dialogue. Everything that is said now has a clear point of reference and the chances of arriving at a point of mutual understanding have been greatly enhanced. Now that it is part of the context the name card can be used to disambiguate the referent. In each of the sequences that follow it is similarly the capacity of the participants to invoke a shared mental context which forms the foundation upon which the children's understanding of writing is constructed.

The next sequence also involves reference, but the pattern of interaction resembles the search sequences described by Bridges (1979, 1980) in a study of mother-child pairs engaged in an object retrieval task rather than the simple game formats described by Bruner. Bridges' study involved sixteen 24-month-olds and sixteen 30-month-olds and their mothers. Video-recordings were taken of the children as their mothers guided them in retrieving specified objects from a table. The sequences often began when the mother attempted to draw attention to the object to be retrieved. Since the target objects were unfamiliar to the children their identification,
instead of being subsidiary to the main retrieval task, became an explicit and talked about aspect of the activity. When the target object had been identified a request followed. This most frequently took the form of an embedded imperative (e.g. ‘Can you fetch the puppet for mummy?’); a question directive (e.g. ‘Where’s the puppet?’); or an imperative (e.g. ‘Fetch the puppet’). Once the request had been made the mothers frequently provided additional information, in the form of clues, to guide the children in their search for the object. These clues included pointing, directed gaze, non-specific verbal indicators (e.g. ‘over there’) and locative terms like ‘in the box’. As the search progressed the mothers continued to make concentrated efforts to ensure that the children knew exactly what they were looking for. They constantly modified their directions according to the feedback received from their children. Similarly, although Rhonda’s sessions with the children were intended to help them to write their chosen message, the subsidiary task of identifying and ‘retrieving’ the required written language representations of the spoken language units became an important part of the writing activity, and Rhonda behaved in much the same way as the mothers in Bridges’ study.

In Sequence Two Rhonda is helping Emily, (5:1) who has been at school for six weeks, to write ‘I have some lizard eggs. I found them under the steps at home.’ So far, with Rhonda’s assistance, she has written, ‘I hav sm lers egs at home. I fond um rndr...’ and Rhonda is about to help her to write ‘the steps’.

Sequence Two

Rhonda: Let’s see. Let’s read it together.

Rhonda points at the beginning of the second sentence.

Rhonda: (Pointing as she reads. Emily read with her, following her lead.) I found them under...(rising intonation.)

Emily looks up at Rhonda and makes eye contact.

Rhonda: The... the. (falling intonation.)

Emily makes an indeterminate sound in response.
Emily breaks eye contact.

Rhonda: The... the. Like in... (Rhonda looks across towards the sentence on the window as she speaks.)

Emily follows her gaze.) This is thuh window.

(As she speaks Rhonda looks back at Emily and then back towards the window again.) And... And...uh

(Rhonda looks around to her left at the piano immediately behind Emily. Emily follows Rhonda's gaze again.)

Here is 'thuh piano.

(Rhonda looks still further around to the left. Emily stays focused on the sign on the piano.)

And this is 'thuh door. Can you see 'thuh?

Emily stays fixed on the piano and makes a soft sound.

Rhonda shifts her attention back to the sign on the piano. Rhonda: Thuh or thee. The word thee or thuh. Can you see which one that is?

Rhonda and Emily are both focused on the sign on the piano.

Rhonda: (Slowly and deliberately) Here-is-the-piano.

Emily: (Pointing at the words as she reads them.) Here-is-the... She turns back to her page and starts to write.

She then hesitates and looks up at Rhonda.

Rhonda: Will it fit in there? (Nodding towards the end of the line.)

Emily raises her pencil and writes the letter in the air.

Rhonda: T. (She nods almost imperceptibly.)

Emily starts to write.
Like the mothers in Bridges' study Rhonda first directs attention to 'the', the word that is to be the object of the search. There is no direct request made, but it is implicit in the situation because Rhonda has, during the first six weeks of school, regularly led the children in finding words around the classroom. And behaving once again like Bridges' mothers, she offers clues about the location of the target word by looking directly at the cardboard strips attached to the window, the piano and the door and reading them aloud, thus providing further specific locational clues to guide the child's attention. Emily follows her gaze but remains fixed on the piano as Rhonda moves on to the notice on the door.

Rhonda's behaviour in this sequence is very different to her behaviour in Sequence One because, instead of narrowing the focus of attention to a single source of information, she offers the child three options and allows her to choose which one is to be used. When Emily makes a choice Rhonda follows her lead and joint attention becomes fixed on the sentence on the piano. She is already allowing the child to take the initiative whenever she seems able to do so. Rhonda then reads the sentence aloud again. She reads slowly, deliberately segmenting it into 'words' so that the child will find it easier to match the spoken word with the written
one. Language is being used very specifically to direct and control the child’s attention.

