THE NATURE AND ROLE OF PEER ASSISTANCE IN THE LITERACY LEARNING OF CHILDREN AGED SIX AND SEVEN YEARS

A thesis submitted in partial fulfilment of the requirements for the degree of Master of Education (Honours)

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CERTIFICATE OF ORIGINALITY

I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree.

I certify that any assistance received in preparing this thesis, and all sources used, have been acknowledged in this thesis.

[Signature]
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ABSTRACT

Our schools are shaped by theories of cognitive growth which place the individual at the centre of importance. However, if children are not considered as solo entities embarking on the learning process by themselves, but are viewed as a group negotiating and sharing meaning within the context of their own cultures, including the culture of the classroom, then we can conceptualise social interaction as a means for creating new cultures rather than transmitting existing ones. There is a need, then, to explore the nature of peer interaction not just to define or describe ways in which children assist each other to learn, but to determine the effects of social interaction on the learning environment.

This thesis investigates the ways in which young children assist each other as meaning makers in relation to written language as they interact in classroom writing sessions. It examines the nature of peer assistance in young children’s self-selected writing tasks, and the role of social interaction in literacy knowledge construction. It documents the patterns of interaction evident among a group of Year 1 students, and describes differences in the teacher’s and students’ perceptions of peer assistance in the classroom. Based on extensive observations in a Year 1 classroom, the study explores the potential of peer interactions to contribute to the literacy learning of individuals, and the construction of literacy within the group.
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Chapter 1

THE PROBLEM

1.1 Introduction

The research that this thesis describes sought to investigate the ways young children assist each other as meaning makers in relation to written language as they interact in classroom writing sessions. It examines the nature of peer assistance, and the patterns of interaction within which such assistance is embedded. It also attempts to describe adults' and children's differing perceptions of peer assistance in the classroom. Utilising classroom observations of Grade 1 students during daily 'Story Writing Time', the research explores the potential of peer interactions to contribute to the literacy learning of individual students, and the construction of literacy within the group.

The major questions which this study sought to address were:

1. In what ways do young children assist each other to make meaning through written language as they interact in classroom writing sessions?

2. What patterns of peer assistance are evident and what can be said of these patterns in relation to the research group as a whole and individuals in particular?

3. What role do peer interactions play in children's construction of literacy?

The theoretical framework for this study encompasses a constructivist view of learning, that assumes that children construct their view of the world through interactions with the people and objects in their environment. Drawing on the work of Vygotsky (1978), Bruner (1983, 1986, 1988) and Rogoff (1990, 1994), it defines literacy as a socially-constructed phenomenon and a cultural tool.

The study is based on the assumption that social interaction not only provides the context within which learning about written language takes place, but that "literacy development is interwoven with each child's growth as a symbol user and a social being" (Dyson, 1990a, p.51). At the same time, the study recognises the importance of the individual in learning, and adopts an approach which attempts to combine social and psychological aspects of
literacy development. The theories of Vygotsky, Bruner and Rogoff are presented in detail in the literature review contained in Chapter 2 of this thesis. A brief overview of this theoretical work is provided to situate the present study within its theoretical context.

Over the past fifteen to twenty years, the work of Vygotsky has had considerable influence on research into development in general and language development in particular (Rogoff, 1990; Barton, 1994). At the heart of Vygotsky's theory of learning and development lies the concept of the "Zone of Proximal Development". According to Vygotsky:

the zone of proximal development ... is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (1978, p.86).

Critical to Vygotsky's view of development is the concept of 'intersubjectivity'. Vygotsky suggested that learning occurs when the child and a social partner take on shared understanding, which acts to support the learner in achieving a higher level of problem solving, or cognitive functioning. The role that social interaction plays in development, therefore, is crucial, since any cognitive function is encountered first on the interpersonal level, and then on the intrapersonal (or individual) level (1978). However, Vygotsky's theory did not specify the process (or processes) which enable a child to move through the zone of proximal development.

One view of the process through which social interaction facilitates development is often explained in terms of Bruner's (1986, 1988) metaphor of 'scaffolding'. Although scaffolding has been defined in a number of ways, it usually refers to the process through which an adult provides support that enables a learner to assume progressively more responsibility for completing a task or achieving a goal. The concept of scaffolding has attracted much attention in recent literature on learning, and literacy learning in particular. While some writers (eg. Cazden, 1983; Boyle & Perego, 1990; Trousdale, 1990) find it a useful metaphor for describing the assistance provided to learners in specific situations, others (eg. Dyson, 1990b; Steward, 1995) point out its limitations in adequately representing the range of qualitatively different forms that adult assistance may take. Still other authors argue that the difficulty lies in the way that scaffolding is defined. For example, Harste, Woodward and Burke (1984) suggest that the concept implies that control of the interaction lies with the adult, while Cairney (1990) points out that scaffolding is not restricted to adults, but can equally apply to interaction between peers. The importance of scaffolding in the present study lies in its pervasive use in studies of the role of social interaction in the language development in young children.
An alternative view of the process through which social interaction leads to cognitive growth is provided by Rogoff's (1990) concept of 'guided participation' in cultural activity (which includes literate behaviour). Rogoff describes the elements of guided participation: "building bridges between what children know and new information to be learned, structuring and supporting children's efforts, and transferring to children the responsibility for managing problem solving" (p.viii). In contrast to Bruner's concept of scaffolding, Rogoff stresses the active role of the learner in guiding the assistance provided by a social partner. Using the analogy of 'apprenticeship', Rogoff focuses on "how the development of skill involves active learners observing and participating in organized cultural activity with the guidance and challenge of other people" (p.19).

Studies which have investigated the role of social interaction in language development have typically considered social interactions between adults and children (eg. Cazden, 1983; Heath, 1983; Snow, 1983; Teale & Sulzby, 1987; Woodward & Serebrin, 1989), and have until recently paid little attention to interactions among children themselves. However, if Vygotsky's theory of cognitive development is valid, then there is nothing inherent in the notions of the 'zone of proximal development' or 'scaffolding' which demand that one social partner be an adult for learning to occur. Indeed, Vygotsky (1978) stressed the value of interaction with peers and cited examples of research which demonstrated that young children could perform higher level functions in collaborative groups than they could perform alone.

Like Vygotsky, Rogoff does not restrict the role of support-player to adults or more capable peers. In developing the concept of guided participation, she refers to the underlying process of intersubjectivity as being "a sharing of focus and purpose between children and their more skilled partners and their challenging and exploring peers" (1990, p.8; italics added). Thus, Rogoff admits the possibility that interaction between partners of equal expertise may foster development, since "children and their partners appropriate from their interactions with each other a derived understanding based on their efforts to apply the tools of culture" (pp.15-6).

Taking the theories of Vygotsky, Bruner and Rogoff together, it is apparent that the role that social interaction plays in cognitive development is an important one, but one which has not yet been fully explained. Any investigation of the nature and role of peer assistance in learning, including literacy learning, needs to consider peer interactions in the light of these theories.
1.2 Significance of the Study

There are at least two ways in which an investigation of the nature and role of peer interactions in literacy learning may have significance for our understanding of children's development, both in theory and in practice. The first relates to the literacy development of individual children, while the second is concerned with language diversity and cultural reproduction.

First, an understanding of the ways in which peer interactions foster the literacy learning of individual students can contribute to our understanding of differential school achievement of students from different backgrounds. At a time when cultural and language diversity within individual classrooms is the norm rather than the exception (Roller, 1989; van Kraayenoord, 1994), it becomes crucial to find ways to allow all children equal access to experiences which will facilitate language and literacy learning. Any avenue which has the potential to minimise educational disadvantage deserves closer scrutiny.

Development is intrinsically bound up with interaction. But only recently has interaction per se achieved the status of a primary target of developmental research and theory. ... However demanding interaction may be to contemplate, and however exacting to operationalize, we believe that the study of interaction is decisive to the next step in comprehending human development. (Bruner & Bornstein, 1989, p.13).

While recent research has begun to investigate the peer interactions of young children (eg. Allen & Carr, 1989; Dyson, 1989a, 1989b; Rowe, 1989), little is yet known about the impact of such interactions on children's learning. As Rogoff (1990) points out, understanding the structure of adult-child and child-child interactions does not necessarily demonstrate that social interaction fosters individual children's development. In order to demonstrate such a link, it is necessary to examine explicitly the role of interaction in children's use of cultural tools. Written language is one such cultural tool.

The second way in which investigation of peer interactions in literacy learning is significant is through our understanding of the concept of cultural recreation. Traditionally, "the study of children's cognitive development has been dominated by perspectives that focus on the role of the individual in constructing reality" (Rogoff, 1990, p.4). A consequence of this has been that the role of interaction between social partners has typically been conceptualised as a means of achieving growth in the individual learner, and little attention has been paid to the possible role of interaction in shaping the broader social context (Bruner, 1986; Wertsch, 1991). However, as Bloome (1994) points out, there is increasing recognition among literacy researchers that:
Both learning to read and reading itself are ... part of a society's enculturation process. Through reading, children not only learn culturally appropriate information, activities, values, and interpersonal relationships, they also learn culturally appropriate ways of thinking about the world, ways of problem-solving, and other cognitive processes (p.101).

If children are simply considered as solo entities embarking on the learning process by themselves (with guidance from the teacher as one with superior knowledge, one who already occupies the "higher ground" of Vygotsky's theory), then children are socialised into a world that is a reflection of the adult world (Bruner, 1986). Culture, then, is reproduced or transmitted rather than recreated (Bruner & Bornstein, 1989).

In the same way, a pedagogy that views children as solo players on a journey towards knowledge, literacy, adulthood and enlightenment, views the cognitive growth of the child as a replaying of the same journey travelled by those who went before. Luke (1993) poses the question: "Whose footsteps are being retraced ... and where will they lead?" (p.149). The only possible result is a transmission of culture. When the culture of the school matches the culture of the child, then the child is more likely to experience 'school success' and when this is not the case, then it is the culture of the child which is often seen to be 'at fault'. Even theorists who recognise the role that cultural differences play in different school outcomes for different children, see at least part of the answer as lying in somehow providing the 'disadvantaged' child with the means to participate more fully in the culture of the school (eg. Heath, 1986; McCormick & Mason, 1986). Thus, the culture of the minority child or group becomes subsumed within the culture of the majority. While the 'school performance' of the minority child may well improve, it is at the expense of the minority culture. This may well be seen as an acceptable trade-off within our existing pedagogy, which emphasises the importance of the individual, or there may seem to be no alternative.

However, if we view the situation from an alternative pedagogical stance, which emphasises the importance of negotiated and shared reality, then the trade-off is not only unacceptable but unnecessary. If all members of the culture (in this case, the classroom) are allowed to interact to negotiate and create shared meaning acceptable to all, then culture is not merely transmitted but recreated (Bruner, 1986).

The importance, then, of understanding peer interactions of young children is not as simple as increasing the opportunities that a young child has to learn in the classroom (given that the time in which children can interact individually with teachers is limited), but that children's interactions can constitute a way of changing pedagogy and changing the role that schools play in the development of culture from one of mere cultural transmission, to one of cultural recreation. As Bruner explains:
I have come increasingly to recognize that most learning in most settings is a communal activity, a sharing of the culture. It is not just that the child must make his knowledge his own, but that he must make it his own in a community of those who share his sense of belonging to a culture. It is this that leads me to emphasize not only discovery and invention but the importance of negotiating and sharing - in a word, of joint culture creating as an object of schooling and as an appropriate step en route to becoming a member of the adult society in which one lives out one's life (1986, p.127).

Increased understanding of the role of social interaction in learning is not only critical to our understanding of children's cognitive development, but is the necessary starting point for the articulation of a theory of development which takes account of the culture creating function of learning. A detailed analysis of the nature and role of peer interactions in literacy learning can make a substantial contribution to the development of that understanding.

1.3 Limitations of Previous Research on Social Interaction

A large body of research into the role of social interaction in learning has been conducted in the Vygotskian tradition and has focused on interactions between adults and children (eg. Cazden, 1983; Heath, 1983; Snow, 1983; Teale & Sulzby, 1987; Woodward & Serebrin, 1989). Most previous research into the role of social interactions among peers has been conducted in the Piagetian tradition (Rogoff, 1990), with an emphasis on the role of cognitive conflict in learning. Rogoff suggests that this entire body of research suffers from limitations which must be overcome if we are to understand the role that interaction plays in learning.

The research into adult-child interaction has focused on white middle-class mother/child dyads (eg. Bruner, 1983; Snow & Ninio, 1986; Panofsky, 1989; Renshaw, 1992), often interacting in researcher-controlled situations, and has tended to overlook the richness of naturally-occurring interactions in a range of settings. The focus has been on infants or very young children (eg. Cazden, 1983; Ferreiro, 1986), observations have been relatively few (eg. Woodward & Serebrin, 1989; Trousdale, 1990), and learning has been measured by evidence of increased understanding or skill. Studies of peer interaction have tended to involve older children working on teacher (or researcher) set tasks over one or a few sessions (eg. Brimble, 1992; Freedman, 1992; Weppler & Moore, 1993), and have focused on learning outcomes rather than interaction processes (eg. Heward, Heron & Cooke, 1982; Topping, 1989).

Building on several other studies of interactions among young children engaged in literacy-related activities (Allen & Carr, 1989; Dyson, 1989a, 1989b; Power, 1989; Rowe, 1989),
the present study attempts to overcome some of the limitations mentioned above. For example, the study involves many observations over a relatively long period of time (8 months); it focuses on interaction patterns among groups of learners rather than pairs; it investigates situations in which children set their own problems, procedures and rules and delineate their own goals within the context of learning a culturally-valued activity; it takes account of the wider social context in the form of the framework set by the teacher; it focuses on processes of learning rather than products as measures of impact; and it involves naturally-occurring activity rather than situations 'set up' by a researcher. By attempting to overcome some of the limitations of previous research, the present study aims to contribute to our understanding of the nature and role of peer assistance in the literacy learning of young children.

1.4 Outline of Remaining Chapters

Chapter 2 of this thesis is a review of literature related to learning in general and literacy learning in particular. It begins with a critical review of the constructivist view of learning, and how this relates to theories of language learning. It examines literature on the development of oral language and its relationship to the development of written language. The role that social interaction plays in learning is explored, with an emphasis on the role of social interaction amongst peers. Studies of the nature of interactions within classrooms are examined, with particular attention to the nature and role of classroom talk. Finally, a number of studies which investigated the role of peer interactions in literacy learning are considered in detail.

Chapter 3 situates this study within a naturalistic enquiry paradigm, and describes the methodology employed. It provides background information about the setting and participants, and how and why these were selected. This chapter also provides a detailed account of the data collection strategies and data analysis procedures used, and justifies these in relation to relevant literature and related studies.

Chapters 4 to 6 focus on the research group as a whole. Chapter 4 presents the results of the inductive analyses of peer assistance in young children's literacy learning. It examines the purposes for children's talk within Story Writing Time, and the nature and content of peer assistance. Chapter 5 presents the patterns of peer assistance evident within the research group. It also describes teacher and student perceptions of peer assistance during Story Writing Time. Chapter 6 explores the role of peer interactions in young children's construction of literacy. A number of ways in which peer interactions may impact on children's literacy learning are described with reference to, and examples drawn from, the research group as a whole.
Chapter 7 focuses on the literacy learning experiences of the four focal children during Story Writing Time. It presents an elaborated analysis of the role of peer interactions in individual children's construction of literacy, and illustrates many of the findings of the previous chapters.

The final chapter of this thesis summarises the results of the study and examines these in the light of current pedagogy. The implications of these findings for classroom practice are examined and elucidated, and avenues for further research into the nature and role of peer interactions in children's literacy learning are suggested.
Chapter 2
LITERATURE REVIEW

2.1 Introduction

The process of language learning has been the subject of much research and intensive debate for many years (Pflaum, 1986). Researchers and theorists from a range of disciplines have sought answers to questions such as: How do children develop language? What is the role of the 'other' in the development of language? How can we account for individual differences in the development of language? What is the relationship between the development of oral language and learning to read and write? What role does language (both oral and written) play in cultural reproduction? All of these questions, as well as many others, need to be considered in any investigation of how children learn to be literate.

In this chapter, an extensive review of the literature relating to young children's development of language and literacy is presented. It includes studies from a range of disciplines and theoretical perspectives, including sociolinguistic and sociocultural theory. The review begins with the theoretical base which underpins the present study: the constructivist view of learning. In particular, the theories of Vygotsky, Bruner and Rogoff are considered in detail. Research which draws on the constructivist view to investigate the development of oral language and its relationship to the development of written language is examined. A further section of this chapter reviews research which explores language and literacy as social processes, and considers the role of adults and peers in the development of children's language and literacy. The social world of the classroom is examined, with emphasis on studies of the nature and role of classroom talk, and the impact of these on children's opportunities for learning. The final section of the review considers in detail several studies which have investigated the role of peer interactions in literacy learning, with particular attention to studies of writing development.

2.2 The Constructivist View of Learning

As indicated in Chapter 1, the theoretical base underpinning the present study is a constructivist view of learning. Constructivist theory is built on the premise that children construct a view of the world through interactions with the people and objects in their
environment. This view of learning emphasises the active role of the learner (John-Steiner & Souberman, 1978) and recognises that cognition is influenced by social context.

The work of Vygotsky (1978) and Piaget (1926) has special significance for constructivist theory. However, there are a number of critical differences between the theories of Piaget and Vygotsky, particularly concerning the relationship between language and cognitive development, and in their respective views of the role that social interaction plays in learning. Piaget's theory centres on identifiable developmental stages characterised by the individual's development of a set of cognitive processing strategies, largely through a process of biological maturation and individual functioning. Bruner (1986) explains Piaget's view of cognition:

Piaget, whose epistemological theory was a constructivist one ... clung nonetheless to a residual naive realism. Constructions for him were representations of an autonomous real world to which the growing child had to fit or "accommodate" (p.98).

A feature of Piaget's theory was the belief that "language reflected thought, but did not affect it" (Harste, Woodward & Burke, 1984, p.65). That is, language and cognition were assumed to be separate processes, with development of one not necessarily influencing development of the other. In Piaget's theory, the role of social interaction in learning is to prompt cognitive conflict within the individual: "children are seen as revising their ways of thinking to provide a better fit with reality when faced with discrepancies between their own ways of viewing the world and new information" (Rogoff, 1990, p.140). Thus, Piaget's view of cognition and learning centres on the individual and gives much less emphasis to the role of the social context.

In contrast to Piaget's view, Vygotsky's theory recognises the central role that language plays in mediating cognitive development and learning, and gives greater emphasis to social interaction as a vehicle for growth. Supporters of this theory contend that language is learned through use in interactions with others (Bruner, 1986; Harste, 1990). Tudge and Rogoff (1989) explain the major differences between the theories of Piaget and Vygotsky:

Although both Piaget and Vygotsky acknowledged the role that the social world plays in cognitive development, they differed in emphasis on the integration of the social world and individual development, the theorized causal mechanisms relating social interaction to cognitive development, the timing in ontogenesis of the effectiveness of such interaction, the ideal role relations and type of social partner presumed optimal, and the possibility of regression as well as progression resulting from social interaction (p.18).
Although Piaget's theory of development has had enormous influence on Western education for many decades, it is Vygotsky's theory which has gained considerable attention among researchers in recent years and which underpins the study described in this thesis.

2.2.1 Vygotsky

Unlike theorists before him (and many since), Vygotsky rejected the concept of development as a linear process of gradually accumulating changes in cognitive functions or strategies. Instead, he "focused upon the historically shaped and culturally transmitted" (John-Steiner & Souberman, 1978, p.122) processes which characterise human cognition. His concern was to explain the mechanisms of human growth and change, not just in the individual but in the broader social sense.

Vygotsky argued that, in the process of cognitive development, any function or concept is encountered first on an inter-individual (social) and then on an intra-individual (psychological) plane. He suggested that conscious mastery of any function is only achieved after it has been practised unconsciously in interaction with others (1978). To achieve conscious mastery, or 'higher ground', is what constitutes cognitive development. To explain how this development occurs, Vygotsky introduced the concept of the 'zone of proximal development'. Understanding what is meant by the 'zone of proximal development' is critical to the understanding of Vygotsky's theory.

According to Vygotsky, for each child at any given point in time it is possible to determine two levels of development. The first level, he argued, is:

the actual developmental level, that is, the level of development of a child's mental functions that has been established as a result of certain already completed developmental cycles (1978, p.85, italics in original).

It is the actual developmental level, according to Vygotsky, that is most often referred to by theorists and educators, and taken to be the indication of a child's mental abilities. There exists, however, another level of development which is determined by what the child can achieve with the assistance of an adult or more capable child, the level of potential development. Vygotsky suggested that "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (1978, p.86) is critical for learning. He called this the zone of proximal development.
The zone of proximal development is a critical concept in educational theory for at least two reasons. First, it allowed Vygotsky to explain the relationship between development and learning. Development can be identified as the functions or processes that have already been internalised by the child, as well as those which the child can only achieve with the assistance of others. According to his theory, learning occurs when a child gradually internalises higher level thought processes:

By using this (concept) we can take account of not only the cycles and maturation processes that have already been completed but also those processes that are currently in a state of formation, that are just beginning to mature and develop. Thus, the zone of proximal development permits us to delineate the child's immediate future and his dynamic developmental state, allowing not only for what already has been achieved developmentally but also for what is in the course of maturing (p.87).

The second reason for the importance of the concept of the zone of proximal development is that it highlights the important role that social interaction plays in learning. Vygotsky suggested that:

an essential feature of learning is that it creates the zone of proximal development; that is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers (p.90).

Thus, learning occurs when a child interacts with others within the zone of proximal development. To explain the process through which this occurs, Vygotsky used the concept of 'mediation' which is explained by Tudge and Rogoff (1989):

A central concept of Vygotsky's theory is mediation - that what is social is not directly converted into what is individual but passes through a link, a "psychological tool". One such mediating link is the "sign", of which words are the prime example in Vygotsky's theory (p.21).

Words, or language, thus serve as a 'mediating link' through which adults or more capable peers enable a child to internalise cognitive functions or strategies that the child was previously unable to use independently. In Vygotsky's view, the role of language then is critical in the development of higher mental functions.

An important part of Vygotsky's contribution to our understanding of human development is his recognition of the central role of language and social interaction in reproducing and
recreating culture. In his view, the processes involved in the development of the individual mirror the processes of human development in the broader cultural context. As Pontecorvo (1993) notes: "In (a) Vygotskian-enriched view, the individual functioning of the mind is part of a larger social functioning that is situated in a cultural environment" (p.191). The paradigmatic shift in our understanding of the processes of sociocultural transmission, which is part of Vygotsky's legacy, is explained by Cook-Gumperz (1986a):

Placing human agency in such a central position makes the transmission of socio-cultural knowledge, not simply an instrumental matter, but a creative process. Children's efforts to make sense of the communicative environment that surrounds them from the initial stages of life, involve both learning to understand interpersonal relations and a growing realization of the inescapable normativeness of language as a system of shared meanings. ... The more traditional approach to the problem of the transmission of socio-cultural knowledge, by contrast, viewed the child's acquisition of an adult socio-normative system as a gradual process of adaptation to the 'correct' forms of adult practices (p.38).

That is, the traditional view of cultural transmission is one in which children learn the norms and practices of their culture through imitating others or conforming to the "correct forms of adult practices" (Cook-Gumperz, 1986a). In the Vygotskian view, cultural transmission is a creative process in which members of the culture create shared norms and practices through interacting in culturally appropriate ways. Since language is the major means through which shared norms and practices are created and reproduced, language and social interaction are key elements in cultural transmission.

Although Vygotsky's writings have been available in English for many years, it is only in recent years that researchers and educators have turned their attention to his work and begun to investigate the implications of his theories for our understanding of children's development of language. His work is now widely recognised and underpins much of the literature included in this review.

2.2.2 Bruner

A major supporter of Vygotsky's work, and one who himself has contributed much to our understanding of language and learning processes, is Jerome Bruner (1983, 1986, 1988). Like Vygotsky, Bruner's (1986) view of constructivism gives less emphasis to the role of the individual in constructing a view of the world, and advocates closer attention to the role of social interaction in learning:
we do not construct a reality solely on the basis of private encounters with exemplars of natural states. Most of our approaches to the world are mediated through negotiation with others. It is this truth that gives such extraordinary force to Vygotsky's theory of the zone of proximal development (p.68).

Bruner suggests that part of the importance of Vygotsky's work lies in his attempt to understand cognitive development from a cultural as well as an individual perspective. He states that:

Looking at (Vygotsky's) work again after many years of inspiration from it, I think he provides the still needed provocation to find a way of understanding man as a product of culture as well as a product of nature (1986, p.78).

Bruner (1988) attempts to explain and extend Vygotsky's theory by investigating the processes which enable a learner to 'move through' the zone of proximal development. His concern is to explicate precisely how it is that, through interacting with others, a child is able to internalise cognitive functions and strategies. He describes what he calls the 'tutoring process':

If the child is enabled to advance by being under the tutelage of an adult or a more competent peer, then the tutor or the aiding peer serves the learner as a vicarious form of consciousness until such a time as the learner is able to master his own action through his own consciousness and control. When the child achieves that conscious control over a new function or conceptual system, it is then that he is able to use it as a tool. Up to that point, the tutor in effect performs the critical function of 'scaffolding' the learning task to make it possible for the child, in Vygotsky's words, to internalize external knowledge and convert it into a tool for conscious control (p.89).

In developing his concept of 'scaffolding', Bruner (1986) examined interactions between mothers and infants as they engaged in simple language games and construction tasks. He suggests that adults shape children's engagement in a task through the use of "formats - types of activities in which the partners can predict each other, attribute intentions, and in general assign interpretations to each other's acts and utterances" (p.49). He describes the features of a format as follows:

A format is a standardized, initially microcosmic interaction pattern between an adult and an infant that contains demarcated roles that eventually become reversible. ... They have a scriptlike quality that involves not only action but a place for communication that constitutes, directs, and completes that action (1983, pp.120-1).
Bruner suggests that through participation in the format or routine, through following the 'script', the child is able to complete progressively more of the action independently. Once the child has achieved conscious mastery of the task, the adult withdraws the 'scaffold' or support, thus allowing the child to take responsibility for completing the task.

In recent years, a number of researchers and theorists have been critical of Bruner's concept of scaffolding, arguing that it underestimates the active role of the learner (Barton, 1994). Harste et al. (1984) point out, for example, that "the term 'scaffolding' assumes that the adult is in charge, simplifying, manipulating, or structuring the environment for learning" (p.61). Specifically in reference to the role that scaffolding is assumed to play in language development, Harste et al. argue that the concept is inadequate since:

The essential notion underlying scaffolding is that the adult determines the language structures to be used by the child and that such structuring facilitates the child's acquisition of language
(p.60).

This notion of scaffolding is misleading since it implies that adults maintain control of learning situations. Yet the work of Harste and others has shown that, to a large extent, learners maintain control of their own learning environments and are not simply 'manipulated' by the adults in their worlds. This work will be explored in later sections of this review.

Much of the research into language and learning that is built on a Vygotskian view of cognitive development adopts Bruner's concept of 'scaffolding' to explain how social partners mediate learning (eg. Cazden, 1983; Boyle & Peregoy, 1990; Trousdale, 1990). This has resulted in an emphasis (in the research literature) on adults as effective partners in learning. However, as Cairney (1990) points out, scaffolding is not restricted to adults and can equally apply to interaction between peers. Furthermore, the concept of scaffolding may not adequately explain the processes involved in learning. While it may describe what adults do in certain types of interactions with learners, it fails to describe the role of the learner in such interactions, and does not apply universally to learning situations across cultures.

2.2.3 Rogoff

An alternative view of the processes through which social partners mediate learning has been proposed by Tudge and Rogoff (1989) and, more recently, Rogoff alone (1990, 1994). Rogoff (1994) states her goal as being:
to articulate a perspective on human development that takes as a central premise the idea that learning and development occur as people participate in the sociocultural activities of their community, transforming their understanding and responsibilities as they participate (p.1).

The work of Tudge and Rogoff explores commonalities between the theories of Piaget and Vygotsky, and uses these as a starting point for investigating the role of social interaction in learning and, more specifically, the importance of shared understanding between learning partners. Tudge and Rogoff (1989) explain that:

Piaget and Vygotsky shared an emphasis on the importance of partners' understanding of each other. The idea of cooperation in sharing thought processes, which appears in both Piaget's and Vygotsky's theories, is related to the linguistic concept of intersubjectivity ... intersubjectivity focuses on the joint understanding of a topic achieved by people working together and taking each other's perspective into account (pp.21-2).

Drawing on Vygotsky's work, Rogoff defines intersubjectivity as "shared understanding based on a common focus of attention and some shared presuppositions that form the ground for communication" (1990, p.71). Intersubjectivity is seen as critical to learning since it forms the basis of communication between social partners and provides support for children to extend their understanding of concepts or ideas, and to relate new information to existing knowledge.

Rogoff developed this view of learning into a theory of guided participation which emphasises involving children in tasks or activities that are meaningful within their own culture. This theory assumes that children have opportunities to observe and take part in these activities, and that adults support children's increasingly independent involvement in them by modeling the activity, 'coaching' the child, and gradually fading all forms of support.

Tudge and Rogoff (1989) warn, however, against assuming that social interaction will lead to learning in all circumstances:

We consider that social interaction does not carry blanket benefits, as is often assumed, but that social interaction facilitates development under certain circumstances that need more specification. One of the most important of these appears to be the possibility for the participants to understand another perspective or participate in a more advanced skill, either through active observation or through joint involvement in problem solving (p.17).
A feature of Rogoff's work is her recognition of the important role that peer social interaction may play in children's development. Unlike researchers and educators who have assumed that peers are less effective than adults in facilitating children's development, Rogoff explores similarities and differences between adult-child and child-child interactions. She suggests that:

Shared problem solving, in which children can participate in collaborative thinking processes, appears central to the utility of social interaction for children's development. Peers may be less skilled partners than adults in some activities, but may offer unique possibilities for discussion and collaboration when they consider each other's perspective in a balanced fashion. Peers also serve as highly available and active companions, providing each other with motivation, imagination, and opportunities for creative elaboration of the activities of their community (1990, p.ix).

Tudge and Rogoff argue that Vygotsky's theory of cognitive development entails the view that only adults or more capable peers can be effective learning partners. They explain:

Vygotsky's emphasis on interaction with more skilled partners is necessary to his theory, as such interaction is conceived as the means by which children become enculturated in the intellectual tools of their society. The agent of socialization must thus be someone who knows more than the child about those tools. ... The concept of the "zone of proximal development" requires not only a difference in level of expertise but an understanding on the part of the more advanced partner of the requirements of the less advanced child, for information presented at a level too far in advance of the child would not be helpful (1989, p.24).

Rejecting Bruner's concept of scaffolding, Rogoff prefers to adopt the metaphor of apprenticeship to describe the role of social interaction in cognitive development. She argues that this metaphor is more appropriate since it recognises that peers of equal expertise may facilitate learning for each other:

... the apprenticeship system often involves a group of novices (peers) who serve as resources for one another in exploring the new domain and aiding and challenging one another. Among themselves, the novices are likely to differ usefully in expertise as well (1990, p.39).

Importantly for the study described in this thesis, Tudge and Rogoff (1989) conclude that:

Peers can have a profound impact on children's cognitive development. There is support both for Piaget's notion that peer interaction may benefit an individual's cognitive development, and
for the Vygotskian position, which stresses the benefits of interaction with more advanced partners providing assistance within the zone of proximal development (p.34).

The theories of Vygotsky, Bruner and Rogoff are critical to our understanding of learning and cognitive development. Although they differ in important respects, they each recognise the importance of the role of social interaction in cognitive development, and each contribute to our understanding of the processes through which social interaction mediates learning. The following section of this review examines research which builds on the work of Vygotsky, Bruner and Rogoff to explore children’s language learning.

### 2.3 Learning How to Mean

Over the past several decades many researchers and theorists have attempted to explain the processes through which children develop language (see Pflaum, 1986, for an historical overview). For many years, until the sixties, the dominant theory of language development was the behaviourist model. According to behaviourist theory, children learn language through imitation and association. Harste et al. (1984) describe how this model attempts to explain the process of children learning how to mean:

In a behavioral model the meaning problem is supposedly resolved by repeated exposure. ... By reiterated associations of the sound and the object, ... in the end an associative bond is formed. In this model the language learner is seen as passive, being shaped by his or her environment (pp.55-6).

With time, however, the failure of the behaviourist model to account for the development of syntactic rules resulted in the gradual rejection of this theory. Through the late sixties and seventies, work in developmental psycholinguistics drew attention to the role of the child in interpreting the rules of language use. Harste et al. (1984) describe this shift in perspective:

Instead of passively awaiting external reinforcement, children came to be seen as actively attempting to understand the nature of the language spoken around them, making predictions and testing hypotheses about how language worked (p.56).

This view of language learning suggested that children form their own version of the language, based on their attempts to understand the language around them. In the early eighties, however, increased attention to the processes through which children learn language, as well as more widespread recognition of the work of Vygotsky and Bruner, resulted in greater emphasis on the role of social interaction in learning and the
development of a transactional model of language. Unlike earlier models of language development, the transactional model views learning how to mean as a two-way process:

A transactional view of language learning ... assumes that meaning resides neither in the environment nor totally in the head of the language learner, but rather is the result of ongoing sign interpretation (Harste et al., 1984, p.57).

In a transactional model, language learners encounter signs in interactions with other members of their community and interpret these signs in ways consistent with their own culture. Building on a transactional model of language learning, Dyson (1990a) describes children learning how to mean:

Like the adults around them, they invest certain kinds of forms - movement, lines, sounds - with meaning, and thus they begin to use the movements of play, the lines of drawing, and the sounds of language to represent or symbolize the people, objects, and events that comprise their world. This ability to organise and express inner feelings and experiences through shared gestural, visual, and verbal symbols is a part of children's human heritage; meaning making, like eating and sleeping, is an inherent part of being alive (pp.50-1, italics in original).

In what follows, recent research into the processes through which children learn oral language, as well as the relationship between oral and written language, is examined in detail. The role of language in cultural reproduction is also explored.

2.3.1 The development of oral language

Language is the medium through which an individual becomes a social being: even before they learn to speak, infants engage in interactions which enable them to discover "both their separateness from their communication partners and also their essential similarity to them" (Wells, 1986a, p.35). As their understanding and use of language develops, children learn to communicate their intentions as well as to interpret the intentions of others. Bruner (1983) points out the dialogic nature of communication:

entry into language is an entry into discourse that requires both members of a dialogue pair to interpret a communication and its intent (p.38).

Drawing on the work of Vygotsky and Bruner, many recent studies of language development in young children emphasise the role that adults, particularly parents, play. This role is often explained in terms of Bruner's (1983, 1986) concept of 'scaffolding', which in turn owes much to Vygotsky's concept of the zone of proximal development.
Although scaffolding has been defined in many different ways, and has been criticised by some researchers (see section 2.2.2), it continues to be used as a metaphor for the role that adults play in children's development. Boyle and Peregoy (1990) describe its use in studies of language development:

In language acquisition research, scaffolding refers to special ways adults may elaborate and expand upon children's early attempts to use language, thereby facilitating effective communication at a level somewhat beyond the child's actual linguistic capability (p.195).

Scaffolding may take the form of routinized activities which, because of their predictability, provide the child with a supportive framework within which meaning can be constructed (Bruner, 1983, 1988; Peters & Boggs, 1986). By repeatedly creating contexts or situations with similar structure, the parent makes it possible for the child to construct appropriate meanings and responses and thereby develop his language competence. This occurs gradually, with the parent expecting and reinforcing progressively closer approximations of the adult form of response within the given structure. Bruner (1983) suggests that:

parents play a far more active role in language acquisition than simply modeling the language
... Parents speak at the level where their children can comprehend them and move ahead with remarkable sensitivity to their child's progress (p.38).

Some researchers have attempted to discover what it is that parents do that enables some children to develop language more quickly than others. Wells (1986a) argues that, while children who are talked to frequently by adults develop language at a faster rate than those who are seldom spoken to by adults, it is more than simply a question of quantity of interaction: certainly quality of interaction plays a part. For example, Cross (1978, cited in Genishi and Dyson, 1984) reports that "children learn to talk more quickly if the meaning of their mothers' conversational responses depends on, or is contingent upon, what the children say" (p.16). This form of interaction, in which an adult continues topics introduced by a child, is often referred to as semantic contingency and has been noted by numerous researchers (eg. Wells, 1981; Snow, 1983). Semantically contingent utterances may include expansions or extensions of the child's previous utterance, as well as clarifying questions and answers to child questions.

Another form of interaction which is assumed to facilitate the development of oral language is the use of accountability procedures (Snow, 1983). 'Accountability' refers to situations in which adults demand that children produce the levels of language performance of which they are capable. Examples of accountability procedures cited by
Snow include not accepting 'baby-talk' from a child whose language competence has progressed beyond that point, and refusing to answer questions to which the child already knows the answer.

Cazden (1983) suggests that there are three forms of adult assistance in language learning: scaffolds, models and direct instruction. She extends Bruner's use of the term 'scaffolding' by distinguishing between vertical and sequential scaffolding. Cazden's concept of 'vertical scaffolding' closely parallels other researchers' concept of semantic contingency, while 'sequential scaffolding' is found in formats and routines. In addition to scaffolds, Cazden suggests that adults provide models of appropriate language use, and provide direct instruction in the form of expecting a child to repeat a given word or phrase. Garton and Pratt (1989) argue that the notions of scaffolds, models and direct instruction "have proved useful when looking at the development (and teaching) of reading and writing" (p.52). However, the concept of 'scaffolding' has been shown to be inadequate in describing the process through which social interaction mediates learning, while the concepts of 'modeling' and 'direct instruction' are more consistent with a behaviourist than with a transactional view of learning.

A more useful, and theoretically consistent, view of the development of oral language has been proposed by Cambourne (1988, 1995). Rather than focus specifically on the role that adults play in language development, Cambourne describes eight conditions which he suggests are necessary to make learning to talk successful. By 'conditions', Cambourne refers to "particular states of being (doing, behaving, creating), ... a set of indispensable circumstances that co-occur and are synergistic in the sense that they both affect and are affected by each other" (1995, p.184). The conditions described by Cambourne are: immersion in the language to be learned, demonstrations of the uses and functions of language, active engagement by the learner, expectations that language learning will be successful, learners taking responsibility for making decisions, acceptance of approximations, opportunities for employment of developing language skills and response from other language users. In this view, the role of adults in oral language development is to ensure that all of these conditions occur within the language learning environment.

Regardless of the form that adult assistance is presumed to take, Hall (1987) makes two important points about the role that parents play in the development of oral language. First, he argues that the concept of scaffolding does not imply that parents take the role of instructor "in the sense of formulating specific teaching objectives and devising strategies to achieve these objectives" (p.14). Instead, it is often the child who initiates and terminates the interaction, and parents are respondents and participants. Second, he points out that the support that parents provide "is usually not focused on the mastering of
linguistic skills" (p.14) but rather is "focused on the pursuit of other activities and the linguistic exercise is embedded within the achievement of those pursuits" (pp.14-5). That is, children learn oral language as they interact with others in the day-to-day activities in their world.

2.3.2 Relationship to written language

There has been much debate in the literature about the relationship between the oral and written forms of language (see Barton, 1994, for an historical overview), as well as the relationship between learning oral language and learning written language (Genishi & Dyson, 1984; Hall, 1987; Hammond, 1990). Snow (1983), for example, argues that "literacy and oral language are very similar and closely related skills which are acquired in much the same way" (p.166). In contrast, Cambourne (1988) points out that "written language is not merely oral language which has been written down. The written form of the language is different from the oral form in many subtle and complex ways" (p.43).

For many years, the preoccupation with studies of oral language development resulted in little attention being given to early literacy learning. Harste et al. (1984) explain why this occurred:

Part of the reason so few persons have studied literacy before schooling lies in the assumptions embedded in what we have termed "the oral language supremacy assumption." This assumption is that oral language must be in place before written language can be learned. ... The assumption is that reading is not a language learning opportunity; all concepts must be in place in oral language before the reading process can work. A further assumption here is that oral language maps directly onto written language (pp.61-3).

However, the 'oral language supremacy assumption' gradually lost prominence since "current research in young children's writing and reading development suggests that it is erroneous to think that children in literate societies acquire writing and reading as 'written language' after they have acquired 'oral language'" (Sulzby, 1986, p.50).

In recent years there has been increased recognition that just as oral language development begins with a child's first experience of oral language, so too does development towards literacy begin with the child's first exposure to print. Holdaway (1979), for example, argues that "children with a background of book experience since infancy develop a complex range of attitudes, concepts and skills predisposing them to literacy" (p.49).
This view of literacy learning is supported by Yetta Goodman (1986) who refers to the "roots of literacy". Goodman uses the findings of a number of different research studies to support her conclusion that even very young children are "inventing, discovering, and developing literacy as they grow up in the literate society" (p.12). A number of longitudinal studies focusing on the reading-like and writing-like behaviour of toddlers and preschoolers (eg. Lass, 1983; Schmidt, 1985; Ferreiro, 1986) demonstrate how these behaviours can be viewed as the precursors of literacy.

Borrowing from Bruner's work on the social interactional nature of oral language acquisition, several researchers have attempted to identify the forms of social interaction that facilitate literacy development. For example, Cazden (1983) argues that the notions of scaffolds, models and direct instruction, which have been shown to facilitate oral language acquisition, are crucial to the development of literacy. Similarly, Snow (1983) draws on a case study of one child in interaction with his mother to "demonstrate that the three characteristics of adult-child interaction which facilitate language development - semantic contingency, scaffolding, and accountability procedures - are also characteristic of interactions around literacy materials and activities" (p.174).

Some researchers emphasise the similarities between oral and written language to argue that promoting literacy development is a matter of providing similar conditions to those which foster oral language development (eg. Cambourne, 1988, 1995; Temple, Nathan, Burris & Temple, 1988). For example, Cambourne (1988), argues that while the conditions that he identified as being critical for oral language development (see section 2.3.1) "cannot be precisely replicated for the written mode of language, the principles which they exemplify can" (p.45). His work shows that these conditions for learning underpin successful literacy learning in classrooms. Arguing against the commonly cited view that learning written language is more difficult than learning oral language because written language is more decontextualised, Harste et al. (1984) point out that "from a socio-psycholinguistic perspective, reading and writing do not involve less concern for context than do speaking and listening" (p.64).