Emily watches and then starts reading the sentence herself, stopping at the target word when she reaches it. She is following the lead that has been given to her and is using words to control her attention so that she can distinguish the target word from the others in the sentence. Emily then turns to seek confirmation of the adequacy of her response from her teacher. She turns to Rhonda, makes eye contact and traces a ‘I’ in the air, having apparently forgotten the name of the letter. When Rhonda nods and says ‘T’ this is not only feedback to the child, but it also the outward sign that Rhonda has accepted Emily’s response as adequate, and that her attempt to refer to the written word ‘the’ has succeeded. It marks the end of one sub-task and the beginning of the next.

With Emily, the teacher is able to use less direct means of managing joint attention than with Emma, because the extra time at school has provided a basis of common experience which can be used to interpret the meaning of utterances and actions in this context. Emily has taken part in the types of activities described earlier during which Rhonda led the children in reading the print in the classroom, and instigated searches for specific words which were on display. Because of these experiences the child’s understanding of what the teacher expects, and of the procedures involved in dealing with written text, make it possible for Rhonda to use principally linguistic means for achieving joint attention and retrieving from the context the information needed to complete the intended written texts. When Rhonda looks around the classroom and says, ‘Like in...Here is the window etc.’ Emily recognises the ‘game’ and is able to play her part in it. She is able to locate the word she seeks because the activity consists of a familiar series of ‘moves’ which make it easier for her to know what she should process from the context (Bruner 1981 p.130).

In Sequence Three Hannelore is being assisted by Rhonda as she tries to write the sentence, ‘We are having the cross country today’. She has just completed the word ‘cross’ and Rhonda is drawing her
attention to the next word. Hannelore is 5:9, and it is eleven weeks since the beginning of the school year.

**Sequence Three**

Rhonda: *Cross... 'country. Now where's country?*

Hannelore looks towards the blackboard.

Rhonda follows her gaze. Then she looks back at Hannelore who continues looking intently at the blackboard.

Rhonda: You remember. I said it was a really hard word. *Country.*

Hannelore: C-O (pause) -U-N-T-R-kuh (corrects herself) -Y.

Rhonda: That's right.

**Figure 3. Hannelore (5:9) Sequence Three**
In this sequence a word retrieval process is involved once again, but it varies in specific ways from the previous one. Rhonda first identifies the target word and then asks, 'Now where's country?' This time she does not use directed gaze to assist the child in finding the word. The explicit deictic clues offered to less competent children are omitted from this exchange. Rhonda is adapting her contribution to the dialogue in accordance with her assessment of the child's capabilities.

However, Hannelore demonstrates her level of competence by responding immediately and appropriately, thereby justifying the assumptions implicit in Rhonda's chosen approach. Like Emily, Hannelore has participated in classroom literacy activities and knows that her teacher's question means that the word is part of the immediate context. She also apparently remembers that it was part of that morning's jointly constructed 'story', because she immediately looks towards the blackboard where the text including 'country' is still displayed. The 'blackboard story' was available before, but it only became part of the context when Rhonda prompted Hannelore's memory of it with her question. She is, as Bruner says, allowing the child to 'borrow' her consciousness.

When Hannelore looks towards the blackboard, Rhonda follows her gaze and adds a clarifying comment. The nature of the clue demonstrates one of the ways in which Rhonda is adapting her responses to the children as they gain more control over their writing. In fact, what she does is similar to the types of adaptation mothers made to their children's growing competence in Bridges' object retrieval study. Bridges found that the mothers of the 24 month old infants, in attempting to guide the children towards an object to be retrieved, referred mainly to its location in their clarifying comments. By contrast, the mothers of the 30 month old children refrained from directly indicating the location of the object, but referred instead to the people, places and events associated with similar objects in the child's previous experience. This is precisely what Rhonda does in this sequence. Instead of providing direct locational clues, as she did for Emily and Emma, she simply refers to a comment made about the target word while the blackboard story was being constructed earlier that morning.
CLASSROOM TALK AND EARLY WRITING DEVELOPMENT

In the sequences discussed so far we have been examining what happens as the children are guided in locating, from the available resources of print in the classroom, the words and syllables they need to write their 'stories'. As we have seen, this involves remembering both how to find the needed information and where to find it. But through repeated experiences of finding and copying particular written language forms, some words and syllables are lodged in long term memory. As we will see in the next sequence, however, this does not seem to eliminate the need for social interaction.

Emma is now 5:6. It is twenty weeks since she started school. She is writing about 'Hands'. She was inspired to do this because Rhonda read a book with the same title to the class. Her text is 'Hands do write and hands do touch things.' So far she has written 'Hands doo rit and hands doo tach th...'. Rhonda has helped her to write 'hands' and to find 'th' on a number card on a window in the room. The rest she has written without assistance by making phoneme/grapheme matches based on her own pronunciation. She now has to find 'ing', the unit which was causing her problems during the first sequence, recorded earlier in the year.

Sequence Four

Emma: (She looks at the page and points at the words as she reads them.) Touch ...things.

(She looks up at the boy opposite.) Ing. ...

(She laughs and says something indecipherable) Ings.

(She looks down.) Things.

(She looks up thoughtfully. She listens to the other children talking.

Rhonda approaches the table and sits next to her. She looks at Emma's page.)

Rhonda: Hands do touch things...(Emma looks up at Rhonda. They make eye contact.) Well. What says 'ing'?
Emma speaks and writes simultaneously.

Emma: I-N-G-S. (She writes the letters as she says them.)

Rhonda looks at Emma's page.

Rhonda: *Touch things... That's right...* (She starts to read Emma's text.) *Hands...* (She looks at Emma.) What have you written?

Emma doesn't look up. When Rhonda asks the question she points at her text.

Emma: Um... *Hands do write and hands do touch things.*

(She runs her pencil along the line co-ordinating it with her speech. She finishes but doesn't look up.)

Rhonda: *Looking at Emma's face.* What else can hands do?

Figure 4. Emma (5:6) Sequence Four
CLASSROOM TALK AND EARLY WRITING DEVELOPMENT

Emma has identified what she needs to write, but she seems incapable of writing it until Rhonda asks, 'What says 'ing'?' Given this prompt she responds immediately by writing not just 'ing' but 'ings', saying the letters as she writes them. It seems that, although Emma had the information stored in memory, she could not retrieve it until she was provided with a recall cue by her teacher. In fact, the children's use of the teacher as a source of recall cues is one of the most interesting features of the data.

In the next episode it is eighteen weeks after the beginning of the school year. Amy is 5:8. Initially she has not known what to write. Rhonda has been speaking to other children. She now turns back to Amy.

**Sequence Five.**
Rhonda: Have you thought of something?
Amy nods.
Rhonda: What have you thought of?
Amy: *My birthday is in October.*
Rhonda: All right. Well come on. Let's write about *My birthday is in October.*

Another child calls for Rhonda's attention.

While she is responding, Amy writes 'My' in the top left hand section of her sheet of paper.
When she has completed the word she looks up and mouths 'birthday' and then looks towards the *Breakthrough to Literacy Sentence Maker* at the front of the room.
Among the words displayed is 'birthday'.
While she continues to look intently at the folder she mouths the word twice.
Rhonda turns back and looks down at Amy's page.
Rhonda: (Looking at what Amy has written) *My.*
(She makes brief eye contact with Amy.)

Amy: Is that ‘birthday’? (She points towards the Sentence Maker.)

Rhonda: Well you...Well, what does it start with?

Amy: B.

Rhonda: (Makes eye contact and nods) B.

Amy writes ‘birthday’ looking up and down at the word card. She copies one letter each time she looks at the card.

When she has finished copying birthday Amy looks up and mouths ‘My birthday.’.

Then she looks down at her page and writes ‘is’.

Then she looks up and says ‘is in.’ quietly, and writes ‘in’.

She looks up and says softly, ‘is in October’.

She makes eye contact with Rhonda.

Amy: uh...I...(Rhonda speaks as Amy says ‘I’).

Rhonda: Where can we find October?

Amy looks above the blackboard where cards bearing the names of the months are displayed.

Rhonda turns and follows her gaze.

Amy: Um (She points at the word. Then she makes eye contact with Rhonda). O.

(Rhonda nods and smiles. Amy starts to write but looks up at Rhonda again.)

I can write this sentence straight away.

Amy writes October. She looks up to check each letter in turn. She mouths ‘O’ before she writes it. She says ‘C’ as she writes it. The rest is copied a letter at a time without any discernible vocalisation.

Rhonda watches Amy as she starts to write ‘October’, then assists another child. As Amy is completing the word Rhonda checks her progress.
In this sequence the pattern of discourse has become very different to that normally associated with schools. Rhonda is now exercising far less control over the exchange than in the earlier sessions. For example, although Amy is not certain about what she should write, Rhonda does not try to elicit a sentence from her. Instead she allows her more time to think, turning away to assist other children. When she turns her attention to Amy again she asks two questions, neither of which is a display question. Rhonda is genuinely seeking to know what Amy has chosen to write so that she can check that it is appropriately structured.

These developments in the exchanges between Rhonda and her pupils are illuminated by a comment by Bruner (1985) on the development of adult-child dialogue. He writes that:

‘...at the earliest stage of inducting a child into a new activity, the adult serves almost as the vicarious consciousness of the child in the sense of being the only one who knows the goal of the activity the two of them are engaged in. When the child masters a new task, he masters its means-end structure: he
too now knows the goal, although at any moment he may be unclear about how to get there.' (Bruner 1985 p.31)

This seems to be the situation in this sequence. In contrast with the children at the beginning of the year, Amy is clearly gaining some mastery of her writing. At one point she even turns to her teacher and says, triumphantly, ‘I can write this sentence straight away.’ But she continues to have moments when she is not quite certain how to achieve her goal.