In the most recent studies of the development of written language there is now recognition that "an important part of what children are acquiring is an understanding of the relationships that can exist between oral and written language in their culture" (Sulzby, 1986, p.51). This view has lead to consideration of the connections between oral and written language, and cultural reproduction.
2.3.3 Language and cultural reproduction

Increased recognition of the work of Vygotsky (1978) and Bruner (1983, 1986) has greatly influenced current views on the connections between language and culture. Bruner (1986) points out that:

in the last decade there has been a revolution in the definition of human culture. It takes the form of a move away from the strict structuralism that held that culture was a set of interconnected rules from which people derive particular behaviors to fit particular situations, to the idea of culture as implicit and only semiconnected knowledge of the world from which, through negotiation, people arrive at satisfactory ways of acting in given contexts (p.65).

This view of culture as negotiated has necessitated a rethinking of the process of cultural transmission. Although there is some dispute as to precisely how culture is transmitted, particularly concerning the role that social forces play in the process (Cook-Gumperz, 1986a), there is at least agreement that cultural transmission is partially effected by the language practices of the members of the culture (Barton, 1994). Since culture consists of values, morals and ways of thinking and problem-solving that are primarily expressed through language, it is only through language that particular aspects of culture can be adopted or altered. It is important to recognise that language does not, therefore, simply reflect culture but in fact helps to shape it. Bruner (1986) explains that:

a culture is constantly in process of being recreated as it is interpreted and renegotiated by its members. ... a culture is as much a forum for negotiating and renegotiating meaning and for explicating action as it is a set of rules or specifications for action (p.123, italics in original).

It is through language that individuals build up the ideals, morals and ways of thinking that make them members of their culture. Wells (1986a) describes how, in their interactions with young children, adults respond selectively to children's noises, gestures and behaviours and thereby "assimilate them to behaviours that they themselves find meaningful. The meanings attributed are therefore cultural meanings" (p.35). Children learning the language of their culture not only learn to assign culturally appropriate meanings to objects and events, but the ways of thinking of the cultural group influence to which objects and events meaning is assigned at all.

The social and linguistic practices of any particular cultural group influence the language skills or competencies that individual members of the group develop (Peters & Boggs, 1986). Rogoff (1990) points out the inseparability of the individual from the social:
... children's cognitive development is inseparable from their social milieu in that what children learn is a cultural curriculum: from their earliest days, they build on the skills and perspectives of their society with the aid of other people... Development involves children's progress toward local ideals of mature thinking and action, rather than progress toward a universal goal (p.190).

The ways in which adults affect children's cognitive development through adjusting their ways of talking to children vary from culture to culture (Barton, 1994). For example, in her study of African-American and white working-class communities in the southern U.S.A., Heath (1982, 1983) found that differential questioning by adults in the two cultural groups produced different language practices in the respective groups of children. In the Roadville (white) community, parents often asked their children questions to which the parent already knew the answer: they expected a particular type of response and would "coach" the child until he "got it right" (1982, p.136-7). In contrast, parents in the Trackton (black) community almost never asked their children questions of this type. Instead, they asked questions such as "What's that like?" (p.105), designed to teach children to compare events or situations and make analogies. Thus, the language skills which the two groups of children developed as a result of parental questioning practices were vastly different.

The ideals, morals and expectations of any cultural group will also influence the actual language performance of any member of the group in any given context. For example, Heath (1983) found that Trackton children (particularly girls) could take any of a number of roles in their interactions with adults: they could scold, console, etc. with impunity. Once they were beyond childhood, however, cultural dictates were such that scolding and consoling were no longer appropriate linguistic forms for them to use in their relationships with adults of higher status.

Like oral language, the use of written language is not only a social act, but a cultural practice (Gee, 1990; Cairney, 1995). It not only reflects the beliefs and values of a cultural group, but helps to shape them. Cairney (1995) explains that "literacy is used as a cultural tool to construct symbolic meanings and to engage with others. It is also acquired as people relate to one another" (p.1). This view recognises that literacy varies from culture to culture, and has become an important avenue of research.

A key concept for the empirical study of ways of taking meaning from written sources across communities as that of literacy events; occasions in which written language is integral to the nature of participants' interactions and their interpretive processes and strategies. In such literacy events, participants follow socially established rules for verbalizing what they know.
from and about the written material. Each community has rules for socially interacting and sharing knowledge in literacy events (Heath, 1986, p.98).

Researchers interested in cultural aspects of literacy development have investigated cultural differences in the functions and forms of written language, how children are socialised into these uses of literacy, and how this affects their literacy development in school (e.g. Au & Mason, 1981; Heath, 1983, 1986; Michaels, 1986). While these researchers often acknowledge that there is as much variation within a particular cultural group as there is across groups, they still argue that the culture of the school serves to alienate some children from learning the functions and forms of written language typically valued in school. Why this occurs is explained by Bruner (1986):

Education is (or should be) one of the principal forums for performing this function - though it is often timid in doing so. It is the forum aspect of a culture that gives its participants a role in constantly making and remaking the culture - an active role as participants rather than as performing spectators who play out their canonical roles according to rule when the appropriate cues occur. But this conclusion runs counter to traditions of pedagogy that derive from another time, another interpretation of culture, another conception of authority - one that looked at the process of education as a transmission of knowledge and values by those who knew more to those who knew less and knew it less expertly (p.123).

What is needed, then, is a shift in educational theory that takes account of the role of language and literacy in cultural reproduction (Cook-Gumperz, 1986b). To achieve this shift, we need to understand more fully the processes of social interaction that facilitate learning.

2.4 Language and Literacy as Social Processes

A fundamental assumption underpinning a social constructivist theory of language is that language learning is a social act (Bloome, 1985; Bruner, 1986; Heap, 1989; Gee, 1990; Cairney, 1995). Harste et al. (1984) explain this view of language:

language is, by its very nature, social. Not only do writers assume they have readers, and speakers assume they have listeners, but interaction with real or supposed social others involving all of the expressions of language is an integral part of any instance of the language and the language learning process (p.193).

With the recognition of the social nature of language came an increased interest in social aspects of learning to be literate. Barton (1994) explains that "literacy has a social

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meaning; people make sense of literacy as a social phenomenon and their social construction of literacy lies at the root of their attitudes, their actions, and their learning" (p.28). Literacy, like oral language, is learned through our relationships with other people in our world:

All literacy events are in essence social. We learn as we relate to other people and acquire literacy as an extension of the relationships we build with others. The choices we make as literacy learners, our literary preferences, and our interests are all inextricably linked with the relationships that characterize our world (Cairney, 1992, p.21).

While many researchers recognise the importance of social interaction in literacy development, there is a dichotomy of views as to why it is important (Dyson, 1991). Bloome (1994) divides research on reading as a social process into three categories, but his distinctions apply equally well to research on literacy generally:

A first group of studies views (literacy) as a cognitive-linguistic process embedded in a social-communicative context. ... A second group of studies is concerned primarily with the social uses of (literacy). ... The third group of studies is primarily concerned with literacy as a sociocognitive process. Both learning to (be literate) and (literacy) itself are viewed as part of a society's enculturation process (p.101).

For some researchers, the significance of social interaction is that it provides the context or setting for learning to take place (eg. Freeman & Sanders, 1987; Cazden, 1988; Schmidt, 1995). Other researchers, such as McGinley and Kamberelis (1992), have investigated the social uses of literacy, and how children use literacy to make sense of their social relationships and their worlds. Similarly, Dyson (1992) explores literacy as a way of interacting with others in one's world. She argues that "in responding to the social world at any one moment, the author, child or adult, shapes not only a text, but also a sense of self, of one's place in a complex social world" (p.440).

For researchers who 'fit' Bloome's third category, the role of social interaction is much greater since it not only provides the context but is the actual vehicle through which learning occurs. Gallas (1992), for example, reports on a study of sharing time in a primary classroom in which she attempted to build a sharing community that recognised each child's cultural membership and valued all kinds of social interaction. She notes that "when each member of the classroom community strives to affirm the importance of all voices, the benefit for every child is much greater" (p.182).
Researchers who recognise the importance of social interaction in language and literacy development have variously turned their attention to interaction between adults and children (e.g. Cazden, 1983; Teale & Sulzby, 1987; Woodward & Serebrin, 1989), or among children themselves (e.g. Dyson, 1985, 1989a; Allen & Carr, 1989; Rowe, 1989). Previous studies of interactions between adults and children, or among peers, are important in the context of the present study, since they contribute to our understanding of the processes through which social interaction mediates learning in a variety of contexts.

2.4.1 Adult-child interactions

Studies of social interaction between adults and children have examined a variety of learning situations, but one of the most powerful, and most researched, early literacy experiences is book reading between adult and child (e.g. Heath, 1983, 1986; Cochran-Smith, 1984, 1985; Panofsky, 1989; Renshaw, 1992, 1994). Barton (1994) suggests that the reason for the proliferation of studies of joint book reading experiences, which he calls 'story time', is that "the study of story time provides a link ... with earlier spoken development and with later school learning" (p.141).

Ninio and Bruner (1978) and Snow (1983) initially conducted research into the social interaction surrounding picture-book reading in an attempt to elucidate the processes by which children acquire oral language. However, in the light of an increased emphasis on early literacy development, Snow and Ninio (1986) re-examined their earlier work from the perspective of written language and identified a number of rules, which they termed 'contracts', about written language which children must learn if they are to participate successfully in the social interactions of book reading. These contracts include learning such things as that books are for reading (rather than chewing or throwing), that picture and text are related and constrain the story, and that there are many different kinds of reading material and ways of reading.

Panofsky's (1989) analysis of parent-child book reading events reveals two types of language function: relational (activity-related) and ideational (text-related). In searching for evidence of preschoolers' interpretive knowledge of books and book-reading strategies, Panofsky traces the development over time of textual meanings and analyses the ways language is used to construct them. She concludes that young children engage in sophisticated text construction and comprehension strategies in parent-child interactions. However, in comparing this type of book-reading event with interactions typically encountered in school, Panofsky argues:
In the home book reading examples, the intellectual work of constructing textual meaning is socially shared and the activity itself is organized as a joint process... By contrast, intellectual work at school tends to focus on individual, isolated activity, without benefit of the unrestrained social sharing of knowledge and skills (p.125).

Renshaw (1992) identifies two styles of reading in the shared reading of preschoolers and their parents: a 'read with' style that emphasises dialogue between parent and child during reading, and a 'read to' style that is characterised by a mainly quiet but attentive role for the child. He provides evidence to suggest that parents adjust the demands of the reading situation as their child makes the transition to school. Renshaw also suggests that through shared reading experiences with adults, young children learn to variously take on the roles of 'audience' or 'reader' with siblings or friends of varying expertise (1994).

Although the studies discussed above report vastly different findings, these differences are a result of the differences in perspective adopted by the researchers, as well as differences in the specific context of each study. However, "what emerges clearly from these studies is that much more is involved in sharing stories with children than simply a familiarisation with the structures and vocabulary that are characteristic of written language and a growing facility in handling the layout and conventions of print" (Wells, 1989, p.255). Rather, it is through the talk that accompanies story reading that children begin to develop an understanding of the relationship between language and experience (Wells, 1989).

Recognition of the importance of the talk that surrounds storybook reading has been extended to teachers reading books aloud to children in school (eg. Cochran-Smith, 1984; Martinez & Teale, 1989; Dickinson & Smith, 1994). Research has revealed that different teachers mediate texts in different ways, and that these differences impact on children's literacy learning. In particular, teachers differ in the talk that surrounds the reading experience; the information that they encourage children to focus on during storybook reading; and their use of instructional strategies to manage interactions (Martinez & Teale, 1989).

Another important strand of research into the role of social interactions in learning involves investigation of tutoring situations between adult and child. As Bruner (1986) points out:

 Until very recently, there were very few studies of tutoring - for the very reason (that) the child was studied as a lone agent mastering the world on his own (p.75).
Bruner and his colleagues (Wood, Bruner & Ross, 1976) conducted research designed to investigate what actually happens "in a tutoring pair when one, in possession of knowledge, attempts to pass it on to another who does not possess it" (Bruner, 1986, p.75). Through studying adult-child pairs engaged in simple toy construction tasks, they found that the adult controlled the focus of attention, segmented the task in ways appropriate to the child's current expertise, and gradually relinquished control to the child as the child gained mastery of parts of the task. Bruner reports that later duplication of this work with young child-child pairs reveals that the major difference between adult and child tutors is that child tutors are unable or (unwilling) to relinquish control of the task to the tutee. If, as Rogoff (1990) suggests, learners gradually assume control of learning situations, then this may be an argument against the effectiveness of peers as learning partners.

2.4.2 Child-child interactions

In the past two decades there have been three main strands of research into the role of children's interactions in learning: the first strand has focussed on peer tutoring, the second has focussed on cooperative learning among peers, while the third has explored peer collaborative learning (Gillies & Ashman, 1995). These three types of peer learning differ in terms of organisational features, ways in which they structure learning, and social and cognitive outcomes.

Much of the work on teaching and learning with peers has concentrated on peer tutoring episodes between children of different levels of 'expertise': that is, one child is seen to be academically or cognitively more advanced than the other (or the group) (eg. Heward, Heron & Cooke, 1982; Topping, 1989). However, this research has tended to focus on learning outcomes, usually defined as performance on specific tasks, and has paid little attention to the social dynamics of peer teaching.

Topping (1989), for example, defines peer tutoring as "a more able child helping a less able child in a co-operative working pair carefully organised by a teacher" (p.489), and suggests that it "involves learning that is co-operative, active, and interactive, and ... is characterised by very high rates of time on task" (p.490). Drawing on his earlier work in developing the Paired Reading technique for parents to use in helping their children at home (Topping, 1987), he suggests that peer tutoring can be equally beneficial to both tutor and tutee. Focusing mainly on gains in reading achievement, defined as reading age on standardised tests of reading ability, Topping's work provides advice to teachers on the intricacies of effectively pairing tutors and tutees, but pays little attention to relationships and interactions between tutors and tutees within the context of peer tutoring sessions.
Like Topping, Heward et al. (1982) recognise that peer tutoring can result in improved academic performance for both tutors and tutees, but suggest that one of the drawbacks is that tutors must already have mastered a skill before they can assist a peer in learning that skill. Focusing on age rather than expertise, Heward and his colleagues define peer tutoring as "instruction by a same-age classmate" (p.116). They have devised a method called 'Tutor Huddle' whereby tutors can be given instruction in a new skill or concept and immediately provide instruction in that same skill or concept to a peer. While the results of a case study evaluation of the 'Tutor Huddle' method support the view that peers can be effective tutors, they are inconclusive in that the evaluation involved only one skill or task (recognition of a predetermined sight-word vocabulary) and provides no evidence that it has a positive impact on the children's literacy development.

Unlike researchers who have paid little attention to the social dynamics of peer tutoring, Streeck (1986) refers to the findings of a study of "children's communicative skills in a variety of classroom-situations" which analysed the interactions and negotiations of children involved in peer-teaching episodes. He concludes that:

> The assignment of a 'peer-teacher' role to a single child appears to present problems for the others; it requires the shifting of established attention patterns and introduces a formal status and an element of power into a network of interpersonal relations which are partly antagonistic and involve a delicate balance of resources. The 'peer-teacher' role also irritates existing friendship bonds because it necessitates a redistribution of support according to extrinsic criteria. Differences in the children's academic standing, finally, imply problems for the group's cohesion (p.296).

Streeck's work shows that gender can be an important factor in the organisation of children's social worlds: boys and girls in his study formed two mutually-opposed groups with restricted channels of communication and overt antagonism. However, he points out that "the children have a variety of patterns of relationship, and gender is relevant as a set of organisational categories only when it is made relevant by the participants" (p.312). Streeck also suggests that "a variety of social concepts (eg. friendship, rank and gender) can be concurrently relevant within an encounter" (p.322). Streeck's work indicates that there is far more involved in the establishment of successful peer-tutoring relationships than simply matching a 'more able child' with a 'less able child'.

Concerns such as those raised by Streeck have lead some researchers and educators to place more emphasis on cooperative learning situations rather than peer tutoring. Rogoff (1990) cites a number of studies of peer interaction which suggest that "although working
with a partner who is slightly more skilled may be most effective, working with a partner equal in skill, or even one less advanced, may still yield progress" (p.173).

Investigations of cooperative learning among peers have concentrated on situations in which children worked together in structured cooperative groups (eg. Daitute & Dalton, 1993; Dixon-Krauss, 1995), with control of both grouping and task usually remaining with the teacher or researcher, or on learning in the context of cooperative play among young children (eg. Verba, 1993). Cooperative learning is characterised by "a high degree of student-student interaction, individual accountability, purposeful development of interpersonal skills, and positive interdependence" (West & Oldfather, 1993, p.374).

Interest in cooperative learning has grown from a recognition among educators that "social interaction, particularly peer interaction, is a valuable part of classroom learning" (Swafford, 1995, p.626). Cooperative learning has proven to be effective in developing higher order thinking, increasing learning, and promoting interpersonal skills (Cohen, 1994; Swafford, 1995). However, research suggests that not all children are equally successful as cooperative learners. For example, Rogoff (1994) found cultural differences among groups of children engaged in cooperative learning activities:

When placed in a situation in which teams of children were asked to cooperate to assist a younger child in learning a game, middle-class European-American children ... have difficulty coordinating their efforts, compared with Navajo children whose cultural model of teaching and learning is consistent with a community of learners model (p.5).

In a comparative study of cooperative and individual writing activities, Weppler and Moore (1993) found "no statistically significant differences in individual story writing between children who had been working alone or in pairs" (p.153). However, they acknowledged that the length of their study was limited, and that findings over a longer period of time may be very different. They note that children's individual preferences to work cooperatively or individually depend on the nature and difficulty of the task, and advocate a flexible approach to grouping children for instruction in classrooms.

Verba's (1993) investigations of the social pretend play of three and four year old children reveal a variety of 'cooperative formats' in the children's interactions. She uses the term 'cooperative format' to refer to interactions that have stable features which enable each partner to interpret the exchange coherently, but also flexibility which enable transitions from one form of exchange to another. A cooperative format includes "both the pattern of interpersonal regulations and its cognitive outcome" (p.267). Verba suggests that:
Observation and imitation, co-construction by opposition of point of view or by cooperation without conflict, and guidance or scaffolding by a more competent partner can all generate cognitive progress, either in a task proposed by an adult or in spontaneous activities organised by children themselves (p.265).

The concept of cooperative formats is a useful one in that it facilitates the study of "interactive dynamics ... in different types of shared activities between children" (p.268). Verba hypothesises that once cooperative formats have been established during infancy and early childhood, particularly through shared activities such as social pretend play, they can serve as basic structures for the exchange of different types of knowledge in a variety of contexts. If this is so, then it may be that the types of 'cooperative formats' identified by Verba are relevant to the study of child-child interactions in the context of literacy learning.

Like Verba, Musatti (1993) studied peer interactions among young children as they engaged in pretend play. Musatti argues that "there is ... parity among children regarding the ability to attribute and use meanings in that context (and) on the basis of this condition of parity ... the interactive processes at work among young children appear to be somehow different from those operating between children and adults" (p.241). In particular, Musatti argues that the mere presence of a peer engaged in a similar activity may induce a child to reflect on his own activity, to assess similarities and differences between his own activity and that of the peer, and to achieve "a more complex cognitive performance" (p.247).

The third strand of research into the role of peer interactions in learning has investigated collaborative learning among peers. Collaborative learning involves two or more children working together to solve a problem or complete a task that none of the children could do previously (Gillies & Ashman, 1995). Bruffee (1984) defines collaboration as "a form of indirect teaching in which the teacher sets the problem and organizes students to work it out collaboratively" (p.637).

Cambourne (1995) suggests that the value of collaborative learning stems from the transformations that learners make as they share ideas and negotiate meanings. He describes the process of collaboration:

When two or more persons collaborate in addressing or trying to resolve a problem, they are forced to interact with at least each other. This collaboration always requires discussion. Transformation occurs as a consequence of the discussion that typically accompanies jointly constructing, understanding new knowledge, or mastering new skills (p.188).
Daiute and Dalton (1993) argue that peer collaboration can be more effective than peer tutoring since it exploits the changing nature of relative expertise among social partners. They suggest that "peers share their complementary expertises as needed during the course of collaboration" (p.323). As a consequence of this, "when examining peer collaboration, ... the zone of proximal development is shifting and dynamic" (p.292). Dixon-Krauss (1995) notes that:

More recent studies of student collaboration within the zone of proximal development stress the need for research to focus on how students build shared meanings through peer social interaction, rather than simply assuming the benefits of pairing a student with a more competent peer for instruction (p.60).

There is also evidence that children themselves are aware of the benefits and drawbacks of collaborative learning. In a cross-case comparison of children's perceptions of collaborative work in third and fifth grade classrooms, West and Oldfather (1993) found that "students in both contexts agreed about how group work enhanced their learning processes: they got to know classmates better, had more fun, shared their ideas as well as the burdens of work, had ready access to help, and learned to cooperate" (p.381). The major differences between the two groups were that the older students were more able to articulate the benefits in abstract terms, and were more aware of individual children's need for autonomy.

While all of the studies discussed above demonstrate the importance of social interaction in learning, it is important to remember that "the child does not get something simply from interacting with peers or with parents. The nature of the interaction, its timing, and its reciprocity must all be taken into account" (Bruner & Bornstein, 1989, p.12).

2.5 Learning to be Literate

Over the past fifteen to twenty years a great deal of research into how children learn to be literate has led to the gradual rejection of the traditional view of literacy as something to be learned at school (Kantor, Miller & Fernie, 1992). Consideration of what constitutes literate behaviour has resulted in a shift in the focus of research from methods of instruction in literacy to how and when children learn to be literate, and what influences this learning (eg. Heath, 1983; Taylor, 1983; Harste et al., 1984; Teale, 1986).

One view of literacy learning which has had considerable influence in schools suggests that children progress through recognisable developmental stages in learning to read and write. While it is accepted that children progress at different rates, and that development
can be influenced by a number of factors, there is still the suggestion that for most children the development of literacy proceeds in much the same manner. This view of literacy as developing in stages had lead to research aimed at identifying these stages and documenting children's progress through them. Clay (1972a, 1972b, 1975) studied young children's development of understanding about print and identified a series of concepts which, she argued, children need to grasp to become literate. Sulzby (1985) conducted a longitudinal study of children's emergent reading of their favourite storybooks and was able to distinguish eleven stages of emergent reading, noting that while the stages appeared to be generally developmental, not all children passed through all stages.

However, in a recent historical overview of research into children's emergent writing, Sulzby (1992) concludes that "the idea of linear, discrete stages prior to the onset of conventional literacy is flawed; instead, children appear to be building a repertoire of understandings with sociolinguistic properties" (p.295). Similarly, investigations by Gunderson and Shapiro (1988) into the writing of children in first grade suggest that, in classrooms characterised by large volumes of writing and frequent teacher-child interactions, some children seem to either miss some 'stages' of writing development altogether or else proceed so quickly through the stages that the progression goes unnoticed.

Like Sulzby, McIntyre (1990) documents patterns of reading behaviors and strategies among young beginning readers, but suggests that "the strategies were not developmentally linear ..., they were recursive" (p.265). McIntyre highlights the importance of the social context in determining, to a large extent, the reading strategies used in any reading event. This view is supported by Harste et al. (1984) who note that:

... which features of written language are learned and in what order they are learned is a function of context, purpose, interest, and the background of experience of the language user (p.206).

In the early eighties, research into young children's development of writing tended to concentrate on the mechanics of writing, tracing development from early 'scribbles' through letter-like script and invented spellings to conventional writing (eg. King & Rentel, 1981; Edelsky, 1983; Read, 1986). Several studies focused more on the writing process, examining the roles of rehearsal and revision and exploring how children learn to use different texts for different functions (eg. Calkins, 1983; Graves, 1983; Sowers, 1985). However, as Dyson (1990a) points out:
To understand the development of written language, we cannot look only at early scribbles and letter-like marks. Literacy development is interwoven with each child's growth as a symbol user and a social being (p.51).

In a longitudinal study of young children's emergent writing, Dyson (1989a, 1990a) views writing development as "evolving within and shaped by children's interactions with other symbolic media and other people, including their peers" (1989a, p.255).

Recent research has taken a number of different but complementary directions and has resulted in the accumulation of a large body of literature related to the development of written language in young children. Broadly speaking, researchers have concentrated on either cognitive or social aspects of literacy development. At the same time, advances in our knowledge of how children learn oral language have informed research into how children learn written language.

Studies which have focused on cognitive or psycholinguistic aspects of literacy development have tended to adopt a Piagetian constructivist perspective (eg. Ferreiro, 1986; Juel, Griffith & Gough, 1986). In contrast, studies which have focused on social or sociolinguistic aspects of literacy development have adopted a perspective derived from Vygotsky's interactionist theories (eg. Cairney and Langbien, 1989; Morrow, 1992; Steward, 1995). Attempts to combine elements of both these perspectives in literacy research have produced studies which consider literacy development from a semiotic perspective (eg. Harste et al., 1984; Rowe, 1989; Woodward & Serebrin, 1989). A fourth, and more recent, trend in literacy research has been to adopt what has been called a sociocultural perspective (eg. Heath, 1983; Cook-Gumperz, 1986a; Dyson, 1992; Schmidt, 1995).

While much attention has been given to the relationship between written language and oral language, few researchers have considered connections between verbal and non-verbal symbol systems. However, two systems which are beginning to warrant mention in the early literacy literature are drawing (eg. Dyson, 1989a, 1990a; Fueyo, 1989; Hubbard, 1989a, 1989) and play (eg. Roskos, 1988; Daiute, 1989; Schrader, 1989, 1990; Neuman & Roskos, 1991; Vukelich, 1993).

It has long been recognised that young children often use a combination of drawing and writing to encode meaning, but the role of drawing has tended to be characterised as either one of planning and rehearsal (Calkins, 1981; Walshe, 1981), or of carrying meaning that the child cannot yet encode in print (drawing being assumed to be the easier task).
In an ethnographic study of first-grade children's use of verbal and visual symbol systems in literacy activities, Hubbard (1989a; 1989b) found that the role of the visual or pictorial system is far more complicated than one of rehearsal, and that individual children's ways of integrating the two systems to encode meaning are vastly different and influenced by a number of factors. Some children, for example, "turn to symbolic images to make abstract ideas more concrete and manageable" (1989b, p.122) while others use pictures to depict "the literary space (they) inhabit in the act of composing" (p.126). Hubbard notes that children use a wide range of strategies to communicate their creative ideas. Narrowly channeling children in the direction of written language alone, without regard for the potential of other symbol systems, results in classrooms where "children's rich ways of planning, solving problems, and storing memories are stunted in most cases" (p.135).

Fueyo's (1989) account of "one child mov(ing) into meaning - his way" (p.137) demonstrates the value of teachers allowing children to express their meaning through talk, drawing and movement as well as through print. By allowing a first grader to explore potential ways of making meaning through the interplay of a range of symbol systems, without imposing a requirement to use conventional print, Fueyo broadened her own conceptions of the communication process and what "count(ed) towards success in the writing class" (p.144).

Considered in total, this large body of research has contributed a great deal to our knowledge of how young children come to be literate, and has enormous implications for how teachers approach literacy instruction in school. Traditional reading readiness programs, and assumptions that children cannot learn to write until they have learned to read, are no longer defensible in the light of what we currently know.

2.5.1 The 'emergent literacy' perspective

With the rejection of the traditional view of literacy development came renewed interest in the processes through which young children learn to be literate. While by no means universally accepted, the view that children are not simply taught literacy, but that they gradually construct their own understanding of and knowledge about written language through interacting with print in a meaningful manner, has become known as the 'emergent literacy' perspective. This perspective has prompted researchers to investigate the factors which facilitate the development of reading and writing in young children, and the effect that these have on later achievement in literacy (Teale, 1982). Teale and Sulzby (1986) describe the shift from the traditional concept of 'reading readiness' to the adoption of the term 'emergent literacy' as conceptualising more recent understanding of early childhood reading and writing.
Attributing first use of the term 'emergent literacy' to Marie Clay, Teale and Sulzby argue that it captures the essence of this understanding: 'emergent' suggests the continuous nature of reading and writing development, while 'literacy' emphasises the inseparability of reading and writing - "the two processes develop in coordination with each other" (1986, p.xix). However, Harste et al. (1984) are critical of the use of the term:

The term "emergent reading" ... embodies the same assumptions we have criticized in discussing the notions of readiness and of developmental stages. Like the terms "beginning reading" and "beginning writing," emergent reading assumes the process used by proficient language users to be psycholinguistically different from the process young children engage in (p.69).

In a large-scale study of the literacy development of 3, 4, 5 and 6 year olds, Harste et al. (1984) demonstrate that children do indeed know a great deal about written language before they enter formal schooling. They argue that children actively construct and test hypotheses as they learn to use the written language symbol system both on its own and in conjunction with other symbol systems. From the wealth of data obtained from their child-informants, they identify a number of recurring patterns or concepts which permeate written language development: organisation, intentionality, generativeness, risk-taking, social action, context, text and demonstrations. In their analysis, they explore these patterns in the light of the psycholinguistic and sociolinguistic processes involved in literacy learning, and examine the implications of each for teachers and researchers.

Researchers working within the emergent literacy perspective have tended to focus their attention on pre-school children and it is only in recent years that they have begun to consider the implications of emergent literacy for educational settings (Potter, 1986). For example, Cochrane-Smith (1984) conducted ethnographic research within a nursery school renowned for producing successful readers and writers, in an attempt to construct a model of the ways in which parents and teachers socialise children into particular patterns of literacy. Her findings indicate a number of parallels can be drawn between the forms of interaction surrounding individual book-reading experiences in the homes of young successful readers, and the social interactional framework surrounding group book-reading experiences in the preschool setting. More recently, Gibson (1989) has attempted to draw together various strands of research on emergent literacy into a model of teaching literacy to both pre-school and school-aged children within a social-interactional framework.

While many studies focused on the emergent literacy of young children have been reported, few have examined the problem in the classroom from the child's perspective. For example, two studies by Durkin (1987, 1990) investigate reading instruction in
Kindergarten by observing teacher behaviour and interviewing teachers and principals, and by examining commonly used basal reader materials. A study by Dickinson and Snow (1987) focusses specifically on the children, but examines the interrelationships among prereading and oral language skills and does not involve classroom observation. Purcell-Gates and Dahl (1991) investigated children's interpretations of literacy instruction, but restricted their study to low-SES children in traditional skills-based classrooms.

Hiebert and Papierz (1990) investigated the extent to which instructional activities consistent with the emergent literacy construct have permeated kindergarten classrooms, by searching for evidence of these activities in newly-published basal reading series. They found that "conventional readiness activities like visual, shape and colour discrimination dominated kindergarten books and that auditory discrimination activities dominated readiness books" (p.317). Equally disheartening, they found that emergent literacy activities are not prominent in either the student or teacher books, suggesting that while basal reading series continue to dominate early literacy instruction, theories of emergent literacy will have little influence on classroom practice.

Different researchers have interpreted the term 'emergent literacy' in different ways. However, there is no doubt that studies of early literacy development that have been conducted within an emergent literacy perspective have contributed a great deal to current understanding of how children come to be literate.

2.5.2 Individual differences in literacy learning

Many studies have noted vast differences in the development of literacy in individual children. At one end of the spectrum are children who begin formal schooling already able to read and write in the conventional sense (Durkin, 1966), while at the other end are children who have had little experience of written language prior to formal schooling (Wells, 1986b). Various factors, such as socio-economic status and cultural background, have been investigated as possible sources of individual differences. However, while there may be trends among children of similar class or cultural backgrounds, Harste et al. (1984) point out that:

knowing the child's sex, race, level of parental income, parental educational level, or where the child lives are poor predictors of what the child can do in terms of literacy (p.44).

Several studies of 'early readers' have been conducted in an attempt to identify the crucial factors surrounding the precocious development of literacy (Clark, 1976; Thomas, 1985; Neale & McKay, 1987). As a group, these early readers have tended to be white, middle-
class children from families which valued literacy and provided a print-rich environment. However, in each study the number of children was small, and there were a number of children who did not 'fit' the pattern. The one common thread that seems to characterise the home experiences of the early readers in all of these studies is the social interaction, between the child and at least one significant adult or older sibling, in which written language experiences were embedded. Furthermore, the parents of these early readers typically reported that they did not make any conscious attempt to teach their child to read, that the child most often initiated literacy events (Neale & McKay, 1987), and that the child's very early attempts at written language activities tended to involve interaction with fully literate people fulfilling real life purposes (Thomas, 1985). This evidence supports the claim by Harste et al. (1984) that:

The most salient home factor relating to literacy learning is one we have termed "availability and opportunity to engage in written language events" (p.42).

While studies of early readers have typically found that many were children of high intelligence (Clark, 1976; Neale & McKay, 1987), it is unclear whether the fact that they learned to read early enhanced their cognitive development and therefore resulted in high I.Q. scores when tested (usually at around age 5, and always after they learned to read). Furthermore, Thomas (1985) found that, compared to a "similar number of non-early readers matched for IQ scores, socioeconomic status, and age" (p.469), early readers displayed a superior level of oral language development. If parallels can be drawn between oral and written language development, then given our current understanding of the social-interactional nature of oral language development, it is not surprising that the same children who show advanced literacy skills should also show advanced oral language development.

Teale and Sulzby (1987) have attempted to elucidate individual differences in the development of literacy by highlighting the importance of the notions of access and mediation in literacy learning. 'Access' refers to the quantity and variety of functions and uses of literacy to which a child is exposed, whereas 'mediation' refers to the forms of social interaction in which another person (typically, but not always, an adult) acts as mediator between child and text to facilitate learning about written language. The concept of mediation, in particular, is grounded within Vygotsky's (1978) theory of development, and his concept of the zone of proximal development. Like Teale and Sulzby, Wells (1981) highlighted the ways that social interaction contributes to individual differences in children's literacy development, arguing that:
one of the most important dimensions of variation, both at home and at school, is the quality of adult-child interaction that the child experiences. Certainly there is considerable variation between homes in this respect, leading to differences between children in the ease and speed with which they tune in to the expectations embodied in teachers' questions and instructions. But there is also variation between teachers, both in the extent to which they make their intentions and criteria of assessment explicit, and in their willingness to accept and develop the children's contributions (p.152).

Studies which have investigated the links between socio-economic status and literacy development, or between cultural status and literacy development, have generally failed to find consistent patterns. It may well be that failure to find patterns is at least partly a result of failure of the researchers to take account of patterns of access and mediation.

Like differences in oral language development, differences in children's written language development are often attributed to differences in socio-economic status. However, the movement away from a deficit view of working-class children's oral language development has been slow to permeate literacy research (Gumperz, 1986). As Snow (1983) points out:

> The conclusion that working-class children are different, not deficient, has not ... been extended from language ability to literacy. Social class differences in reading achievement are large and reliable (p.165).

McCormick and Mason (1986) note "discrepancies among social class groups" (p.95) in pre-school children's responses to two tasks: letter-naming and consonant-sound identification. A follow-up of these children revealed that the differences persisted beyond school entry and that, subsequently, a far greater proportion of children from the lower socio-economic group had repeated kindergarten and/or been placed in a remedial reading program. However, we need to beware of using these findings to argue that children from lower socio-economic groups have inherently less ability or potential in the development of literacy skills than children from higher socio-economic groups. McCormick and Mason also found social class differences in parental attitudes towards and support for reading-related activities (p.93), suggesting that, rather than any innate lack of ability, some children from lower socio-economic backgrounds simply have less opportunity to develop their skills within a supportive environment. This view is supported by Snow (1983), who suggests that:
Semantic contingency to literacy-related behaviors seems to be associated with early acquisition of literacy. (A range of) literacy-contingent behaviors are typical of middle-class families, and they have been identified as instrumental in producing preschool readers (p.168).

Researchers intrigued by those children who are very precocious in their literacy development, often reading conventionally by age three or four, have chosen to focus on the factors which distinguish these early readers from non-early readers, and then attempt to reproduce these factors for children in school (eg. Thomas, 1985; Neale & McKay, 1987). For example, Thomas (1985) uses her study of fifteen early readers to show precisely how semantic contingency (extending or elaborating topics that the child has introduced), scaffolding (providing a framework or structure so that only part of the task is completed independently by the child), and accountability procedures (insisting that the child complete independently those tasks previously learned) occur in the social interactions surrounding the literacy experiences of successful readers.

In recent years, researchers and theorists have begun to look more closely at literacy and schooling to explain the persistent educational disadvantage of minority children. Using examples of classroom talk in a grade one classroom in which teacher and students 'jointly' construct a narrative, Luke (1993) demonstrates how typical literacy instruction serves to reproduce culture-specific techniques and texts, and reinforces institutional and societal relations of power. He suggests that even classrooms which appear to be child-centred, where children receive individual attention and teacher-talk does not dominate, operate as sites of regulation. As such, they perpetuate the uncritical transmission of the dominant culture and contribute to individual differences in literacy learning. Luke argues that:

in classrooms, the construction of literacy is far from arbitrary or idiosyncratic. It is a key normalizing and reproductive strategy of schooling. ... The political point is this: groups of aspiring readers and writers are marked for entry into stratified interpretive communities, which in modernist educational culture continue to fall along the historical grids of gender, class and colour (p.139).

Heath's (1986) analysis of story-book reading events between adults and pre-schoolers in each of the three different communities she studied shows that cultural differences in literacy-related interactions contribute to educational disadvantage for some students. Children from the mainstream community Heath studied were socialised at a very early age into the "ways of taking from books which seem natural in school and in numerous institutional settings" (p.97). Children from the other two communities were socialised into literate practices which did not match the literate practices they later encountered in school. These children had difficulty in adapting to the practices of schooling, and
schools seemed unable or unwilling to adapt to the literate practices of the minority students. Individual differences in literacy development and differential school achievement can thus be at least partially attributed to differences in language and literacy socialisation across communities and cultures.

2.5.3 Literacy and play

Children's symbolic play is one of the few contexts within which the impact of peer interactions on young children's literacy development has been extensively explored (e.g. Rensenbrink, 1987; Roskos, 1988; Daitute, 1989; Schrader, 1989, 1990; Neuman & Roskos, 1990, 1991; Vukelich, 1993). These explorations reveal connections between symbolic play and literate behaviour, as well as describe the content and structure of peer interactions occurring in the context of social pretend play.

In a review of recent research into the connections between symbolic play and literacy development, Pellegrini and Galda (1993) examine studies (including some of those cited below) which adopt either a longitudinal or an experimental approach. They argue that the combined evidence from these studies provides strong support for the view that symbolic play is an important context for literacy development. Specifically, the research suggests that the language interactions surrounding symbolic play are important to the development of reading-related aspects of literacy, while the symbolic transformations involved in play are connected to the development of early writing. After consideration of the roles that adults and peers play in the various studies reviewed, Pellegrini and Galda conclude that:

peer interaction activities among children who are familiar with each other, either in the symbolic or realistic mode, may be effective ways to stimulate those forms of metalanguage and metacognition which relate to literacy (p.173).

Kantor, Miller and Fernie (1992) studied preschool children's construction and use of literacy in a variety of classroom contexts, including teacher-directed small group activities and self-selected peer play. The analyses of peer play episodes reveal that play and print are interwoven and that "literacy (is) both a means to negotiate and a reason to negotiate during play" (p.198). At the same time, the teachers used print to extend the children's play and to create community. Thus, "the reciprocal relationships found across the classroom ... suggest that just as school was a way to learn literacy, so was literacy a way to learn about school" (p.199). These findings support the view that literacy is situationally and culturally constructed, and that understanding the nature of literacy learning requires understanding the nature of the social contexts which support and facilitate literacy growth (Gee, 1990).
Through studying the literacy-related behaviours of 4 and 5 year old children engaged in pretend play, Roskos (1988) identifies two important connections between literacy and play. First, children's pretend play episodes are structured in ways analogous to the structure of narrative forms in writing. Second, through their interactions with peers young children are socialised into specific ways of engaging in literate activities and they display this socialization in their pretend play.

According to Vukelich (1993), play provides "a context for exploring the functions, features, and meaning of writing with peers" (p.386). Based on the findings of a study which investigated the effect of literacy-enriched play settings on kindergarten children's interactions, Vukelich suggests that "three different kinds of writing information (are) provided by peers to peers during play" (p.389). Children share information about purposes for writing, about features of print, and about the meaning of specific texts. Although Vukelich did not investigate the ways in which this sharing of information contributes to children's development of written language, she points out that her study provides evidence to suggest that children sometimes 'coach' each other in literacy activities by providing direct instruction in, or physical demonstration of, a literacy skill.

In a similar investigation of young children's literacy-related conversations in spontaneous play in enriched play settings, Neuman and Roskos (1991) identify three types of discourse related to literacy: "designating the names of literacy-related objects, negotiating meaning related to a literacy topic, and coaching another child in some literacy task in order to achieve a goal in play" (p.233). Based on the belief that cognitive development is shaped by social interaction, the study investigates how young children contribute to each other's literacy development through their collaborative play activities. Beyond identifying the types of discourse found in literacy-related play, the findings of the study highlight three significant characteristics of this discourse. First, children's talk about literacy is embedded in the context of the ongoing play activity and, second, involves active engagement in the activity itself. Perhaps most significant for the present study though is the third finding, that:

unlike adult-child relationships, children often reversed the role of more capable peer according to the purpose of the play. ... Due to the children's varying experiences in literacy, the actual definition of what constituted the 'more capable peer', changed according to the particular literacy demands and routines required in the play experience (p.238).

Neuman and Roskos conclude from their study that peer interactions occurring in the context of young children's literacy-related play activities can contribute to individual children's development of literacy (1991), and that teachers can facilitate these interactions
by structuring play environments to encourage the exploration of literate behaviours through social pretend play (1990).

A study by Schrader (1989, 1990) also reveals that young children incorporate literacy concepts and artifacts into their interactions with peers in the context of play activities, and suggests that teachers can "facilitate early literacy development by functioning as participants within the context of young children's spontaneous symbolic play" (1990, p.98). Drawing on Vygotsky's (1978) work on the role of play in the development of written language, Schrader investigated the effectiveness of teachers and peers in managing interactive literacy events so that the interaction negotiates the child's zone of proximal development. Schrader concludes that the findings of her study provide empirical support for Vygotsky's theory of the zone of proximal development, and indicate that "natural literacy development can be cultivated within the context of children's symbolic play" (Schrader, 1990, p.100).

Taken together, then, recent research into the connections between symbolic play and literacy learning shows that peer interactions can and do impact on young children's construction of literacy within the context of social pretend play. The study described in this thesis extends this work by exploring the role of peer interactions in young children's literacy learning in a different context.