This is demonstrated early in the sequence. Although Amy spontaneously recalls ‘my’ and writes it without difficulty, she hesitates over the next word. She identifies ‘birthday’ as the required word, and looks towards the teacher’s Breakthrough to Literacy folder at the front of the room. ‘Birthday’ is one of a number of words displayed in the folder. She seems to have located it. Then she does something which marks another difference between the talk in this sequence, and the types of adult-child exchanges which are said to be typical of school talk. She asks a question. Earlier in the year the children were mainly expected to answer questions and follow instructions because they had a limited understanding of the means-end structure of the exercise, and a restricted capacity to achieve its ends.

In this sequence, although Amy understands the overall purpose of these sessions and can complete most of the task without assistance, she still needs verification that the word she has located is indeed the one she wants. The communicative strategies she needs in this situation are, then, those that will permit her to enlist the teacher’s help in achieving her goals. So the change in the types of contributions she is making to these interactions with her teacher is a product of the growth of her knowledge and competence as a writer. She now knows what she needs to know. That is why Amy is much more likely now to ask questions rather than answer them, and to make requests rather than comply with directives. The most surprising thing about this is that such a natural progression in dialogue should not have been more evident in previous studies of school talk.
So, needing assistance, Amy turns to Rhonda, points towards the word and asks, ‘Is that birthday?’ In doing so she is trying to make explicit what she wants Rhonda to do. Since the purpose and the structure of the activity are familiar to both participants, Rhonda only needs to be certain that Amy is referring to the correct word card. She follows Amy’s point to establish that she is looking in the right general location and then asks, ‘What does it start with?’ It is a question that requires the child to provide the minimum amount of information required to distinguish the word from the others in the folder. It is significant that one of the other words in the folder is ‘boy’. Rhonda clearly assumes that Amy will not be confused by this. It seems likely, in fact, that she believes that Amy has located the word she needs. She is just making certain that she has. Earlier in the year she often confirmed that joint attention had been established through such strategies as sending the child to point directly at the target word, or requesting that they should bring it to the table. Asking for the initial letter is also a deictic device, but it uses the shared capacity of adult and child to talk about the elements of written language rather than ostensive pointing or physical retrieval. This is indeed a significant development.

Amy’s hesitation over ‘October’ is different. Once again she turns to Rhonda and makes a clear appeal for assistance which is not expressed in language but is nonetheless clear. Rhonda has been watching as the child’s uncertainty became apparent in her manner and expression, but made no move to intervene until Amy made eye contact with her. As soon as this happened Rhonda asked a question. Once again, it is not a display question. Like the question asked of Hannelore in Sequence Three, it is really intended to create a context which will help Amy complete the task. It not only invokes the interactional framework of the ‘word search’ activity, regularly used in the classroom, but also foregrounds the display of ‘months of the year’ above the blackboard. When Amy responds by looking directly at the display she shows that she understands the true intention behind her teacher’s utterance.

The shared mental context which is potentially available on this occasion is much more complex than would have been possible at
the beginning of the year. Amy is able to make sense of the situation and find the target word quickly because the body of 'common knowledge' shared by Rhonda and her pupils is now so much more complex and extensive. The exchange proceeds within the framework of an interactional pattern established at a whole class level. Rhonda has only to ask the type of question which usually begins the word search activities in the classroom to invoke that particular framework for interaction as the basis for the exchange which follows. The question directs Amy's attention not only towards aspects of the physical context, but also to information stored in her memory as well.

The most significant feature of this sequence, however, is that the teacher is essentially reactive. Earlier in the year she engaged in close monitoring of the children’s progress and intervened as soon as she detected signs that a child did not understand or was confused. In this episode she waits until Amy turns to her before she offers help. She is, in fact, in the process of handing over control to the child, just as the mothers in Bruner's studies passed control to their infant children as their capacity to use communicative formats developed.

Another explanation of what is happening in this sequence is that Amy is well advanced in learning how to use another person to help her to solve her literacy problems. Through Rhonda's assistance, alterations are being made in the way she perceives and remembers. Memory is becoming an indirect process, mediated at this time by other people and specific aspects of the physical context. In fact, if Vygotsky is correct, we are observing the internalisation of patterns of social interaction which will become the basis upon which the higher psychological processes will develop. It is to a closer examination of this aspect of the teacher-child interaction that we turn next.
In our discussion of children learning to write we have pointed out that the pattern of interaction in individual conversations between teacher and child need not be teacher-dominated. The success of such exchanges at school, as at home, depends on the establishment of familiar formats for communication and an extensive body of shared knowledge which can be used in the mutual construction of mental contexts to ease communication and facilitate learning. Although the large group sessions were similar to the teacher-centred lessons described in a number of earlier studies, and individual exchanges also tended to be teacher-dominated at first, within six months Rhonda had changed from being essentially directive, to being supportive of the child's own efforts to complete the set task. By this time the children were directing their own writing to a large extent. These later sessions were far more like conversations between mothers and their infant children than prototypical school talk. It seems, then, that the classroom climate created by this teacher made it easier for children to use the conversational skills they had brought to school to do such things as achieving acts of reference and requesting assistance.