2.6 The Social World of the Classroom

Viewed from a sociocultural perspective, classrooms are communities in which participants construct cultural meanings through their everyday interactions (Puro & Bloome, 1987; Collins & Green, 1992; Gutierrez, 1994). Green et al. (1992) explain the sociocultural view of classroom life:

in every classroom, teachers and students are constructing particular models of literacy and particular understandings of what is involved in learning how to be literate. That is, as teachers and students construct the norms and expectations and roles and relationships that frame how they will engage in everyday life in classrooms, they are also defining what counts as literacy and literate action in the local events of classroom life (p.120).

As the members of a community or group interact, they develop common knowledge and common ways of engaging in activities. To understand precisely how members of a classroom community construct shared meanings and ways of acting, Collins and Green (1992) suggest that we "must explore the interrelated nature of classroom events and the continuity of experience in which learning is embedded" (p.67).
The view of classroom life as socially constructed acknowledges the importance of social interactions in shaping classroom learning. It also recognises that:

creation of the interactional context includes both the explicit and the implicit messages teachers and students send each other through their words and their silences, their behaviors and their actions, and assigned tasks, among other means (Puro & Bloome, 1987, p.27).

The way in which particular models of literacy are constructed through social interactions in classrooms is clearly visible in Cochran-Smith's (1985) account of the way in which preschool children are socialised into "looking like readers" and "talking like readers" (p.22). Building on research that views classrooms as communicative environments, Cochran-Smith argues that children are active participants in classrooms and that developing "communicative competence in the classroom includes knowing what to say and knowing how to act" (p.24). Through the interactions between teacher and students, including those that surround storybook reading experiences in classrooms, children learn the verbal and non-verbal responses that many teachers associate with successful readers. Cochran-Smith warns, however, of the danger of making assumptions about children's prior literacy experiences or learning ability based on the extent to which they conform to the teacher's conception of what it means to be a reader.

Berghoff and Egawa (1991) contend that "reading and writing are social things to do. They can be learned easily when they enable the child to participate in the creation of a learning community" (pp.536-7). They suggest that just as this occurs naturally outside of school, it can also occur within schools, provided that children are given opportunities to work together to create the learning environment. Rejecting the assumptions that all learning follows a linear pattern, and that the teacher must be in control of learning situations for learning to occur, Bergoff and Egawa maintain "that learners in a community should support one another, and that every student brings a unique and equally valuable contribution to the dynamics of the learning community" (p.537). Based on classroom observations of students learning in a variety of group contexts (whole group, small group, pairs and independent), they argue that students who are given control of their learning show initiative and are deeply engaged in their learning. In contrast, students who are accustomed to teacher-controlled learning situations develop the view that "the only valid learning is that which takes place when they are engaged in teacher-prescribed tasks (and) that personal experience ... is unlikely to be relevant for learning at school" (p.539).

Wood (1986) argues that the interactions between teachers and children in the classroom depend, to some extent, on the style adopted by the teacher. In classrooms in which the teacher dominates the talk and exerts control of students through questioning and
commands, children's responses are brief. In contrast, in classrooms in which teachers dominate the talk less, use less controlling language, and offer commentary on their own ideas, children respond more openly and take a more active role in interactions. This is important since "children who participate in classes that foster social interaction as a means of learning appear to be acquiring a host of important literacy and language proficiencies" (Hiebert, 1990, p.505). Harste et al. (1984) explain that:

since both language and classrooms are inherently social, classrooms have the potential to be qualitatively natural language learning environments in which quantitatively a greater number of opportunities for engagement in productive language learning circumstances can occur (p.194).

Reading and writing stories is one powerful way for young children to learn language and to create meaning (Franklin, 1988; Dyson, 1989b). As they respond to stories they've read (or heard) and as they write original narratives, they explore and express personal meanings and learn more about themselves and their worlds. Through these explorations, they learn about the "functions, process and conventions of literacy" (Franklin, 1988, p.189). However, this learning will only occur in environments that encourage and support children's efforts to express their personal meanings. As Franklin argues, one of the most effective ways of achieving this is to provide opportunities for children to pursue their own interests and topics in the stories they read and write, to allow them to grow into literacy on their own terms.

However, Kamler (1992) has been critical of pedagogy which emphasises free topic choice in children's writing, suggesting that the social and cultural forces at work in classrooms contribute to children's production of a narrow range of genres and reinforce gender stereotypes.

Even when teachers believe they are giving children free choice, their discourse, the ways they set up their classrooms, their patterns of talking and the dominant values of the culture all operate as constraints which direct children's choices in particular directions, whether teachers are conscious of this occurring or not (p.105).

By analysing the range of genres produced by two children, a girl and a boy, over a period of two and a half years from Kindergarten to second grade, Kamler claims to show that free topic choice is "both problematic and restrictive" (p.118). Two difficulties arise, however, in Kamler's argument. First, her indictment of free topic choice is not based solely on the perceived outcomes of free topic choice per se, but relate to the attendant lack of direction and interaction which she observed in classrooms characterised by free
topic choice. It is possible that in classrooms which foster both teacher-child and child-child interaction, a pedagogy emphasising free topic choice may produce quite different outcomes. The second difficulty relates to the way in which Kamlers defines 'genre', and the limited range of genres which she identifies in the written constructions of the children in her study.

Other writers define genre quite differently. For example, in an investigation of the emergence of genres in the writing of first-grade children, Chapman (1994) defines genre more broadly as "a typified form of discourse or way of organizing or structuring discourse, shaped by and in response to recurring, situational contexts" (p.352). Thus, unlike Kamlers, Chapman considers children's written products as well as the talk that surrounds the construction of the products, when identifying the range of genres produced by individual children. As Chapman argues:

because young children weave talk, pictures, and text to create meaning, any examination of young children's writing cannot consider written texts in isolation (p.352).

Using this broader definition of genre, Chapman analyses the written texts produced by six focal children during their first grade year. In all, fifteen distinct genres are evident in the children's writing. Both quantitative and qualitative changes are traced over time for each of the children studied. Not only did new genres appear in the children's writing as the year progressed, but the complexity of the genres increased and many texts integrated elements of two or more genres. Chapman's findings support the view that, in classrooms where children's drawing and talking are valued by the teacher, the emergence of genres will result "from participating in the social dialogue, the literate socialization processes, at play in the classroom" (p.376).

Kamlers previously noted concerns about the reinforcement of gender stereotypes are echoed in McAuliffe's (1994) study of "second graders' use of gendered language and story styles" (p.302). Noting research which suggests that gender differences in ways of talking often develop at a very young age, McAuliffe explores differences in children's use of language in their written products. Through analysing written texts for which children had chosen their own topics, McAuliffe shows that "girls' writing usually revolved around the norms of the community ... (while) the greater focus of (boys') stories was on contest" (p.306). However, further analysis shows that stories written late in the year-long study were more likely to include both male and female story style characteristics. McAuliffe attributes this change to the prevalence of discussion and sharing in the classroom studied, and concludes that "creating a classroom climate where negotiation of meaning is valued
and where both sexes collaborate to explore their worlds and make sense of what they read is essential" (p.309) to combat gender stereotyping.

The importance of investigating and understanding the nature of children's social interactions in the classroom is highlighted by the work of Schmidt (1995). Motivated by research which suggests that children from ethnic minority backgrounds may have difficulty in reconciling differences in home and school cultures, Schmidt explores the effect of adult-child and child-child interactions on the literacy learning of children who do not belong to the dominant culture. Through a longitudinal study of the social interactions of two bilingual ethnic minority children in a Kindergarten classroom, Schmidt demonstrates "the children's social struggles while in learning centers and other informal classroom literacy learning settings. They were unable to share their home cultures with the class. Their knowledge of languages, customs, literature, and their own native lands was either ignored or misunderstood" (p.406). Schmidt concludes that the literacy learning of these children is hampered by the consistently negative social interactions they experience in a variety of situations in the classroom, even though they display literacy knowledge and skills at least equivalent to many of their classmates.

The potential of social interactions in the classroom to contribute to educational disadvantage for some students is also noted by Collins and Green (1992), who explain that:

Depending on the roles and relationships among members, some members may not access or construct the knowledge needed to participate appropriately in the social world of the group. In addition, given past experiences, a particular member may interpret the actions of others in ways that do not reflect an understanding of the definition held by other members of the group (p.79).

Cairney (1987) warns that "not only must we be aware that social relationships influence literacy development, we need to consider the frequent finding that social structures we create in our classrooms, and the child's social class, can influence a teacher's expectations and actions towards a child" (p.92). The ways that classrooms are organised, the type of interactions that are permitted or encouraged, and the extent to which teachers maintain control of learning situations all influence the learning that occurs in classrooms (Cairney & Langbien, 1989).

One of the main ways in which teachers and students construct meanings and negotiate understandings is through classroom talk (Green & Dixon, 1994). Of particular relevance to the study described in this thesis is the role of talk among peers.
2.6.1 Classroom talk

Advances in our understanding of the importance of language in cognitive development have prompted intense research interest in the nature and role of classroom talk. From a sociocultural perspective, classroom talk "is a group constructed phenomena; a locally negotiated system of meanings; and a local set of conventions for interacting, participating and communicating information and knowledge within a particular classroom" (Green & Dixon, 1994, p.4). At the same time, how individual members interpret classroom talk is influenced by a range of factors including their relationship with the teacher and their peers, and what they consider to be personally meaningful.

Much of the research on classroom talk has focused on talk between teachers and students (Maybin, 1994), with particular emphasis on structural aspects of classroom exchanges. Roller (1989) suggests that the typical Initiate-Respond-Evaluate pattern documented by Barnes (1976), Mehan (1979) and many other researchers (see Cazden, 1986, for a review of this research), does not promote the learning of communication skills, and disadvantages some students. Classroom talk which conforms to the IRE pattern, she argues, is not only teacher-dominated but is teacher-constructed:

Teachers do not really listen to the children's meanings; rather they determine whether there is a match between their own meanings and the children's. Since teachers are usually a part of the dominant culture, children from the dominant culture have a distinct advantage (Roller, 1989, p.497).

The inevitable result of such pedagogy is, as Roller points out, the reproduction of existing stratifications within society. This point of view is supported by Baker and Freebody (1993) who argue for "recognition of the extent to which classroom literacy practices are implicated ... in the production of difference. This becomes ultimately a part of the production of advantage and disadvantage, success and failure" (p.281). Baker and Freebody use transcripts of classroom talk to illustrate how the social organisation of classrooms and the social construction of classroom competence function to 'credit' some students while 'discrediting' others. Thus, when teachers and students interact in classrooms "the classroom talk is apparently everyone's collaborative construction, but through the differential crediting and use of responses, the production of differences in literate competence begins" (p.291).

Baker and Freebody agree with Michaels' (1981) argument that differences between some children's language and the sanctioned school language make it difficult for teachers who are unfamiliar with non-mainstream oral and literate traditions to make sense of some
children's oral and literate productions. At the same time, teachers are often unaware of the ways in which their classroom talk is problematic for some students who are unfamiliar with mainstream social and literate practices (Talty, 1995).

Investigations of classroom talk reveal inequities between teachers and students in the distribution of opportunities for talk. For example, the work of Flanders (1970, cited in Swann & Graddol, 1994) suggests that two thirds of classroom talk is taken up by the teacher, and only one third is available to students. Swann and Graddol point out that teachers and educators were "shocked by the implications of such findings (because) by restricting opportunities for pupil talk, teachers were restricting access to learning" (p.152).

However, research shows that inequities in classroom talk are not limited to those between teachers and students. Swann and Graddol (1994) argue that "talk is not only unequally distributed between teacher and pupils but also between pupils themselves. In particular, recent studies of gender divisions in the classroom have demonstrated that girls contribute far less to classroom talk than boys" (p.153). The focus of recent work by Swann and Graddol has been the mechanisms which lead to the dominance of boys in classroom talk. By analysing turn exchange mechanisms in samples of classroom talk between teachers and small groups of students, Swann and Graddol show that boys not only dominate girls in terms of the amount of talk, but that the types of talk engaged in differ between boys and girls. For example, when a distinction is made between talk that is valuable for learning and talk that serves organisational or disciplinary functions, it is apparent that girls are even more disadvantaged in the portions of classroom talk that are valuable for learning. Swann and Graddol suggest that their findings raise:

two distinct causes of educational concern ... One, that girls may - as a group - be given less privileged access to certain kinds of learning experience. Second, that classroom talk forms an important arena for the reproduction of gender inequalities in interactional power (p.166).

Work by Biggs and Edwards (1994), while supporting Swann and Graddol's findings of gender differences, draws attention to a less visible inequity in classroom talk in multiethnic classrooms. The results of their study indicate that, even allowing for differences in the amount of talk across different classrooms, both the amount and type of teacher-talk directed to particular students varies significantly among students from different cultural backgrounds. That is, teachers not only interact less with children from ethnic minority backgrounds, but they engage in significantly fewer extended exchanges with these children, and spend less time discussing tasks with them. Further analysis of their data shows that there are no differences between children from different backgrounds
in the patterns of interaction they initiate with teachers, suggesting that the differences in interaction patterns are attributable to the teachers alone.

Cairney, Lowe and Sproats (1995) report similar inequities in classroom talk in their study of children in transition from primary to secondary school. Their work shows that directive and disciplinary teacher-talk is significantly more common in schools with high proportions of non English speaking background students. At the same time, the proportion of informative and explanatory teacher-talk is lower in such schools. This finding is consistent with the results of previous studies of cultural differences and differential treatment of students in patterns of classroom talk (see Cazden, 1986).

Given such inequities in classroom talk, and the role of the teacher in creating and perpetuating inequities (Edwards, 1993), educators should note the advice of Wells (1989):

In thinking about the place of talk in the classroom, we should be concerned to involve all students, whatever their background, in collaborative talk about tasks that are student-owned and inquiry-oriented and which integrate talking with thinking, doing, reading and writing in order to engage with topics and texts that both students and teachers find meaningful and significant (p.251).

2.6.2 Talk among peers

Despite widespread recognition of the importance of classroom talk, relatively little research attention has been given to talk among peers. Maybin (1994) points out that little is known about the structure of peer talk, or the learning processes it may support. Yet, as Cazden (1986) argues: "potentially, children are much more available to each other than the teacher is to any of them" (p.448), and there may be cognitive as well as motivational benefits from informal talk among peers.

One reason for the potential of peer talk is the structural differences between teacher-child and child-child interactions. As Cazden points out:

peer interactions assume special importance in school because of the asymmetry of teacher-pupil relationships. Children never give directions to teachers, and rarely ask questions except for procedures and permissions. The only context in which children can reverse interactional roles with the same intellectual content, giving directions as well as following them, and asking questions as well as answering them, is with their peers (1986, p.449).
Daiute and Dalton (1993) speculate about ways in which talk among peers might support learning. First, they suggest that "talking around a challenging task with an expert may be a catalyst to development because of the more complex nature of the expert's speech" (p.291). That is, by focusing on salient aspects of the task and verbalising their own understanding of concepts related to the activity, experts may support their partner's understanding of the task. However, Daiute and Dalton acknowledge that, though this explanation might be true of situations involving peers of unequal expertise (i.e. expert-novice pairs), it cannot account for children's development in situations in which they engage with peers of similar expertise, particularly if both are novices.

Second, they argue that "the social context of collaboration provides a reason to think out loud, which provides the opportunity to examine one's own thought more explicitly than one might do alone" (p.291). That is, talking about a task with a peer may bring implicit knowledge to consciousness, and allow comparisons between one's own and others' perspectives. This may occur regardless of the relative expertise of the partners. Finally, Daiute and Dalton suggest that "engaging in active and reflective problem solving and sharing the burdens of doing a task may ... involve children in goal making and monitoring that experts can do on their own but that peers can experience only when they have the conversational supports and division of labor to reduce burdens on information processing" (p.292). They conclude that:

This research suggests that the kind of work children do with peers makes it more possible for children to use and to integrate what they learn from expert sources. Children may be failing in school partly because experts' knowledge comes to them in ways that they do not understand or relate to. Knowledge from peers presented from a child's point of view, in a child's language, and from a person of relatively equal status may be easier to use (p.329).

Cooper, Marquis and Ayers-Lopez (1982) investigated patterns of spontaneous peer helping in a second grade classroom and found that "the two children who received the most unsolicited information from their peers were also the ones most frequently sought as consultants" (p.76). They report that ability was not the most important factor in patterns of peer assistance and that, while some children both contributed to and benefited from peer talk around academic tasks, other children did not.

Leal (1993) suggests that peer talk in the context of instructional activities can have benefits for teachers as well as for students. By acknowledging peers as legitimate sources of information and thereby "transferring some of the responsibility for learning from the teacher to the students" (p.118), peer talk has "the potential to be a powerful tool for enriching classroom learning" (p.120). This view is supported by Wells (1989), who
argues that collaborative talk among peers "contributes to those aspects of students' linguistic and intellectual development that are essential for success in school ... by enabling them to extend their control over those particular genres of language use that contribute to literate thinking" (p.271).

There is evidence from previous research that peer talk is an important context for learning and can exert a positive influence on student's success at school. There is good reason to speculate, therefore, that peer talk also plays an important role in young children's development of literacy. Studies of peer interactions in literacy learning are examined in the following section of this review.

2.7 Peer Interactions in Literacy Learning

The research discussed in previous sections of this review provides strong evidence that peer interaction is an important context for classroom learning. However, the role that peer interaction plays in literacy learning has only recently gained the attention of researchers and educators, and it is not yet universally acknowledged that "substantive talk (rather than idle chatter) is not a frill; it is a primary means for becoming literate" (Hiebert, 1990, p.502).

Several studies have addressed the question of how social interaction among peers can facilitate literacy development, but these typically consider social interactions as the context within which learning takes place rather than as the tool for learning (eg. Avery, 1987; Brock, 1987). Brock (1987), for example, shows that through talking as they write young children elaborate and clarify their written texts, experience an audience, have a purpose for writing, share ideas with their peers, and learn to be critical of their own and others' texts. She suggests that "through talk during writing and group conferencing the children (in her classroom) were letting each other in on the complexities of written language in a very direct way" (p.107). She argues that the children's talk:

was totally pertinent to what they had written ... It enabled the children to write aloud, to fill the gaps, to explain, to solicit help from their peers that they would not feel comfortable in asking from an adult, and to temporarily remove themselves from their writing to see it in a different light. Talk provided the opportunity for the children to develop positive, meaningful strategies for achieving greater control over their writing (p.107).

Similarly, Avery (1987) describes how, in her first grade classroom, "the learning community became a resource for each individual as they asked each other questions and pooled their knowledge and hypotheses" (p.613). These studies attempt to document what
literacy knowledge and skills children can learn through peer interactions, but do not consider the variety of ways in which young children interact with each other during written language activities and, hence, do not consider the various ways in which children assist each other to become literate.

Morrow and Sharkey (1993) conducted ethnographic research into the behaviours of children in second grade who were engaged in cooperative literacy activities. They identify peer collaboration as well as peer tutoring in the children's interactions, and document the processes of group formation, rules and leadership roles, and conflict (both social and cognitive). They note that children with 'special needs' participate fully in the cooperative activities, and conclude that the children "became motivated to participate voluntarily and independently in literacy activities through a meaningful social context" (p.164). Similarly, Clarke (1993) has noted the positive impact of peer social interaction on the literacy learning of hearing-impaired children.

There is also evidence to suggest that peers play an important role in the literacy learning of older students. For example, Myers' (1992) exploration of eighth graders' school and personal uses of literacy highlights the importance of peer relationships in classroom contexts. Using the metaphor of literacy clubs, Myers describes how the students used literacy to negotiate shared understandings of classroom life: "They sought to share personal experiences and knowledge with friends and develop new meanings and symbols together, because in doing so they experienced more valued relationships and greater self-worth" (pp.317-8).

Peer interactions in classrooms also impact on students' intertextual histories. Cairney (1992) points out that readers and writers construct and reconstruct meaning within a rich social context. In doing so, they interpret texts in the light of previous literary experiences. 'Intertextuality' refers to the connections readers and writers make between their multiple experiences of texts. In his work in a first grade classroom, Cairney noted children's influences on the intertextual connections made by their peers. Intertextual ties are also evident in Fueyo's (1989) account of the literacy development of first graders. Her work highlights the way in which one child's preoccupation and fascination with books about planes and jets influences his peers' reading choices, as well as the written texts they construct. As Cairney (1992) notes:

The quality and quantity of interactions permitted in classrooms seem to have a significant impact on the building of the intertextual histories of our students. Teachers need to build literacy environments where reading, writing, and talking about reading and writing occur as
natural extensions of the relationships that bind the members of classroom communities together (p.25).

Although recognising that reading and writing are inextricably entwined, many previous studies of the role of social interaction among peers in promoting literacy development have tended to focus either on reading or writing. In what follows, each of these two strands of research is considered separately.

2.7.1 Reading with peers

Several recent studies have investigated the benefits of peer group discussions about reading (eg. Leal, 1992, 1993; MacGillivray & Hawes, 1994). For example, Leal (1993) hypothesises that in literary peer group discussions "benefits may ... accrue in peer interactions when a more informed child spurs his or her peers to consider other perspectives and rethink prior knowledge, leading to new interpretations" (p.114). Her analysis of peer group discussions among first, third and fifth graders reveals three such benefits. First, peers serve as catalysts for learning by sharing prior knowledge and thereby stimulating further ideas and the negotiated construction of group meaning. Second, group discussion provides opportunities for students to adopt complementary roles in problem-solving. Third, it provides opportunities for students to explore ideas and create new possibilities. Given that children help each other to construct textual information and understanding, with children taking turns at 'instructing' one another, Leal concludes that "this type of interaction shows how students work within Vygotsky's zone of proximal development" (p.117). Differences in children's ability to contribute to and draw from peer-group discussions are noted across grade levels, with older children showing considerably more propensity to challenge peers' ideas and engage in extended discussion about texts.

MacGillivray and Hawes (1994) argue that investigation of peer interactions as children engage in reading activities reveals important insights into children's "views of themselves as readers and their views of reading processes" (p.215). Their investigation of first graders reading self-selected books together reveals that reading strategies children have encountered outside of school are incorporated into classroom reading events and shared with peers. They also suggest that "even though the reading and writing were continually framed as cooperative activities, many children use(d) literacy interactions in order to claim superiority" (p.216) in terms of their status and expertise relative to their peers.

Three issues are identified by MacGillivray and Hawes as being integral to children's interactions: their awareness of their own and their peers' competence, their desire to
maintain control of the interaction and to conform to classroom expectations, and their claims to 'expertise'. These findings suggest that teachers may need to establish guidelines to support positive peer interactions so that issues of power and dominance can be made visible to students.

Teacher intervention in promoting peer social dialogue in reading activities is also advocated by Dixon-Krauss (1995). Her investigation of partner storybook reading and discussion among first and second grade children reveals that "reading and writing collaboration activity seem(s) to provide an added purpose for students' engagement in rereading and writing about their books" (p.61). A six-week intervention program resulted in improvements in "students' word recognition, writing, and higher level thought processes involved in reading" (p.61).

Devescovi and Baumgartner (1993) have extended previous research into the adult-child interaction patterns surrounding picture book reading by investigating the structure of child-child interactions in similar literacy events. Pointing out that little attention has been given to the relationship between adult-child and child-child interactions, they examine the structural features of peer exchanges, as well as the storytelling techniques embodied in such exchanges. Their investigations show that many of the features of exchanges between adults and children are also identifiable in exchanges between 3 to 5 year old peers. For example, procedural and narrative-construction uses of language parallel the relational and ideational functions identified by Panofsky (1989) in parent-child book reading interactions (see section 2.4.1). However, in contrast to many adult-child interactions in which questioning is used by the adult to control the interaction, children often ask questions to which they do not already know the answer. They also use procedural turns to negotiate the structure and meaning of the activity through complementary roles. Devescovi and Baumgartner conclude that their research provides evidence "that peer interaction is not only a context to which the skills the child acquired in interacting with adults are transferred but also a unique context in which acquired knowledge is further developed and new knowledge is formed" (p.320).

In a recent synthesis of research on peer and cross-age tutoring in reading instruction, Rekrut (1994) provides the following guidelines for establishing effective tutoring situations among peers: "many elements of reading are amenable to instruction and practice via peer and cross-age tutoring;... any age student may be either tutor or tutee;... peer and cross-age tutors are often high-achievers, but any level achiever may serve equally well;... same-sex partners work best in both cross-age and peer tutoring;... tutors should be trained;... (and) tutoring can be used to reach both cognitive and affective objectives" (pp.360-1).
All of the studies discussed above share an emphasis on the role of peer interactions in the acquisition of knowledge and skills critical to the development of successful readers. Studies of peer interactions in the context of writing activities are explored below.

### 2.7.2 At the writing table

In recent years, a number of researchers have begun to focus specifically on the role that peers play in the collaborative production of text. Harste et al. (1984) describe the role of peer interactions in young children's composing process:

> Reading and writing are social events. Discussions with neighbours prior to, during, and after involvement are not disruptions to the process, but a natural part of the process itself. Successful writers use friends in order to discuss where they might go next and what arguments still need to be developed, and to verify for themselves that their writing has the effect they desire (p.214).

A study by Brimble (1992) investigates the nature of interactions between pairs of sixth grade students as they engage in collaborative writing using a computer. Specifically, the study investigates the structure of the students' interactions, the nature of the learning context, and the impact on the students' writing. Results indicate that, although all students cooperated, not all dyads cooperated to the same extent and level of cooperation correlates with the production of more extended text. The learning context enables the students to structure their own learning by jointly engaging in the writing task, sharing ideas, helping each other with the computer and building on their knowledge and skills.

Daiute and Dalton (1993) provide evidence that even very young peers assist each other when they collaboratively construct texts. Their study of 7 to 9 year old children engaged in collaborative story writing reveals that "95% of the story elements added after collaboration had been the focus of children's talk as they composed together. Furthermore, children who demonstrated even minimal ability to write stories transferred basic aspects of story structure to each other" (p.281). By drawing on previous research into the nature of teacher-student interactions, and expert-novice peer collaborators, Daiute and Dalton reveal important similarities as well as differences between peer collaborations and teacher-child collaborations. For example, they provide evidence that peers engage in generative processes (involving the flexible production and development of ideas) and reflective processes (thinking about and evaluating ideas that have been produced) similar to those identified in teacher-child collaborations. However while adults' scaffolding of children's activities has usually been characterised as involving adult control of the task,
peer collaborators tend to maintain a focus on their own activities rather than exert control over the activities of their partner.

The work of Daiute and Dalton has pointed to the importance of providing opportunities for children to engage in activities with experts, as well as with peers of relatively equal expertise. However, they acknowledge that "the processes of interaction and growth in the context of peer collaboration have just begun to be explored in detail" (p.285), and that "it is important to explore further whether there is evidence that ... young beginning writers can support each other spontaneously with their diverse strengths" (p.290).

A number of studies conducted within early childhood classrooms have investigated the effects on literacy development of social interaction amongst peers, and have directly informed the construction of the study reported in this thesis. Rowe (1989) explores preschool classroom literacy events from an ethnographic perspective, while a study by Dyson (1989a, 1990a) traces the writing development of a number of children over two years in kindergarten and first grade, with primary emphasis on four focal children. For both Rowe and Dyson the focus of research is the writing table. Studies by Allen and Carr (1989) and Power (1989) focus on the ways in which young children learn from each other as they engage in classroom literacy activities.

Rowe (1989) conducted an exploratory study of interactions among pre-schoolers involved in self-selected writing activities. The site for the study was a preschool classroom enriched with 'literacy centres' designed to promote literacy-related interactions among peers. Her work demonstrates that within the supportive environment of the writing table, young children learn how to variously adopt the roles of author and audience in the process of constructing meaning and expanding their literacy knowledge.

Dyson's study explores how young children simultaneously use drawing, talk and writing to construct "their own replayings and graphic organisations of their experienced worlds" (1989a, p.25) and emphasises the importance of shared experiences as the basis of literacy learning. Dyson's work documents the myriad connections between children's symbolic worlds as they learn to construct written texts. The study provides ample evidence that social interaction among peers contributes to young children's literacy development. However, Dyson concentrates more on the interconnections among symbol systems than on the processes of peer learning.

The work of Allen and Carr (1989) examines the ways in which kindergarten children teach and learn from each other during classroom literacy events, focusing mainly on the experiences of one child (James) in learning from his peers. The researchers identify skills
and strategies that James learns through interacting with peers, including "important aspects of creating a text, of refining his drawing, matching picture and print, and matching sound and letter" (p.31). They also document the way in which peer social interactions enable the children to "learn how to learn" (p.31), including appropriate ways to initiate or solicit a teaching/learning sequence, how to accept or reject offers of help, and ways to manage the level of assistance received from peers.

Allen and Carr's analysis of 106 instructional episodes between peers reveals that young children can assist each other by telling, demonstrating and confirming, and that even in instances where children reject or seem to ignore teaching from peers they sometimes incorporate the knowledge into later writing events. Evidence from their study suggests that young children become better teachers as well as better learners over time. This is illustrated in the profile of James constructed from the teaching/learning episodes in which he engages, and the charting of his literacy development.

In her study of the collaborative writing of three first grade boys, Brenda Power (1989) describes how young children can learn to exchange ideas and support each other's attempts at making meaning through written language. She points out that "children negotiate meaning as they collaborate, meaning that perhaps can be reached through no other means but by sharing" (p.771). Power notes that each of the boys have different strengths and weaknesses, and that each learns new strategies and skills as a result of their interactions. Through talking as they write, the boys help each other to create meaning in their written texts, to understand the rules of group interaction, to work together effectively, and to establish their place in the social world of the classroom.

Each of the four studies discussed above represents an attempt to understand how classroom literacy events facilitate literacy development for young children. Each was conducted over an extended period of time, featured intensive observation, and focused on a particular literacy event. The findings of each study demonstrate that young children create and express meaning through social life, and learn to reproduce that meaning in literate ways. The salient feature shared by all four of these studies is the importance attributed to the social dynamics of the classrooms studied. Each study recognises that the social dimension does not simply provide a context within which literacy events occur, but that the very nature of the social interactions determines to some extent the literacy knowledge constructed by the various participants.

Perhaps one of the most innovative studies into the role of peer social interaction in literacy learning, particularly in its focus on the negotiation of shared understandings about literacy, is that conducted by Laurie MacGillivray (1994). Through detailed analysis of
classroom observations of first-graders engaged in reading and writing activities, she demonstrates that students' negotiated view of what it means to 'do' writing includes the assumptions that it is acceptable to compose in one's own way provided that the writer is able to interpret the writing, and that attending to audience needs is more important than exact decoding.

As well as identifying these two main assumptions about the process of writing in the particular writing community studied, MacGillivray searches for more implicit evidence that children negotiate shared understandings about the meaning of writing. Using the term *cultural theme* to refer to implicit shared understandings, MacGillivray suggests that "cultural themes connect actions to meanings and provide a framework within which community members can assume certain shared understandings" (1994, p.260). Three cultural themes are identified in the data: that "writing and drawing reference virtual worlds that mediate relations with others" (p.260), that "writing is for exploring 'self' and the world" (p.262), and that "writing can be an act of unity" (p.263). MacGillivray's work shows how peer social interactions contribute to the construction of negotiated understandings of what writing is, and how individuals define themselves within writing communities.

One final piece of work which has influenced the construction of the present study is an article by Crouse and Davey (1989) in which the authors describe the responses they received from young children when they were asked for their perceptions of collaborative writing. This work differs from most previous work on peer interactions in that the focus is specifically on children's own perceptions of the assistance they receive from their peers. The children describe the feelings of confidence and security that result from being able to write with friends; the myriad ways in which they can learn from each other; and the type of environment that is needed to support and foster collaborative learning. The authors acknowledge that, through talking with the children about their writing, they have come to "understand that learning is best facilitated when children are allowed to collaborate with one another" (p.766).

All of these researchers recognise that peers play an important role in the development of young children's literacy. Cumulatively, they provide important insights into the ways in which young children interact as they engage in literacy activities, and what children can learn from working with peers. However, at the same time, these researchers recognise that peer interactions in literacy learning have only just begun to be explored.
2.8 Conclusion

The combined evidence of previous research into the role of social interaction in learning suggests that peers can be effective learning partners. Further research into precisely how peer interactions facilitate learning is now critical to advances in our understanding of the processes of literacy development. Dalute and Dalton (1993) argue that:

Describing what young peers do is essential to understanding the social nature of learning and development. Although several qualities of experts have been identified as essential instructional resources, the type of help that peers offer each other has been more elusive. Previous research has offered hints about effective collaboration processes, but important questions remain: What is it about collaboration among equally novice peers that supports development, and how do young peers who are not trained as teachers interact in such a way that learning occurs? (p.287).

Yet, even as recognition of the potential of peer interactions becomes more widespread, research into peer learning will continue to be a painstaking endeavour. Classrooms in which children are allowed, and even encouraged, to interact freely are still the exception rather than the norm. Amarel (1987) warns that "capturing fine-grained student interactions is not only intrinsically difficult but is also hampered by the prevailing view that communication among students is dysfunctional to school learning. Classroom routines and norms are often designed to minimize peer interaction" (p.536).

The study described in this thesis aims to contribute to the understanding of the social nature of learning and development. It attempts to do this by describing what young peers do when they are allowed to interact freely during daily writing sessions, by identifying the forms that peer assistance can take, and by elucidating the ways in which children's interactions impact on their construction of literacy in a classroom setting.
Chapter 3

METHODOLOGY

3.1 Introduction

The present study is a multiple case study (Denny, 1978; Stenhouse, 1981) of four first-grade (six-year-old) children as they interacted with their peers during a daily classroom writing session. It was conducted within a naturalistic inquiry paradigm (Guba & Lincoln, 1982), and involved the use of both inductive and interpretive data analysis.

A number of assumptions about language, learning and the development of literacy guided the design of the study. First, learning is a constructive process achieved by linking the unknown to the known through the medium of the social context (Vygotsky, 1978; Bruner, 1986; Rogoff, 1990). Second, language is a social process which cannot be studied independently of the social context in which it occurs (Harste, Woodward & Burke, 1984; Wells, 1986a). Third, language learning is an idiosyncratic process (Dyson, 1991): studying the interactions of one child with her peers would restrict analysis to a descriptive account of the effect of social interaction on the literacy development of that child, whereas a study focused on a number of children would allow an analysis of similarities and differences so that patterns of interaction might be ascertained. Fourth, as learning takes place over time (Teale & Sulzby, 1986), children's growing understanding of the written language system can best be studied via frequent regular observations of children's use of the system. Conducting an empirical study with a large sample of children may be appropriate for determining specific gains in development over time, but would not facilitate an investigation of how that development occurred. Thus:

If we want to understand development we must study the same children across time. This can be done by looking at children across large chunks of time (or) ... by studying the change process within a specific task (Pellegrini & Galda, 1993, p.169).

Guba and Lincoln (1982) maintain that, due to the very nature of naturalistic enquiry, "within the naturalistic paradigm a design can be specified only incompletely in advance" (p.73). Classroom observation was selected as the most appropriate method for conducting the study, with the specific focus of data collection and the use of data analysis strategies changing and evolving over the course of the study.
Data collection strategies included audio-taping classroom interactions, constructing field notes, collecting written artefacts, and conducting informal interviews. All of the data collected were combined to produce a protocol for each observation session (see section 3.5 for full details). These protocols were analysed through the use of constant comparisons and detailed coding of data to identify patterns (Strauss, 1987; Strauss & Corbin, 1990). Both during and after the data collection phase of the study, the protocols were used to construct a profile of each focal child's use of written language and interactions with peers in a daily composing session. The purpose of these profiles was to "build a bridge between observation and analysis" (Spradley, 1980, p.33). The four profiles are presented in Chapter 7 to illustrate the major findings of the study.

3.2 Research Paradigm

According to Schwandt (1989), "inquirers must choose an inquiry paradigm that is resonant with the values they wish to promote in the conduct of educational inquiry" (p.379). He argues that each of us has a world view "composed of our assumptions about the nature of reality, the nature of knowledge, and our value perspectives" (p.399), and that, in choosing an inquiry paradigm, we should aim to achieve a state of harmony or 'fit' between the values inherent in our world view and the values inherent in a particular inquiry paradigm.

Once the inquiry paradigm of a particular study has been established, the selection of research methodology is neither a simple nor an ad hoc matter: the various assumptions and implications of alternative methodologies need to be considered carefully within the context of the particular problem to be investigated and the specific goals of the inquiry. Schwandt has argued that while the choice of a particular methodology may commit a researcher to (or presuppose a commitment to) a specific inquiry paradigm, the relationship is not reciprocal: a commitment to a particular inquiry paradigm does not necessarily entail the use of a particular methodology. Correlated with this view is the point made by Guba and Lincoln (1982) that, while there is in practice a strong relationship between the scientific paradigm and quantitative techniques, and between the naturalistic paradigm and qualitative techniques, both types of methodology may at times be appropriate to either paradigm. Thus, the choice of inquiry paradigm is a matter of achieving a state of 'value-fit', and is (or ought to be) dependent on the inquirer's beliefs and values. In contrast, the choice of methodology is a far more practical matter, dependent not only on the subject matter and goals of the research, but also on the resources (eg. time, personnel) available to the researcher.
In conducting the present study, the ultimate goal was not the development of pedagogical rules that would enhance literacy development for all children in all contexts, nor the testing of preconceived hypotheses. Rather, the goal of the study was to facilitate an understanding of the way in which the social dimension of written language influences the literacy learning of particular children in particular contexts. This understanding could not be reached through the manipulation and control of some or all aspects of literacy teaching and learning in contrived contexts, but through prolonged study of the phenomena in as undisturbed (ie. naturalistic) a context as possible. The inquiry paradigm which was necessary in this study to allow a state of 'value-fit' was a naturalistic paradigm.

3.3 Setting and Participants

The school, class and four focal children were selected through the use of purposive sampling (Lincoln & Guba, 1985). Purposive sampling rather than random sampling was chosen as the most appropriate mode of selection since it "increases the scope and range of data exposed ... as well as the likelihood of the full array of multiple realities" (p.40).

3.3.1 Selection of site

The site selected for the study was a Grade 1 classroom in a Catholic systemic primary school in the western suburbs of Sydney. The school served families of diverse ethnic and socio-economic backgrounds. Although many children came from language backgrounds other than English, few of them began school with little or no proficiency in English.

Since we theoretically already know that not all classroom literacy programs are equally meritorious of study, initial selection of classroom research sites should be done using criteria based on our best information about the transactive relationship between context and the sociolinguistic and psycholinguistic processes involved in literacy (Harste et al., 1984, p.213).

Following the advice of Harste and his colleagues, an attempt was made to select a classroom in which children were allowed to interact freely as they engaged in literacy-related activities. Selection was made after I had visited a number of Grade 1 classrooms in the same and other schools within a small geographic area. The particular classroom selected was one in which the teacher expressed a belief in the importance of allowing children to interact freely within the classroom. The teacher was supportive of the aims of the research, and willing to accommodate a regular visitor during the Language Arts program.
The approval of the Primary Consultant responsible for the particular school, and the Principal, was sought and readily given. Permission to observe the children, and to use the data obtained to write the thesis, was also sought from the parents of the children in the class. Letters were sent to all parents explaining the purpose of the research and outlining the way in which the research would be conducted (see Appendix A). Parents were assured that the names of the school, the teacher, and the children would be changed so that they would not be identifiable. Parents were also assured that if they did not grant permission for their child to be involved in the research, then no data would be collected in relation to their child. Further, it was explained that parents were free to withdraw their permission at any time if they did not wish their child to continue in the study. Of the thirty three children in the class at the commencement of the study, parents of thirty one children granted permission for their child to be involved in the research.

3.3.2 Selection of focal children

Four children from the selected class were chosen to be the focus of data collection. During the initial observation phase it became apparent that, although the children were encouraged to interact freely with all of their peers, they tended to form three groups within the class. There was some overlap between groups, with several children moving freely between all class members, but the groups remained predominantly separate and distinct. To facilitate data collection, it was decided to select all of the focal children from within one only of these three groups. The group chosen was one in which all of the children's parents had given permission for their child to be involved in the research.

Two boys and two girls were selected as focal children. All four were six years old at the commencement of the study. One boy (Adam1) and one girl (Kate) were rated by the classroom teacher as 'high' in their knowledge and use of literacy, while James was rated as 'average' and Sarah was rated as 'low'. The selection of focal children who displayed a range of levels of literacy knowledge was intended to facilitate investigation of the assumption that children most advanced in their own knowledge and use of literacy would be most able to give assistance to their peers.

3.3.3 Selection of focal activity

The Language Arts program in the selected classroom involved a ninety minute block each day devoted to shared and individual reading activities, teacher-directed group and individual writing activities, and share time. The last thirty minutes of the Language Arts

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1 The names of all children involved in this research have been changed. Reproduced sections of transcripts, field notes and children's work samples have been changed to reflect these name changes.
block each day was devoted to 'Story Writing Time', in which the children chose what they
would write about, the manner and form in which they would write, where they would sit,
with whom they would interact, which stories should be 'published', etc. The rules and
procedures for this activity were well-established and known by all of the children at the
commencement of the study.

After the initial observations of all activities included in the Language Arts program, Story
Writing Time was selected as the most appropriate activity for intensive study, as it was
during this time that children had most opportunity to move around the room and interact
freely with their peers while engaged in written language activities. The importance of
selecting an activity in which children had control over their interactions was highlighted
by Rogoff (1990):

Although children are familiar with adult environments, they are likely to treat a situation
differently if they are in charge of it rather than being given a task by adults. They are
probably more playful and exploratory and less goal-oriented when involved in a purely peer
activity, ... To understand the role of peer interaction in cognitive development, it is necessary
to examine situations in which children are in charge of their own activities (p.172).

The classroom was organised in such a way as to encourage children to work freely
together. Tables were arranged in groups seating six to eight children, and a large area was
left clear of tables so that children could work on the floor if they wished. The children
did not have designated desks or places, and stored their belongings on shelves at the side
of the room. The teacher's desk was set in one corner of the classroom, next to a small
storeroom. The walls were covered with samples of the children's work, an alphabet
frieze, charts showing lists of words beginning with the same letter, and posters advertising
popular children's books.

The children each had a personal writing folder which contained completed stories, drafts
and incomplete texts, a personal dictionary and a 'Have-a-go' book. On the back of each
writing folder was a photocopied sheet showing the letters of the alphabet (in both upper
and lower case) with a picture of an object corresponding to each initial sound. Paper and
cardboard in a range of colours and sizes was stored at several points in the classroom for
easy access. Children were permitted to use whatever paper and writing materials they
chose.

Immediately prior to Story Writing Time, the children were usually engaged in completing
a teacher-devised activity such as a worksheet or directed writing activity. The classroom
procedure required that each child complete the previous activity and then begin 'Story
Writing' without waiting for teacher-direction. The children were free to collect their writing folders from the storage box and select a place to work. Each child was expected to write every day, and to 'check-in' with the teacher at her desk at least once per week. Any child who failed to initiate a weekly conference during Story Writing Time was called on by the teacher. Occasionally, parent-volunteers were present to help by conducting writing conferences and 'publishing' completed works.

It was rare for the teacher to intervene in the children's activities during this time, and she only did so if the level of noise in the room became (in her opinion) unacceptably loud. At these times, a general reminder to 'talk quietly' was issued and the children invariably responded. During the course of the study, the teacher was observed moving around the room on only two occasions. In her words, she "trust(ed) the children to write" without constant close supervision. Thus, although the teacher controlled the broader context of Story Writing Time by establishing rules and procedures, the children maintained a high degree of autonomy, particularly in their social interactions and production of texts.

3.4 Design of the Study

The study proceeded through a number of different phases characterised by variations in the focus of data collection, amount of time spent in the classroom, and data analysis techniques. Table 3.1 contains a summary of these phases and the components of each phase.

3.4.1 Phase 1

The initial phase of the study began in February, 1993, and continued for approximately six weeks. The major tasks of this phase included the selection of site for the study, negotiation of field entry, becoming familiar with the classroom context, the selection of four focal children, and the trialing of the intended data collection and analysis techniques. (Details of site selection and the negotiation of field entry were discussed in the previous section.)

At the end of March, 1993, informal observations began within the classroom with the focus being a familiarisation process. It was explained to the children that I would be visiting their classroom regularly to observe them at work, and was interested in learning about how they learn to read and write. The purpose of the tape-recorder was also explained so that the presence of the equipment would not inhibit social interactions and classroom talk (Ball, 1982). The initial observation sessions were used to gain a general
Table 3.1: Summary of data collection and analysis procedures.

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<th>Data Collection Procedures</th>
<th>Data Analysis Procedures</th>
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<tr>
<td><strong>Duration</strong></td>
<td><strong>Focus</strong></td>
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<td>Phase 1 6 weeks</td>
<td>Field entry</td>
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<td>Becoming familiar with setting and participants</td>
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<td>Selection of case-study children</td>
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<td>Phase 2 12 x 30mins over 10 weeks</td>
<td>Document writing events involving case-study children</td>
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<td>Phase 3 10 x 30mins over 8 weeks</td>
<td>Theoretical sampling to guide classroom observations</td>
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<td>Phase 4 4 hours</td>
<td>Participants' perceptions of interaction patterns</td>
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impression of the interaction patterns in the class, as well as the children's knowledge and use of literacy, so that four focal children could be selected for intensive observation. These children were to become the primary focus of data collection in the next phase of the study, with a secondary focus on children who interacted with the focal children. The initial sessions were also used to select a focus activity which would frame data collection. To facilitate this selection, a range of literacy-related activities were observed in two extended (90 minute) observation sessions during Language Arts instruction.

Data analysis in this phase consisted mainly of determining the boundaries of a writing event, defining a teaching/learning sequence and generating initial categories of peer assistance. For example, Rowe (1989) in her study of pre-schoolers involved in writing activities defined a literacy event as "beginning when a child arrived at a literacy center and continuing until all the original participants left the center to begin a different kind of activity" (pp.315-8). Allen and Carr (1989) defined a teaching/learning episode between peers as "occurring when a child asked for help ... or spontaneously offered help" and continuing "as long as two or more children were talking about the initial request or offer" (pp.35-6).

In this study, a 'writing event' was defined as beginning when a focal child collected his or her writing folder from the storage box and selected a working space (either table or floor). The 'writing event' ended when the child ceased writing (or drawing) and returned the folder to the storage box. This usually occurred when the school bell sounded to signal lunch-time or, on a few occasions, the classroom teacher gained the children's attention by clapping and then announcing "pack-up time".

3.4.2 Phase 2

From mid-April 1993, classroom observation sessions were conducted for approximately thirty minutes each, twelve times over a period of ten weeks. In each session, the interactions between a small group of children involved in writing activities were recorded on audio-tape as well as in detailed field notes written during and after the observation session. Copies of written texts produced by the observed children during each session were collected at the end of the session.

Data analysis in this phase consisted of a review of all field notes and transcriptions of recordings, as well as an analysis of children's written texts. The purpose of these analyses was to:
a) identify the literacy knowledge and strategies used by the focal children during writing events;

b) identify the form(s) of peer assistance given during each teaching/learning sequence; and

c) map social interaction during writing events to determine patterns of assistance (who helps whom, how, and under what circumstances).

3.4.3 Phase 3

The third phase of the study began in August, 1993. In this phase, an additional ten thirty-minute observations of the focal children were undertaken during Story Writing Time over a period of eight weeks. On two occasions, observations were conducted on consecutive days in order to observe two children collaboratively writing a single text over a number of days. In addition to the observations, writing produced by the focal children during these sessions was collected for analysis. In particular, data analysis in this phase of the study focussed on mapping the patterns of interactions and on identifying the impact of peer interactions on children's construction of literacy.

3.4.4 Phase 4

The final phase of data collection was undertaken during October, 1993, and consisted of interviews with all major informants in the study: the teacher, the four focal children, and all other children who played a significant role in the social interactions of the focal children.

Interviews with the children were structured, and were designed to elicit their perceptions of peer assistance in literacy learning. The children were interviewed individually in a small quiet area adjacent to the classroom. Interviews were audio-taped and later fully transcribed. As the interviews were conducted near the end of the study, all of the children were familiar with the researcher and seemed at ease in the interview situation. Each child was asked the following questions:

1. Who helps you learn to read and write?
2. Do you help anyone learn to read and write?
3. Are you a good writer? How do you know?
4. Are you a good reader? How do you know?
5. Do you like to write by yourself or in a group? Why?
6. In Story Writing Time, who do you usually sit with? Do you help each other? (If so) how?
The teacher's perceptions of peer interactions and assistance in the classroom were also sought through a semi-structured interview conducted during a lunch break. The interview was audio-taped and later fully transcribed. The teacher's perceptions were then compared with the children's perceptions, and with my observations as a participant in the classroom. Data analysis in this phase focussed on documenting the patterns of peer interaction and assistance perceived by the children and teacher. These findings were then compared with maps of peer assistance constructed from classroom observations.

3.5 Data Collection Strategies

In the classroom, a "participant-as-observer" role (Ball, 1982, p.39 ) was adopted so that the presence of an unfamiliar adult would not unduly inhibit the children's interactions. As Ball warns:

> It is ... important that the actual presence of the observer in the social setting being studied does not in itself bring about irrevocable changes in the daily course of events and the actions of the subjects. ... (I)f the presence of the observer does bring about permanent changes, the observer should be attempting to gain some insight into these changes as well as the observable course of events (p.47).

During observation sessions, I was usually seated on a small chair very close to one of the groups of tables in the classroom, observing a small group of children as they engaged in writing activities, but not directly participating in the group's activities and interactions. I did not initiate any conversation with the children. However, on occasions when a child directly addressed me, I provided as brief an answer as possible. When my assistance was sought, I directed the child in accordance with the established classroom rules and procedures. For example, if asked to provide the correct spelling of a word, I directed the child to "have a go" in the book that each child had for just this purpose.

During most observation sessions, a small tape-recorder was placed on the table close to the focal child being observed, recording the verbal interactions of all children seated at the table. On several occasions, I was seated on the floor close to a group of children who chose to work on the floor. During these sessions, the tape-recorder was placed on the floor, as close as possible to the focal child, but taking care not to intrude into the child's work space.

Evidence that my presence and the use of the tape-recorder were not intrusive can be seen in the following extract from field notes from one observation session. During this observation, Richard, Christopher and Adam had been seated at one table for the entire
Story Writing Time. I was seated on a small chair adjacent to the table, and the tape-recorder was placed in the middle of the table. The bell rang to signal lunch time:

Children pack away and begin to return things to their designated places. Richard notices the tape-recorder and asks "Oh, were you recording us that time?" He turns to Christopher and says "It was recording what we were saying." Both boys then move to the floor ready to be dismissed for lunch. (Extract from field notes, 16/6)

Detailed field notes were written during observation sessions, and copies of artefacts produced by the children during the session were collected. After exit from the classroom, audio-tapes were fully transcribed (see Appendix B for transcription conventions used in this study). Field notes and transcriptions were then combined to produce a protocol for each session. Table 3.2 is an extract from the data protocol compiled from one observation session.

In the first column in Table 3.2 is a pictorial representation of the positioning of each child being observed. Movement of individual children to and from the observed group was recorded, and the position of at least one focal child was highlighted. The second column consists of the combined field notes/transcriptions and contains descriptions of the events observed as well as verbatim accounts of the children's interactions.

The third column in the data protocol was used for the initial coding of the data. As well as the identification of basic categories, this column was used to record properties and dimensions of categories (Strauss & Corbin, 1990). Additional entries were made in this column over the course of the study as the categories were refined. The process of identifying and refining categories through the use of the constant comparative method is explained fully in the following section on data analysis procedures.

The final column in Table 3.2 was used to record my perceptions of what was occurring during each classroom observation. It contained further explanation or description of the context where this was necessary for a more complete understanding of the specific interaction. It also included reference to previous interactions or events that seemed relevant to, or provided clarifying information about, the specific interaction. The final column was also used for operational notes (Strauss & Corbin, 1990) about the significance and implications of the specific interactions and observations.

In total, 167 pages of data protocol were compiled for the twenty two observation sessions in this study. In addition, copies of samples of children's texts were collected, and interviews with one teacher and nineteen children were conducted.
Table 3.2: Extract from data protocol compiled for one observation session.

<table>
<thead>
<tr>
<th>Date: 21/4/93</th>
<th>Time: 10:00 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: Classroom</td>
<td>Participants: Adam, Sarah, Owen</td>
</tr>
</tbody>
</table>

**Observation Notes**

- **Adam, Sarah & Owen are all sitting at a table, writing independently. Adam & Owen write silently, but Sarah talks quietly to herself as she writes. James comes to the table to ask for help.**

  - J. How do you spell 'cousins'? How do you spell 'cousins'?
  - No-one answers so he wanders away.

- **Today's parent-helper comes to the table to check on children's progress. Sarah tells her that she is writing several pages.**

  - S. This time I'm having five ( )
  - P-H. I hope you remember what you're writing. Don't do too many at once, just do one at a time 'cause then you'll remember what you're writing, then read it to somebody and then get an adult to check it - a mum to check it otherwise you'll probably forget.

  - Veronica comes to the table, sits next to Sarah and begins to organise her work.

  - S. Veronica, do you want me to ... do you want to read it to me?
  - V. No, I'm gonna do pictures. ( )

- **Request for help/ explicit/ indirect/ spell a word**

  - James seeks out Adam. Although he doesn't verbally direct his request to Adam, it is clear who it is intended for: James stands right behind Adam's left shoulder as he makes his request. James apparently takes Adam's silence as a sign that Adam is not prepared to help him today. If Adam had even acknowledged the request, James may have taken the opportunity to sit in the vacant chair next to Adam, instead of wandering off to find someone else to help him. Adam, though, seemed to be engrossed in his own writing and may not even have heard James' request.

  - Parent-helpers sometimes sit at a table and wait for children to come and ask for help. At other times they move around the room checking on what children are doing and offering help when it seems to be needed. In this instance, Sarah wasn't asking for help, but was seeking approval for the fact that she was writing a much longer story than usual: one that was divided into pages.

- **Offer of assistance / unsolicited**

  - Sarah offers to fulfil the role of 'reader' of Veronica's story. The teacher often reminds the children to read their completed stories to a friend, but some children are far more adept than others at providing feedback.
3.6 Data Analysis Procedures

Understanding not only the nature of peer assistance but the patterns of interaction within which peer assistance was embedded, as well as the impact of these on literacy learning, required viewing the data from multiple perspectives. As Gutierrez (1994) points out:

multiple frames are critical to understanding the complex, multilayered, and sometimes overlapping nature of interaction, talk, and activity in classrooms. ... multiple perspectives help make visible the various ways individuals co-construct context and patterns of interaction in activity, and ways in which particular patterns of interaction become scripted, influencing access to specific forms of learning (p.336).

This, in turn, demanded multiple analyses that focused on the ways that individual children participated in observed classroom writing activities, as well as how participants' roles in the activities constructed the social and cultural context and shaped development (Rogoff, 1990; Gutierrez, 1994).

A combination of inductive and interpretive data analysis procedures was used to investigate the three main research questions. These questions were:

1. In what ways do young children assist each other to make meaning through written language as they interact in classroom writing sessions?

2. What patterns of peer assistance are evident and what can be said of these patterns in relation to the research group as a whole and individuals in particular?

3. What role do peer interactions play in children's construction of literacy?

Data analysis procedures used in exploring each of the three questions, as well as the theoretical justifications for each, are described separately.

3.6.1 The nature of peer assistance

The data analysis used to explore the nature of peer assistance involved the use of constant comparisons and asking questions of the data (Strauss & Corbin, 1990). It consisted of a three-tiered analysis in which the observed children's talk was categorised by purpose, form and content through the use of open, axial and selective coding (Strauss & Corbin, 1990).
3.6.1.1 Analysis of Purpose

In the first tier of data analysis, children's utterances were categorised by purpose. This analysis drew on a basic assumption of speech act theory. Schiffrin (1994) describes speech act theory as "concerned with what people 'do' with language - with the functions of language" (p.90). She explains that:

by focusing on the meanings of utterances as acts, speech act theory offers an approach ... in which what is said is chunked (or segmented) into units that have communicative functions that can be identified and labelled (p.90).

The purpose in using this approach in the present study was to "provide a means by which to segment texts, and thus a framework for defining units that could then be combined into larger structures" (p.7). The 'texts' analysed consisted of the complete set of transcripts of children's recorded talk during Story Writing Time. In coding the data, consideration was given not only to the specific utterance to be categorised, but also to the context of the utterance (in terms of prior and subsequent utterances by the speaker and other participants), to non-verbal cues noted during the observation, and to the intentions of the speaker (as determined by the researcher at the time of data collection).

Through repeated readings of the set of transcript/field note data compiled in Phase 2 of the study, and the use of constant comparisons, thirteen discrete purposes for children's talk during Story Writing Time were identified. These purposes were later checked against the data compiled in Phase 3 of the study. While each of the identified purposes is described more fully in the following chapter, briefly children used talk to:

i) Request assistance
ii) Offer/provide assistance
iii) Announce intentions
iv) Control others' behaviour
v) Request use of materials
vi) Offer use of materials
vii) Request information
viii) Offer/provide information
ix) Express approval of others' work or behaviour
x) Express disapproval of others' work or behaviour
xi) Verbally display work
xii) Engage in verbal play
xiii) Self-directed verbal accompaniment to written activity
A preliminary review of data suggested a distinction between intentional and unintentional helping in peer interactions. 'Intentional helping' was defined as occurring when one child, through interacting with a peer, was able to extend his/her knowledge or use of written language, and at least one of the children was aware that assistance was given. 'Unintentional helping' was defined as occurring when one child assisted another to extend his/her knowledge or use of written language or to solve a literacy-related problem, but neither child acknowledged that assistance had been given. 'Intentional helping' was signalled by either an offer of, or a request for, assistance. All instances of offering assistance or requesting assistance recorded in Phases 2 and 3 of the study were therefore selected for inclusion in the next tier of analysis.

3.6.1.2 Analysis of Form

The second tier of data analysis consisted of identifying the forms of assistance requested or offered by children during the observed writing sessions. The first step in this analysis was to define the boundaries of a teaching/learning sequence. Following Allen and Carr (1989), a teaching/learning sequence between peers was defined as "occurring when a child asked for help ... or spontaneously offered help" and continuing "as long as two or more children were talking about the initial request or offer" (pp.35-6). Thus, requests for help or offers of assistance which were either ignored or not heard, and therefore did not gain a response, were not classified as constituting a teaching/learning sequence and therefore were not included in the analysis of form.

Using the above definition, a total of ninety four teaching/learning sequences were identified in the data. These sequences were then reviewed repeatedly in an attempt to identify distinguishing features of different sequences: that is, to classify teaching/learning sequences according to their form. Through the use of repeated readings of the data, and the making of constant comparisons, teaching/learning sequences were categorised according to their 'cooperative format'. Verba (1993) uses the concept of cooperative formats to "take into account the communicative and cognitive aspects of joint activity in asymmetrical as well as symmetrical relationships" (p.267). This draws on Bruner's (1983) use of the concept of formats in language acquisition research:

The principal vehicle of this assistance is the format, the patterned situations that enable adult
and child to cooperate in the "passing on" of a language (p.10).

Drawing on Verba's work, two aspects of each teaching/learning sequence were considered in categorising cooperative formats in the present study: the knowledge exchange structure and the cognitive outcome. The term 'knowledge exchange structure' is used here to refer
to the way in which the knowledge, skill or strategy needed to solve a literacy-related problem was communicated to the 'learner' by the 'teacher'. The term 'cognitive outcome' is used here to refer to the extent to which the 'learner' must transform, or apply in some way, the information provided by a peer in order to solve the problem.

Using the concepts of 'knowledge exchange structure' and 'cognitive outcome', three distinct cooperative formats, or forms of assistance, were identified as constituting intentional helping in Story Writing Time. These were:

1. "Tell me what ...", including all teaching/learning sequences in which explicit information or instruction was given by the 'teacher' so that the 'learner' could solve the problem immediately - that is, no intermediate steps or moves were needed to solve the problem.

2. "Show me how ...", consisting of the set of teaching/learning sequences in which the 'teacher' showed the 'learner' how to solve a literacy-related problem by physically or verbally employing a strategy which the 'learner' could then imitate or use to solve the problem independently.

3. "Guide me through ...", consisting of all teaching/learning sequences in which the 'teacher' provided enough information or instruction to allow the 'learner' to solve the problem, but the solution required two or more steps or moves with the 'teacher' (or 'teachers') providing additional guidance at subsequent points in the sequence.

The next step in this tier of data analysis was to identify the form of assistance constituting each of the teaching/learning sequences which involved one or more of the focal children. Each teaching/learning sequence was classified as one and only one of the forms of assistance identified in the data. Simple frequencies of instances of each form of assistance were calculated for each focal child, as well as a total across all observation sessions and all observed children. A full discussion of each of these three forms of assistance, as well as examples from the transcript data, is presented in Chapter 4.

The final step in the analysis of forms of assistance was to identify the characteristics of 'unintentional helping'. This involved analysis of all purposes for children's talk listed above other than offers of, or requests for, assistance. Through examining all instances of the purposes for children's talk (except requests for and offers of assistance) defined in the first stage of data analysis, a number of ways in which children assisted each other in their attempts to use written language which were neither explicit nor intentional were
identified. These were: the management of roles and relationships; appropriation of others' skills, strategies and ideas; and maintaining accountability. Each of these is discussed in full in the following chapter.

3.6.1.3 Analysis of Content

In the third tier of data analysis, all identified instances of peer assistance (both intentional and unintentional) in the data were categorised by content. Again using the constant comparative method, initial categories were generated through repeated readings of the data from the first set of observations (Phase 2 of the study). These categories were then checked against the data from the second set of observations (Phase 3). Simple frequencies for each category of content were calculated for each focal child, as well as for the entire research group.

Peers assisted each other in the spelling of words, extending texts, choosing and varying topics, the meaning and use of literary conventions, reading and word identification, drawing, the mechanics of writing, and classroom rules and procedures. Each of the identified categories of content is described more fully in the following chapter.

3.6.2 Patterns of peer assistance

The goal of this stage of data analysis was to document the patterns of interaction evident within the classroom studied, utilising the results of the prior stages of analysis. To do this, it was necessary to examine not only the explicit teaching/learning sequences identified in the data, but also to consider sequences in which children's attempts at offering or soliciting peer assistance were unsuccessful. Gutierrez (1994) points out that:

By focusing on interaction and examining (participation frameworks), similarities and differences in events can be identified ... Further, by analyzing language and face-to-face interactions, the differences in opportunities and activity constructed by participants can be understood (p.337).

Through analysis of all requests for and offers of assistance across the whole research group, a model of interaction was constructed to illustrate who helped whom, how, under what circumstances, and with what knowledge, skills and strategies. In addition, for each focal child a model was constructed to depict the forms of assistance encountered by the child in interaction with peers, and the patterns of interaction within which assistance was embedded. That is, the models are intended to illustrate, for each child, the forms of assistance offered by that child to his or her peers, as well as the forms of assistance the
child received from peers. Additionally, the models are designed to reflect the content of assistance most frequently encountered by each child.

To investigate further the patterns of assistance evident among the research group, the teacher's and children's perceptions of peer assistance in literacy learning were documented. Transcripts of interviews with the classroom teacher, and with all children observed during the course of the study, were coded for references to peer assistance. These findings were then compared with the models constructed in the previous stage of data analysis. The patterns of interaction evident among peers in this study are presented in Chapter 5.

3.6.3 The role of peer interactions in children's construction of literacy

The final stage of data analysis involved the use of interpretive analysis to investigate the role of peer interactions in children's construction of literacy in the classroom studied. The findings of this analysis "present(s) a detailed analysis of a small number of segments of naturally occurring interaction" (Corsaro & Streeck, 1986, p.23) to illustrate four ways in which children's interactions with each other can impact on the literacy learning of individuals, as well as what counts as literacy within the group.

The four ways in which peer interactions impacted on literacy construction during Story Writing Time in the classroom studied were described as:

a) children 'becoming literate';
b) children's efforts to define their place in the social world of the classroom;
c) children negotiating shared reality; and
d) legitimising literate action within the group.

The impact of peer interactions on children's construction of literacy is not necessarily apparent at the time that the interaction takes place. Rather, it is through noting similarities and differences in interactive sequences, and making connections between separate interactions, that the impact can become transparent. Therefore, the role of peer interactions in this study was explored through an interpretive analysis of the children's interactions over time, rather than through consideration of individual teaching/learning sequences or writing events. In the discussion of findings in Chapter 6, interpretation of these data is considered in the light of the theoretical assumptions underpinning this study.
3.7 Conclusion

This study sought to investigate the nature and role of peer assistance in literacy learning through documenting the interactions of young children as they engaged in classroom writing activities. It also attempted to describe the patterns of interaction evident in the classroom studied, and to explore the potential of peer interactions to contribute to the literacy learning of individuals and groups.

In trying to represent the process dimension of sociocognitive development attained through social interaction, researchers generally use interactive protocols as data. Although frequency computations can be informative and discriminant, they acquire real meaning only within interactional sequences (Pontecorvo, 1993, pp.194-5).

The results of the study are presented in the following four chapters. Chapters 4 to 6 present the findings in relation to the research group as a whole, while Chapter 7 presents profiles of the four focal children. In each chapter, sections of transcript and field note data are reproduced to illustrate and explain the findings so that they can, in Pontecorvo's words, "acquire real meaning".
Chapter 4

THE NATURE OF PEER ASSISTANCE IN LITERACY LEARNING

4.1 Introduction

This chapter is the first of four which present the findings of the present study. In Chapters 4 to 6 the focus is on the research group as a whole. Each of these chapters addresses one of the three research questions which guided the study. These questions are:

1. In what ways do young children assist each other to make meaning through written language as they interact in classroom writing sessions?

2. What patterns of peer assistance are evident and what can be said of these patterns in relation to the research group as a whole and individuals in particular?

3. What role do peer interactions play in children's construction of literacy?

The purpose of this chapter is to present, in detail, the results of the analyses of the nature of peer assistance in one specific type of literacy practice. It identifies the purposes for children's talk within Story Writing Time, and examines the nature and content of peer assistance in literacy learning among the research group of six and seven year old children.

4.2 The Nature of Peer Assistance

As detailed in Chapter 3, the first step in the process of analysing the nature of peer assistance in children's literacy learning was to identify the range of purposes for children's talk evident during Story Writing Time in the classroom studied. This step was important since it facilitated the identification of requests for help and offers of assistance, and thus signalled explicit teaching/learning sequences.

Through repeated readings of the complete set of transcript/field note data and the making of constant comparisons, thirteen discrete purposes for children's talk during Story Writing Time were identified. In coding the data, consideration was given not only to the literal meaning of the specific utterance to be categorised, but also to the context in which it
occurred (both immediate context and the broader context of Story Writing Time), to non-verbal cues noted during the observation, and to the intentions of the speaker (as determined by the researcher at the time of data collection). (For more detailed explanation of analysis procedures, see Chapter 3.) The thirteen purposes for children's talk identified in this study, as well as definitions of each and brief examples from the transcript data, are presented in Table 4.1. These categories of talk were used in subsequent analyses to define teaching/learning sequences and to identify intentional and unintentional peer assistance.

Table 4.1: Definitions of identified purposes for children's talk during Story Writing Time and examples of each category.

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request assistance</td>
<td>to seek information from a peer in order to solve a literacy-related problem</td>
<td>Richard: (To Adam) How do you write 'had'? (Transcript 11: 16/6)</td>
</tr>
<tr>
<td>Offer assistance</td>
<td>to provide information to a peer so that he/she may solve a literacy-related problem; this may be solicited or unsolicited</td>
<td>Sarah: Veronica, do you want ... do you want to read it to me? (Transcript 02: 21/4)</td>
</tr>
<tr>
<td>Announce intentions</td>
<td>to explicitly state to others what one intends to do in the immediate or near future</td>
<td>Adam: Watch this! I'm gonna draw my - um, spot where we always play handball ... and I'm gonna draw the steps. This is the gate. (Transcript 06: 17/5)</td>
</tr>
<tr>
<td>Control other's behaviour</td>
<td>to attempt to induce or persuade a peer to act or behave in a particular way; usually in the form of a direct reference to a classroom rule or procedure</td>
<td>James: Thomas, you have to stop colouring in and put it in your bag. (Transcript 05: 10/5)</td>
</tr>
<tr>
<td>Request use of materials</td>
<td>to verbally seek the use of materials owned by a peer or classroom materials currently being used by a peer</td>
<td>Zac: Richard, can I use your textas, please? (Transcript 13: 9/8)</td>
</tr>
<tr>
<td>Offer use of materials</td>
<td>to verbally make one's own or classroom materials available to a peer; this may be solicited or unsolicited</td>
<td>Veronica: There's all my pencils and textas. There's not much textas, alright? (Transcript 15: 18/8)</td>
</tr>
<tr>
<td>Request information</td>
<td>to seek information about a peer's prior or current experiences or behaviour</td>
<td>Zac: Where's Gina? Tell me where's Gina. Adam, James, tell me where's Gina. (Transcript 13: 9/8)</td>
</tr>
<tr>
<td>Offer information</td>
<td>to give verbal information about prior or current experiences; this may be solicited or unsolicited</td>
<td>Christopher: Richard was the first person finished. (Transcript 11: 16/6)</td>
</tr>
<tr>
<td>Express approval of other's work or behaviour</td>
<td>to comment favourably on the quality of a peer's text, or on the appropriateness of a peer's behaviour</td>
<td>Elizabeth: That's good Kate, you're doing colours. That's good, isn't it? (Transcript 07: 19/5)</td>
</tr>
<tr>
<td>Express disapproval of other's work or behaviour</td>
<td>to comment unfavourably on the quality of a peer's text, or on the appropriateness of a peer's behaviour</td>
<td>Nicolas: That's not how you do a H! (Transcript 06: 17/5)</td>
</tr>
<tr>
<td>Verbally display work</td>
<td>to explicitly call peers' attention to one's text</td>
<td>Thomas: Here's the backyard, James. And this is me, and this is me and you running out the back, running to play. (Transcript 07: 19/5)</td>
</tr>
<tr>
<td>Engage in verbal play</td>
<td>to use rhyme, chant, song, etc, in a playful manner</td>
<td>Christopher: I'm the battal ractical. I'm the hoodis coodis dude. (Transcript 06: 17/5)</td>
</tr>
<tr>
<td>Self-directed verbal accompaniment to activity</td>
<td>to 'talk aloud' to oneself while engaging in literacy-related activity; peers may or may not be present.</td>
<td>Kate: (as she writes) 'They' - T-H-E-Y - get - they get married - get - married. (Transcript 16: 6/9)</td>
</tr>
</tbody>
</table>
4.2.1 Intentional helping

The second step in analysing the nature of peer assistance in literacy learning was to identify the forms that peer assistance took in the context of Story Writing Time in the classroom studied. In the preliminary phase of analysis, a distinction was made between intentional and unintentional helping. 'Intentional helping' was defined in the present study as occurring when one child, through interacting with a peer, was able to extend his/her knowledge or use of written language (ie. solve a literacy-related problem), and at least one of the children involved in the interaction was aware that assistance was given. 'Intentional helping' was signalled by either a request for, or an offer of, assistance.

Having identified requests for and offers of assistance, the next step in the analysis of intentional helping was to define the boundaries of a teaching/learning sequence. A teaching/learning sequence between peers was defined as beginning "when a child asked for help ... or spontaneously offered help" and continuing "as long as two or more children were talking about the initial request or offer" (Allen & Carr, 1989, pp.35-6). Thus, requests for help and offers of assistance which were either ignored or not heard, and therefore did not gain a response, were not classified as constituting a teaching/learning sequence and therefore were not included in the analysis of intentional helping.

From the complete set of requests for assistance and offers of assistance recorded in the twenty two observation sessions in this study, a total of ninety four teaching/learning sequences were identified. The length of each teaching/learning sequence was determined by calculating the total number of discrete speaking turns (by two or more children) beginning with the initial request for, or offer of, assistance and including all subsequent speaking turns in which two or more children were discussing the original offer or request. The teaching/learning sequences identified in this study varied in length from two to fourteen individual speaking turns.

All teaching/learning sequences were then reviewed repeatedly in an attempt to identify distinguishing features of different sequences: that is, to classify teaching/learning sequences according to their form (see Chapter 3 for full details). Through the use of repeated readings of the data, and the making of constant comparisons, teaching/learning sequences were categorised according to their 'cooperative format' (Verba, 1993). Drawing on Verba's work, two aspects of each teaching/learning sequence were considered in categorising cooperative formats in the present study: the knowledge exchange structure and the cognitive outcome. The term 'knowledge exchange structure' is used here to refer to the way in which the knowledge, skill or strategy needed to solve a literacy-related problem was communicated to the 'learner' by the 'teacher' (ie. in this study, a peer). The term 'cognitive
outcome' is used here to refer to the extent to which the 'learner' must transform, or apply in some way, the information provided by a peer in order to solve the problem.

From this analysis three forms of assistance were categorised. Each form was then defined according to its essential features. In what follows, each form of assistance is described, the knowledge exchange structures and cognitive outcomes that characterise each are discussed, and excerpts of transcript data that illustrate each form are presented.

4.2.1.1 "Tell me what ..."

The first form of intentional peer assistance identified in this study is characterised by the phrase "Tell me what ...". The knowledge exchange structure characteristic of this form of assistance was a direct transmission of information. This category includes all teaching/learning sequences in which explicit information or instruction was given by the 'teacher' (ie. a peer) so that the 'learner' could solve the problem immediately - that is, no intermediate steps or moves were needed to solve the problem. In some instances, it included the 'teacher' monitoring the 'learner's' performance of the task and providing feedback to correct errors if they occurred.

The cognitive outcome of this type of exchange was a direct application of the information provided - no transformation was required. The average length of teaching/learning sequences in this category, as described above, was 3.4 individual speaking turns. This type of exchange constituted 70% of all identified teaching/learning sequences in the present study. The following extracts from the transcript data exemplify the Tell me what ... cooperative format.

1 James: How do you spell 'Thomas'?
2 Thomas: T-H-O-M-A-S.
3 James writes each letter as Thomas speaks.

(Transcript 07: 19/5)

In the example given above, Thomas provided James with explicit information in the form of letter names (line 2). James was able to apply the information directly to solve his problem (line 3). In this sequence, no feedback was given and no correction was required.

1 Luke: How do you spell 'called'?
2 Adam: C-A-L-L-E-D.
3 Luke repeats each letter as he writes it, but writes three Ls instead of two.
4 Adam looks at what Luke has written.
In the above exchange, Adam provided direct and precise information (line 2) which allowed Luke to solve his problem, that is, writing the word 'called'. However in this example, unlike the previous one, Adam monitored Luke's performance of the task (line 4), and provided immediate feedback to correct an error when it occurred (line 5).

### 4.2.1.2 "Show me how ..."

The second form of intentional peer assistance identified in this study is characterised as "Show me how ...". The knowledge exchange structure typical of this form of assistance was demonstration. This category consists of the set of teaching/learning sequences in which the 'teacher' showed the 'learner' how to solve a literacy-related problem by physically or verbally employing a strategy which the 'learner' could then imitate or use to solve the problem independently.

In terms of cognitive outcome, this cooperative format involved the 'learner' in transforming the information, either by modifying or extending it in some way, or by transferring the information to a new problem. The average length of teaching/learning sequences in this category was 4.1 individual speaking turns. This form of peer assistance accounted for 19% of the teaching/learning sequences identified in the present study. The following excerpts from the transcript data illustrate the Show me how ... cooperative format.

1 Christopher: *(Trying to write "Sizzler")* What's a R look like?
2 Richard: R?
3 Christopher: Yeah.
4 Richard: Like this. *(He leans over and writes an "R" on Christopher's picture.*) Line down. Lucky I had the yellow.
5 Christopher: R. What else?
6 Richard: That's all.

*(Transcript 04: 3/5)*

In the example above, Richard modelled letter formation (line 4) at Christopher's request (line 1). In demonstrating how to write the required letter, Richard used a yellow pencil which was not easily visible on Christopher's text. Christopher imitated Richard's production of the letter, saying the letter name as he did so (line 5). Richard's assistance with this particular aspect of the task of creating a written text allowed Christopher to continue his participation in the task.
In the extract below, Thomas offered unsolicited assistance in the form of demonstrating how James might extend his text (line 3). James read aloud what he intended to be a completed text (line 2). Thomas drew on his memory of a shared experience to suggest additional information that could be included in James' text, and to demonstrate one possible way of structuring the extended text (lines 3-6). James accepted the assistance and resumed writing, even though he expressed difficulty in doing so (line 7).

1  Thomas leans over the table to see James' story.
2  James:  (Reading slowly) "I like playing with Thomas."
3  Thomas:  at-my-house. You should've - at your next story - if you finish that story - write "Thomas came over my house and we played (...) and we went - and we went up the hill - up James's farm hill by ourself and Thomas went on the wrong thing then, and then we went on the farm and Thomas went on the farm.
4  James:  And so did Michael.
5  Thomas:  And you nearly went on it too, (...) on the fence.
6  James:  This is so hard, doing a story. (Goes on writing.)

(Transcript 05: 10/5)

4.2.1.3 "Guide me through ..."

The third and final form of intentional peer assistance identified in this study is characterised by the phrase "Guide me through ...". This category consists of all teaching/learning sequences in which the 'teacher' (ie. a peer) structured the task for the 'learner' by providing enough information or instruction to allow the 'learner' to solve the problem, but the solution required two or more steps or moves with the 'teacher' (or 'teachers') providing additional guidance at subsequent points in the sequence. In this form of assistance, the 'learner' had to add to the information or instruction given, or apply it in some way to existing knowledge, to solve the problem. If the 'learner' was unable to do so, the 'teacher' provided successively more assistance until the problem was solved. Thus, the knowledge exchange structure characteristic of this form of assistance is co-construction.

In terms of cognitive outcome, this cooperative format required both 'teacher' and 'learner' to transform or modify in some way the information given and received, and the solution to the problem was achieved only through the combined efforts of two or more children. The average length of teaching/learning sequences in this type of exchange was 6.25 individual speaking turns. This form of assistance constituted almost 11% of all teaching/learning sequences identified in the present study. Two examples of the Guide me through ... cooperative format can be seen in the following extracts from the transcript data.
James: How d'ya spell 'over'?
Brittany: Over - 'e', 'e'
Thomas: 'o', 'o'
Brittany: A-
Thomas: O, O
Kate: Just wait, wait wait wait, I've got it in my dictionary.
She looks through her personal dictionary to find the 'O' page.
Thomas and Brittany recite the alphabet to help her find the correct page.
Thomas & Brittany: (Singing) LMNOP-NOP-LMN-NO-LP-OP-R-O.
Kate finds the correct page and looks down the list of words until she finds 'over'.
She spells O-V-E-R to James, who repeats each letter aloud as he writes it down.

(Transcript 05: 10/5)

In the example above, none of the three children working with James was able to immediately solve his problem (ie. how to write the word 'over'). However, Brittany and Thomas modelled a 'sounding out' strategy (lines 2-5), Kate modelled the strategy of finding the required word written elsewhere (lines 6-7), Thomas and Brittany structured Kate's attempt to find the correct page in her dictionary, and subsequently the required word (lines 8-9), and Kate structured James' efforts to write the word correctly in his text (line 11). Thus, through the combined efforts of all four children James arrived at a satisfactory solution to his problem.

In the following extract from the transcript data, Adam and Nicolas were collaboratively writing a text, taking turns at writing one line each. Nicolas began by reading what Adam had written (line 1), then Adam dictated what Nicolas should write next (lines 2 and 4). When Nicolas hesitated at the spelling of the word 'didn't', Adam intervened.

Nicolas: (Reading what Adam wrote) "but...he..." didn't
Adam: have a ticket
Nicolas: but he, but
Adam: but he didn't
Nicolas: didn't
Adam: D, let me, D
Nicolas: D
Adam: I, no let me (takes the pen from Nicolas) D, oh yeah, T. Didn't, D,I,D,T.
At this point Elizabeth returns to tell Adam that the teacher's answer was 'yes':they could colour it in. Adam goes on writing "DIDNT".
Adam: (To Elizabeth) Is that how you spell 'didn't'? (pointing to what he has written)
Nicolas: (To Researcher) Miss, is it D-I-D-T?
Adam began by telling Nicolas what letters to write (line 6), but also tried to take over the task by asking Nicolas for the pen. Despite Nicolas' attempt to continue the task, Adam took control and completed what he thought was the correct spelling of 'didn't' (line 8). When Elizabeth came to the table, Adam took the opportunity to ask her to confirm or deny that his attempt was correct (line 10). At the same time, Nicolas asked the researcher for confirmation (line 11). However, before either Elizabeth or the researcher could reply, Adam realised that an additional letter was needed (line 12). Once he saw the correct letters written on the page, Nicolas realised that an apostrophe was also needed (line 15). When Adam did not respond to his suggestion of adding a 'comma' (line 15), Nicolas successfully drew Adam's attention back to the initial problem by seeking confirmation that the apostrophe was in fact needed (line 17). Thus, in this exchange, Adam and Nicolas co-constructed a solution to their problem by each contributing information that was needed. It is doubtful whether either of the boys would have been able to successfully solve the problem alone.

4.2.1.4 Summary of forms of intentional helping

The three forms of intentional peer assistance identified in this study are characterised as "Tell me what ...", "Show me how ..." and "Guide me through ...". These three cooperative formats differ in terms of their knowledge exchange structures and cognitive outcomes. They also vary in terms of relative frequency of occurrence in the present study, as well as relative length of exchange.

Of the three cooperative formats described above, the "Tell me what ..." format was by far the most frequently observed. Table 4.2 shows the total number of instances of each type of intentional assistance identified in the complete set of twenty-two observation sessions, as well as percentages of the total number of teaching/learning sequences. It can be seen from Table 4.2 that the relative frequencies of the three formats remained relatively constant over the five month period in which the observations were conducted. Although the number of examples of the "Guide me through ..." format decreased slightly in Phase 3 (August to
September), the total number of observations in Phase 3 was only ten, compared to twelve observation sessions in Phase 2 of the study (April to June). Given the small number of examples of this type of assistance in both phases of data collection, this decrease is not significant.

Table 4.2: Number of instances of each of the three identified forms of intentional peer assistance, and percentages of the total number of identified teaching/learning sequences.

|                      | "Tell me what ..." | "Show me how ..." | "Guide me through ..."
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 2 - Observation sessions Nos. 1 - 12 (April - June)</td>
<td>29</td>
<td>30.8%</td>
<td>8</td>
</tr>
<tr>
<td>Phase 3 - Observation sessions Nos. 13 - 22 (August - September)</td>
<td>37</td>
<td>39.4%</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>70.2%</td>
<td>18</td>
</tr>
</tbody>
</table>

In the present study, teaching/learning sequences which exemplified the "Guide me through ..." cooperative format tended to be longer than sequences or exchanges which exemplified the other two identified formats. That is, the average number of individual speaking turns, beginning with the initial request for help or offer of assistance and including all turns in which two or more children continued to discuss the initial request or offer, was greater for the Guide me through ... format than for the Tell me what ... or Show me how ... formats. This variation reflects the differences in the complexity of the knowledge exchange structures characteristic of the three cooperative formats.

Figure 4.1: Graphic representation of the relative length of teaching/learning sequences for each of the three identified cooperative formats.
From the results presented above, it can be seen that the forms of intentional peer assistance identified in teaching/learning sequences in this study provide support for Rogoff's (1990) use of the metaphor of apprenticeship as a model for children's cognitive development. Rogoff argued that through processes such as providing explicit instruction, modelling effective strategies and structuring tasks, learners assist each other to participate in culturally valued activities.

The three types of processes identified by Rogoff have direct parallels in the three types of cooperative format identified in the present study as constituting peer assistance as young children engage in the culturally-valued practice of producing written texts. However, the labels used by Rogoff for each of the processes of assistance fail to emphasise one feature which was clearly evident in each of the three formats in the present study: the extent to which learners maintained control of their own participation and the assistance they received. In order to foreground this feature of peer assistance, the present study identifies cooperative formats, or forms of assistance, by the use of labels which highlight the active role of the learner: "Tell me what ...", "Show me how ...", and "Guide me through ...".

4.2.2 Unintentional helping

The analysis of forms of peer assistance in literacy learning presented above included only explicit teaching/learning sequences which were initiated by a request for help or an offer of assistance. However, since the preliminary analysis of data in the present study suggested a distinction between intentional and unintentional helping, further analysis sought evidence of tacit peer assistance during Story Writing Time. This is consistent with Rogoff's view that guided participation involves "tacit as well as explicit learning opportunities" (1990, p.65). Tacit or 'unintentional' assistance was defined in this study as occurring when one child assisted another to extend his/her knowledge or use of written language or to solve a literacy-related problem, but neither child acknowledged nor appeared to recognise that assistance had been given.