If we left our comments there, however, we would be missing the most important part of what is to be learnt about the effect of adult talk to children in this educational setting. In the discussion that follows we will focus on interactions between Rhonda and Kate, who was five years and six months old at the beginning of the school year. In the initial interviews Kate, like the other children chosen
for observation, could recognise most of the letters of the alphabet, write and recognise several words and was familiar with the conventions governing written language, but she could not read or write the simplest of texts.

During writing sessions on the days before Sequence Six, Kate chose only to write the words she knew, to copy some of the notices around the classroom and to write strings of letters. She did not make any independent attempt to write a coherent sentence. On this occasion, however, Rhonda has helped her to name the sentence 'Michael is little'. Michael is Kate’s recently arrived baby brother. Rhonda has encouraged Taylor, a boy sitting at the same table who also has a brother whose name is Michael, to help Kate to write the name. He has spelt the word and Kate has written the letters as he named them. As Kate finishes writing Rhonda speaks to her.

**Sequence Six.**

Rhonda: Now what do you want to say next? 'Michael is little'. *Is.* *Is.* Where could you find ‘is’?

Rhonda looks towards the blackboard.

Kate follows her glance for a moment and then looks straight ahead.

Rhonda turns to look at Taylor who has been listening to what she has said to Kate.

Rhonda: Where could you...

Taylor: (Pointing) Up there. On the blackboard.

Rhonda: (Follows Taylor's point, then looks at Kate and back to the blackboard again) Up there. (Rhonda looks to where Taylor is pointing)...oh...on the blackboard.

Kate: (Looks to where Taylor is pointing. Then she points at the word.) *I...S.* (She immediately writes the word without looking up or repeating the names of the letters.)
Like most of the other exchanges we have documented here, this one involves a search sequence. It has the 'script-like quality' that Bruner says is characteristic of the format.

- It begins by drawing attention to what is to be the object of the search (Is.)

- This is followed by a question directive designed to draw to the child's attention the fact that the needed word is in the immediate physical environment ('Where could you find 'is'?).

- This is followed by two clarification clues: a non-specific indicator ('Up there!') and a locative term ('On the blackboard.').

- The child indicates that she has found the word by naming the letters. She then writes the word naming the letters as she writes. The sequence is one which was frequently practised in the group literacy activities of the classroom. The example of a blackboard story session, which was discussed earlier, showed Rhonda in the early stages of developing this type of interactional pattern with the children.
Rhonda does most of the cognitive work in this session although she allows Taylor to take the initiative in establishing joint attention. She holds the sentence in her memory. She segments it into units, identifying each successive word or phoneme before helping Kate to write it. She is, in fact, acting as an auxiliary memory for the children, prompting their recall of the location of specific words displayed around the classroom and the names of specific phonemes or letters. It might seem, consequently, that Kate is not likely to have learnt much from the episode.

From a Vygotskian perspective, however, this might be seen as an early stage in the development of the higher psychological functions. Kate clearly cannot write her message by herself, but with Rhonda’s assistance she eventually writes three simple sentences which she reads back correctly at the end of the session, pointing to the words as she reads them. This seems to place Kate clearly in a zone of proximal development in relation to the growth of her writing skills. And if Vygotsky’s predictions about the direction of cognitive development are accurate, there should be indications in later sessions that the type of social exchange illustrated in the episode above has been internalised, and that Kate is beginning to exercise conscious control over her own mental processes through her use of written and spoken language.

Changes in this direction can be seen clearly in the next sequence, which took place about a month later. Kate has decided to write about her new neighbours. She is excited because she has given her story a name: ‘My Naou Nab’ (My New Neighbours). She intends to write, ‘On the weekend we got new neighbours’. She has started by writing ‘On’ and then crossing it out. She writes ‘No’ instead. Then she proceeds with constructing her message.

**Sequence Seven.**
Kate: (Reading what she has written) On...the (She writes ‘the’ without referring to anything in the physical context.) ...week.

She looks up above the blackboard. She finds the message which says ‘Do you know the days of the week?’
Kate: Do you know the days of the week? Week. Week
Vygotsky asserts that the voluntary production of signs is the essential feature of human behaviour, and the one that leads on to the formation of the higher psychological functions. Signs give human beings the capacity to control their mental operations externally. This leads to changes in the relations between the mental processes and the distinctively human forms of cognition. There are indications in this episode that Kate is beginning to produce such signs. She is holding the message in her memory. From time to time she repeats a phrase, or re-reads part of what she has written to remind herself of what is to come next. She says the words in order as she writes them. The words acts as signs, as Vygotsky defines the term, being voluntarily generated and inwardly oriented, and subsequently serve to cue her memory or
direct her attention. The creation of the text itself also involves the production of signs which, although not always conventional in form, will later function to stimulate recall of what she has written. Kate demonstrates that this is so when she is able to read her 'story' back to herself exactly as it appears on the page. Kate is learning to produce and use signs to regulate her mental processes as she reads and writes.