Through repeated readings of all instances of the purposes for children's talk (except requests for and offers of assistance) identified in the first phase of data analysis, a number of ways were identified in which children assisted each other in their attempts to use written language which were neither explicit nor intentional. These were: the children's management of roles and relationships within Story Writing Time; their appropriation of peers' skills, strategies and ideas; and holding peers accountable for appropriate literate action.
4.2.2.1 Roles and relationships

The first way in which the children in this study provided each other with unintentional assistance was through the roles they adopted and the relationships they established as they engaged in literate action. In the three forms of intentional peer assistance identified and discussed above, children variously adopted the roles of 'teacher' and 'learner' in explicit teaching/learning sequences. However, children also provided their peers with assistance through adopting a range of other roles that placed them in differing relationships to the 'learner'. In addition to the role of 'teacher', the roles identified in this study were 'audience', 'critic', and 'supervisor'. Each of these is discussed below with examples from the transcript data.

One role which the children in the classroom studied adopted in relation to their peers was a ready and responsive audience for their writing. Children sometimes read their completed texts to friends, as the teacher had suggested they could do, but they also frequently read parts of their text aloud as they were writing, often prompting a response from a peer. The following extract from the transcript data illustrates two different forms of audience response.

1  'Adam: (To no-one in particular) This is about a birthday party.
2  No-one responds.
3  Adam: (To Elizabeth) I'll read this to you?
4  Elizabeth: Mm. I'll be listening while I do this.
5  Adam: (Reads) My brother Luke had a birthday and he played egg and spoon race -
and we played egg and spoon race and we played soccer then we played Pass the Parcel and then we had food and drinks and
6  Christopher: (Interrupts) Is this your birthday?
7  Adam: (Still reading) and I know how to boot a soccer ball.
8  Christopher: Is this your birthday?
9  Adam: No, my brother's birthday. And I know how to boot the soccer ball
(intonation rises, no longer reading, simply telling)
10  Elizabeth: I liked the story.
11  Christopher: I know how to do, that.
12  Richard: I can do it up in the sky.
13  Christopher: So can I.
14  Richard: No you can't.
15  Christopher: I can. I can do (...) the sheds.
16  Richard: I'm under sevens!
17  Christopher: Are you goalie too?
Adam: I'm goalie for mine. I play under sixes.

Christopher: We play for under sevens! (...) When you're under sevens next year, I'll be under eights. When you're under eights, I'll be under nines, and when you're under nines, I'll be under tens. Then eleven, twelve, thirteen ...

Adam: We played against a team in a knockout and they beat us.

(Transcript 06: 17/5)

In the excerpt above, when Adam asked Elizabeth if he could read his text to her (line 3), he was in effect prompting her to adopt the role of 'audience'. Elizabeth consented to his request, explaining that, even though she would continue with her own work (an illustration) while Adam was reading aloud, she would in fact be listening to him (line 4). Christopher, seated at the same table, also listened to Adam's text. When Adam had finished reading, Elizabeth fulfilled her role as audience by providing a response: in this case expressing her enjoyment of the story (line 10). Christopher, while not an invited audience member, provided a different type of response. First, he showed interest in the topic of Adam's text (line 8) and then he made a comment (line 11) which led to a discussion of the boys' personal experiences related to part of Adam's text: soccer. As a result of this exchange, Adam received feedback about the impact of his text on an audience.

Another important role which the children adopted in their interactions during Story Writing Time was that of critic of each other's work. The most common form of critical response was to express approval or admiration of the writer's work, be it written text or illustration. For example, in each of the following two exchanges, children provided positive feedback on a peer's text.

Kate: That is beautiful, Thomas (referring to the house that Thomas is drawing).

Gina: That is excellent!

(Transcript 07: 19/5)

Frances: Kate, can I read you my story? Kate, can I read you my card?

Kate: Yes. Who's it for?

Frances: My mum.

Frances reads her card aloud to Kate.

Kate: It's gorgeous. I like the sunglasses.

(Transcript 07: 19/5)

In the following extract from the transcript data, Kate was writing each line of her text in a different colour. The result, in Elizabeth's view, was a colourful and attractive text which Elizabeth not only admired, but decided to emulate.
Elizabeth: That's good, Kate, you're doing colours. That's good, isn't it?
Kate: Yeah, I know.
Elizabeth: Yeah, you're doing colours. They're beautiful ones, nice and bright. I haven't got much colour in this. I should look in my pencil case, there's probably more colours.

(Transcript 07: 19/5)

Like Elizabeth, Richard offered spontaneous approval of a peer's text, remarking on the quantity of writing Adam had done in one observation session. Richard was so impressed by Adam's text that he suggested Adam display his work to others at the table. Adam acknowledged the praise by explaining that he would draw "a little picture" - all that he could fit because he had "a whole paper full" of writing.

Richard: Adam, you can use my textas. Oh! Look at Adam's. A whole paper full, like he did last time. Adam, show it to, um to ...
Sarah: James.
Richard: Um, to James, yeah.
Adam: I'll just draw a little picture.
Sarah: Just draw a little funny picture.

(Transcript 08: 24/5)

Another form of critical response observed in this study was peers' comments expressing disapproval of a writer's text, or drawing attention to deficiencies in a text. For example, in the following exchange, Elizabeth was scathing in her judgement of Mario's drawing.

Mario is drawing a picture of a house.
Elizabeth: That doesn't look like a house at all.

(Transcript 17: 8/9)

While most of the children in the study expressed approval of a writer's text, on several occasions Adam expressed approval of the writer as a person, as in the following exchange:

Isaac comes to the table to read his story to Adam. James listens too.
Isaac: (Reading) "I saw Tyrannosaurus Rex."
James: How did you know how to write that? (Points to 'Tyrannosaurus Rex')
Isaac: I had to write it in my dictionary.
Adam: Good boy! I like 'Tyrannosaurus Rex'.

(Transcript 01: 19/4)
Adam was heard to express approval with comments such as "Good boy!" on several occasions throughout the study. He was the only child to do so.

The final role that children in this study adopted in their relationships with their peers was that of supervisor. Several children unintentionally provided assistance by insisting that their peers remained 'on task' and followed the rules and procedures established by the classroom teacher. For example, in the following exchange, when Christopher was more intent on amusing Richard than producing a written text (line 1), Elizabeth drew him back on task by subtly reminding him (line 3) of the established classroom rule that children should write and not play during Story Writing Time.

1  Christopher continues play talk, mostly unintelligible, but something about 'tattoo' and
   "I'm scatty, I'm batty."
2  Richard: You're funny, Christopher!
3  Elizabeth: Christopher, I just think you better do your writing.
   (Transcript 06: 17/5)

Thus, children in this study provided unintentional or tacit peer assistance through their adoption of a range of roles and relationships in the context of Story Writing Time.

4.2.2.2 Appropriation

The second form of unintentional or tacit peer assistance identified in this study occurred through the children's appropriation of peers' literacy-related knowledge, skills and practices. This type of peer assistance is exemplified in the following extract from the transcript data.

1  Richard: I want to write 'I like to go to the zoo on the' -No! 'I like to go to the zoo
   and have fun.'
2  Adam: (To Elizabeth) Okay. I'll read this to you?
3  Elizabeth: Okay. No! You already read it to me.
4  Adam: What else should I write?
5  Elizabeth: Then - 'and I had fun.' 'And I had fun?' Um, I think I might pack up,
   because it'll be lunch time in a minute.
   (Transcript 06: 17/5)

When Adam asked Elizabeth for help with extending his text (line 4), Elizabeth obliged by appropriating part of Richard's intended text: 'and I had fun' (line 5). By explicitly stating
his intentions (line 1), Richard (unintentionally) helped Elizabeth to (intentionally) help Adam.

Other instances of appropriation are evident in the following exchange, which occurred on a day when the regular classroom teacher was absent and a casual (supply) teacher was taking the class. The classroom teacher did not usually set topics for the children to write about in Story Writing Time. However, on this occasion she had left a message asking that the children "write a story about night time in the city", which was related to a picture book she had read to the children on the previous day. The book explored noises that could be heard in a city late at night. Veronica wrote a title for her story: "The dark in the city". Sarah copied Veronica's title. Then the following exchange took place.

1 Sarah: I-T-Y. (Reads what she has written) "The dark in the city." What's that, Veronica?
2 Veronica is drawing dots on her page. Her pencil makes a tapping sound as she does so.
3 Veronica: It's raining in the city, too. That's one of the noises.
4 Sarah: (Reading again) "The dark in the city." So that's the road. And it's raining too.
5 Veronica: My dots are nice.
6 Sarah: I need that blue after you. Don't waste it!
7 Veronica: I'm not.
8 Sarah: You're doing it so hard!
9 Veronica: Here we go. Here's the blue. (Gives the blue texta to Sarah.)

(Transcript 15: 18/8)

The dots that Veronica drew on her paper (line 2) were intended to represent the falling rain. Sarah not only appropriated Veronica's idea of including rain in her text (line 4), but also appropriated her method of representing the rain (line 10), even using the same texta (line 9). However, she did not simply copy all of Veronica's written text, but composed her own which she read aloud to Veronica some time later (see below).

1 Sarah: (Reading her text aloud) "In the city it's noisy. It's raining."

(Transcript 15: 18/8)

Towards the end of the same observation session, Sarah again appropriated Veronica's literate action. In the following sequence, Veronica dedicated her text to herself (line 2), quite aware that it was not conventional practice to do so. Sarah, following Veronica's lead,
dedicated her own text to herself (line 3) before adding the name of her class and explaining to Veronica why it was important to do so.

1 Veronica returns with a new sheet of paper. She writes “for Veronica”,
2 Veronica: 'For Veronica'. (Laughs) For - for Veronica. (Laughs again; shows her paper to Sarah.) Even though I'm writing it. That's a tricky one!
3 Sarah: (As she writes) For, S-A-R-A-H. Dot, one, G. It's important to write your class, in case it gets lost.

(Transcript 15: 18/8)

4.2.2.3 Accountability

The third way in which children in this study provided unintentional assistance to their peers was by holding them accountable for engaging appropriately in the literate practices of Story Writing Time. They held their peers accountable for maintaining an acceptable level of independence in their attempts to use written language, and for producing an acceptable standard of written text.

Although the children were willing to help their peers with many aspects of the task of producing a written text, there were times when peers insisted that a writer attempt to solve a problem independently. For example, in the following extracts from the transcript data, Adam insisted that Christopher should try to work out the spelling of unknown words by himself, while Thomas insisted that Luke should be able to produce a text without copying from James.

1 Christopher: (To Richard) Do you know how to spell 'salad'?
2 Richard: No.
3 Adam: Don't ask anybody. You can figure it out.
4 Christopher takes out his have-a-go book and writes SLD.

(Transcript 04: 3/5)

1 Luke returns to the table. He copies James' text exactly.
2 Thomas: Luke has to do it by his self. Luke has to do it by his self, OK? It's his story writing. He should know by now.

(Transcript 05: 10/5)

In the exchange reproduced below, Adam tried to lend weight to his insistence that Christopher solve his problem independently by pointing out that he (Adam) had tried to solve his own problems without resorting to requesting assistance from a friend.
Christopher: (To Adam) How do you spell 'table'?

Adam: Sound it out; have a go. I had to have a go at 'three' and 'hours'.

(Transcript 04: 3/5)

The children also held each other accountable for producing written texts of (what they considered to be) an acceptable standard. In most cases, maintaining an acceptable standard involved producing a text of satisfactory length. Early in the study, most of the children produced texts that consisted of a single page - usually a brief text accompanied by an illustration. However, as the study progressed many children began to produce longer texts, often consisting of two or more pages or 'chapters'. As longer texts became more common, they also became the accepted standard.

In the second set of observation sessions (Phase 3 - August to September), there were a number of instances of children holding peers accountable for producing longer texts. For example, in the following exchange, when Sarah began to write her name on the back of her sheet of paper (line 1), Veronica interpreted this to mean that Sarah had completed her text, and subsequently reminded her that "one page ... isn't enough" (line 6).

Sarah: (Begins to write her name on the back of her paper) S-A-R-

Veronica: Why are you writing your name on your first paper?

Sarah: It's at the back.

Veronica: Is that the back?


Veronica: But one page to write on isn't enough.

(Transcript 15: 18/8)

When Adam and Nicolas collaborated to write a story about a boy's visit to a zoo, Adam's insistence that they produce a long text resulted in Nicolas's continued engagement in the task beyond the point at which Nicolas would have preferred to end the text.

Adam: Now, what else do you want to write? (Reads what they have written so far) "A boy wants to go to a zoo. He went to the zoo but he didn't have a ticket so he went home and made a ticket out of paper and he wrote - and he wrote ticket to the zoo on it."

Nicolas: And now we do the picture!

Adam: (As he writes) and-

Nicolas: Do we have to do more?

Adam: Yeah. And he went (pause) to - the - zoo -
Nicolas begins to discuss Thomas's work with him. They both move to get up from the floor.

Adam: (To Nicolas) Put a comma, put a comma. Now what else do you want us to write?

Later in the same observation session, Adam again held Nicolas accountable for producing a text of acceptable length, as shown in the exchange below.

Adam: That's not a whole chapter! (Sounds disgusted). You have to make more, you have to make two pages of it. More pages than this!
Nicolas: (Counting the number of lines written) Look, there's one, two, three, four, five, six, seven.
Adam: I don't mean rows, I mean pages.

When Nicolas wanted to begin drawing a picture, Adam insisted that they had not written enough to constitute a chapter of their story (line 1). Nicolas misunderstood what Adam meant, and responded by counting the number of lines of text that they had already produced (line 2). Adam explained that he was referring not to the number of 'lines' or 'rows' that they had written, but to the number of pages (line 3). This exchange not only helped Nicolas to produce a more extended text, but also made explicit to him the difference between 'rows' and pages.

4.2.2.4 Summary of unintentional helping

In summary, the children in the present study provided unintentional or tacit assistance to their peers in a number of ways. First, their adoption of a range of roles and relationships helped the children to recognise and take account of the 'reader' or audience in constructing their texts, to gain feedback on the texts they produced, and to remain 'on task' during Story Writing Time. Second, their interactions allowed the children to extend their knowledge and use of literacy by appropriating their peers' knowledge, skills and practices. Finally, peers helped each other to successfully engage in literate action in the context of Story Writing Time by holding each other accountable for maintaining independence in some aspects of problem-solving, and for producing texts of an 'acceptable' standard. In all the identified instances of these forms of assistance in this study, neither the 'learner' nor the assisting peer appeared to recognise that assistance had been given.
4.3 Content of Peer Assistance

The final phase in the analysis of the ways in which young children in this study assisted each other to make meaning through written language was designed to identify and describe the range of content of assistance children provided to their peers during Story Writing Time. This involved further analysis of all instances of peer assistance (both intentional and unintentional) identified in the previous analyses.

4.3.1 Analysis of content of peer assistance

Again using the constant comparative method, initial categories of content of peer assistance were generated through repeated readings of the transcript and field note data from the first set of twelve observation sessions (Phase 2 of the study, from April to June). These categories were then refined and checked against the data from the second set of ten observation sessions (Phase 3, from August to September). Through repeated readings of the data, eight categories of content were identified.

Each identified instance of peer assistance (i.e. explicit teaching/learning sequences as well as identified instances of tacit or unintentional peer assistance) was then classified as belonging to one and only one category of content. Table 4.3 shows the frequencies for each of the eight categories of content across the complete set of twenty-two observation sessions.

Table 4.3: Total number of instances of each identified category of content for both intentional and unintentional peer assistance during Story Writing Time.

<table>
<thead>
<tr>
<th>Category of content</th>
<th>Intentional helping</th>
<th>Unintentional helping</th>
</tr>
</thead>
<tbody>
<tr>
<td>spell a word</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>extend texts</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>choose or vary topics</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>the meaning and use of literary conventions</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>reading / word identification</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>drawing</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>mechanics of writing (letter formation, punctuation, etc)</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>classroom rules and procedures</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>29</td>
</tr>
</tbody>
</table>

4.3.2 Categories of content

In what follows, each of the eight categories of content of peer assistance identified in the present study is described, with examples drawn from the transcript and field note data to illustrate each.
4.3.2.1 Spelling

As can be seen from Table 4.3, the largest number of instances of peer assistance in the present study involved children providing each other with assistance in the spelling of words. This was done in a variety of ways. Sometimes, a child would simply tell the correct spelling of a word when asked. For example, in the following extract Richard and Christopher assisted James by telling him the conventional spelling of the word 'Dad'. James was able to solve his problem simply by writing the letters named by Christopher and Richard. Teaching/learning sequences such as this are examples of the "Tell me what ..." cooperative format.

1 James: (To Researcher) Do you know how to spell 'dad'?
2 Christopher: I know.
3 Richard: D-A-D. D-A-D.
4 Christopher: D-A-D.
5 Richard: That's what I said.

(Transcript 09: 31/5)

Another way in which children assisted each other with spelling was by modeling effective strategies for finding the correct spelling of unknown words: e.g. finding the word written on a wall-chart or in a book, or checking their personal dictionaries to see if the word had been recorded previously. These teaching/learning sequences conformed to the "Show me how ..." cooperative format. The following exchange exemplifies this type of assistance.

1 James: How do you spell 'friend'?  
2 Adam: (To Owen) Just get the pointer and show him 'friend'.
3 Owen goes to the chalkboard and points to the word 'friend' written on the board. James watches.
4 James: (As he writes) F-R-I-E-N-D.

(Transcript 01: 19/4)

In some instances, one child would structure the task for another child, for example, by 'sounding out' the word slowly so that the 'learner' could determine the appropriate letters one at a time. Exchanges such as those below are examples of the "Guide me through ..." cooperative format.

Christopher helps James to 'sound out' the teacher's name, reminding him that it 'doesn't matter if it's wrong' because you can always 'fix it later'.

(Extract from field notes: 16/6)
Sarah: Love.

Sarah has found the 'L' page, but cannot find the word 'love'. Has found the word 'last'.

Sarah: A - can't be L-A. (Becoming frustrated and visibly upset.)

Veronica: L.

Sarah: (As she writes) L-

Veronica: O-V

Sarah writes in her dictionary as Veronica dictates.

Veronica: And a silent E. Love. I learnt it from my mother. 1-u-v.

You can only hear the L, the O and the V. The L, O and the V.

Sarah: And I need something else, don't I? (Reading) "The beast loved..."

Veronica: d-d-d.

Sarah: "The beast loved" (adds a 'D' to her text.)

(Transcript 14: 16/8)

A further way in which the children helped each other with spelling was simply to confirm (or deny) that an attempted spelling was in fact correct. For example, in the following extract, Sarah checked her attempted spelling of the word 'friend' by asking Kate for help (lines 1 and 3). Although Kate didn't respond verbally, she nevertheless enabled Sarah to continue with her task (line 4).

Sarah: (Calling out to Kate who is sitting at another table) Is this how you spell 'friend', F-R-I-E-N-D?

Kate apparently can't hear her very well.

Sarah: 'Friend'. F-R-L, I mean F-R-I-E-N-D?

Kate nods. Sarah goes on with her writing.

(Transcript 08: 24/5)

4.3.2.2 Extending texts

The second category of content of peer assistance involved children helping each other by encouraging peers to extend their texts. This was achieved in three main ways, sometimes intentional, sometimes not. First, questions the children asked about each others' texts often resulted in the writer adding to a text to provide an answer to a reader's question. Questions asked usually resulted from the reader's (or listener's) interest in the text, but occasionally a writer would request a question for the express purpose of extending the text, as in the following extracts.

Adam and James return to their table. James begins to put away his writing folder.

Adam: Ask me a question!
James: Was it fun?

Adam: Yes.

Adam adds "and it was fun." to his story, then he too puts his writing folder away.

(Transcript 01: 19/4)

In the example above, Adam requested assistance with extending his text by prompting James to "ask (him) a question" (line 2). James complied with the request (line 3), and Adam subsequently used the question to extend his text (line 5). In an exchange which occurred later in the study, James' approach to requesting assistance with extending his text (as reported to the researcher in the example below) was more subtle: he requested help from Richard by asking "What can I write, but?" (line 4). By this he meant (and Richard understood him to mean) that he wanted a suggestion as to what he could include in his text after the word 'but'. Richard complied with the request, and James succeeded in extending his text.

James: (To Researcher) What should the name of my story be?

Researcher: What do you think it should be?

James: I don't know. (Reads) I like living on the farm and ... I like living on the farm but it is noisy and I can't sleep.

Richard: (To Researcher) I told ... I told him to write "I can't sleep" 'cause he went, um, "what can I write, but?" and I said "I can't sleep".

(Transcript 08: 24/5)

On several occasions children's discussion of their shared experiences resulted in a writer extending a text to include details supplied by another child. An example of this is found in the interaction between James and Thomas reproduced in the discussion of the "Show me how ..." cooperative format (page 87). Finally, children sometimes suggested additional relevant information that could be included in a text. These instances resulted neither from questioning nor from shared experiences, but arose from the reader's knowledge of the writer's topic or of common text forms.

4.3.2.3 Choosing topics

Children in this study assisted their peers in both choosing and varying the topics of their texts. This was done either intentionally by offering suggestions of suitable topics, or unintentionally by one child reading what another had written and deciding to write on a similar theme (an example of appropriation). It is important here to note the distinction between 'borrowing' topics, which was quite acceptable, and 'copying' which was severely censured by the children in this classroom (for further discussion of 'copying', see section
6.2.3 Negotiating Shared Reality). In the example below, Christopher not only suggested a topic for Richard's text when asked (line 2), but also provided some guidance on the subject - that is, that "only men can have tattoos".

1 Richard: What can I write about?
2 Christopher: Tattoos. Only men can have tattoos, eh?
3 Richard: Ladies can.
4 Christopher: No way!

(Transcript 06: 17/5)

4.3.2.4 Literary conventions

Assistance from peers in this study sometimes centred on the correct meaning and use of various literary conventions. For example, the conventional location and use of the copyright symbol was discussed on several occasions, and many children added the symbol to their own work, to guard against "copiers". In the following example, Christopher was copying a section of text from a book titled Chrysta Saves the Magic.

1 Christopher: (To Richard) Guess what it is! Illustrated by Christopher. It'll be illustrated by Christopher.
2 Richard: The one that you're making now?
3 Christopher: Yeah. It won't be this person. It'll be me.
4 Richard: Oh, does that have a 'C'? A 'C' and a, um, a circle around it? Does it?
5 Richard and Christopher look at the book that Christopher is copying from to see if it has a copyright symbol.
6 Richard: It's in the back you have to look. Look on the back of it.
7 Christopher: No. (They both carefully examine the back of the book.)
8 Christopher: No! I'm allowed to draw it, ay? There's no 'C' around. No 'C' around it.
9 He goes back to the page he was copying from.

(Transcript 06: 17/5)

In this exchange, Richard's reference to the copyright symbol served as a reminder to Christopher of the conventions surrounding copyright material. Through carefully searching for, and not finding, the conventional copyright symbol in the place where they expected it to be (i.e. the back of the book), Christopher and Richard jointly came to the conclusion that Christopher could continue with his task of copying text from the book.
The accurate use of the terms "written by" and "illustrated by" was a concern to some children in this study. Most children in the class wrote their own stories and published them with "Written and illustrated by . . . " on the cover. However, when Adam and Nicolas wrote a joint story, it gave rise to a discussion of the meaning of "written by" and "illustrated by" and subsequently led to a variation of the standard form to accurately reflect the roles of both boys.

1 Nicolas says that their book is "written and illustrated by Nicolas and Adam".
2 Adam: No, written by Nicolas and illustrated by Adam.
3 Nicolas: Yeah.
4 Adam: I illustrated it, that means writing - no, illustrate means drawing and you're the one who's doing, um - written means that you, um -
5 Nicolas: I writ it!
6 Adam: Yeah, and I drew it. Illustrated means I drew it.

(Transcript 18: 9/9)

4.3.2.5 Reading

Although most of the observed peer assistance in the present study related specifically to writing (since observations were restricted to Story Writing Time), there was also assistance given with a number of reading tasks during writing time. The extract below is one example of peer assistance with reading.

1 Adam: We ought to read it now. 'A boy wants to go to a zoo. He went to the zoo but he didn't have a ticket'
2 Nicolas: have a
3 Adam: 'have ticket, so he went home and made a ticket out of paper and wrote ticket to the zoo.
4 Nicolas: (Laughs) The zoo maker will know what it is!

(Transcript 17: 8/9)

The exchange presented above was part of the interaction between Adam and Nicolas as they jointly constructed a text. Adam structured their joint involvement in the task by reminding Nicolas (line 1) that they should read what they had already written before deciding what to write next. This resulted in Nicolas realising that they had omitted the word 'a' (line 2). Thus, Adam demonstrated to Nicolas an effective strategy for revising written texts.

Occasionally writers had difficulty in reading what they had written previously, and called on other children to help them decipher their texts. Similarly, words written in personal
dictionaries sometimes presented a problem and help from a peer was needed to find the desired word.

*Elizabeth takes out her personal dictionary to find the word 'cousin'. David, sitting on the floor next to her, shows her which of the four words written on the 'C' page is 'cousin'.

(Extract from field notes: 21/6)*

On a few occasions when children had to complete worksheets before beginning Story Writing, they asked peers for assistance in reading instructions on the sheets.

### 4.3.2.6 Drawing

Children in the study assisted each other to produce quality illustrations to accompany their texts. Assistance in this category took the form of demonstrating ways to draw particular objects (an example of *Show me how* ...), suggesting additions to illustrations, and discussing ways to achieve particular visual effects. The extract below presents an example of the *Show me how* ... format centred on drawing.

1. **Richard:** *(To James)* Is that how you draw people? Do it like this. I'll just do one here. All you have to do is do a round dot, a line down, a line across, and two lines like that. Okay?

2. **James attempts to draw a person the way that Richard has just demonstrated.**

3. **Richard:** Do the arms!

4. **James:** But that's not how you draw real people, ay?

5. **Richard continues to draw stick figures, pointing out the "tallest one of all".**

*(Transcript 08:24/5)*

The link between a written text and its accompanying illustration was also discussed a number of times, with writers being questioned by peers if the pictures didn't accurately reflect the story, as seen in the following extract from the transcripts.

1. **Kate:** *(Reading Elizabeth's story)* "I played in the sand"?

2. **Elizabeth:** Yeah, but there's more pages to go.

3. **Kate:** Where did you go? To the beach?

4. **Elizabeth:** Yeah.

5. **Kate:** Why did you do grass? Grass isn't sand! You're saying sand, and you've got grass.

6. **Elizabeth:** Yeah,

7. **Gina:** That's okay.
8 Elizabeth: Yeah, 'cause sometimes -
9 Gina: - grass gets mixed up with sand.
10 Elizabeth: with sand.

(Transcript 07: 19/5)

In this exchange, Elizabeth was 'publishing' a story about her trip to the beach. When Kate read aloud one page of Elizabeth's text (line 1), Elizabeth seemed to think that Kate was drawing attention to the brevity of the text, and justified herself by pointing out that there were more pages of the story still to be published (line 2). However, further discussion (lines 3-5) revealed that Kate was in fact questioning the connection between Elizabeth's mention of sand in the text, and the accompanying illustration which clearly depicted grass. Elizabeth, supported by Gina, then explained to Kate that the illustration was appropriate because "sometimes grass gets mixed up with sand" (lines 8-10).

4.3.2.7 Mechanics of writing

A further category of content of peer assistance included aspects of the mechanics of writing. For example, the children gave each other assistance with the 'correct' formation of letters of the alphabet. Requests such as "How do you do an 'R'" usually resulted in a peer either modelling the correct formation of the desired letter, or pointing out an example of one for the 'learner' to copy (both examples of Show me how ...). In the following exchange, the discussion between Sarah and Veronica helped both girls to clarify the distinguishing features of particular letters.

1 Sarah: (Writing) I g g g got up
2 Veronica: got up. G
3 Sarah: G for what?
4 Veronica: G for g. You know!
5 Owen: G for violin?
6 Sarah writes what looks like a lower case 'a' but is intended to be an upper case 'G'.
7 Veronica: That's an 'A'! Gs have long tails.
8 Sarah: No, this is a big one. Look, see! (Shows Veronica the upper case 'G' on the back of her writing folder).

(Transcript 02: 21/4)

Standard punctuation was sometimes discussed, and assistance with 'publishing' problems such as layout was given. For example, in the following extract from the transcript data, Adam was struggling to write the title of his story on to the cover of his 'published' version of the text. Adam rejected the classroom teacher's advice, but the valuable assistance
provided by James allowed Adam to solve his problem and continue his engagement in the task.

1  Adam: Can I write "Going to the Zoo" here, all here? Can I?
2  Teacher: No, you can't. It won't all fit, so what are you going to do?
3  Adam: I'll have to write small.
4  Teacher: You could write "Going - to the Zoo" (indicating "Going to the" on one level, and "Zoo" underneath.)
5  Adam: No. I'll have to write small.
6  James: You could make that 'G'.
7  Adam: Oh, yeah. 'Going'. I can write 'going', then in small writing 'to'. 'Going' just like that writing, 'go-ing to' (as he writes), in small writing 'the - zoo'.
8  James: And you can make that 'g' go up to here.
9  Adam: I can put decorations around it. And look what I did, that's just a picture, look at that, see - kangaroos, tiger, and there's a hole I drewed, and there's lions.

(Transcript 21: 22/9)

4.3.2.8 Classroom rules and procedures

The final category of peer assistance was not directly related to literacy skills and knowledge, but nevertheless impacted on students' performance during Story Writing Time. It included instances of accountability in which peers directed each others' behaviour through reference to the classroom rules and the procedures set down for Story Writing Time.

Excessive noise, failure to stay on task, copying, unacceptable written texts (such as lists of names for no apparent purpose), and drawing without writing in any particular Story Writing Time all drew comment and censure from peers. For example, in the following exchange, Brittany and James held Thomas accountable for engaging in the appropriate activity during Story Writing Time.

1  David, Luke, James, Brittany and Thomas are seated at Table 1. Thomas is still completing a worksheet, the others have already collected their writing folders.
2  Brittany: (To Thomas) Put that in your bag. Put it in your bag.
3  James: Thomas, you have to stop colouring in and put it in your bag.

(Transcript 05: 10/5)

Brittany's comment to Thomas (line 2) was rather forceful and not entirely explicit. What Brittany was in fact directing Thomas to do was to stop working on his worksheet.
immediately since it was now Story Writing Time. James apparently thought that Brittany's directive needed a little explanation, or sounded too abrupt, so he elaborated for Thomas' benefit (line 3). Thomas somewhat reluctantly did as suggested, and went to collect his writing folder.

In the following example, when Sarah encountered a difficulty that threatened her continued engagement in the task of writing, Veronica offered assistance by suggesting a strategy that overcame the problem, but still conformed to the established classroom procedures for Story Writing Time.

Sarah cannot find her have-a-go book. Looks through everything in her writing folder but cannot find it. Veronica suggests she write the word straight into her personal dictionary. Sarah takes out her dictionary.

(Extract from field notes: 16/8)

4.3.2.9 Summary of content of peer assistance

Eight categories of content of peer assistance in literacy learning were identified in the present study. These were: assistance with the conventional spelling of words; extending written texts; choosing or varying topics; the meaning and use of literary conventions; reading or word identification; drawing; the mechanics of writing; and adherence to classroom rules and procedures. These categories varied in frequency of occurrence, with assistance with spelling being far the most common content of peer assistance among the children in this study.

4.4 Conclusion

In summary, the six and seven year old children in the present study assisted their peers in a number of ways to make meaning through written language as they interacted in self-selected writing activities in the context of Story Writing Time. Both intentional and unintentional assistance was given and received. Intentional assistance took the form of three cooperative formats: "Tell me what ...", "Show me how ...", and "Guide me through ...". These three formats were characterised by differences in knowledge exchange structures and cognitive outcomes. Unintentional assistance consisted of developing and maintaining roles and relationships in the classroom, appropriation of others' skills and strategies, and maintaining accountability. Children's intentional and unintentional assistance to their peers spanned a range of content areas.
The following chapter presents the findings of the study in terms of the patterns of interaction within which the identified forms of peer assistance in literacy learning were embedded. It explores patterns of assistance across the research group as a whole, and identifies individual differences in the patterns of interaction of the four focal children. Differences in the teacher's and children's perceptions of peer assistance are presented.
Chapter 5

PATTERNS OF PEER ASSISTANCE DURING STORY WRITING TIME

5.1 Introduction

The second research question which this study investigated was: "What patterns of peer assistance are evident and what can be said of these patterns in relation to the research group as a whole and individuals in particular?" That is, the study sought to identify the patterns of interaction within which peer assistance was embedded, and to investigate individual differences in patterns of assistance, particularly among the four focal children. In addition, the study attempts to describe adults' and children's differing perceptions of peer assistance during Story Writing Time in the classroom studied.

The patterns of assistance evident in the research group as a whole were explored through the analysis of all identified requests for help and offers of assistance from peers across all observation sessions and including all children in the research group. Through analysis of these requests and offers, a complex model of interaction (see section 5.2.2 below) was constructed to illustrate who helped whom, how, under what circumstances and with what knowledge, skills and strategies. That is, the analysis explores which children initiated requests and offers, the ways in which requests and offers were typically made, under what circumstances requests and offers did or did not result in teaching/learning sequences, and what literacy-related knowledge, skills and strategies formed the basis of these requests and offers.

In order to explore individual differences in patterns of assistance, models of peer interaction were constructed for each of the four focal children (see section 5.2.3 below). These models depict the forms of assistance encountered by each child in interactions with peers, and the individual patterns of interaction within which peer assistance was embedded. That is, the models illustrate, for each focal child, the forms of assistance offered by that child to his or her peers, as well as the forms of assistance the child received from peers. Additionally, the models reflect the content of assistance most frequently encountered by each focal child.

To investigate further the patterns of assistance evident among the research group, the teacher's and children's perceptions of peer assistance in literacy learning were
documented. Interviews were conducted with the classroom teacher, and with all children for whom data were collected during the course of the study. All interviews were fully transcribed and then coded for references to peer assistance. The results of this analysis are presented in the final section of this chapter.

5.2 Patterns of Peer Assistance

5.2.1 Analysis of patterns of peer assistance

Analysis of the patterns of peer assistance evident among the children in this study involved the use of constant comparisons and asking questions of the data (Strauss & Corbin, 1990). Since I was interested in the conditions or circumstances under which offers and requests from peers received no response, as well as those which resulted in teaching/learning sequences, this analysis involved coding all identified instances of requests for help and offers of assistance. Each identified offer of assistance and request for help was coded on four separate aspects or dimensions: initiation, clarity, response and content. Analysis of these four dimensions reveals in what ways and under what circumstances children initiated and responded to attempts at giving or receiving peer assistance during Story Writing Time.

First, each request for help and offer of assistance was coded according to the way in which it was initiated. Requests for help were coded as direct if unambiguously directed to a particular child or group of children. Requests were coded as indirect if directed to a group of children rather than to one specific child, or if it was unclear for whom the request was intended.

Offers of assistance were coded as solicited or unsolicited. An offer of assistance was coded as solicited if it was made in response to a request for help, or if the 'learner' had indicated in some way that assistance was required. An offer was coded as unsolicited if it was made in the absence of any clear indication that the 'learner' wanted assistance. Solicited and unsolicited offers of assistance are exemplified in the following two excerpts from the transcript data.

1 Elizabeth: How do you spell 'house'?
2 David, who is sitting on the floor nearby, hears Elizabeth's question.
3 David: H-O-U-S-E.
4 Elizabeth: (As she writes each letter) H-O-U. (To Researcher) How do you spell 'house'? Is it H-O-U-S-E?
5 Researcher nods without speaking.
David: I told you I'm right.

In the excerpt above, David's offer of assistance with spelling the word 'house' (line 3) was solicited, since it was in response to Elizabeth's request for help (line 1). In the excerpt below, Thomas offered unsolicited assistance to James (line 1) in the form of advice on appropriate inclusions for James' illustration.

Thomas: (To James) You should do stairs.
James: Where?
Thomas: There. You really need stairs. Just do it (...) like that.

Thomas shows James how and where to draw stairs by pretending to draw on James' picture.

Second, each request and offer was coded for clarity: that is, the degree of ambiguity or uncertainty surrounding the request or offer. Both requests for help and offers of assistance were coded as either explicit or implicit. Requests and offers were coded as explicit if they were unambiguously intended as requests or offers, and were interpreted by other children as such. Implicit requests and offers were statements or questions which may or may not have been intended as requests or offers, but which were interpreted as such by one or more of the children present.

Third, each request for help and offer of assistance was coded according to the type of response received from the child (or children) to whom the request or offer was made. Requests and offers were initially coded as either acknowledged (if some form of response was given) or ignored (if no response was received).

Acknowledged requests for help were then coded as either granted or denied. Requests were coded as granted if a child provided some form of information or assistance related to the request. Requests were coded as denied if a child verbally refused to provide assistance. Acknowledged offers of assistance were coded as either accepted if the 'learner' subsequently used the information or strategy provided by the 'teacher' (i.e. a peer) or rejected if the 'learner' verbally declined assistance, or did not use the information or strategy provided by the 'teacher'.

Helen: I'm doing something different. I'm writing about when I went over to my aunt's and cousin's house.
Kate: *(Reading her text)* "On Monday I"... I, I. If you need 'cousins', I've got it in my dictionary.

Helen: I don't need it. Is this how you spell it: C-O-U-S-O-N? Cousin.

Kate: Wait, I'll just have a check. *(Finds correct page in her dictionary. Checks Helen's work.)* Whoops, it's I.

Helen corrects her work.

(Transcript 12: 21/6)

In the extract above, Kate offered unsolicited assistance to Helen *(line 2)*. Helen initially rejected the offer, claiming that "I don't need it" *(line 3)*. However, she then accepted the offer by asking Kate to confirm whether or not her attempted spelling was correct *(line 3)*. Helen subsequently used the information *(line 5)* provided by Kate *(line 4)* to solve her problem. This example differs from the one below, in which Elizabeth offered Kate unsolicited assistance *(line 2)* which Kate firmly rejected *(line 3)*.

Kate: *(As she writes)* and ... we got lolly bags. We - got - g - o - t.


Kate: I **know** how to spell it. Got - lolly bags. L. L-O-L-S.

(Transcript 12: 21/6)

In the following example, although Adam acknowledged his peer's request for help with spelling a word, he denied the request by claiming that "he (did) not know."

*An unidentified child calls out from a nearby table to ask Adam how to spell 'mountain'. The question is asked twice, and directed to Adam. Adam does not look up from his work and merely answers that he does not know.*

(Extract from field notes: 16/6)

Finally, each request for help and offer of assistance identified in this study was coded for content - that is, the type of literacy-related knowledge, skill or strategy which was requested or offered. Codes used for this dimension were those used in categorising the content of teaching/learning sequences as discussed in Chapter 4. These were: spelling, extending texts, choosing and varying topics, the meaning and use of literary conventions, reading and word identification, drawing, the mechanics of writing, and classroom rules and procedures.

The results of this four-tiered coding process were used to construct a model depicting the patterns of peer assistance across the whole research group during Story Writing Time *(see Figure 5.1)*. That is, the model presents a cumulative picture of the ways in which requests
Figure 5.1: Model of patterns of peer assistance across the whole research group.
for help and offers of assistance were typically made by the children in this study, and under what circumstances requests and offers did or did not result in teaching/learning sequences.

5.2.2 Patterns of peer assistance across the research group as a whole

The first significant finding of the analysis of patterns of peer interaction was that every child for whom data were collected during two or more observation sessions (i.e. a total of thirteen children) was observed both giving and receiving some form of peer assistance during Story Writing Time. This finding is significant since it suggests that all children, regardless of their level of expertise, can provide assistance with some aspects of literacy-related tasks, and also accept such assistance from their peers.

The findings presented in Figure 5.1 reveal that requests for help which were unambiguously directed to a particular child were more likely to gain a response than indirect requests. A total of 43 direct and explicit requests for help were acknowledged by peers, of which only 4 were denied. In contrast, a total of only 19 indirect but explicit requests were acknowledged, of which 3 were denied. Additionally, 8 out of 10 direct and implicit requests were acknowledged, only one of which was denied. In contrast, no indirect implicit requests resulted in teaching/learning sequences, although 4 were acknowledged and denied. A total of 21 indirect requests for help were ignored by peers, while only 9 direct requests received a similar response. Implicit requests for help were more likely to be recognised as such, and to gain a favourable response, if they were directed to a particular peer rather than to the group.

Requests could be made direct by naming the peer for whom the request was intended, by gaining the attention of a particular peer immediately prior to making a request, by physically indicating to whom the request was directed (eg. by a touch on the arm), or by making the request when only one other child was seated close enough to hear it. The following extract from the transcript data exemplifies both direct and indirect requests for help, and the different outcomes of each.

1 James begins to proof-read his story.
2 James: How do you spell 'farm'?
3 Sarah: I know how to spell 'went'. W-E-N-T. Easy.
4 Richard: W-E-N-T.
5 Adam: I know how to spell 'brother'. B-R-O-T-H-E-R.
6 Richard: I know how to spell 'door'. D-O-O-R.
7 James: Is that how you spell 'farm'?
Still no-one answers James's query.

Sarah: (Reading aloud) "I went to, to my" How do you spell 'friend'? How do you spell 'friend'? How do you spell 'friend'? How do you spell 'friend'? Adam? How do you spell 'friend', Adam?

Adam: 'Friend'? I've got a friend? F-R-I-E-N-D.

(Transcript 08: 24/5)

James' request for help in spelling 'farm' (line 1) was not directed to any child in particular and only resulted in a display of spelling knowledge from the children seated near him. Sarah, Adam and Richard each displayed their knowledge by spelling words (lines 3-6), none of which was the particular word that James needed to continue with his writing. James tried to draw attention to this fact by posing the question: "Is that how you spell 'farm'?" (line 7), but he still failed to get a response. In contrast, Sarah's initially indirect request for spelling assistance was rephrased as a direct request to Adam (line 9), and quickly gained the required response (line 10).

As noted in the previous section, offers of peer assistance were either solicited (i.e. in response to a request for help) or unsolicited. Both solicited and unsolicited offers of assistance were usually explicit, with a greater proportion of implicit offers failing to result in a teaching/learning sequence (see Figure 5.1). Unsolicited offers of assistance were more frequent than solicited offers, but unsolicited offers were more likely to be either ignored or rejected. Of the total of 67 solicited offers of assistance, only 8 were rejected and 4 were ignored. In contrast, of the total of 88 unsolicited offers of assistance, 27 were rejected and 29 were ignored.

Not surprisingly, the most frequent category of content of both requests for help and offers of assistance was spelling. Overall, 71% of requests and offers involving spelling resulted in teaching/learning sequences. The category of content most likely to be either rejected or ignored was reference to classroom rules and procedures, with 88% of all offers of assistance in this category failing to gain a response.

Analysis of peers' responses to offers of assistance and requests for help revealed that a number of factors influenced whether or not requests for help and offers of assistance resulted in teaching/learning sequences. Unsolicited offers of assistance were more likely to be accepted if the 'learner' judged the assistance offered to be appropriate and necessary (for further discussion, see section 5.3.2). Solicited offers of assistance were usually accepted, unless they were offered by a child who did not enjoy high status as a helper (see section 5.3.3).
5.2.3 Individual differences in patterns of peer assistance

In order to investigate individual differences in patterns of peer assistance in literacy learning, models were constructed to represent the interactions involving peer assistance in which each of the four focal children engaged during Story Writing Time (see Chapter 3 for complete details of the construction of these models). The four models are presented in Figures 5.2 to 5.5. In what follows, the four models are described and the differences between them explained.

![Diagram showing patterns of peer interaction]

**Figure 5.2: Patterns of peer interaction: Adam**

Figure 5.2 shows that Adam rarely requested help from his peers, but that when he did so his requests were directed to a particular peer and were usually granted. On five occasions, peers offered unsolicited help to Adam, but on three of these occasions he ignored the offer. Many requests for help were directed to Adam, but these were almost all requests for help with spelling (17 of a total of 21 requests) and only twelve were granted.
Adam was not observed acknowledging any indirect request for help, and ignored six indirect requests that were made by peers when he was present. In total, Adam made thirteen unsolicited offers of assistance to peers, but only four of these were accepted, with the remaining offers being either rejected or ignored.

Figure 5.3: Patterns of peer interaction: Kate

The patterns of peer interaction involving Kate are shown in Figure 5.3. Kate requested help from her friends on only three occasions, with all of these being directed to a particular peer and one being ignored. Only one unsolicited offer of assistance was made to Kate, and this was ignored. Kate granted thirteen direct requests for help, and never ignored her friends when they directed their requests to her. At the same time, she responded to indirect requests on four occasions, and ignored such requests only twice. Kate made a total of eight unsolicited offers of assistance to her friends, but only one of these offers was accepted.
### Figure 5.4: Patterns of peer interaction: James

James made many requests for help (as shown in Figure 5.4), but many of these were indirect requests and failed to gain any response from peers. Nine of the sixteen indirect requests were ignored, while only one of James' eight direct requests was ignored. However, all three of the unsolicited offers of assistance made to James were accepted by him. No child was observed making a direct request for help to James, but he did respond to indirect requests on two occasions. James offered unsolicited help to his peers on nine occasions, but only four of these were accepted.

Figure 5.5 (below) shows the patterns of peer interaction in which Sarah engaged. There were very few teaching/learning sequences involving Sarah in this study, mainly because her unsolicited offers of assistance to peers (ie. a total of nine) were all either rejected openly, or ignored. Peers directed their requests for help to Sarah on only two occasions, and one of these she ignored. However, she responded to indirect requests on three occasions, but ignored four other similar requests. At the same time, Sarah requested help from her peers only four times, three of which were granted. Most of the five unsolicited offers of help made to Sarah were accepted.
Figure 5.5: Patterns of peer interaction: Sarah

As noted in Chapter 3, the selection of focal children who displayed a range of levels of literacy knowledge was intended to facilitate investigation of the assumption that children most advanced in their own knowledge and use of literacy would be most able to give assistance to their peers. The patterns of peer assistance evident among the four focal children in this study suggest that this assumption is unfounded.

If the patterns of peer assistance were hierarchical (with more knowledgeable children assisting less knowledgeable peers) then we would expect to find Adam and Kate adopting the role of 'teacher' in their interactions with their peers, and Sarah and James adopting the role of 'learner'. However, this was far from the case. For Kate, the role of 'teacher' was a natural one and she showed a great deal of variation in her 'teaching strategies'. Adam was far more comfortable in the role of 'learner' and was, at best, a reluctant 'teacher'. James adopted either role with his peers and at times both 'taught' more capable peers and 'learned from' less capable peers. Sarah was usually reluctant to offer assistance to her peers, and rarely sought assistance for herself. Thus, the patterns of peer assistance in this study were not hierarchical. At the same time, there is no evidence that the patterns of
peer assistance were gender based. Although many of the children in this study tended to write in single-gender groups, there were many instances of both girls helping boys and boys helping girls.

The four models presented above clearly show that individual differences do indeed exist in children's engagement in peer assistance in literacy learning in the present study. The models were used as the basis for the profiles of the four focal children presented in Chapter 7.

5.3 Critical Issues in Patterns of Peer Assistance

Interpretive analysis of the peer exchanges in the present study was used to investigate the question "What can be said of the patterns of assistance in relation to the research group as a whole and individuals in particular?" This analysis reveals that three major issues are critical to an understanding of the patterns of interaction in which the identified forms of peer assistance in this study were embedded: the importance of intersubjectivity between social partners; peer assistance within the zone of proximal development; and the relative status and expertise of peers. Each of these issues is discussed below.

5.3.1 The importance of intersubjectivity

Interactions among peers in this study suggest that the achievement of intersubjectivity is a critical element in effective peer assistance. As discussed in Chapter 2, Vygotsky's (1978) view of the role of social interaction in cognitive development centres on the establishment of shared understanding between social partners as an essential precursor to supporting the learner in achieving a higher level of problem solving, or cognitive functioning. Analysis of the conditions under which requests for help and offers of assistance in this study led to teaching/learning sequences reveals that successful peer assistance depends on whether or not 'shared understanding' or intersubjectivity is established.

As shown in section 5.2.2, in this study there were many examples of requests for help or offers of assistance which did not result in teaching/learning sequences. Requests for help which were not explicit (and therefore not heard as requests), or were indirect (not obviously directed to a particular child) often did not gain a response. Similarly, offers of assistance which were not explicit, or not clearly and unambiguously directed to a particular child, were often not acknowledged. That is, requests for help and offers of assistance failed to result in peer assistance when there was no establishment of a "common focus of attention" (Rogoff, 1990, p.71) - no achievement of intersubjectivity. The following extracts from the transcript data illustrate this finding.
Luke comes to the table and stands behind Adam's left shoulder. Adam takes no notice.

Luke: I'm trying to publish.

No-one answers. His problem is that he can't remember what he wrote, and isn't able to read it. He walks around the table and sits in the chair vacated by Sarah, next to Veronica. Veronica takes no notice of him and continues to draw her pictures. Luke tries to read his story to himself.

(Transcript 02: 21/4)

In the extract above, Luke was seeking assistance with reading a text he had written on the previous day. However, his comment "I'm trying to publish" - while intended as a request for help - was not interpreted as such by either Adam or Veronica. That is, because neither of the children present interpreted Luke's request as it was intended, no 'shared understanding' was established. As a result, Luke's request for help remained unanswered and no teaching/learning sequence ensued.

Failure to establish intersubjectivity between peers, however, wasn't always unproductive in this study, as can be seen in the following exchanges.

James: Look, I've got a problem, I've got a ending and I've got a ... what's my name?
James: What's my name gonna be?
Sarah: You chicken, bark bark. You chicken, bark, bark.
James ignores Sarah's comment and resumes his drawing.
James: What's the name of my story gonna be?

(Transcript 08: 24/5)

In the exchange above, James was requesting assistance with choosing a suitable title for the story he had written (line 1). Sarah, however, failed to understand James' request (even when he repeated it) and was engaged in verbal play, suggesting alternative names for James himself rather than his story (lines 2 & 4). James, in turn, failed to understand Sarah's humorous use of language and appeared to ignore Sarah's comment altogether (line 5). However, he was aware that Sarah's failure to understand his request was in some way connected to the way in which he phrased it. He therefore made his request a third time, but this time explicitly indicated that he was seeking a name for his story (line 6). Through his initial failure to establish intersubjectivity in this exchange, James learned to communicate more effectively by making his request for assistance more explicit. The effectiveness of this 'lesson' for James is demonstrated by the explicitness of his request for
help in the following exchange\textsuperscript{2}, which took place several minutes after his unsuccessful interaction with Sarah:

1. James: (To Researcher) What should the name of my story be?
2. Researcher: What do you think it should be?
3. James: I don't know. (Read) I like living on the farm and ... I like living on the farm but it is noisy and I can't sleep.
4. Richard: (To Researcher) I told ... I told him to write "I can't sleep" 'cause he went, um, "what can I write, but?" and I said "I can't sleep".

(Transcript 08: 24/5)

This type of interaction provides support for Rogoff's view that the "interactions of young children with their peers may challenge them to stretch their understanding and take account of one another's perspectives in order to use shared frames of reference with partners who are similarly unskilled in supporting others' communication" (1990, p.202). Despite the valuable outcome of interactions such as the one between James and Sarah described above, however, it was clear that effective peer assistance in the present study depended heavily on the establishment of intersubjectivity.

5.3.2 Assistance within the zone of proximal development

Interpretive analysis of the children's responses to requests for help and offers of assistance suggests that Vygotsky's concept of the zone of proximal development (discussed in detail in Chapter 2) is critical to the effectiveness of peer assistance in children's literacy learning. According to Vygotsky's theory, "learning which is oriented toward developmental levels that have already been reached is ineffective from the viewpoint of a child's overall development" (1978, p.89), so the only effective learning will be that which falls within the zone of proximal development. The effectiveness, then, of peer assistance in literacy learning will depend on the extent to which that assistance falls within the zone of proximal development of the 'learner'.

The question must then be asked: "Who determines the appropriate level of assistance?" For example, in the following extract from the transcript data, Adam and Nicolas were collaboratively constructing a text, each taking turns to write one line across the page. When Adam attempted to control the exchange by providing assistance, Nicolas explicitly rejected assistance with aspects of the task which he believed he could accomplish independently.

\textsuperscript{2} This extract from the transcript data appeared in section 4.3.2.2.
Adam gives the pen back to Nicolas, signifying that it is his turn to write.


Nicolas: (slowly, as he writes) H--A--V--E. I know how you spell 'ticket'.

Adam: 'Ticket'?

Nicolas: Yes.

Adam: 'T-

Nicolas: I know how to spell it! I-K-E

(Transcript 17: 8/9)

Another example of the ways in which learners maintained control of the assistance they received can be seen in the following exchange.

Christopher: How do you spell 'picnic'? P-I-C?

Sarah points out that 'picnic' is one of the words written on the wall chart.

She looks across the room, finds the appropriate word, and spells it for Christopher.

Christopher then calls out across the room to Nicolas:

Christopher: Nick, is that how you spell 'picnic'? P-I-C-N-I-C. Is that how you spell pic-nic?

(Transcript 09: 31/5)

Christopher initially sought help from Sarah (line 1), who was sitting nearby. However, Sarah's status as a helper in this class was not high, as she often failed to give appropriate assistance when asked, and rarely requested assistance herself. Christopher apparently wanted to verify that the information Sarah provided was correct, so he selected the peer whom he considered was most likely to know the correct spelling of "picnic" - Nicolas - and sought verification of Sarah's advice (line 5).

These examples show that, in the present study, it was the 'learner' who determined the appropriate level of assistance required to solve a literacy-related problem, and at times sought clarification or verification of information provided by a peer. By maintaining such control, the 'learner' ensured that the level of support received from peers facilitated learning within the zone of proximal development.

This finding is consistent with Rogoff's (1990) view of the importance of the zone of proximal development. In discussing children's active role in recruiting adult assistance, Rogoff argues:

when children recruit adult assistance to complete their own goals, the assistance is likely to be requested for just those aspects of the task that they are not quite able to complete
independently. ... the pragmatics of such assistance are likely to place the level of support requested and provided, and the level of responsibility, within the zone of proximal development (p.109).

The present study shows that the same can be said of young children's active role in recruiting and managing assistance from their peers. The children in this study maintained control of the level of assistance they received from their peers by requesting assistance with specific aspects of the task which they were unable to complete independently, and by rejecting offers of assistance which they deemed unnecessary or inappropriate.

5.3.3 Status and expertise

Rogoff (1990) points out that the notions of status and relative expertise play a critical role in the patterns of peer assistance in literacy learning. These are particularly important issues in any investigation of peer assistance, since they have implications for the role of peer assistance in the classroom.

The negotiation between Adam and Nicolas in the following extract clearly illustrates the way in which status both influences, and is influenced by, peer exchanges. As described in the previous section, Adam and Nicolas were each taking a turn at writing one line of a collaboratively produced text. However, Adam had assumed the lead role in constructing the story, and was dictating what Nicolas should write. When Nicolas tried to vary the text, an argument resulted.

<table>
<thead>
<tr>
<th></th>
<th>Adam:</th>
<th>Nicolas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A boy wants to. T, go to - to - to. A boy wants to go to - 'to' again</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A boy wants to go to -</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>a -</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>the -</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>a -</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>the -</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>al</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>A zoo. A zoo.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>A zoo.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Nicolas: 'A'</td>
<td></td>
</tr>
</tbody>
</table>

(Transcript 17: 8/9)

In the exchange reproduced above, neither Adam nor Nicolas provided any justification for their choice of word (lines 3-7). More than a difference of opinion over one word in the text, the interaction became a tussle for power: it partly determined, and was
determined by, which of the two boys had superior status in the context of collaborative writing. When Nicolas finally acceded (line 8), Adam consolidated his position by taking control of the text at a point where he believed Nicolas might have difficulty (line 11, below). Nicolas clearly resented Adam's attempt to 'take over' (line 14), even though he did indeed have difficulty (line 16) just as Adam had predicted.

11  Adam: And let me do 'Z'.
12  Nicolas: I know how to do 'Z'.
13  Adam: It goes: this, this, that (demonstrates with the top on the pen).
14  Nicolas: I know, I know, I know!
15  Adam: I'll do the top bit.
16  Nicolas writes 'z' back-to-front.
17  Adam: No, no, no, wrong way. Wrong way, wrong way.
18  Nicolas writes over the top of the reversed 'z', writing it correctly this time. He then finishes writing 'zoo'.

(Transcript 17: 8/9)

Unlike most teaching/learning sequences in this study, in the example above it was the 'teacher' (i.e. Adam) who controlled the level of assistance provided to a peer. He did this by asserting his authority as the writer with superior expertise.

The importance of status was also evident in the differences between the interactive patterns of Adam and Kate. Adam enjoyed high status as a writer and a helper while Kate's status was considerably lower. As a consequence of this, Adam was more often sought as a helper by his peers, despite the fact that Kate used a wider range of forms of assistance and more readily responded to requests for help (for further discussion of this point, see the individual profiles of these two children in Chapter 7.)

In considering the notion of relative expertise, Verba (1993) points out that:

peer contexts are frames in which children experience a whole range of competence relationships. In other words, a child can be equal to, more competent than, or less competent than his or her partner for a given task or activity. In addition, each child can be more or less competent than the other in the same situation at different moments of the ongoing activity (p.266).

The changing balance of expertise described by Verba was clearly evident in the present study. Analysis of interaction patterns showed that many children both helped, and were helped by, the same peer on different tasks, or different aspects of the same task. Thus,
there was no evidence that the patterns of assistance were hierarchical in the sense of a more capable peer always assisting a less capable peer. Nor was there any evidence that children with limited expertise could not offer any assistance to their peers. Rather, the patterns of interaction were complex and influenced by a range of factors.

5.4 Adult and Child Perceptions of Peer Assistance

The final aspect of the patterns of peer assistance explored in this study was the perceptions of peer assistance during Story Writing Time held by the participants in the classroom (i.e. the classroom teacher and the children). These perceptions were documented in an attempt to show the extent to which peer assistance in literacy learning was visible to the participants themselves.

5.4.1 Teacher perceptions

The classroom teacher's perceptions of peer assistance during Story Writing Time were elicited through a single interview conducted after the completion of the final observation session. The interview was audio-taped and later transcribed in full. The teacher was asked two main questions:

1. In what ways do you think that children help each other during Story Writing Time?
2. What patterns of interaction have you observed, particularly involving the four focal children?

In response to the first question, the teacher suggested several ways in which the children assisted each other. She explained:

I suppose talking about *ideas for writing* would be the first way they help each other. Then, being able to look at other people's work would give some of the children a *higher standard to aim for*, like they can *see somebody else can write* this sort of story, well then that would give them something to aim for. I suppose with *spelling*, they do help each other with that. Even some of the ones who think they know how to spell everything, sometimes the other ones question it, like "that doesn't sound right" - they might look to the brighter ones for help, but then bring them down a notch or two and ruin their confidence. ... They help to think of what *words* they write in their stories - if they've got their idea for their story, but then being able to talk about it, they can *do it together*. Some of them just need *help to stay on task*, like they help by telling others what to do next, or "now you have to do this, then you have to do that".

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because some of them I don't think even remember the format - like, you write it, and then you confer with it. So they help (each other) remember what to do next.

(Transcript, Teacher interview)

Thus, the teacher identified two main ways in which the children assisted each other: through appropriation of peers' skills and practices (a higher standard to aim for, see somebody else can write) and accountability for adhering to the established classroom rules and procedures (help to stay on task, remember what to do next). She also identified three categories of content: spelling, vocabulary (words), and generating topics and ideas (ideas for writing). In addition, she cited collaborative writing (do it together) as an important context for peer assistance.

The teacher's response also indicated some awareness of the role that relative expertise may play in patterns of peer assistance. This was evident in her comment that "even some of the ones who think they know how to spell everything, sometimes the other ones question it, like 'that doesn't sound right' - they might look to the brighter ones for help, but then bring them down a notch or two and ruin their confidence." This suggests that both the teacher and the children were aware of differences in levels of expertise among peers, but that the authority of "the brighter ones" was not always accepted without challenge.

The teacher responded to the second question listed above by giving a brief description of each of the focal children in interactions with their peers. She described Adam thus:

He was very much - had to have everything perfect. But I think he was keen for the people around him to have their work perfect too, so he'd sort of tell them to maybe spell it this way. I think that was one of his big ones, helping people with their spelling. And I think just working near him would have helped other children, because they could see what he did. Susan was really good at her drawing, but she saw the way he wrote stories, so then she decided she was going to write a more interesting story. And she has been writing novels now as well, pages and pages and pages, so I think he had a little bit of influence on her.

(Transcript: Teacher interview)

The teacher's perception was that Adam's most frequent interaction was to give his peers assistance with spelling within a Tell me what... cooperative format (tell them to... spell it this way). She also described Adam's influence on his peers through their appropriation of his literacy skills and practices (working near him, they could see what he did). She characterised Adam's typical response to peers' requests for help as: "This is how it is, and get out of my hair!"
The teacher described Kate's interactions with her peers during Story Writing Time:

Kate writes really good stories. She has got very tidy writing and she's got pretty good spelling, but I don't think she has a lot of confidence. She tends to sit with a couple of other girls and then they'll write the story together. A pooled idea, they all write their own copy of the story, but it'll end up being exactly the same. Kate likes to help other people, so that could be why they end up writing the same story, but I noticed that they definitely come up - there's three of them - Gina, and Kate and Elizabeth, come up to me with the same story. The same story! Who wrote the story? They sort of - I don't always have time to keep an eye on who exactly is making up the story, but I think (Kate) is a lot more comfortable with that. I don't know if it is a good thing or a bad thing, but that's the way she works with the other children.

(Transcript: Teacher interview)

The teacher perceived Kate to be mainly involved in sharing topics and ideas for writing (pooled idea) and in collaborative construction of texts with her friends (they'll write the story together). She saw this as possibly resulting from Kate's willingness to help her friends, but nevertheless considered it problematic, since authorship of the text was not clear - "Who wrote the story?"

Like Adam, James was seen by the classroom teacher as a "perfectionist" who influenced his peers through their appropriation of his "higher standard":

James, I don't think he has very high self-esteem. He is not very confident in his story writing, but he is very neat in his writing, and he is very keen to ask "How do you spell this, how do you spell that?" He wants everything to be perfect. So I think, sitting with other children ... he might influence them I suppose to a higher standard. Like, Thomas is a very messy writer, and he often works with James who tends to write - it seems to be legible, and he sits near Thomas when he's working. I think they like to bounce ideas off each other and then they both end up writing on the same topic.

(Transcript: Teacher interview)

James was perceived by the teacher as a writer who lacked confidence and who frequently requested spelling assistance from his peers (How do you spell this?). The teacher noted that he often shared ideas and topics with his friend Thomas, and that his "very neat" writing "influenced" Thomas to achieve a "higher standard".

Sarah was seen by the teacher to receive assistance mainly from talking about ideas for writing (talking to Veronica, their ideas), and thereby extending her texts (write a lot more). The teacher described Sarah's interactions with her friend Veronica:
Sarah works a lot with Veronica. They're best friends. Veronica is very good with reading, but her story writing isn't as high a standard as her reading, but she is pretty good at it. It tends to be messy, but there is a lot of - she writes a lot. And Sarah, talking to Veronica, she is keen to write a lot more, although her spelling and her presentation isn't always legible. You can't read what she has written, (but) she does have the incentive to keep writing. I think they do that for each other - with their ideas.

(Transcript: Teacher interview)

Thus, for each of the focal children, the teacher described what she perceived to be the major characteristics of their literacy-related interactions with peers. As can be seen from the models of interaction constructed for the research group as a whole (Figure 5.1) and for each of the focal children (Figures 5.2 - 5.5), the classroom teacher's perceptions of the children's interactions reflect the dominant patterns of interaction that emerged from the study. However, the teacher failed to recognise more subtle patterns that impacted on the children's construction of literacy, and which are described in detail in Chapter 7.

5.4.2 Children's perceptions

To elicit the children's perceptions of peer assistance in literacy learning during Story Writing Time, a total of nineteen children were interviewed individually in Phase 4 of the present study. All children for whom data had been collected during the twenty-two observation sessions in Phases 2 and 3 of the study were interviewed (see Chapter 3 for full details). Interviews with all of these children, except Adam, were conducted over two consecutive days approximately three weeks after the last observation session. Adam was interviewed earlier (on the day immediately after the last observation session) when it became known to the researcher that he was leaving the school. The children were asked the following questions:

1. Who helps you learn to read and write?
2. Do you help anyone learn to read and write?
3. Are you a good writer? How do you know?
4. Are you a good reader? How do you know?
5. Do you like to write by yourself or in a group? Why?
6. In Story Writing Time, who do you usually sit with? Do you help each other? (If so) how?

In response to the question "Who helps you learn to read and write?", the children in this study nominated friends or family, themselves, or a combination of helpers. Eight children credited one or more of their friends with helping them become literate:
Veronica, Nicolas, David and Susan. (Sarah)
Good readers, like my best friends like to help me and I learn. (James)
Sometimes Helen. (Elizabeth)
My friends. They tell me how to spell stuff. (Frances)
I have my friend next to me: James. (Thomas)
My friend Kate. And Elizabeth. (Gina)
My friends. (Zac)
Nicolas. (David)

(Extracts from interview transcripts)

Five children nominated a combination of family members, friends and classroom teacher as being 'helpers':

My mum, my big sister and my dad. (Nicolas)
My mum, she taught me how to read. And the writing, I just practise on my homework.
(Kate)
I really do it by myself, and my teacher helps me, and my mum, she used to read me stories, and I learnt by that. (Helen)
My friends help me, and the teacher. (Susan)
My teacher and my friends. Nicolas, and David sometimes. (Paul)

(Extracts from interview transcripts)

Three children, all boys, suggested that no-one helps them to learn to read and write - that they learn by themselves:

No one, because I know. I just figured it out. (Adam)
I just learn. (Christopher)
Not much people help me. I just think about it in my mind. And I figure it out and I put it in my ... book, and when I get it right, I put it in my dictionary. (Luke)

(Extracts from interview transcripts)

When asked to nominate who they help to learn to read and write, most children were very specific in their responses, usually naming particular peers.

Frances says, "James how do you spell ...", and maybe Brittany sometimes. I don't think Zac, I'm not sure, because he just writes by himself, with Brittany, or Frances sometimes. (James)
I help Felicity sometimes, and sometimes I help Gina. (Elizabeth)
I help Sarah, and sometimes when my brother doesn't know how to spell words, and I do, then I tell him. (Veronica)
Sarah and Veronica. (Christopher)
I help Frances. (Gina)
James. (David)
Veronica, and Frances, Susan, Nicolas, Kate, Gina, and Elizabeth. (Sarah)
Gina and Sarah. (Kate)

(Extracts from interview transcripts)

In contrast to the responses above, Paul's was less specific: "My friends at school, I mean, sometimes, when they need help." Adam's response to the question, however, was more encompassing:

Nearly all the class. And I help myself. (Adam)

(Extract from interview transcripts)

Almost all of the children interviewed claimed that they were good readers and writers, but few could articulate how they knew this to be so. Several children cited other people's comments as evidence of their proficiency:

Because Miss said I write good. (Richard)
Because the teacher, she - I did a story yesterday, and I did nice writing, and she said it was beautiful. And I try my hardest. (Elizabeth)
Because I can read chapter books. But people told me that you're supposed to start reading in year two. And when they see me with chapter books, they just get surprised really. (Helen)
My mum said. (Nicolas)

(Extracts from interview transcripts)

Only two children (Christopher and Paul) said that they were not good writers, both indicating that they could not write neatly. Several other children understood 'good writer' to mean having neat handwriting, while Brittany made a distinction between handwriting (which she thought she did well) and spelling (which she thought she did poorly) as indicators of writing proficiency.

Because I write nice. I'm getting to learn the running writing. (Zac)
(Good writers) can write very very neatly. And they write stories out. I don't like big ones, I only like little small ones. The only time I wrote a big one, was I had around 7 pages. (Helen)
I can only write nicely, but not spell lots of words. (Brittany)

(Extracts from interview transcripts)
Of all the children interviewed, Sarah was the only one who cited the strategies used by readers and writers as evidence of the ability to read and write well. She explained how she knew that she was a good writer, and what good readers do:

Because I don't ask people and I know all the words I write, and sometimes, if I don't know a word, I try to sound out the words in it, and if I can't sound it out I just go and look in the dictionary. And I do it so straight. ... (Good readers) know all the words that they're reading, and know what they're going to read, and if they don't know it, they know they're not going to read it so well. And then if they don't know it, they might sound it out, or just leave it. (Sarah)

(Extract from interview transcripts)

When asked whether they preferred to write by themselves or as part of a group, the children in this study gave a range of responses. Several children indicated that they preferred to work by themselves because of the difficulties associated with being interrupted by friends.

By myself, because I don't get bothered and things. (Zac)
By myself. So I don't get annoyed. (Richard)
Write by myself. So nobody can talk to you. (Brittany)
When I'm alone writing by myself I can make the ideas, but when I have people around me, they talk to me, and I can't get much ideas in my head. (Veronica)
By myself. Because it gets quiet, and no one bothers you when you're talking, when you're trying to know your words, and you're trying to sound them out, and you're trying to get the speech. (Sarah)

(Extracts from interview transcripts)

Helen indicated that, while she preferred to write by herself, she liked to have her friends "around". Susan acknowledged that, while it can be difficult to concentrate when others are talking around you, it can also be useful to have a friend nearby when you need help.

Really, by myself. And my friends just stay around while we write by ourselves. We just stay around each other. (Helen)
Sometimes I like writing by myself, because I get confused when people keep on talking and things. And people are asking people things, like if they don't know anybody who knows anything like that they can go and ask one of their friends, and I just say "do you know how to spell this one", and they go "no", and I say "tell me", and things like that. (Susan)

(Extracts from interview transcripts)
Both Elizabeth and Kate expressed their preference for writing with friends:

I like to have a group with my friends at school to write ... because you can tell words and learn how to spell stuff. (Elizabeth)

With a group. Because I don't like being lonely. (Kate)

(Extracts from interview transcripts)

Nicolas' response indicated that he understood a "group" to be more than two people:

By myself. Just me and my friend. (Nicolas)

(Extract from interview transcripts)

Christopher acknowledged that, while he preferred to write with a group so that he could get help from his peers, his peers were not always willing to oblige:

In a group, but no one else helps me. No one wants to be in a group. (Christopher)

(Extract from interview transcripts)

The most frequently identified way in which children in this study helped their peers was in finding the correct spelling of unknown words. Some children described how they helped each other through *telling* peers how to spell words.

I spell all the time. I tell them how to spell stuff. (Adam)

If they need to spell some words I help, I tell them how to spell it. (Kate)

When I need to spell something, one of Kate's gang or Kate tells me how to spell that word. (Veronica)

Like, if we don't know a word, they ask someone, and if we know it, we just can tell them, and I think that would be all, I think. (Thomas)

Like if we don't know a word, the other ones tell you how to write it. (Richard)

(Extracts from interview transcripts)

In the following sections of interview transcript, several children describe how they were able to *show* peers effective strategies for spelling unknown words.

We sound out the words. (Brittany)

Well, if someone does make a mistake, like I never ask people, if someone makes a mistake and they ask me, I'll tell them. If they're a little too hard for me then, I just have to sound them out, because I can't do it. (Helen)

(Extracts from interview transcripts)
Sarah and James both described peer interactions that resembled the *Guide me through* ... cooperative format identified in this study:

By helping them to sound out their words, and helping them to conference it if they want to conference it. If you get some words wrong, and if they're not right, you give them the right letters in it, then you can just in a coloured pencil write over it, and do the word that it is supposed to be. (Sarah)

People, like Thomas, like sometimes I write with him, ... and he lets me sometimes help him. Thomas like asks "James how do you spell .." and I look at my picture, and I got it there, or I look in my dictionary, or I look where my little book is, ... and I find one of them in there. (James)

(Extracts from interview transcripts)

Thomas described one strategy for gaining assistance with the spelling of unknown words which the children could always use if all else failed: ask Adam.

I just ask them what their word is, and if I don't know how to spell it, I don't know, so I just tell them to just ask Adam. (Thomas)

(Extract from interview transcripts)

Four children described ways in which peers assisted each other to read, or by sharing each other's stories:

When we need to read something in class, if someone comes up and asks me to read it to them, well I read it to them. And that's about it. (Helen)

Yes. Like (David) goes "how do you spell your name?" and I go "I don't write my name." Sometimes he says "What does this say?" And I say, I read it for him. (Nicolas)

We read stories together. I read their stories, and they read mine. (Kate)

(I usually sit with) Sarah and Kate and Elizabeth. Sometimes we share each others stuff, like read it to one person and read it to another. (Veronica)

(Extracts from interview transcripts)

Three children referred to the assistance that peers gave with illustrating written texts:

That's Susan and me drawing. She drew that, that's me. I drew that, that's the elephant. Susan drew the people, and she drew that too - it looks like a tree. I asked her - she was helping me. (Adam)
And there is a way that you can help people draw. And if they don't know how to draw properly, just get this little thing from Tupperware, and it's got good drawings and the alphabet. If you know how to draw properly, you can help them draw. (Sarah)
Help with some of the drawings, and .... and just finish a book in one day. (Luke)
(Extracts from interview transcripts)

Elizabeth explained that she helped her friends with spelling, drawing and letter formation:

I help them to spell words, if they don't know how to spell it. And I help them how they can draw, so they can do nice drawing. Or if somebody can't do a letter, like an 'A', I can tell them how to do that too. (Elizabeth)
(Extract from interview transcripts)

Like Elizabeth, Susan helped her friends with spelling and drawing, but the demands on her time could sometimes create difficulties for her in completing her own texts. She explained:

I usually help my friends how to spell some words. We help each other by doing writing. Most of the time I have to do all the drawing, and sometimes people say "can you draw this?", "can you draw that?", "can you write this?", "can you write that?" And most of the time, after I finish my writing, they always say: "do this Susan", "do that Susan". And, like after story writing, all the time after story writing, I finish the work and I haven't got time to draw all the pictures. (Susan)
(Extract from interview transcripts)

In summary, analysis of the children's responses reveals that most children were able to identify at least one way in which they helped, or were helped by, their peers. However, none was able to identify all of the ways in which peers assisted each other, and there were a number of forms of assistance and categories of content identified in the study which were not mentioned by any of the children interviewed. This finding is not surprising since it parallels Rogoff's (1990) view that:

Adults' assistance in children's activities is often not intended as instruction. It involves active attention and involvement for the sake of conversation or entertainment or achievement of immediate practical goals, but may not be regarded by the participants as a lesson (p.95).

Thus, the children in the present study were not aware of the full range of assistance they provided to or received from their peers. Rather, their interactions were embedded within personally meaningful activities and were not necessarily recognised as being helpful to
peers. Despite this, they were well aware that some peer assistance was given and received during Story Writing Time, and that some peers were better 'helpers' than others. The children's perceptions of peer assistance in this classroom were perhaps best summarised by Helen:

We tell people how to spell things - if they need something small, and they really need it, we do it. We help - maybe help think of a story, maybe, like if she wants to know how to think of a story, and she is thinking, maybe someone will say maybe you could think of a friend, or something. ... If someone or other people say that, if they need help, and we ask them "what's up?" and they tell us the word, and we try to figure it out, and then we tell them what to write. Because Frances sometimes, Elizabeth, Frances, nearly all the people at my table, ask me how you spell 'cause I'm the second best reader on the table, Isaac is on my table too, and he is a good reader. The girls normally ask me, and the boys normally ask Isaac. He's the best reader. He was the second best reader, but Adam left. (Helen)

(Extract from interview transcripts)

5.5 Conclusion

The analyses presented in this chapter suggest that the patterns of interaction in which peer assistance in literacy learning is embedded are both complex and individualistic. The most successful forms of interaction were direct and explicit requests for help, and solicited offers of assistance. Patterns of peer assistance were neither hierarchical nor gender based.

Three major issues were identified as being critical to an understanding of the patterns of peer assistance in this study: the importance of intersubjectivity between social partners; peer assistance within the zone of proximal development; and relative status and expertise. Interviews with the participants in this study suggest that teachers and students are aware of at least some of the ways in which peers assist each other to become literate. However, some forms of peer assistance in the classroom may not be clearly visible to participating teachers and children.
Chapter 6

THE ROLE OF PEER INTERACTIONS IN CHILDREN'S CONSTRUCTION OF LITERACY

6.1 Introduction

The final question which this study investigated was: "What role do peer interactions play in children's construction of literacy?" This question was explored through the use of interpretive analysis of all data collected, including field notes and transcriptions of classroom talk during Story Writing Time (see Chapter 3 for full details). In this chapter, the interpretive analysis of these data is presented in the context of the theoretical assumptions that underpin the study.

As discussed in Chapter 2, learning to be literate involves far more than learning how to read and write. It involves learning what counts as literate action in any given context, as well as learning how to engage appropriately in literacy activities in a range of contexts. Since learning takes place over time, the impact of peer interactions on children's construction of literacy is not necessarily apparent at the time that any given interaction takes place. Rather, it is through noting similarities and differences in interactive sequences, and making connections between separate interactions, that the impact may become transparent. Therefore, the role of peer interactions in children's construction of literacy was explored in this study through an interpretive analysis of the children's interactions over time, rather than through consideration of individual teaching/learning sequences or writing sessions.

6.2 The Role of Peer Interactions in Children's Construction of Literacy

Interpretive analysis of the complete set of data for this study suggests that there are at least four ways in which children's interactions with each other can impact on the literacy learning of individuals, as well as what counts as literacy within the group:

a) children 'becoming literate';

b) children's efforts to define their place in the social world of the classroom;

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3 The use of the word 'becoming' here is not intended to imply that being 'literate' is a state one achieves at a single point in time, in the sense that one is or isn't literate. Rather, it is intended to convey a sense of motion, that becoming literate involves expanding the range of literate practices in which one can successfully engage.
c) children negotiating shared reality; and

d) legitimising literate action within the group.

In what follows, each of these four ways is discussed and illustrated with examples from the complete set of transcript and field note data for this study.

6.2.1 Becoming literate

Each of the children observed in two or more observation sessions in the present study received some form of literacy-related assistance from their peers. The amount and type of assistance offered and received varied among children (as shown in Chapter 5), but there is clear evidence that peer assistance played a significant role in the children's construction of literacy during Story Writing Time in the classroom studied. The study does not (and did not attempt to) provide evidence of a direct causal link between peer assistance and individual children's development of literacy in the sense of a clearly delineated link between the knowledge, skills and strategies encountered by children in interactions with peers, and children's subsequent use of the same knowledge, skills and strategies to solve problems independently. However, there is sufficient evidence to suggest that the assistance provided by peers in solving problems encountered in literacy activities contributed to each child 'becoming literate'.

The data presented in Chapter 4 clearly demonstrate that, through interactions with their peers, children in this study learned new literacy skills and new ways of engaging in literate practices. They learned strategies for solving literacy-related problems, and they learned how to successfully engage each other in discussion of written language. They learned how to extend their texts, to take account of audience response, and to explore connections between texts and illustrations. They became aware of the need to make their texts readable for others, and they learned how to use written language for social purposes.

For the children in this study, 'becoming literate' involved not only learning the literacy knowledge, skills and strategies that were meaningful within the context of Story Writing Time, but learning to engage in literate practices in ways that were appropriate within the culture of the classroom studied. That is, through the talk with peers that surrounded their production of written texts during Story Writing Time, the children learned what and how to engage in culturally appropriate literate practice. This finding is consistent with Pontecorvo's (1993) view that "individual states of development are the result of socially situated interactional processes, where learning concerns simultaneously the production of a cognitive response and a social performance" (p.193). Thus, the peer interactions in which
the children engaged contributed to their development of both the 'cognitive responses' and 'social performances' that constituted literate behaviour in the context of Story Writing Time.

6.2.2 Defining one's place in the social world

Interpretive analysis of individual children's peer interactions over time revealed that children in this study used their literacy-related interactions with each other to establish their 'status' as writers and 'authority' as helpers among their peers, and thus to define their place within the social world of the writing classroom. In this section, extracts from the transcript data are used to illustrate the ways in which one particular child, Paul, established his place in the children's social world through his interactions with peers.

Paul was one of the few children in the class for whom English was a second language, and he was the only child who did not speak fluent English. Paul's limited English language proficiency seemed to place him at odds with the other students in the classroom. While the other children all seemed to interact with each other freely, they frequently shunned Paul's advances, refusing to help him, answer his questions, or even allow him to borrow materials.

The only children among the observed group who engaged in more positive interactions with Paul were James and Christopher. For example, in the following section of transcript Elizabeth spoke sharply to Paul (line 5) and was clearly displeased by his mere presence (line 10). In contrast, Christopher was prepared to allow Paul to borrow his writing implements (lines 2, 6 & 8).

1    Paul: Can I borrow your pencils?
2    Christopher: Yeah!
3    Richard: Pencils! Black.
4    Paul leans on table, near Elizabeth, to begin his story.
5    Elizabeth: Hey, get off here!
6    Christopher: If you need a pen - if you need a pencil, right, you can use a pencil, right?
7    Paul: And the rubbers?
8    Christopher: You can use a pen, alright?
9    Paul: It's messy here you know.
10   Elizabeth: Do it on the floor, then.

(Transcript 06: 17/5)
One way in which Christopher served as intermediary between Paul and his peers was by taking multiple perspectives on interactions involving Paul. In the following exchange, Paul had copied a picture of a duck from the alphabet card on the back of his writing folder.

1 Kate comes to the table briefly to borrow Elizabeth's rubber. Christopher returns. Paul immediately comes over to him.
2 Paul: Can I borrow your pencils, Christopher?
3 Christopher: Why?
4 Paul: Um, because I copied a duck. I copied a duck. I copied it.
5 Christopher: Did you copy a duck? Let's see.
6 Paul shows him.
7 Christopher: You little copier!
8 Paul: Yeah, I'm a copier. A good one.

(Transcript 06: 17/5)

Christopher's comment "You little copier!" (line 7) served two purposes. First, it recognised and praised Paul's effort in producing a text during Story Writing Time, which he often had difficulty in doing. At the same time, it acknowledged that 'copying' might not be seen by all of the children in this classroom as a legitimate strategy for producing a text (for further discussion of 'copying' as a legitimate literate practice, see section 6.2.4). Thus, although Christopher was limited in his literacy knowledge and skills, and was not a frequent 'helper', his ability to take multiple perspectives allowed him to serve as intermediary between Paul and his peers.

In the following exchange, Christopher not only helped Paul to construct his text, but protected him from Nicolas' criticism. By again serving as an intermediary between Paul and Nicolas, Christopher succeeded in helping Paul to establish his 'place' to the extent that, towards the end of the exchange, Nicolas too was prepared to help Paul with his writing task.

1 Christopher and Paul move to the floor. Christopher helps Paul to write a story: tells him what letters to write for "I went to the".
2 Nicolas comes to see what they are doing.
3 Nicolas: That's not how you do a H!
4 Christopher: Huh?
5 Nicolas: You do a H like this. (Writes H on his own paper to demonstrate.)
6 Christopher: This is - this is running writing.
7 Paul: Yeah, running writing.
8 Christopher: (Rereads Paul's story) I went-to-the
9     Paul: Beach!
10    Christopher: Beach. B -
11    Nicolas goes to find the word 'beach' on a wall chart. Calls out to Christopher and
12    Paul: B-E-A-C-H.
13    Christopher: (To Paul) B-E-A-C-H. (To Nicolas) Is that all?
14    Nicolas nods, then returns to where he was working previously. Christopher helps
15    Paul to write "I saw a"

(Transcript 06: 17/5)

Following this exchange, Christopher lost interest in helping Paul and wandered off to talk
to other children in the room. Paul then turned to Adam for assistance, once again meeting
resistance until Elizabeth's example finally prompted Adam to help Paul:

1     Paul: (To Adam) You know how to spell 'duck'?
2     Adam: Duck? Easy!
3     Paul: What? What? What?
4     Adam: You have to spell it out yourself.
5     Paul: Oh, please! You help me.
6     Elizabeth: I will! D-
7     Paul: (As he writes) D.
8     Elizabeth: U-
9     Paul: U. U for what?
10    Adam shows him how to write 'U'.
11    Elizabeth: C-
12    Adam: K.

(Transcript 06: 17/5)

Like Christopher, James attempted to include Paul in the children's social world by helping
him to engage in literacy-related activities in ways that were acceptable within the culture of
this classroom. This was evident during one observation session mid-way through the
study. Adam, James, Richard and Zac were all seated at one table. When Paul attempted to
join them, his initial request to borrow materials (line 2) met a very forthright response:

1     Paul comes to the table.
2     Paul: (To Richard) Can I use these pencils?
3     Richard: No!

(Transcript 13: 9/8)
The result of Richard's abrupt response was that Paul went away to seek help elsewhere. Before long, however, he returned to try again:

1 Zac: Richard, can I use your highlighter?
2 Richard: No! You said textas, not highlighter. (Zac laughs.) You just - you didn't say "Can I use your highlighter and textas?". You just said "textas" didn't you?
3 Zac: Yeah.
4 Richard: James said highlighter and textas, but he whispered in my ear, didn't you James?
5 Zac's chair is knocked by Paul, who is bringing a chair so that he can sit at this table.
6 Zac: Lift the chair up! Else I'll smash it all over your head!
7 James: 'Cause I didn't ask (...) Paul puts his chair between Adam and James.
8 James: (To Paul) Just say "Can I use your textas?"