This is most obvious in the way Kate locates and writes 'week' in the above sequence. When she said 'the' it seems to act as a direct recall cue. Repeated experiences of searching for the word and copying it seem to have lodged it permanently in Kate's memory. Saying 'week', however, does not produce direct recall. Instead, it causes her to initiate a visual search. Nobody asks, 'Where can we find 'week'?' But her behaviour suggests that she must have asked herself a question of this type. She is beginning to develop control over her attention and her memory.

What Kate does in finding 'week' might also be described as a process of self-directed uncertainty reduction. She goes through a series of steps, each of which progressively narrows her focus and restricts the range of choices so that the information she needs can be reliably identified. When she says 'week' she looks directly towards the appropriate part of the classroom. It is clear that she is not able to recognise the word immediately, but she has restricted the range of possible choices to eight. ('Do you know the days of the week?') She then makes her choice on the basis of matching her memory of what the sentence says against the printed message. In doing this she is using spoken language to control her attention and guide her actions. When she has located the word she narrows her focus even more by naming the component letters preliminary to writing them. It seems to be the act of naming the letters that permits her to hold them in the right order in memory while she writes them. Once again words are being used to control attention and regulate the functioning of memory.

In the next episode Kate is working by herself. She has been at school for about ten weeks and is writing about her holiday during the Easter break. She is finishing a sentence that says, 'I diet a bile flop into the lagoon.' (I did a belly flop into the lagoon.) Rhonda no
longer spends much time giving specific help because Kate prefers to write unassisted. The 'story' proceeds, 'It was fun on the last day I went on a bush ride.' (It was fun. On the last day I went on a bush ride.) The transcript below records what Kate said as she wrote this part of her message.

**Sequence Eight.**
Kate: *In the lagoon... It.*

(She writes 'I' and then puts a full stop in front of it.) Oh nope!
(She crosses out the full stop.) *It.*
(She completes 'it'.) *Was.*
(She writes 'was'. She says, 'Wassss' as she writes it.) *Fun...fuh.*
(She writes 'f' as she says 'fuh'.) *Fuh-un.*
(She writes 'a' as she says fuh-un.) *It was fun.*
(She writes 'n' as she repeats 'It was fun.') What else did I do down the coast? As... on.
(She writes 'n'.) ...the...
(She writes 'o'.) *On... the*
(she writes 't'.) ...*last*
(she writes 'h'.) ...the
(she writes 'e'.) *Luh... last...luh... Where's last?*
(She looks back to the top line, pointing with her pencil first to the right hand end of the line and then to the top left hand corner of the page.) *On.*
(She skims quickly along the line, pointing with her pencil and stops at the end of the first sentence. She reads, pointing at the words as she does so.)

*On the last...*
(She goes down to the end of her message and writes 'la'. She then pauses, checks the spelling of the word by referring again to the top line, and then finishes writing it.)

On the last day... Day.

(She writes 'day' without referring to any external source of information. She does not vocalise at all.) On... (She writes 't'.) Went... wuh...

(She writes 'W'.) Wuh-eh-ntuh.

(She writes 'NT'.) Went... went... went... on...

(She writes 'on'.) Woops... I've got one... but I've got one. On... on... on the... Just a moment..

(She re-reads what she has written, pointing as she does so.) On the last day... I went on... a

(She writes 'a'.) Bush... buh...

(She writes 'B'.) Buh-ush...

(She writes 'o'.) Shhh...

(She writes 'h', then crosses it out and writes 'sh'.) Bush... track... ride... Bush ride... Tr... ruh...

(She writes 'r'.) Ide...

(She writes 'i'.) Tuh... ri-tuh...

(She writes 'i'.) Bush ride... on a bush track ride.
In this sequence Kate is clearly using dialogue strategies she has learnt during the daily group writing session and on the occasions when Rhonda has given her individual assistance. She is providing herself with the cues, previously supplied by Rhonda, which make it possible for her to retrieve from memory the information she needs to solve each writing problem as it occurs. The recall strategies she uses are:

1. **Re-Reading the Text**
   Kate repeats and re-reads what she has written from time to time to hold the message in working memory so the next word can be written. At one point in this episode there is also an indication that, even when Kate is not actually saying the words, the repetition of the message is proceeding as internal speech. Her intended sentence is ‘On the last day I went on a bush track ride’. She says ‘On...’ and then writes ‘I’, the next word in her sentence, suggesting that she has completed the preceding phrase (‘On the last day...’) in her mind.