(Transcript 13: 9/8)

In this exchange, Zac wanted to borrow some of Richard's writing implements (line 1). However Richard refused the request (line 2), explaining that Zac's initial request to borrow (and subsequent permission) had only included "textas" and not the particular type of fluorescent felt-tip pen which the children called "highlighters". This made James aware of the importance Richard attached to explicit requests for each type of writing implement that his friends wanted to borrow. When Paul came to the table where Richard and Zac were working, he was greeted rather rudely by Zac (line 6). James, having noticed that Richard was being pedantic, anticipated that Paul was likely to want to borrow textas, and modelled a form of request that would be acceptable to Richard (line 9). Thus, through James' intervention, Paul succeeded in borrowing materials and joining the group at this writing table.

Some time later, Zac and Richard began to play a game that was popular among the children in this class.

1 James continues to talk quietly to himself as he writes. Several children sitting nearby are playing a game. One says "Hit me" and another child does so.
2 Zac: Hit me? I know that.
3 Richard: 'Cause I'm letting you use my textas you have to listen to me. Hit me. What did I say?
4 Zac: Hit me.
5 Richard hits Zac.

(Transcript 13: 9/8)
However, when Paul tried to join in, his difficulties with English hindered his ability to successfully play the game:

6  Richard: (To Adam) Hit me. What did I say?
7  Adam: I know this stuff! It's a trick.
8  Richard: No, I made this up. I told everyone. I made this up.
9  Paul: James, hit me. Hit me. What did you say?
10 James: You have to say "Hit me. What did I say?"
11 Richard: I knew this joke first, and I told it to everyone else.
12 Paul: (To James) Oh, yeah - I should punch you.

(Transcript 13: 9/8)

Paul's attempt to join in the boys' game (line 9) didn't succeed because he substituted 'you' for 'I'. James made Paul aware of his error by giving him explicit instructions on what to say (line 10). Paul was then able to modify his understanding of the game so that he could join in appropriately.

The significance of the interactions between Paul and his peers lies in Bruner's (1986) notion of 'calibration'. Bruner suggested that language users establish shared understanding by negotiating meaning. When a speaker is not understood, the listener responds in a way that will prompt the speaker to revise or refine his original utterance in some way so that the meaning of the utterance can be grasped by both the speaker and the listener. Bruner called this progressive refinement of negotiated meaning 'calibration'. Citing the example of speaking to a foreigner, he suggested that when calibration cannot be achieved then we tend to withdraw or react in inappropriate ways such as shouting or speaking too slowly.

Because Paul's level of English language proficiency was limited at the beginning of the study, he had difficulty in 'calibrating' and many of his peers reacted to him, and interacted with him, in inappropriate ways. For example, some would simply ignore his advances, others would refuse to help him or tell him to go away, while still others were overt in their dislike of his intrusions. This was clearly seen in the sections of transcript reproduced above.

However, as time went on and Paul learned the structures of the writing situation, he was able to participate in ways in which the other children could understand his meaning, even if he still didn't express himself in standard English. That is, as he began to define himself as a writer, and to be seen as a writer by his peers, he gained a level of acceptance from his peers that had previously been denied. Once he was able to participate in this way, then the other children began to interact with him in ways that more closely reflected the ways in
which they were interacting with each other. One of the crucial elements in Paul’s gradual inclusion in the children’s social world was his interactions with two of his peers, James and Christopher.

6.2.3 Negotiating shared reality

The third identified way in which peer interactions impacted on children’s construction of literacy in the present study is through the negotiation of shared reality. This was exemplified in the children’s negotiation of what constitutes ‘copying’, and what determines ownership of text.

In the following account of interactions among a group of children in the present study, it is evident that various participants had differing perspectives on what constitutes ‘copying’ - which was universally acknowledged (in the culture of this classroom) as unacceptable. However, through the processes of discussion and argumentation, the children negotiated the extent to which texts and illustrations could be similar without being ‘copied’.

1  Brittany: (Reading aloud) to-
2  Kate: (Reading aloud) I went to my nanny’s
3  Brittany: I-
4  Kate: I went to my nanny’s house for Mother’s Day
5  Brittany: went-
6  Kate: and-
7  Brittany: to-
8  James: (Loudly, to Brittany) Don’t copy!
9  Brittany: (Points to word ‘Thomas’ on James’s story) That says ‘Thomas (…) isn’t it? Isn’t it?! That’s Thomas and you. (Rereading her story) ‘I went to’ (calls out) Veronica, how do you spell your name? V-E-R-O-N-I-C-A. (Writes each letter as she repeats what Veronica said.) My name’s B-R-I-T-T-A-N-Y. 1-2-3-4...
10 Thomas: (To himself as he writes) I - saw. (To Brittany) How many in your name?
11 Brittany: Eight. How many ‘Ds’ do you have Thomas?

(Transcript 05: 10/5)

In the section of transcript reproduced above, James accused Brittany of copying (line 8). It was unclear whether James was referring to his own text (“I went to Thomas’ house.”) or to the similarities between Brittany’s and Kate’s texts, which each girl had read aloud. Brittany certainly understood him to be accusing her of copying his own text, because she pointed
out that the word 'Thomas' in James' text indicated that his text was about his friend Thomas, while her text was about her friend Veronica (line 9). Thus, despite the fact that the first three words in each of the two texts were identical, James accepted that Brittany had not 'copied' his text.

Later in the same observation session, when Thomas accused James and Luke of copying, James at first attempted to blame Luke for the transgression, but then drew on his new understanding of what constituted 'copying' to launch his defence (see excerpt below).

1 James: (To Luke) You have to draw hills.
2 Brittany: Hills - h - h - H.
3 Thomas: (To James & Luke) Oh, youse two are copying each other!
4 James: He copied me.
5 Brittany: No, no. You told him to copy you.
6 James: No I didn't.
7 Brittany: Yes you did. I saw you.
8 Luke: (To James) You just said - you just said "D'ya wanna copy me?" and I said "Yes".
9 Thomas: So youse both are told on!
10 James: Why?
11 Brittany: Yeah, they both cheated.
12 James: No, he's gonna make something different.
14 James: (To Luke) Yeah, but you can't do people like that and (to Brittany) plus he's not gonna do that part in grey, he's gonna do all the grass green, aren't you, Luke? Like, Luke's (...)
15 Brittany: Is that how you do the writing (...)? He's got the people on the grass.
16 James: Look, look! Did I do them hills like that?
17 Thomas: Of course you didn't!
18 James: But that's good because they're far away. That's good, hey Brittany? So he's not copying.
19 Brittany: James, (...) the writing but if it looks the same (...) 
20 James: I haven't got that many hills on my farm.
21 Thomas: You got three. You haven't got five hills!
22 James: (Counting hills in Luke's drawing) 1-2-3-4-5-6-7!

(Transcript 05: 10/5)

Accused of copying (line 3), James first attempted to absolve himself from blame by stating that Luke had copied his work (line 4). This attempt was unsuccessful since Brittany
pointed out that she had witnessed James inviting Luke to copy his text (lines 5-7). However, Luke focused on Brittany's use of the word 'told', and argued that James invited him, rather than told him, to copy (line 8). Thomas and Brittany insisted that both James and Luke were to blame and therefore should both be 'told on' (i.e. reported to the teacher) (lines 9-11). Through pointing out subtle differences between his own text and illustration, and Luke's version of the same text, James attempted to establish the validity of his view of what constituted 'copying' (lines 12, 14, 18). Thomas' initial view seemed to be that 'copying' the text was unacceptable regardless of differences in the illustrations. Brittany, however, was prepared to accept a broader view, with differences in illustrations and even letter formation enough to make the work original rather than 'copied' (lines 15, 19).

By the end of the exchange above, James' reference to the number of hills on his farm (with which Thomas was very familiar through frequent weekend visits) seemed to convince Thomas that the differences between the two texts were sufficient to exonerate James and Luke of the charge of 'copying'. The possibility, though, that James was aware of the tenuous nature of the newly accepted view of copying is evident in the following extract, which occurred several minutes after the previous exchange.

1 Bell rings to signal lunch time. A child across the room squeals.
2 Thomas: (Loudly) That's lunch time!
3 Several children cheer.
4 James: Know that 'saved from the bell'? What do they say 'saved from the bell'?
5 Thomas: Saved by the bell!

(Transcript 05: 10/5)

In later writing sessions, the children learned to protect their texts (including illustrations) from 'copiers' through the use of the conventional copyright symbol, even if (as in the following extract) it was invisible.

1 Richard: You know how some McDonalds are made out of bricks? I'm doing bricks.
2 Christopher: Are you making McDonalds?
3 Richard: Yeah.
4 Christopher: Are you allowed to copy?
5 Richard: No, you can't. You can't copy me. I done copyright.
6 Christopher: Where?
7 Richard: I did do copyright, except you can't see where it is.

(Transcript 09: 31/5)
The interactions described above provide one example of the way in which the talk among peers altered children's understanding of literacy-related concepts and contributed to the negotiation of a 'shared reality'. In this way, peer interactions impacted on the children's construction of literacy during Story Writing Time. A second example of this can be seen in the following account of how a group of children negotiated ownership of a collaboratively-produced text.

Adam and Nicolas had (at the teacher's suggestion) begun to collaborate in writing a story about a boy's visit to a zoo. Isaac had just finished 'publishing' a story and was ready to begin a new text. He joined Adam and Nicolas on the floor:

1 Isaac comes to sit on the floor next to Adam.
2 Adam: You can copy us. Copy us! (Begins to read the text he and Nicolas have written.) "Going to the zoo."
3 Isaac copies 'Going to the' from Adam's text.
4 Adam: (To Isaac) That's good writing.
5 Isaac adds 'See' to his title.
6 Adam: (Reading Isaac's text) "Going to the - sea?" Why? Why are you writing 'Going to the sea'? Going to the zoo: Zoo!
7 Isaac: I'm going to the sea!
8 Adam: You're not gonna - oh, yeah.
9 Isaac: Miss said we have to do our own.
10 Adam: We can do, like, chapters. This is one chapter (indicating the text he wrote with Nicolas) and that's the other chapter (indicating Isaac's text).
11 Nicolas: No, this is my chapter (indicating the jointly constructed text).
12 Adam: Yeah.
13 Nicolas: I said "A little boy could go to the zoo" didn't I?
14 Adam: Yes.
15 Nicolas: So I'm doing this, aren't I? You've gotta do your own.
16 Adam: I need a pen.
17 Nicolas: So, what's your story gonna be now?

(Transcript 17: 8/9)

Adam at first generously offered to allow Isaac to 'copy' the text that he and Nicolas had written (line 2), and even complimented Isaac on his handwriting (line 4). However, when Isaac varied his title from what Adam and Nicolas had written, Adam questioned him about his intentions (line 6). Isaac justified his variation of the title by insisting that the teacher wanted each child to produce their own text (line 9). Adam suggested that they could overcome this requirement by each producing separate chapters of one story (line 10).
Nicolas then indicated that he claimed ownership of the chapter that he and Adam had already written (line 11). He justified his claim to ownership of the text by pointing out that the original concept of writing about a boy visiting a zoo had been his idea (line 13). Adam accepted this claim (line 14) and Nicolas pointed out that Adam would now have to produce his own text (line 15).

Several minutes later, Isaac modified his original interpretation of the teacher's requirements, commenting that it was acceptable to write a text alone, or to collaborate with a friend. Nicolas's comment (line 2 below) indicated that he was now unsure whether he was writing alone or with Adam.

1  **Isaac:** You can do it by yourself, or - um - do it together.
2  **Nicolas:** I'm doing it by myself - by ourselves.

(Transcript 17: 8/9)

During Story Writing Time the next day, Adam and Nicolas were publishing their collaboratively-produced text when the following exchange took place:

1  **Nicolas says that their book is "written and illustrated by Nicolas and Adam".**
2  **Adam:** No, written by Nicolas and illustrated by Adam.
3  **Nicolas:** Yeah.
4  **Adam:** I illustrated it, that means writing - no, illustrate means drawing and you're the one who's doing, um, - written means that you, um -
5  **Nicolas:** I writ it!
6  **Adam:** Yeah, and I drew it. Illustrated means I drew it.

(Transcript 18: 9/9)

Nicolas' comment that their book was "written and illustrated by Nicolas and Adam" was not entirely accurate, since both boys had contributed to the written text but Adam alone had done the illustrations. However, both acknowledged that the text had been "written by Nicolas", presumably because the original idea had been his (as discussed on the previous day). Thus, despite the fact that Adam had written at least as much of the text as Nicolas, through their negotiations the boys came to a common understanding of what constituted ownership of text. This understanding unambiguously gave ownership of this particular text to Nicolas.

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4 This extract from the transcript data appeared in section 4.3.2.4.
The two examples described above clearly show how peer interactions can impact on children's construction of literacy through their negotiation of shared understandings.

6.2.4 Legitimising literate action

Analysis of the complete set of transcription and field note data revealed that there were a number of practices which, early in the study, were considered by the teacher and children to be inappropriate ways of producing written texts. Two such practices were: writing children's names for no apparent purpose, and tracing or copying pictures from the back of the children's writing folders. At the beginning of the study, both of these practices were unacceptable forms of literate action within Story Writing Time, and attracted comment and censure from peers. However, over time both practices gained legitimacy through a series of interactions and negotiations among peers.

The first practice which gradually gained acceptance during Story Writing Time was the practice of writing lists of names. Displayed on the classroom walls were a number of charts which included the names of all the children in the class. One chart listed the children's names and birthdays, while another chart listed which children were responsible for particular jobs. A third chart listed which day of the week various children were allowed to give 'News'. The class teacher had informed the children very early in the school year (before the study began) that it was not acceptable during Story Writing Time to simply copy children's names from these charts. The texts the children produced were supposed to "tell a story" or serve a purpose. On a number of occasions, when children could think of nothing to write and began to copy names, peers reminded them that this was unacceptable and the lists were abandoned.

However, in June, James was preparing for his forthcoming birthday by writing a list of names of the people whom he wanted to invite to his party. As he moved around the classroom seeking the correct spelling of children's names, he overcame objections to simply writing names by explaining that it was "for something":

James comes to the table to ask the researcher how to spell the name of the class teacher. He explains that it will be his birthday "in 25 more days" and he is writing a list of names of people whom he wants to invite. He has asked several children to spell their names for him, but doesn't want to ask the teacher to do likewise.

(Extract from field notes: 16/6)

James may not have been prepared to test the acceptability of his 'purpose' by subjecting his text to the scrutiny of the class teacher, but by the end of Story Writing Time that day many
children in the class (including Frances and Elizabeth) knew what James had written. Less than a week later, the following exchange took place:

1  Frances is copying girls' names from the birthday chart on the wall.
2  Kate: You're not allowed to just do names.
3  Elizabeth: Yeah, you're allowed to write a list, Miss said.
4  Kate: Yeah but when I did that, you're not allowed to do it.
5  Elizabeth: No, she's not writing just names. I think she's inviting someone to her birthday, eh?
6  Frances: Yep. I am.
7  Sarah: You're not allowed to do that. Only at home.
8  Kate: (To Frances) What's that say?
9  Frances does not answer. All of the girls go on with their writing.

(Transcript 12: 21/6)

In this exchange, Frances was writing a series of girls' names (line 1). Kate initially drew Frances' attention to the class rule which prohibited children from writing a series of names for no apparent purpose (line 2). Elizabeth intervened to point out that Frances' text did have a purpose: it was a list (line 3). Kate recalled that when she had constructed a similar text earlier in the year, it had been considered unacceptable (line 4). Elizabeth insisted that the two situations were different in that Kate had merely written names, whereas Frances was writing a list of the people whom she intended to invite to her birthday party (line 5). Frances confirmed that she was, indeed, writing a birthday list (line 6), but Sarah lent support to Kate's stand by insisting that writing such a list was only permissible at home (line 7). Kate was, by now, curious about Frances' text and asked what names she had written (line 8), but to no avail. Frances ignored her.

The following exchange took place some time later, during the same observation session, when the school bell had sounded to signal lunch. All of the children were packing away their writing folders. Only Kate and Frances remained on the floor where they had been working.

1  Kate: (To Frances) Is that all you wrote?
2  Frances: Yeah.
3  Kate: Did you write my name?
4  Frances: No. How do you spell 'Kate'?
5  Kate: K-A-T-E.
6  Frances: Can you write it for me?

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Kate quickly writes her name on Frances' list. Both girls put their work in their writing folders.

(Transcript 12: 21/6)

Now convinced that Frances' text was permissible (or simply not wanting to miss the fun of the forthcoming party), Kate was keen to ensure that her name was included in the birthday party list (line 3). Finding that it wasn't, she readily complied (line 7) with Frances' request (line 6) to write it for her. In doing so, she helped to establish the legitimacy of writing lists of names during Story Writing Time.

The second practice which slowly gained acceptance was the practice of tracing or copying pictures from the back of the children's writing folders. As described in Chapter 3, on the back of each child's folder was a photocopied sheet that showed the letters of the alphabet and an easily identifiable picture of a common object beginning with each letter. The purpose of this sheet was to assist the children with letter formation and sound/letter correspondences. This was explained to the children by the class teacher a number of times, including during one observed session early in the study:

1 Teacher gains children's attention by using clapping game.

2 Teacher: Some people have forgotten that on the back of your writing folder are letters that will help you work out your sp- your words in your stories. So you turn it around and you lean your work on the back of your folder.

(Transcript 04: 3/5)

The following series of extracts from the transcript data illustrates the way in which the children's interactions over time impacted on the practice of tracing or copying pictures from the back of the writing folders.

1 Luke: Just look at my duck. I don't believe my duck.

2 Frances: Why?

3 Luke: I just don't believe it.


5 Luke tears his paper into pieces and puts it in the rubbish bin.

(Transcript 01: 19/4)

In the exchange above, Luke drew attention to the picture of a duck that he had traced from the back of his writing folder (line 1). His comment did not make it clear whether he was pleased with his effort or not, and Frances' question (line 2) did not clarify the issue.
However, when Frances declared that Luke's text (ie. picture of a duck) was 'wrong' (line 4), Luke destroyed and then discarded it.

Several other times through the study, children were observed tracing or copying pictures from the back of their folders. For example, during one observation session Paul traced a duck from the back of his folder and then obtained assistance from several children to construct a written text about a duck (discussed fully in section 6.2.2). Other children adopted a similar approach. Like Paul, these were usually children who struggled to produce written texts during Story Writing Time.

One observation session conducted early in August revealed the children's growing acceptance of, and engagement in, the practice of tracing or copying pictures from the back of their writing folders. Once again, Paul figured prominently in the interactions.

1 Zac: No, that's Paul kissing Gina. (Laughs)
2 Paul: I draw a good duck?
3 Richard: No that's, um, um
4 Zac: Paul kissing Gina.
5 Richard: No. No, um,
6 Paul: I draw a good strawberry? I draw a good strawberry?
7 Zac: No, make it Nicolas kissing Gina.

(Transcript 13: 9/8)

Adam, James, Zac and Richard were all seated at one table. Zac and Richard were discussing Richard's illustration, which they both found very amusing. When Paul joined them at the table, he attempted to draw attention to his need to borrow coloured pencils by asking for approval of his tracing of a duck (line 2). When this failed to attract the attention of Zac and Richard, Paul sought approval of the strawberry which he had also traced from the back of his writing folder (line 6). Despite his efforts, Zac and Richard did not acknowledge Paul's presence. However, several minutes later Richard announced:

1 Richard: There. I drew a duck. (Pause) I drew a duck. I drew a duck.
2 Paul: Nice duck.
3 Richard: I want to draw-
4 James: (To Paul) Get me a paper and I'll tell you a rhyme.

(Transcript 13: 9/8)

Richard had, like Paul, traced a picture of a duck from the back of his folder (line 1). However, unlike Richard's previous failure to acknowledge Paul's effort, Paul was quite
willing to admire Richard's effort (line 2). James then offered to teach Paul a rhyme if Paul would get a piece of paper for him from the table where it was stored. Paul obliged:

5    Paul returns with a sheet of paper, which he gives to James.
6    Paul: Here.
7    James: Okay. Captain Hook chased a chook all around Australia. Lost his pants in the middle of France, and found them in Tasmania. Get it? Captain Hook chased a chook ...
8    Adam: I know! I heard that.
9    Zac: Where's Gina? Tell me where's Gina. Adam. James, tell me where's Gina.
10   James: No.
11   Zac: Paul. Paul. Mario. (No-one will answer him.)
12   James finishes his drawing; puts it on the table. Takes new sheet of paper Paul brought, and begins to trace a duck from the back of his writing folder.

(Transcript 13: 9/8)

James' recitation of the popular rhyme (line 7) attracted the attention of Adam who, until this point, had taken no part in the conversation even though he was seated at the same table as the other boys. James then began to trace a picture of a duck from the back of his folder (line 12), just as Richard had done several minutes earlier. Adam noticed what James was doing, and began to question him:

13   Adam: (To James) Are you tracing that? Are you tracing that? Are you tracing that?
14   Zac: And they chucked money in the water.
15   Adam: You traced it!
16   Zac: People did. This is water. See, Richard? It's water.
17   Richard: I'll just put your work here, James.
18   James: Put it in (...) 
19   Zac: (To Richard) What's that love heart for?
20   Richard: It's not a love heart. I'm doing the apple, dum-dum.
21   Paul: A apple? I have to copy that big.
22   Zac: Is that an apple?
23   Richard: Yeah.
24   Zac: Are you copying?
25   Richard: No, tracing.
26   Boys work silently for a few minutes.

(Transcript 13: 9/8)
Adam not only seemed surprised that James was tracing a picture from his folder (lines 13 and 15), but seemed to question the legitimacy of doing so. The subsequent exchange between Zac and Richard (lines 19 and 20) focused on the picture of an apple which Richard had traced from his folder. Zac's question (line 19) and Richard's reply (line 20) drew Paul's attention to Richard's text and prompted him to express his intention to also trace an apple (line 21). Finally, Zac sought clarification of the way in which Richard had constructed his text: "Are you copying?" - "No, tracing."

The ultimate outcome of this series of exchanges was that the practice of tracing pictures from the back of the writing folders was adopted by all of the children involved in the interaction. From Paul's initial tracing of a duck, through James' duck and Richard's apple, to Zac's eventual inclusion of a duck in his text (see extract below), the children gradually came to accept that tracing pictures from their folders was a legitimate strategy for constructing texts during Story Writing Time.

1 Adam: (To Zac) Is that a dragon? (referring to Zac's picture)
2 Zac: It's not a dragon.
3 Adam: What is it?
4 Richard: It's a duck.
5 Zac: What do you think it is?
6 Adam: A dragon.
7 Richard: Duck.
8 Zac: No. I'll make you get it, right?
9 Adam: Oh, the king! The king!
10 Zac: Richard got it right! Richard got it right!

(Transcript 13: 9/8)

Finally, even Adam (the most proficient writer in the class) succumbed to the view of so many of his peers. When I interviewed him on his last day in the school, he showed me many of the 'stories' he had written through the year. Among them was a drawing of an apple that he had traced from the back of his writing folder. However, despite the fact that he (like so many others in the group) eventually engaged in the practice, he remained unconvinced of its legitimacy. He said of the text:

The apple - I think that's the one I traced. That was just a fake story.

(Interview transcript: Adam)

The extent to which the practice of tracing pictures from the writing folders gained acceptance is clearly demonstrated by the fact that it gradually permeated the whole group.
For example, in one of the last observation sessions, Kate produced a text using objects featured on the alphabet sheet (see Figure 6.1).

![Figure 6.1 Kate: I want to go to the big apple and a big flower and I went home but I want to go to the park.]

The exchanges described above clearly illustrate how, through their interactions over time, the children in the present study gradually came to recognise as legitimate forms of literate action, practices which hitherto had been dismissed as unacceptable within the culture of Story Writing Time in this classroom. Thus, this study provides evidence to support the view that what counts as literate action within any specific group is constructed through the social and literate practices of the members of the group (Cook-Gumperz, 1986b; Cairney, 1992).

6.3 Conclusion

This chapter has provided evidence that peer interactions impact on children's construction of literacy in a number of ways. First, the talk that surrounded children's engagement in written language activities during Story Writing Time contributed to children's growing
ability to use a range of literacy-related knowledge and skills. Second, through their interactions with peers, children came to define themselves as writers and helpers within the familiar context of Story Writing Time. Third, through the processes of discussion and argumentation children negotiated their understanding of literacy-related concepts. Finally, through their interactions peers defined what constituted culturally appropriate literate action.

These four ways that peer interactions impact on children's construction of literacy were identified within the context of just one type of literate practice - child-directed daily writing sessions in a Grade 1 classroom. It is possible that interactions among peers impact on the construction of literate practice in other ways in other contexts.
Chapter 7

CONSTRUCTING LITERACY WITH PEERS

7.1 Introduction

This chapter presents an elaborated analysis of the engagement of four children from the research group in one specific type of literacy practice - Story Writing Time. The analysis explicitly examines the role of peer interactions in individual children's construction of literacy as they participate in the social world of the classroom. A key element in this analysis is the construction of detailed profiles of the four focal children: Adam, Kate, James and Sarah.

The focal children were selected on the basis of observations made during Phase 1 of the study (see Chapter 3 for details of selection). They were selected to represent a range of levels of written language proficiency and a variety of interactive styles. The data used in the construction of the profiles were drawn from all phases of the research. They include field notes from classroom observation sessions, transcriptions of the children's talk during Story Writing Time, copies of the children's written texts, and transcriptions of individual interviews with the classroom teacher and each of the focal children. The sections of transcript included in each profile are representative of the interactions in which each child engaged. That is, they include exchanges between focal children and the peers with whom they most frequently interacted during Story Writing Time. They also represent the range of forms of peer assistance engaged in by each focal child. The reproduced texts were chosen to represent the full range of text length, form and complexity produced by the focal children over the entire course of the study.

In constructing the profiles, consideration was given to the knowledge and strategies used by the children in their construction of written texts, as well as to the interactions with peers that occurred during observed writing sessions. The children's interactions with each other during Story Writing Time were not viewed as simply the context surrounding each child's use of written language, but rather as an integral part of each child's construction of literacy. As Dyson (1995) explains:

Children's written language learning is not only contextualized within helpful relationships; part of children's developmental challenge is to learn to manipulate relationships, to achieve particular responses from others, through the written medium in a breadth of social situations.
... Thus children are not only meaning makers but also meaning negotiators, learning to participate in the social world, to adopt, to resist, or to stretch available words. ... Understanding the what ... and the how ... of children's writing requires constructing children themselves as complex social and cultural beings (p.17-8, italics in original).

The present study examines how one group of children write within and through rich social and cultural contexts. In particular, it attempts to explore part of the "what" - the nature of peer assistance, as well as that part of the "how" that is represented by the patterns of interaction within which assistance is embedded. Thus, in what follows, the focal children are presented as "complex social and cultural beings" (Dyson, 1995) whose construction of literacy is shaped (in part) by their participation in the social world of Story Writing Time.

The order in which each of these profiles is presented is not random, but has been carefully arranged to represent the respective 'position' of each child within the social world of the classroom studied. The profile of Adam is presented first, reflecting his status within the hierarchy of the children's world: his position as the 'best writer and speller'. Second, Kate's profile presents her in her role of 'would-be' best helper, seemingly seeking to emulate Adam's position of status and authority. Third, the profile of James reflects his concern with 'belonging' to the group, constantly seeking ways to establish his own identity as a writer and helper. Finally, Sarah's profile reflects her apparent lack of concern about her status within the group: seemingly taking for granted her membership of the group, and her authority to monitor and control others within it.

7.2 Adam

Adam, like all of the focal children, was six years old at the commencement of the present study. He was acknowledged by the classroom teacher and by his peers as "the best reader and writer in the class." The following extract from the transcript of one observed writing session exemplifies both Adam's and his peers' view of Adam's writing ability.

1 Isaac: That's good (referring to Adam's work).
2 Adam: I know it's good.
3 James: 'Cause you always do good.

(Transcript 21: 22/9)

Adam viewed himself as an independent writer. When asked "Who helps you learn to write?", he replied "No one, because I know." He explained that he knew he was a good reader "because every time I say the words right." He preferred to write with a group of friends during Story Writing Time rather than by himself, even though he was frequently
asked for help. He commented: "I spell all the time. I tell them how to spell stuff." When asked who "them" referred to, he replied "nearly all the class." On one occasion, when a peer asked why it was that he was so frequently asked to spell words, Adam replied "They think I'm a dictionary."

Adam was usually one of the first children in the class to begin Story Writing each day, and chose his work space without apparent reference to where other children were sitting. That is, he did not seek to sit with particular children, nor did he seem concerned about who sat near him once he had chosen a work space. The class teacher described Adam as a "perfectionist" with little tolerance of shortcomings, either his own or his peers'. For example, in the following extract, Adam expressed his frustration at not being able to write the title of a story exactly the way he wanted.

```
1 Quiet for a few moments. Adam makes a mistake and drops his pencil in disgust.
2 Adam: Oh, I don't even know how to write.
3 James: What did you write?
4 Adam doesn't answer.
5 Adam: I have to still write and rub out! (Erases title he has written.)
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(Transcript 21: 22/9)

A notable feature of Adam's interactions with his peers was the way in which he took every opportunity to display his superior knowledge. In the following interaction, for example, Adam overheard Christopher and Richard discussing the homophone "to" (lines 1-8). Not wanting to be outdone, Adam decided to attempt to spell a more difficult word (line 10).

```
1 Christopher: I know how to spell - I know how to spell - you don't know what I know how to spell. "To".
2 Richard: w-e-n-t.
3 Christopher: Huh?
4 Richard: (slowly) w
5 Christopher: No - T-W-O. That's how you spell "to".
6 Richard: That's how you spell the number "two".
7 Right, here's how you spell I'm going "to" - T-O. I'm going to the park. T-O. That's how you spell it.
8 Christopher: But if you don't want to do that "to" you can do this "two".
9 Adam takes out his 'have-a-go' book.
10 Adam: I'm gonna have a go at writing 'three'.
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(Transcript 04: 3/5)
7.2.1 Profile of literacy knowledge and strategies

When the present study began, Adam was producing texts of several sentences in length, usually recounting an important event in his life. Each text was completed within one observation session (i.e. one daily Story Writing Time of approximately thirty minutes), and included both writing and pictures. He used a combination of standard spelling and phonetic approximations, and his texts were not always easily read by others (see for example Figure 7.1).

![Text Example]

Figure 7.1 Adam: My brother Luke had a birthday and we played egg and spoon race. We played soccer and then we played Pass-the-parcel and we had food and drinks and I know how to boot a soccer ball. And I had fun.

At times, Adam wrote a series of texts on the same topic, notably his trip to Burrill Lakes with his family (see Figure 7.2), and his weekend soccer games. He tried to incorporate the teacher's suggestions into his texts. For example, the text reproduced in Figure 7.2 was written after the class teacher had suggested that Adam try to include a "problem" in his stories to "make them more interesting." In this text, the "problem" was that the long car journey "was boring for a minute."
As the study progressed, Adam produced longer and more complex stories, sometimes working on the same text over several days. He experimented with a variety of forms (including cards and an invitation to a party), and began writing fictionalised stories rather than always retelling actual events. He experimented with the use of humour in his stories, as shown in the one titled "At the Zoo" (see Figure 7.3).

Figure 7.2 Adam: I went to Burrill Lake. I travelled about three hours and it was boring for a minute and after a minute we ate biscuits and their shape was a triangle.

Figure 7.3 Adam: There once was a zoo keeper and he saw a giraffe hurt and the hippopotamus sick and the tiger was hurt and the elephant had an earache. The crocodile (had) a toothache. The monkey had a hurt tail. The zoo keeper was tired.
Adam was very particular about his writing. In the following extract from the transcript data, he noted that the parent-volunteer who typed his story had changed the wording of Adam's text. Initially annoyed at the change, Adam accepted the new wording only when he decided that the meaning of the text remained intact.

1 Adam quietly reads the story which he wrote with Nicolas, and which has been typed by a parent-helper.

2 Adam: 'Zoo-keeper'? It wasn't supposed to be 'zoo-keeper'. It wasn't supposed to be 'zoo-keeper' - it was 'owner of the zoo'. "The zoo-keeper said 'That's not a ticket!'" (...) Least it's - it's the same thing, eh? (Pause) I've got to colour it. Can't draw very good baby lions. They're bad.

(Transcript 21: 22/9)

Adam's reputation as a writer of talent extended beyond his own classroom. Several of his stories were 'published' and placed in the school library, and were frequently read by other children. When Adam left the school, near the end of the study, teachers and children all lamented. Great pains were taken to 'publish' his final story (written collaboratively with his friend Nicolas) prior to his departure. On Adam's last day at the school, many of his classmates made farewell cards, although some were received less than graciously (as shown in the following exchange):

1 Elizabeth comes to the table and gives Adam a card.

2 Adam: (Reads) "I hope you have a great time at your new school." It's better than the one that Owen did.

3 Adam folds the card and gives it back to Elizabeth.

4 Adam: Don't give it to me yet.

5 Elizabeth: When should I give it to you?

6 Adam: After big lunch.

(Transcript 22: 23/9)

7.2.2 Teaching and learning with peers

Despite his reputation as the 'best writer' in the class, Adam was a reluctant 'teacher'. He seemed to resent interruptions to his own work, at times refusing outright to help others, but then relenting when they persisted. The following extract exemplifies Adam's reluctance to help his peers.

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5 This extract from the transcript data appeared in section 6.2.2.
Paul: (To Adam) You know how to spell 'duck'?  
Adam: Duck? Easy!  
Paul: What? What? What?  
Adam: You have to spell it out yourself.  
Paul: Oh, please! You help me.  
Elizabeth: I will! D-  
Paul: (As he writes) D.  
Elizabeth: U-  
Paul: U. U for what?  
Adam shows him how to write 'U'.  
Elizabeth: C-  
Adam: K.  

(Transcript 06: 17/5)

In this interaction, Adam initially refused to assist Paul (line 4), even though he claimed (line 2) that he did have the knowledge that Paul needed to solve his problem. It was only when Elizabeth intervened, offering to assist Paul (line 6), that Adam relented and provided the assistance Paul had requested. It seemed that, though he was reluctant to provide peer assistance himself, he was even more reluctant to allow others to provide it in his place.

The peer assistance that Adam did give was limited mainly to providing an audience and approval for others' work (i.e. unintentional assistance), and to helping his peers spell unknown words. Adam rarely responded to indirect requests for help, usually needing to be addressed directly before responding. He was frequently asked (especially by boys) to help with spelling, complaining on several occasions that "I can't be a dictionary!" When he did respond to these requests for help, it was usually to simply tell the standard spelling of the requested word rather than to model any spelling strategies. The following extract is typical of the interactions in which Adam provided assistance to his peers. Like most other instances of Adam assisting a peer, this example conforms to the "Tell me what ..." cooperative format.

Luke: How do you spell 'called'?  
Adam: C-A-L-L-E-D.  
Luke repeats each letter as he writes it, but writes three Ls instead of two.  
Adam looks at what Luke has written.  
Adam: No, I mean - No, rub out that I - L, I mean - and write E-D.  

(Transcript 21: 22/9)

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6 This extract from the transcript data appeared in section 4.2.1.1.
Although Luke did not address Adam by name (line 1), it was obvious to whom the request for help was directed because he was sitting next to Adam and leaned towards him as he spoke. Adam gave the spelling of the word quickly (line 2) without waiting for Luke to write one letter before telling him the next. As a result, Luke made a mistake in writing the word. Adam noticed Luke's error and gave precise instructions (line 5) on how to correct the error.

Adam's intolerance of other children's need for assistance was particularly apparent in his interactions with children, like Paul and Luke, who were struggling to construct their understanding of literacy. With these children he was often not only uncooperative, but abrupt. In the following exchange, Luke's request for help (line 8) is denied (line 9) in no uncertain terms.

Kate comes to the table to borrow an eraser. Luke asks her to help him complete the Maths worksheet.

Kate: One and a three, one and a three.

Luke: This one? This one one-oh? This one? One-oh?

Kate: No.


Kate: No, one-five.

As Luke writes the number fifteen, Kate leaves to go back to her writing.

Luke: (To Adam) Now, what does this say?

Adam: Figure it out yourself.

(Transcript 08: 24/5)

In contrast to the limited range of assistance that Adam gave to his friends, he himself received a much wider range of help. His peers at various times assisted him by providing an audience and approval for his work (unintentional assistance). They prompted him to extend his texts by asking questions and suggesting additional information. One friend advised Adam on the appropriate use of speech bubbles, and others even corrected his spelling at times. In the following interaction, James guided Adam's performance of the task in a number of ways, not all intentional.

Adam has written "On Sunday I played sooca and I won a match and it was 12-nil, and tar goleye was hoplass." He then proceeds to draw a detailed picture of a soccer match with a large goal at each end of the field. James has written "I like a farm and I like to play on a farm."

Adam: (To James) Wanna hear my story?

(James nods, goes on writing.)
Adam: (Reading) "On Sunday I played soccer and I won a match and it was 12 nil and their goalie was hopeless."

James: 12 nil! Who was the other team?

Adam: Croatia, they're hopeless.

Adam decides to add to his story. He changes the fullstop into a comma and writes 'and that tense is cold crasa.' James watches as Adam writes.

James: It should be 'sh' - you forgot the H.

Adam: What?

James: Croatia's got a 'sh' - you have to put a H.

Adam: Where? There? (Points to the 'r' in 'crasa'.)

James: No, there, after the S.

Adam adds the 'h', then goes to show his work to the teacher.

(Transcript 01: 19/4)

First, James' willingness to listen (line 3) to Adam's story provided Adam with an immediate and responsive audience. Second, James' query as to the identity of this "hopeless" team (line 5) enabled Adam to extend his text by adding further information (line 7). Third, James' feedback on Adam's attempt to spell "Croatia" (line 8), and his subsequent more detailed explanation of the 'error' (lines 10-12), enabled Adam to produce a closer approximation to the standard spelling (line 13). Thus, the interaction resulted in James assisting Adam to produce a higher level text, while still allowing Adam to manage the level of support needed. The first two ways in which James assisted Adam in this exchange were unintentional, while the third was intentional and conformed to the "Guide me through ..." cooperative format.

The following extract clearly demonstrates Adam's reluctance to acknowledge assistance from his peers. Adam was illustrating a story about a boy who visited a zoo. He had just finished drawing lions in a cage.

Isaac: What did you write? Hey, make a speech bubble to make them say "Roar".

Adam: Speech bubble?

Isaac: Yeah! They say "roar".

Adam goes on coloring the lions he has drawn.

Isaac: Okay, bye bye. I'm doing my own. You like it?

Adam: I haven't even seen it.

Isaac leaves the table. Adam draws a speech bubble and writes 'rouf' in it.

Adam: (To researcher) Is this how you spell "roar"? R-O-U-R? Roar!

(Transcript 21: 22/9)
In this interaction, Adam was reluctant to acknowledge that Isaac's idea of using a 'speech bubble' would enhance his (Adam's) text (line 4). However, by ignoring Isaac's comment he successfully avoided an outright refusal to take up the suggestion (which might have offended Isaac), while still maintaining the possibility of using a speech bubble to extend the meaning of his text. Once Isaac had moved away from the table, Adam added a speech bubble to his text, exactly as Isaac had suggested.

On other occasions, Adam did not seem at all reluctant to accept suggestions from his peers, provided that his independence as a writer was not undermined. For example, in the following extract⁷, Adam was struggling to write the title of a text ("Going to the Zoo") in one line across his page.

1 Adam is publishing the story he wrote with Nicolas. He is making the cover. James is publishing a story.
2 Adam: Can I write "Going to the Zoo" here, all here? Can I?
3 Teacher: No, you can't. It won't all fit, so what are you going to do?
4 Adam: I'll have to write small.
5 Teacher: You could write "Going - to the Zoo" (indicating "Going to the" on one level, and "Zoo" underneath.)
6 Adam: No. I'll have to write small.
7 James: You could make that 'G'.
8 Adam: Oh, yeah. 'Going'. I can write 'going', then in small writing 'to'. 'Going' just like that writing, 'go-ing to' (as he writes), in small writing 'the - zoo'.
9 James: And you can make that 'g' go up to here.
10 Adam: I can put decorations around it. And look what I did, that's just a picture, look at that, see - kangaroos, tiger, and there's a hole I drewed, and there's lions. Kangaroo, elephant (makes a noise like an elephant).

(Transcript 21: 22/9)

Adam first solicited (line 2), and then rejected (line 6), the teacher's advice. When James suggested changing one of the letters Adam had already written (line 7), Adam saw a way to use James' suggestion, but to modify it in such a way that he succeeded in solving his problem without appearing to rely on someone else.

Towards the end of the study, Adam was involved in writing "chapter books" with his friend, Nicolas. The classroom teacher had suggested the collaboration. In a later interview, the teacher explained that her purpose in making the suggestion was twofold. On

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⁷ This extract from the transcript data appeared in section 4.3.2.7.
the one hand, she believed that Adam might "realise that everybody is not perfect, like he sits up and does his little story writing, and it has to be perfect." She hoped that collaboration would "help Adam to sort of work with other people a little bit better." On the other hand, the teacher believed that collaborating with Adam might help Nicolas to "realise that there is more to what he is doing than sitting and writing one or two words," that it might help "Nicolas concentrate, because he tends to work with ... a couple of kids who can barely read, really not very well, and they didn't have the vocabulary." She saw benefits for Nicolas in both situations: "... it is good for him to work with them, but it is also good for him to get other examples to follow."

The collaboration between Adam and Nicolas resulted in a jointly constructed text written over several days. Figure 7.4 is a reproduction of the text produced on the first day of collaboration.

Figure 7.4 Adam and Nicolas: Going to the Zoo. A boy wants to go to a zoo. He went to the zoo but he didn't have a ticket so he went home and made a ticket out of paper and wrote 'ticket to the zoo' on it and he went to the zoo but the owner of the zoo said 'That's not a ticket. It's a piece of paper and writing on it.'