2. **Whole Word Recall**
   She says the word and writes it immediately without either searching for it in the physical context or providing herself with phonemic cues. She does this with ‘it’, ‘was’, ‘on’, ‘the’, ‘a’ and ‘day’. She is now clearly able to prompt recall of the structure of these words simply by saying them.

3. **Self-interrogation**
   Kate asks herself, ‘Where’s ‘last’?’ This is, in effect, a directive to herself which leads to a search of her text so that she can
find the needed word. Earlier in the sequence she pauses and says, 'What else did I do down the coast?' This question is directed not towards the act of writing, but involves recall of experience and the framing of a statement in written language. In response to her own question she produces a suitably explicit statement which makes a relevant contribution to her developing text. Both types of question have been frequently used by Rhonda as ways of guiding the children in the production of their stories suitable for writing (see Sequences Three, Four and Six for other examples).

4. **Phonemic Segmentation**

When the child cannot recall the word from memory or the immediate physical context Rhonda normally engages in phonemic segmentation of the target word. She says the whole word and then identifies each phoneme in succession. As she says the phoneme the child is expected to name the corresponding letter and then to write it. Kate uses this strategy with several words in this episode. She segments 'fun', 'went', 'bush', and 'ride'. In each case she produces approximations based on her articulation of the words. Like Rhonda, she says the word, names the phoneme and then writes what she judges to be the appropriate letter. She does not use alphabet charts or other sources of information about grapheme/phoneme relationships. She goes straight from the articulated phoneme to the written letter. She no longer finds it necessary to name the letters as she writes them.

What Kate has learnt is how to use a variety of verbal cues to memory, according to judgements she seems to make quickly about such things as whether the word is part of her memory store, or is displayed in the immediate physical context. If neither of these conditions holds she uses the strategy of articulating the word and searching her memory for the letters which match the phonemes as she finds them. In each case what she is doing is generating a verbal cue to memory. She is mastering the process of externalising memory through the production and use of signs. Kate has not just
been engaged in learning about literacy. She has also developed her capacity for self-regulation.

This is perhaps the most important point of all. What Kate seems to have learned to control is not written language, she is just at the beginning of mastering that system of signs. But she seems to have learnt how to use spoken language to control such mental processes as attention and memory. This leads us to speculate that perhaps conscious control of a system is only gained as it is used in the process of mastering a new one. So, we would predict that conscious control of written language will only be achieved when the child is assisted in using it to master new functions and more complex systems.
Gaining control of literacy

Tizard and Hughes (1984), commenting on the results of their study of the language experience of four-year-olds at school and at home, concluded that the nursery school teachers in their study often found it difficult to communicate with the children in their care because they knew little about their home backgrounds or past experiences. The mothers, by contrast, could interpret their children's meanings and make connections between different aspects of their experience because of their familiarity with them, making conversation smooth and productive. Familiarity, they said, facilitates

'... not only attachment, but responsiveness... [and] responsiveness also plays an important part in learning — it is essential if an interactive sequence is to be sustained and if a high level of social skill is to be developed.... Aspects of children's intellectual functioning thus seem to be intimately related to the social relationships in which they are embedded.' (Cited in Cazden 1988 p.24)

If this is true it would seem to offer bleak prospects for teachers and schools. Mothers will always be more familiar with their children than teachers can hope to be, and dealing with large groups of young children obviously restricts the teachers' opportunities for extended individual contacts with them.

The truth is that the type of familiarity teachers need to develop with their pupils is of a different kind. Edwards and Mercer (1987) point out that research results indicate how classroom discourse is almost always '... tied to the concrete activities and situations
that occur in classrooms' (Edwards and Mercer 1987 p.70). The mental context that is constructed in lessons is almost always evoked by references to shared knowledge rather than personal experience. This means that responsive patterns of talk in the classroom need not be based on an intimate knowledge of the child outside the school but on the shared world of experience that develops during the school year. This does not suggest that teachers should not take an interest in their pupils' experience beyond the boundaries of the school, but it does mean that they should concentrate on the things they can control. If the aim is to encourage more productive types of talk in educational settings, then they should try to make the world of the classroom one which provides maximum support to the children in their attempts to understand the discourse that occurs within its boundaries.

The teacher in our study did this. It is true that whole class lessons conformed to the usual pattern of teacher-dominated IRF exchanges, but in this case they were used to develop a standard interactional framework for the joint production of a written text. The regular construction of a 'blackboard story' proceeded through a patterned series of steps which soon became familiar to the children. Other literacy activities, like searching for words and reading the print displays, were a routine and standardized part of life in the classroom. These routines then became the basis for the teacher's individual conversations with the children during the daily writing sessions.

We have already referred to Cazden's suggestion that the development of predictable lesson structures minimizes management problems and permits both teacher and child to give close attention to the academic content of lessons. What we observed in Rhonda's classroom, however, was not the imposition of a static structure on classroom interaction, nor a simple concentration on the 'academic focus' of the lessons. Instead, she seemed to construct and use something very much like the Language Acquisition Support System which Bruner claims provides the functional priming for children who are learning to talk. We are not claiming that there is an innate human predisposition to literacy, but the proposition that children's learning can be promoted by an adult who frames
and structures input for the child, seems to be as useful in explaining how children learn to write as it is in accounting for the way they learn to talk.

Rhonda established her 'formats' with the whole group rather than individuals. Then within the framework of these set interactional routines Rhonda, in collaboration with the children, constructed and arranged contexts which permitted the negotiation of clearer understandings about the nature and demands of the task at hand. This point needs to be stressed. The talk in Rhonda's individual sessions with the children was specific to the task. It was designed first to help the child master this type of activity as part of the culture of the classroom. This activity is also embedded in the broader culture beyond the classroom and assumes knowledge of literacy and ways of talking which most children will bring with them into school. But the children are basically learning what it takes to be a competent participant in this specific type of activity in this particular classroom, just as the child in the 'book reading' format learns to be a competent participant in that activity. But just as 'book reading' helps to develop the child's control of labelling which in turn becomes part of requesting, so 'writing a story' helps develop their knowledge of literacy and control of their mental processes.

This brings us again to the zone of proximal development since the development of conscious control over new processes and systems with the assistance of a more knowledgeable partner is what happens in such zones. The children in our study were learning how to 'write stories' in a way that satisfied their teacher, but at the same time they were also learning to regulate their own behaviour. They initially depended on Rhonda to structure the activity and guide them in the completion of each of its steps. Gradually, however, the children grasped the goal-structure of the task and were able to take more responsibility for its completion. As their competence grew Rhonda passed control to them, offering support and assistance only when requested.

In the episode below, Amy no longer needs Rhonda at all. She has decided to write a 'story' beginning 'Yesterday the twins came to play.' Damien is sitting facing her on the other side of the table.
She sits and thinks for several moments before looking at her page apparently ready to commence writing.

**Sequence Nine.**
Amy looks down at her page and prepares to write.
She says 'yesterday' softly.
She hesitates.
Then she looks up and leans towards Damien.
Amy: Damien. How do you spell 'yesterday'?
Damien: (Pointing at a chart on the wall behind Amy.) Look behind you.
Amy looks around.
Damien: I'm spelling it. (He means that he is also writing the word.)
He looks at his page and then up.
Damien: Y-E-S...
Amy continues to look.
Amy: Y... Oh I found it.
Damien is still watching Amy as she turns back to her page and prepares to write.
Damien: Y-E-S...
Amy glances briefly up at Damien.
Amy: I found it.
She writes 'yes' and then turns to check as she writes the remaining letters.
She repeats the letters she has already written as she looks at the chart to find the letters she wants and then turns to write them.
Yesterday the twins came to play with me in my house. We played a long game and we play a rain game because I got no (well that was fun!) Sarah flew her wasp bit car. She threw it into the green table.

Now we have playing nine.
Amy is now in control. She is aware of what she needs to know and she is no longer dependent on her teacher for guidance in finding it. She asks a question of another child. His reply is patterned on the routines Rhonda has developed. He first uses deictic reference to establish the general location of the word. Because she shares Damien’s knowledge of the classroom Amy looks towards the chart containing ‘Words We Know’. Damien adds clues by naming the first three letters. This is sufficient to permit Amy to identify it. When he starts to spell the word again Amy silences him. He is violating a felicity condition of a conversational maxim by offering more information than is needed.

The patterns of exchange formerly used by Rhonda have now become the property of the children. Damien could have simply spelled the word but he chose to engage in an act of reference instead. And he does so in a skilled and systematic way. Both children are using language to regulate behaviour. Amy is using her question to enlist Damien’s help. Damien is using language to control and direct Amy’s search for the word. The classroom has become a place in which children ask real questions of each other, and use both their knowledge of the specific discourse patterns of their classroom and their knowledge of how conversations work in the world outside the school, to achieve the goals of a task they now thoroughly understand. There are now many passages of task-related talk in this classroom that no longer bear any resemblance to the types of discourse usually said to be typical of teacher-child exchanges.

There was no single pattern of discourse which was used on all occasions in Rhonda’s classroom. There, as in the world outside, different styles of talk were used in different circumstances and for different purposes. Perhaps future studies of interaction in schools should give closer attention to the complementary nature of the different types of discourse found in classrooms. The extent to which talk in one context facilitates talk in other situations might throw some light on the effectiveness of instruction in particular classrooms. Changes over time are also significant. Had we simply sampled the talk from the earlier parts of the year our data would simply have confirmed earlier findings that school talk
is limited in scope and dominated by teachers. Over the period of observation, however, the talk in this classroom became more like talk outside the school. For these children the experience of formal schooling did not always exclude them from the type of collaborative learning which operates according to the same principles that guide any successful conversation and concerned essentially with the development and negotiation of meaning between adult and child.
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