The interaction between the two boys began smoothly, but Adam quickly assumed the dominant role, dictating what would be written and praising Nicolas' efforts. Nicolas appeared to accept Adam's authority and, although he offered suggestions, he deferred to Adam's judgement in terms of the development of the storyline, the precise wording of the text, spelling and punctuation. The following exchange is typical of their interactions during this collaborative process.

Adam and Nicolas are sitting on the floor working together on a "chapter book".
Adam: (Aloud as he writes the title) Going - to - the - zoo. (Reading what he has written) "Going to the zoo." That's a capital.

Nicolas: Okay, go.

Adam: You can write um, 'A boy', 'A boy', capital-

Nicolas: A boy - (as he writes) B, O, B-O-Y.

Adam: Good boy! 'A boy wants to go to a zoo'

Nicolas: 'wants' - 'wants' - I think I know. W-O-N-T-S.

Adam: T-S?

Nicolas: Yeah.

(Transcript 17: 8/9)

As the collaboration continued, over several days, Nicolas became increasingly disinterested in contributing to the text. On more than one occasion he suggested that it was "time to draw the picture" and it was only Adam's insistence that a book "needs more than one chapter" that convinced Nicolas to continue. On the third day, when Adam finally agreed that the story was long enough, Nicolas had already spent considerable time working on the illustrations. Figures 7.5 and 7.6 are reproductions of the second and third 'chapters' of the collaboratively produced text.

![Chapter 2](image)

Figure 7.5 Adam and Nicolas: Chapter 2. When the boy got to the zoo, first he saw a lion (a) gorilla and a kangaroo and a chimpanzee.
By the time the text was completed, Adam had contributed considerably more than Nicolas in terms of time spent in writing, actual amount written, ideas, and energy expended in trying to keep Nicolas on task. Yet, both boys acknowledged that ownership of the text rested with Nicolas, apparently because the original idea to write a story about a boy going to the zoo had been his (for further discussion of ownership of text, see section 6.2.3).

Figure 7.6 Adam and Nicolas: Chapter Three. And (the) second thing he saw was birds and one got out and it flew away and visited all the tigers.

In summary, Adam engaged in a range of interactions involving peer assistance during Story Writing Time. He most often gave assistance in the "Tell me what ..." format, but received assistance in both the "Show me how ..." and "Guide me through ..." formats. Peers' attempts to 'tell' Adam what to do were usually rejected. However, he was prepared to accept 'guidance' provided that it did not undermine his status or independence as a writer. Adam used his knowledge of literacy and his interactions with his peers to maintain his place in the social world of the classroom. He expected his peers to defer to his superior knowledge, and they usually did.
7.3 Kate

Kate was an articulate and friendly girl who seemed comfortable in any of a number of small peer groups within the classroom, but most often chose to sit with Elizabeth, Gina and Susan during Story Writing Time. Her voice was loud and seemed to dominate any group of which she was a part, and she often seemed to have one eye and ear trained on groups nearby.

To her peers, Kate presented a picture of a confident, competent writer and helper. Always alert for opportunities to help her friends, Kate was quick to respond to requests for help, or to offer unsolicited advice. As a consequence, she often spent more time helping her friends than actually working on her own texts.

There was an apparent contradiction in the way Kate presented herself to her friends, and the way the classroom teacher perceived her. The teacher judged her to be "high" in her knowledge and use of literacy, but lacking in confidence. This lack of confidence was reflected in Kate's comments about herself as a writer. When asked if she was a good writer, her only comments were that she "like(d) to keep it very neat," and that she wrote "good" stories "sometimes". In response to a similar question about herself as a reader, Kate explained "I'm up to green [in a reading series], then I'm going to go to a big book with chapters." Kate acknowledged that "There's lots of friends in my class that are good readers," and that she knew they were good readers "if they spell lots of words that are hard words." She credited her mother with teaching her to read, and explained that with writing "I just practise on my homework."

Kate commented that she liked to write about "what I do, like about what I do with my family - my cousins, and my Nan." She liked to write with a group rather than by herself "because I don't like being lonely." To her, writing was fun but "you get a sore arm 'cause you can only use one arm."

7.3.1 Profile of literacy knowledge and strategies

The written texts that Kate produced during Story Writing Time early in the study were usually brief (approximately 15-20 words) recounts of personal experiences involving family and friends. These texts contained mostly standard spelling of words and were easily read by others (see Figure 7.7). Kate's illustrations were most often simple accompaniments which reflected the written text rather than carried part of the meaning of the text.
As the study progressed, Kate experimented with a variety of topics and her written texts became longer and more complex. However, all but one of her texts continued to be "from her real life", being either retellings of actual events (see Figure 7.8) or previews of forthcoming events. The only exception to this was a text she constructed late in the study by incorporating objects featured on the alphabet sheet pasted on to the back of her writing folder (see text reproduced in Figure 6.1). Illustrations did not usually play an important role in Kate's writing, and (unlike most of the other children in the study) she sometimes produced texts with no illustration.
Figure 7.9 is a reproduction of the longest and most complex text produced by Kate during observation sessions in this study. Written during Story Writing Time over two consecutive days (one observed, one not), the text recounts one activity for each day of the previous week, culminating in the recount of an activity Kate engaged in on the day of writing.

On Monday I went to the park. No, I went for a walk. No, Wednesday I went to my Nanny's house. Who, Thursday I rode my bike. On Friday I went to Gina's house. On Saturday I went to Elizabeth's house. On Sunday I went to my cousin's party at McDonalds and we got lolly bags. On Monday we talked about bikes.

Figure 7.9 Kate: On Monday I went to the park. On Tuesday I went for a walk. On Wednesday I went to my Nanny's house. On Thursday I rode my bike. On Friday I went to Gina's house. On Saturday I went to Elizabeth's house. On Sunday I went to my cousin's party at McDonalds and we got lolly bags. On Monday we talked about bikes.

Of all the children in the study, Kate was the only one who frequently initiated interaction with me, usually to request assistance in spelling a word. The following exchange is typical of these interactions.

1 Kate: (As she writes) Went ... to my cousin's birthday at McDonalds ... to - my ... cousins, cousins. How do you spell it?

2 Kate takes out her personal dictionary and finds the page with words beginning with 'c'.
Kate: Cousins, cousins. (To Researcher) How do you spell 'cousins'? I've only got 'cousin'. I want 'cousins'.

Researcher: Well, what do you think you'll put on the end of it?

Kate: S. (Writes 'cousins'.)

Unlike James (another focal child), who initiated interactions with me early in the study but quickly grew disinterested in my limited response, Kate persisted in seeking my help. I answered her queries as briefly as possible, but in accordance with the classroom teacher's manner of responding to the children's requests for help.

7.3.2 Teaching and learning with peers

A review of observations involving Kate revealed that she provided a wide range of assistance to a large number of her peers, but requested (or accepted) very little assistance herself. She provided some form of assistance to virtually every child observed throughout the study, and the assistance she gave covered all three of the cooperative formats described in Chapter 4.

Kate often responded to indirect requests for help, (that is, requests that were directed to the group rather than to a specific child) and to implicit requests (that is, statements or questions that may or may not have been intended as requests for help, but which Kate interpreted as such). For example, in the following extract from the transcript data, Kate responded to Gina's request for help, even though it was not clear to whom the request was directed:

Gina: How do you spell 'fish'?
Kate: F.
Gina: (As she writes) F.
Kate: I.
Gina: I.
Kate: S.
Gina: S.
Kate: H.
Gina: H.
Kate: (Looking at Gina's text) And a full stop.

In the exchange reproduced below, Elizabeth and Kate were both saying each word of their texts aloud as they wrote. However, Kate interpreted Elizabeth's remark (line 1) as a
request for help, even though it was probably not intended as one. Confident of her ability to help, Kate announced that she knew the required information (line 4). Once given, Elizabeth was willing to accept the offer of assistance (line 5).

1 Elizabeth: (As she writes) Shopping - shop -
2 Kate: (As she writes) Monday.
3 Elizabeth: Shopping.
4 Kate: I know how to spell it. S (Pause)
5 Elizabeth: How do you spell it?
6 Kate: Shopping. S-H-O-P-I-N-G.
7 Elizabeth: (Writes each letter as Kate tells her.) Shopping!

(Transcript 12: 21/6)

Particularly with spelling, Kate often helped her friends even when she wasn't sure of the accuracy of her information. The following exchange is typical of Kate's attempts to help her peers.

1 James: How d'ya spell 'friend'?
2 Kate: I know how to spell it. F-I-R (James writes as told) D-E.
3 Kate points to what James has written and asks the researcher: "Is that how you spell 'friend'?" She doesn't wait for an answer, but goes on speaking to James.
4 Kate: No, F-I-R then you put an N.
5 James: Oh! (He puts brackets around FIRDE and writes FIRN.)
6 Brittany: (To Kate) You did a mistake!
7 Kate ignores Brittany's comment, but tells James to now write E-D. She resumes her own writing, saying each word as she writes.

(Transcript 05: 10/5)

James' request for help (line 1) was indirect but Kate responded. She did not, in fact, know the correct spelling of 'friend' and that she was aware of this is evident from her question to me (line 3). However, her desire to be seen as a 'helper' prompted her to assist James confidently (lines 2 & 4) and to ignore Brittany's remark (line 6).

Kate rarely asked her friends for help and there were very few times when friends attempted to help her without being asked. Her apparent 'double standard' when it comes to peer assistance can be seen in the following extract from the transcript data.

1 James: What should I write?
2 Kate: I don't know. Make up your own mind.
James thinks for a while. Says "I" as he writes 'I', then writes 'like'.

James: How do you spell 'playing'?


James writes, saying each letter aloud to himself.

Kate: I mean, I-N-G.

Thomas: I can do stuff really fast now.

Kate: Now. Can you?

Thomas: Yes.

Kate: (To herself) What shall I write today? I should write something nice.

(Transcript 05: 10/5 )

It was not clear whether James' question (line 1) was intended as a request for help or not: certainly Kate understood it to be. While she didn't in fact help him, she did at least acknowledge the (perceived) request for help (line 2). James' next question (line 3) was not obviously directed to anyone in particular, but again Kate responded (lines 5 & 7). This time, however, she was happy to help. Apparently, Kate viewed the spelling of words as a legitimate area for help, whereas choice of topic was a task which a writer should tackle alone. Interestingly, Kate then asked the same question (line 11) which James had asked earlier and which she had interpreted as a request for help. However, she was obviously talking to herself and did not expect an answer, in contrast to her earlier response to James' question.

On the few occasions when peers offered to help Kate, she was very quick to reject assistance which she considered unnecessary. For example, in the following extract\(^8\), Elizabeth mistakenly interpreted Kate's self-directed speech (line 1) as a request for help. Kate rejected the assistance immediately.

Kate: (As she writes) and ... we got lolly bags. We - got - g-o-t.


Kate: I know how to spell it. Got - lolly bags. L. L-O-L-S.

(Transcript 12: 21/6)

In the interaction recounted below, Kate was so pleased at her own writing efforts that she tried to convince her friend Helen to copy her. Kate was involved in writing what was, for her, a very long story (see text reproduced in Figure 7.9). She offered Helen unsolicited advice on how to produce a similarly impressive piece of writing.

\(^8\) This extract from the transcript data appeared in section 5.2.1.
Kate: This story's going to be so wild. Helen, Helen, Helen...
Helen: Yeah?
Kate: You should do more writing on the back, you know. That's what I'm doing. Look. See. I did it all there. "On the weekend ...", then more weekend, and I can keep on going.
Helen makes no comment. Goes on writing for a moment.

(Transcript 12: 21/6)

There were occasions when Kate not only requested assistance, but readily accepted her friends' suggestions. For example, in the following extract, Kate needed to include in her text (see Figure 7.9) an activity in which she had engaged on the day of writing (line 1). Although Elizabeth's initial suggestion was ignored (line 8), her next suggestion (line 10) was accepted with enthusiasm (line 11).

Kate: (Reading her text) "On Monday" - What did I do on Monday? Today is Monday? What am I doing today?
Elizabeth: Huh?
Kate: What am I doing today?
Christopher: (To Elizabeth) How much has she done?
Kate: I'm doing lots on the back as well. And then get another paper, doing front and back.
Elizabeth: I know what you did today.
Kate: What?
Elizabeth: Had little lunch.
Kate: This is all one story.
Elizabeth: I know - we talked about bikes.
Kate: "we talked about bikes". Thanks Elizabeth.

(Transcript 12: 21/6)

Despite Kate's ability to provide assistance to her peers in a variety of ways, her status as a 'helper' was lower than Adam's status. This was the case even though Adam's strategies for providing assistance were more limited than Kate's. Her attempts to use her knowledge of literacy to negotiate a higher 'status' in the social world of Story Writing Time were unsuccessful. Her inferior status is clearly illustrated by the following extract from the data. Thomas had called out to Adam to ask how to spell a word. Kate, who was sitting right next to Thomas, began to spell the word for him. He interrupted her abruptly to state:

Thomas: You're not Adam, Kate, just remember that!

(Transcript 05: 10/5)
7.4 James

A quietly spoken child who often sought adult approval of his work, James was very polite to visitors. In the early days of the study, if he was not the focal child being observed, he would sometimes come and stand silently near me, usually just behind my shoulder. He would wait patiently until I stopped writing, and then he would offer to show me his work or ask me how to spell a word. I always acknowledged his advances, but tried not to encourage extended verbal exchanges. James quickly realised that, while I was interested in his work, I was not there to chat and after the first few observation sessions his overtures dwindled.

James was one of the few children in the class who seemed not to 'belong' to any particular peer group. At the beginning of Story Writing Time, he would often collect his writing folder and then wander around the classroom for several minutes before deciding where he would sit. Unlike most of the other boys, he showed no particular preference for sitting with boys rather than girls. When asked whether he preferred to write by himself or in a group, James explained:

Sometimes by myself and sometimes in a group. I usually only draw pictures when I ... when
I'm by myself, and sometimes I write by myself. Sometimes I write with other people, and
sometimes I don't write with other people.

(Interview transcript)

Rated by the teacher as "average" in his knowledge and use of literacy, James was ambivalent in his attitude to writing. He remarked: "I don't really like it, because sometimes I don't do it, but I like it a little bit." He did, however, comment that he liked writing stories with his friend Thomas. He described "good" readers as those who "learn quick" and "good" writers as those who "write good stories." His view of himself as a writer was expressed thus: "I just try my best."

7.4.1 Profile of literacy knowledge and strategies

James' control of written language increased markedly over the course of the study. The texts he produced in the early days of the study each consisted of a single sentence expressing James' feelings on a particular topic. While he used mainly standard spellings, his texts were restricted to a small bank of known words and a few 'invented' spellings. In these early observations, he often "composed new stories by reworking controlled text material" (Dyson, 1995, p.25). For example, his first observed text construction was "I
like the farm and I like to live on the farm." In subsequent observation sessions, he wrote a number of other texts which were minor variations on this theme, and included most of the same words.

The text reproduced in Figure 7.10 exemplifies James' writing during this period. He often wrote about playing with his friend Thomas, or his exploits on the soccer field. Simple illustrations sometimes accompanied his written efforts, but contributed little to the meaning of the text.

![Figure 7.10 James: I like Thomas because he's my friend.](image)

As the study progressed, James' texts became longer and he showed a willingness to attempt to write a greater range of words. He extended the range of strategies he used for writing unknown words, including copying words from books and wall charts, attempting to 'sound out' words on his own, and seeking help from friends. Although his texts still usually consisted of only one sentence, they often included a sequence of events or ideas linked by the repeated use of "and". His favourite topics continued to be his beloved soccer and playing with his friends. Figure 7.11 is typical of the texts constructed by James towards the end of the study.
Figure 7.11 James: I won the grand final and I got a medal and it was 1-0 and Stephen scored a goal from the corner and it bounced over the goal keeper and his mum and his dad were happy.

7.4.2 Teaching and learning with peers

At various times throughout the study, James adopted the roles of both 'teacher' and 'learner'. His 'teaching' efforts included both intentional and unintentional helping. For example, he assisted several of his peers (usually boys) by providing an audience and showing approval of their work, by extending a writer's text through questioning, by giving the correct spelling of words, and by drawing his friends' attention to class rules and procedures. The assistance he provided to his peers included all three of the cooperative formats identified in Chapter 4.
James often sought assistance from his peers, but his efforts at getting help often went unnoticed because he didn't direct his enquiries to any child in particular. Whereas other children tended to make a direct request if an indirect one failed to gain a response, James was slow to make this adjustment and would sometimes repeat an indirect request several times before giving up or seeking help elsewhere. On several occasions, he even changed the wording of his text because he couldn't gain a response to his requests for help with spelling unknown words.

The following extracts from the transcript and field note data illustrate James' difficulties in gaining recognition of his requests for help.

1 Adam, Sarah & Owen are all sitting at a table, writing independently. Adam & Owen write silently, but Sarah talks quietly to herself as she writes.
2 James comes to the table to ask for help.
3 James: How do you spell 'cousins'? How do you spell 'cousins'?
4 No-one answers so he wanders away.

(Transcript 02: 21/4)

In the incident described above, James had been sitting at a table by himself. His construction of a text was interrupted because he was unable to attempt to write the word 'cousins'. As he approached the table at which the other three children were seated, he made little noise and attracted little attention. When he requested assistance, and then repeated his request, he did not address any of the children by name (line 3). It is possible that the request was intended for Adam as James stood close to him when he spoke, but this was not clear and the request was certainly audible to all three of the children. However, none responded (line 4) and James moved away, possibly to seek help elsewhere. James' request for help in the following extract followed the same pattern.

1 James comes to the table and asks Adam how to spell 'soccer'.
2 Adam is still writing 'three' and doesn't hear James' request.
3 James wanders away.

(Extract from field notes: 3/5)

In the exchange reproduced below, James tried a different strategy for gaining a peer's attention. Realising that he was unable to gain Adam's attention merely by speaking to him, James attempted to do so through physical contact (line 1). This strategy was equally unsuccessful in gaining Adam's attention. However, all was not lost, since failing to get
help from a peer prompted him to use an alternative, and this time successful, strategy to solve his problem.

1 James comes to the table again. This time he taps Adam on the arm.
2 Adam doesn't respond.
3 James goes over to the Big Book stand and takes out a class-made book to check the spelling of 'soccer'.

(Extract from field notes: 3/5)

It was evident that James was frustrated by his unsuccessful attempts to gain assistance from his peers. The contrast between James' indirect requests for help, and his peers' more direct approach, is perhaps most clearly represented in the following exchange:

1 James: How d'ya spell 'friend'? (=no-one answers.)
2 Elizabeth: What colour's sand, Kate?
3 Kate: Yellow.
4 Gina: Yellow. Yellow and orange mixed together.
5 James: Kate, how d'ya spell 'friend'?
6 Elizabeth: 'Sand'?
7 James: No, 'friend'. Friend.
8 Kate: 'Friend'? F-
9 James: Yes.
10 Kate: I. I mean, yes, I. F-I-
11 Thomas: Kate! Kate, look, Kate.
12 Kate: R.
13 Thomas: Are you doing (...)?
14 Kate: R.
15 James: I've already done R. I'm up to R.
16 Kate: D. No, E-D.
17 James: Any more?
18 Kate: S. Friends.

(Transcript 07: 19/5)

In the extract above, James' initial indirect request for assistance (line 1) failed to gain a response. In contrast, Elizabeth addressed her request for help (line 2) to Kate directly, and immediately received the information she needed. James repeated his request, this
time following Elizabeth's lead and addressing Kate by name (line 5). Kate and Elizabeth both responded and James succeeded in gaining the help he needed to solve his problem.

James and Thomas were good friends who often visited each other in their homes, and their shared experiences were evident in their exchanges during Story Writing Time. Each wrote texts about the times they spent together, and they talked a great deal about their weekend visits as they wrote. In the following exchange\(^9\), Thomas drew on his memory of a recent visit to James' home to suggest an extended version of the text James had just completed. This is an example of the "Show me how ..." cooperative format described in Chapter 4.

\[\begin{align*}
1 & \quad \text{Thomas leans over table to see James's story.} \\
2 & \quad \text{James: (Reading slowly) "I-like-playing-with-Thomas."} \\
3 & \quad \text{Thomas: at-my-house. You should've - at your next story - if you finish that story - write "Thomas came over my house and we played (...) and we went - and we went up the hill - up James's farm hill by ourself and Thomas went on the wrong thing then, and then we went on the farm and Thomas went on the farm.} \\
4 & \quad \text{James: And so did Michael.} \\
5 & \quad \text{Thomas: And you nearly went on it too, (...) on the fence.} \\
6 & \quad \text{James: This is so hard, doing a story. (Goes on writing.)} \\
7 & \quad \text{(Transcript 05: 10/5)}
\end{align*}\]

On another occasion, James' visit to Thomas' house served as the catalyst for Thomas' illustration.

\[\begin{align*}
1 & \quad \text{Thomas: Here's the backyard, James. And this is me, and this is me and you running out the back, running to play.} \\
2 & \quad \text{Thomas and James discuss Thomas' picture.} \\
3 & \quad \text{(Transcript 07: 19/5)}
\end{align*}\]

Although James was not observed writing collaboratively with Thomas, they did produce a collaborative text over several days when I was not present. This text, part of which is reproduced in Figure 7.12, extended over eight pages and clearly influenced texts James produced alone in later writing sessions (see Figure 7.13).

\[^9\text{This extract from the transcript data appeared in section 4.2.1.2.}\]
I went in my pool and it was cold and I dived in the pool. And I got up and my cousins came over my house and then we had a party and then we went back in the pool and I did backstroke and James came over and we played 'Back to the Future' and then we went in the pool and Andrew came over and then we played Karate in the pool and Andrew had a bleeding lip and we had a sand fight and after we had a sand fight (we made) a sand castle and we got a King and a Queen and we got back in the pool and we played volley ball and Andrew and James and I went in my bedroom and we played with my aeroplane and Thomas's Mum brought some lunch and we threw it at Zara. Zara ate all of it. The lunch was donuts and chips and we had an iceblock. Mine was Coca Cola and Thomas had the same as me.
I went to the zoo and I saw lots of animals and I patted a snake and it was slimy and I saw a giraffe and a giraffe has a long neck and I saw a lion and a lion roars. Then I went to my home and I played soccer with my brother and my cousin and I won 6 - 0. Then we played my game and that was soccer and we played ( ) game. I came to the Marconi (game) and Marconi played AC Milan and AC Milan won and the score was 3 - 0 and the people were roaring and when the game was ( ) jumping on each other and then I went home and we played soccer. The End.

During the course of the study, two particular incidents occurred which were critical to understanding the role that interaction with his peers played in James' use of written language. The first incident involved the following exchange:

1. **Kate:** *(Reading aloud what she has written)* I went to my nanny's house
2. **James:** *(As he writes)* ... to my home
In this interaction, both Kate and James were writing about visiting, or being visited by, friends or family. However, Kate had used the word 'house' in her text (line 1), while James intended to use the word 'home' (line 2). Thomas realised that James was writing about a visit that Thomas had made to James' home the previous weekend, and he began to dictate possibilities for James' story (line 3). Despite Thomas' use of the word 'house', James still intended to write 'home', and asked Thomas for assistance (line 4). Although he did not address Thomas by name, it was clear to whom the request was directed because he leaned close to Thomas, shielded his mouth with his hand and spoke quietly so that others at the table would not hear his request. Kate, however, realised that James had asked for help, and was quick to ask what he wanted (line 5). Not realising that James didn't want help from Kate, Thomas loudly proclaimed that the required word was 'house' and began to spell it aloud for James (line 6). Kate intervened by quickly giving the correct spelling (line 7). James then abandoned his intention to write 'home', and wrote 'house' instead (line 9).

Although the exchange described above was perhaps insignificant to Kate and Thomas, it was of great importance to James' development as a writer. Faced with difficulties in gaining assistance from his peers, James not only abandoned his original intention (to write the word 'home') but abandoned the entire text. Until that point in the session, James had been attempting to extend his text by including some of Thomas' suggestions, and could have continued to do so. James' final comment in the exchange - "I can't write any more" - reflected the important connection between the social and literate dimensions of becoming literate.

The second critical incident occurred late in the study. During one observation session, James spent considerable time producing the following text:
Figure 7.14 James: Yesterday I played soccer and we won 9-0 Marconi's way and we got a badge.

He did not seek assistance from his peers at any time while writing this text. However, when he had finished writing, the following exchange took place between James and Adam:

1  James: I'm not supposed to ask friends. Are you?
2  Adam: Huh?
3  James: Are you allowed to ask friends?
4  Adam: Yeah!
5  James: I'm not. Miss said.
6  James left the table and put his text in the rubbish bin.

(Transcript 13: 9/8)

James later explained to me that the classroom teacher had told him not to ask his friends for help with the spelling of words. The teacher may have intended to encourage James to draw on his own resources in his attempts to create meaning in his written texts. However, what she was in fact conveying was the message that asking friends for help was not an acceptable social and literate practice. Yet, for James, the ability to successfully seek
assistance from friends was something he had worked long and hard to achieve, progressing slowly from indirect and unsuccessful requests for help, to more direct and explicit (and ultimately successful) attempts.

The effect of the teacher's prohibition of James' practice of asking friends for help was to undermine James' belief in the value and legitimacy of his attempts to solve his literacy-related problems. Denied the opportunity to seek help from his friends, he seemed to believe that he had no other resources to draw on. The result was not only the abandonment of the strategy of seeking assistance, but also the abandonment of the text itself. In James' words, it had "too many mistakes" - mistakes which he had been denied his only means to correct.

The significance of this event is reinforced by James' reaction to my retrieval of the text from the rubbish bin. For every other text collected over the course of the study, photocopies were taken, and the original returned to the owner. The children were diligent about keeping drafts and took pride in their completed texts. In this case, however, James refused to claim ownership of the text and insisted that, if I wanted it, I should keep the original.

In summary, James' difficulties in his interactions with his peers played a significant role in his perception of himself as a writer. Even though his knowledge and use of literacy increased markedly over the course of the study, his confidence was seriously undermined.

7.5 Sarah

Sarah was one of the children in the class who seemed always to attract the attention of visitors. She was quick to approach newcomers and visitors to offer them assistance or to explain classroom procedures, her shrill voice easily heard over the chatter and children's laughter that was common in the classroom studied. Never far from the side of her best friend, Veronica, she kept a close eye on all those around her and seemed to act as self-appointed classroom monitor.

Described by her teacher as being "low" in her knowledge and use of literacy compared to many of her classmates, Sarah was nevertheless confident in her ability to use written language effectively. In the following extract from the interview transcript, Sarah explained that she knew she was a good reader and writer because she used effective strategies:
(Good readers) know all the words that they're reading, and know what they're going to read, and if they don't know it, they know they're not going to read it so well. And then if they don't know it, they might sound it out or just leave it. ... I know all the words I write and sometimes, if I don't know a word I try to sound out the words in it, and if I can't sound it out I just go and look in the dictionary. And I do it so straight.

(Interview transcript)

Of all the children interviewed, Sarah was the one most able to articulate what she thought it meant to be a good reader and writer (see section 5.4.2). She explained that she enjoyed writing "because you get to write so many stories that you like to write, and you can make up stories if you like, and do the drawing." When asked whether she preferred to write by herself or in a group, Sarah explained that she liked to write by herself "because it gets quiet, and no-one bothers you when you're talking, when you're trying to know your words, and you're trying to sound them out, and you're trying to get the speech." Sarah's comment reflects her awareness of the extent to which she 'talked to herself' as she wrote.

One of Sarah's favourite activities during Story Writing Time was to compose texts based on fairy tales or movies she had seen. Through the year, she produced her own versions of Beauty and the Beast, The Little Mermaid, and Alice in Wonderland, and several of her stories featured the tooth fairy. She nominated Beauty and the Beast and Alice in Wonderland as her favourites among the stories she had written. She also enjoyed writing about important events in her life, either past (such as her trip to the Royal Easter Show with her family) or future (such as Christmas and the presents she might receive).

7.5.1 Profile of literacy knowledge and strategies

The written texts produced by Sarah during observation sessions early in the study were not easily read by others. Her early texts were all retellings of actual events and consisted of a few recognisable words and strings of apparently random letters. She copied some words from the chalkboard or wall-charts, and 'invented' spelling of others, using mostly consonants and a combination of letter names and sounds. Sarah rarely had difficulty reading her own texts, however, even when they could not be read by others.

Figure 7.15 shows the text produced by Sarah during the first observation session (19/4). In the first of the following two extracts from the transcript data, recorded two days later,
Figure 7.15 Sarah: 1. We went to a Easter show. I saw the Easter Bunny. 2. After that I asked my Mum can I have two cents. 3. Then we went home. Me and my sister went to bed. 4. I got out of bed. My Mum said "Get back to bed." 5. I went back to bed. I fell asleep.

Sarah read the first three lines of her story to herself (lines 1-3) but struggled to read the fourth line (line 4). In the second extract, recorded later in the same session, she read the same text to her friend Veronica.

1 Sarah: (Reading) "We went to a Easter Show. I saw the Easter Bunny. After that I asked my mum could I have two cents. Then we went home. My sister and I and my sister went to bed (...)"... and number four is a really hard one.

  (Transcript 02: 21/4)

1 Sarah: Veronica, I'm gonna read this story to you. (Reads) "We went to the Easter Show. I saw Easter Bunny. After that I asked Mum for two cents. Then we went home. I got out of bed. Mum s-... Mum said 'Go back to bed.' I fell a sleep." No - "I did go back to bed." No, I meant "I... went ... to ... sleep."

  (Transcript 02: 21/4)

The degree of consistency between the two readings presented above, despite the limited graphophonic information (see Figure 7.15), suggested that Sarah's concept of reading was not reliant on 'decoding' conventional text. This view was supported when, one week later, Sarah decided to 'publish' her Easter Show text. The following extract records Sarah's reading of the text reproduced in Figure 7.15 above.
Sarah: (To Researcher) I'm gonna publish this one. (Reads her text) "We - we went to a Easter Show. I saw Easter Bunny. After that I asked my mother for two cents. Then we went home. I went to bed. I woke up. My mother said "go back to bed". I fell asleep." I mean, "I fell to sleep."

(Transcript 03: 28/4)

Little variation can be detected in the three readings of Sarah's text. Although minor changes of wording occurred, the meaning of the text remained essentially the same, despite the period of time that elapsed between the original writing of the text and the 'publication' of the final product. For Sarah, reading her original text did not present a problem, even though others could not read it.

By mid-year, Sarah's stories were more complex, contained a greater proportion of standard spellings, and could usually be read by others. However, she wrote on a limited range of topics and often spent more time on the illustrations than the text. For example, when she constructed the text reproduced in Figure 7.16, Sarah abandoned the writing mid-way through an idea so that she would have time to work on her illustration. Although she knew that classroom procedures for Story Writing Time allowed her to work on the same text over several days, she rarely did so, preferring to leave many texts incomplete.

![Figure 7.16 Sarah: I like Beauty and the Beast because they are nice and I've got the book at (incomplete).](image)

By the end of the study, written text again took precedence, with Sarah's stories being longer and often written over two or three days. Her favourite themes (movies, the beach and playing with her sister) continued to dominate.
Figure 7.17 Sarah: I went to the beach and I saw a fish. There was a big wave. I went on it. My little sister (went) to the rock pool and played with people.

7.5.2 Teaching and learning with peers

Sarah was extremely self-sufficient as a writer and rarely asked for (or was offered) assistance. In her interactions with her peers, Sarah rarely adopted the role of either 'teacher' or 'learner'. However, she did seem somewhat concerned with directing the behaviour of others, particularly the boys in the class. She was constantly aware of the activities of those around her and didn't hesitate to remind her peers of the class rules and procedures for Story Writing Time if any deviations occurred.

Although requests for help were rarely made to her directly, Sarah did at times respond to indirect requests. In the following exchange, Sarah intervened (line 10) when Adam seemed overwhelmed by a barrage of requests for help.

1  Andrew comes to table to ask Adam to spell a word.
2  Andrew: How d'ya spell 'cast'?
3  Adam: 'Cast'. C-A. S.
4  Richard: How d'ya write 'exit'?
5  Adam: 'Exit'? E-X
6  Luke: How d'ya spell 'Sega'?
7  Adam: 'Sega'?
8  Richard: How d'ya spell 'exit' again? How d'ya spell 'exit'?
9  Adam: 'Exit'? 'Exit'? X. Oh, don't ask me!
Sarah: It's E. It's E for 'exit'.

Richard: I done E.

Sarah: X.

Richard: X.

Sarah: I-T.

(Transcript 08: 24/5)

However, more often than not Sarah's responses to requests for assistance were less than helpful. Eventually, some children ignored her help even when it was genuine. For example, in the following exchange, Christopher was seeking help with spelling. When Sarah responded (lines 2 & 6) to Christopher's indirect request (line 1), she was ignored.

Christopher: How do you spell 'Sizzlers', no, 'pasta'? P?
Sarah: P.
Christopher: (To Researcher) 'Scuse me. How do you spell 'pasta'?
Researcher: Have you had a go in your 'have-a-go' book?
Christopher: Yeah, you're allowed - you have to ask people.
Sarah: P-T.
Christopher: What is that? What is that orange stuff?
Sarah: High-light-tuh!
Richard: Is that highlighter?
Christopher: Did you scribble it out with a texta?
Sarah: That's not a texta - it's a high-light-tuh!
Christopher: Which texta?
Sarah: HIGHLIGHTER!

Perhaps annoyed at having her assistance rejected, Sarah showed little patience when Christopher failed to understand that the "orange stuff" on her text was "highlighter" and not "texta". The exchange continued, with Christopher still seeking help with spelling 'pasta':

Christopher: How do you spell 'pasta'? It's too hard for me (plaintively).
Richard: I don't know how.
Christopher: I'm never (...) try.
Richard: Sound it out. I don't know how (...
Christopher: p- p- pars-ter.
Sarah: Can't be pars-ter.

(Transcript 04: 3/5)
By the end of the exchange reproduced above, Sarah was obviously annoyed and, rather than offer further assistance, tried to undermine Christopher's attempt to solve his own problem.

Sarah's favourite writing partner was Veronica. The two girls almost always sat together during Story Writing Time, and talked together about their writing a great deal. Although Veronica was more advanced than Sarah in her knowledge and use of literacy, they helped each other in a number of ways. For example, in the following extract, Sarah offered to be an audience for Veronica's text (line 2).

1 Veronica comes to the table, sits next to Sarah and begins to organise her work.
2 Sarah: Veronica, do you want me to ... do you want to read it to me?
3 Veronica: No, I'm gonna do pictures.

(Transcript 02: 21/4)

Like many of the other children, Veronica declined Sarah's assistance, but she at least acknowledged the offer (line 3). The following exchange\(^\text{10}\) is typical of the assistance Sarah received from Veronica.

1 Sarah: (As she writes) The beast - loved - l- u-v. (To researcher) How do you spell 'loved'?
2 Researcher does not reply - keeps on writing without looking up.
3 Sarah: I'll look it up in L. ABCDEFGHIJKL. 
4 Recites alphabet to find 'L' page in dictionary.
5 Boys sitting nearby begin singing Sesame Street Alphabet Song.
6 Sarah continues to look for the correct page.
7 Sarah: Veronica?
8 Veronica: (Reading her text) "There was a shark" - sh.
9 Sarah: Love.
10 Sarah has found the 'L' page, but cannot find the word 'love'. Has found the word 'last'.
11 Sarah: A - can't be L-A. (Becoming frustrated and visibly upset.)
12 Veronica: L.
13 Sarah: (As she writes) L-
14 Veronica: O-V
15 Sarah writes in her dictionary as Veronica dictates.
16 Veronica: And a silent E. Love. I learnt it from my mother. l-u-v.
17 You can only hear the L, the O and the V. The L, O and the V.

\(^{10}\) Part of this extract from the transcript data appeared in section 4.3.2.1.
In this exchange, Veronica didn't immediately acknowledge that she was aware of Sarah's need for help. However, when Sarah became distressed at her inability to solve her problem (line 11), Veronica intervened (line 12). The resulting exchange is an example of the "Guide me through ..." cooperative format.

Sarah's limited involvement in both giving and receiving peer assistance is perhaps not surprising given her typical responses to requests for and offers of assistance, usually either ignoring them or receiving them less than graciously. This is perhaps explained by her view, revealed in a later interview, that 'good' readers and writers do not need to seek help, but can solve problems for themselves. The following two interactions illustrate the interactive style Sarah adopted in many peer exchanges.

(Transcript 14: 16/8)

In the first example (above), Sarah simply ignored Veronica's request for help. In the second example\(^\text{11}\) (below) Sarah asked for, and received, help from Adam. However, rather than simply accept Adam's advice, she checked the information with Kate, even though Kate was seated across the room.

(Transcript 08: 24/5)

\(^{11}\) Part of this extract from the transcript data appeared in section 4.3.2.1.
Sarah sometimes placed herself and her friend Veronica 'inside' the stories she constructed (Renselbrink, 1987). The following exchange is an extract from the writing session in which Sarah produced the "Beauty and the Beast" text reproduced in Figure 7.16.

1  Sarah: Veronica, this time you're Beauty, OK? This is just the grass.
2  Veronica doesn't answer. Goes on writing silently.
3  Sarah: Veronica, what colour do you want your dress? Do you want your dress nicely blue? Veronica, do you want your dress nicely blue? Veronica! What colour do you want your dress?
4  Veronica: My dress will be gold.
5  Sarah: You don't have your dress gold when the Beast loves you. 'Cause he's about to die. Remember the ending?
6  Veronica: I know. He's flat on the floor, like this.
7  Veronica demonstrates a dead Beast by lying on the floor.
8  Sarah: I know. I need you - you're in the blue dress. Remember, you've got that hat?
9  Veronica: In the blue dress.
10 Sarah: This is the castle.

(Transcript 14: 16/8)

In this exchange, Sarah sought Veronica's agreement in assigning her a role within the story (line 1), but did not persist when Veronica failed to respond (line 2). However, when she then asked Veronica what colour she would like "her" dress to be (line 3), Sarah persisted, asking the question several times until Veronica responded. Veronica's response (line 4) did not coincide with Sarah's plans for her text, which were apparently based on her recollections of the movie. Through discussion of the details of the movie (which both girls had seen) (lines 5-8), Sarah gained Veronica's agreement to her character having a blue dress (line 9). Sarah considered the matter settled, and went on to describe other features of her text (line 10). Veronica, however, indicated that she was not entirely happy with the outcome (line 11). Undeterred by Veronica's apparent displeasure, Sarah continued to consult her about aspects of the text (see below, line 13). In the end, however, her plans for the gold dress became apparent (line 21). Veronica's contribution to the construction of the text was therefore important only when it corresponded with Sarah's intentions.

12  Veronica: What's that?
13  Sarah: Your hair. What colour do you think it should be?
14  Veronica: Brownie-black. No, blackie-brown.
15  Sarah: Where's the black?
In summary, Sarah's interactions with her peers during Story Writing Time were limited both in terms of the children with whom she interacted, and the forms of interaction in which she engaged. Although she made significant progress in her command of written language over the course of the study, she did not enjoy high status as a 'helper' and seldom sought assistance from any peer other than Veronica. Her habit of reminding others of classroom rules and procedures, and of responding inappropriately to requests for help, may have contributed to her low status within the classroom. Despite this, she remained confident in her ability as a writer.

7.6 Conclusion

The profiles of the four focal children presented above demonstrate that there are individual differences not only in the skills and strategies that children use in both giving and receiving peer assistance, but also in the impact that peer assistance has on children's concept of themselves as literacy users.

For both Adam and James, their perceptions of themselves as writers were inextricably bound to the success of their interactions with their peers. Although Adam's interactions with his peers were limited in scope, they were almost always successful. He maintained his status as the 'best writer' and was acknowledged as the 'best helper'. He was confident in his ability, and reflected this in his interactions with his peers. In contrast, James' comparative lack of competence, particularly in seeking help from his peers, undermined his confidence and his belief in himself as a 'good writer'. Despite his considerable progress in his command of written language over the course of the study, the difficulties he experienced in obtaining peer assistance put him at risk of abandoning writing altogether.

For Kate, too, interactions with peers were a significant factor in her perception of herself as a writer. This was exemplified in the exchange in which her offer of assistance was
rudely rejected, effectively 'putting her in her place' by reminding her that Adam already held the position of highest status: "You're not Adam, Kate, just remember that!" Although the effect of this was not apparent in terms of her interactions with her peers during the course of the study, it may explain the teacher's perception of her as lacking in confidence despite being ranked as 'high' in her knowledge and use of literacy. It may also have longer term effects on her interactions with her peers.

Of the four focal children, only Sarah seemed ambivalent about her interactions with her peers. She was at the beginning of the study, and remained so throughout, somewhat self-absorbed in her writing. She sought assistance when she thought she needed it, and offered help occasionally, but her self-concept as a writer remained largely independent of her interactions with her peers.

The differences in the impact that peer interactions during Story Writing Time had on the literacy learning of these four children demonstrate the need to focus not on individuals as isolated literacy users, but on how those individuals negotiate their place in the social worlds in which they live.
Chapter 8

CONCLUSION

8.1 Introduction

This thesis set out to investigate the ways in which young children assist each other in making meaning through written language as they interact in classroom writing sessions. It examined the nature of peer assistance, the patterns of interaction within which such assistance is embedded, as well as adults' and children's differing perceptions of peer assistance in the classroom. Utilising classroom observations of Grade 1 students during daily Story Writing Time, the research explored the potential of peer interactions to contribute to the literacy learning of individual students, and the construction of literacy within the group.

The major questions explored in this study were:

1. In what ways do young children assist each other to make meaning through written language as they interact in classroom writing sessions?

2. What patterns of peer assistance are evident and what can be said of these patterns in relation to the research group as a whole and individuals in particular?

3. What role do peer interactions play in children's construction of literacy?

Taken in total, the results of this study provide support for the findings of other researchers, as well as contribute new insights to our understanding of the ways in which young children assist each other to make meaning through written language. In addition, the study raises a number of important questions about the role of social interaction in literacy learning.

8.2 Summary of Results

The findings of this study can be summarised as follows:

- peer assistance in literacy learning takes a number of forms;
- peer assistance can be either intentional or unintentional;
• young children assist each other with a broad range of literacy-related knowledge, skills and strategies;
• patterns of peer assistance are not hierarchical or gender-based: they are complex and influenced by a range of factors;
• patterns of peer assistance are idiosyncratic, with individual differences among children in both helping strategies and interactive styles;
• forms and patterns of peer assistance may not be highly visible to all participants in the classroom;
• peer assistance both constructs and is constructed by the culture of the classroom;
• peer assistance has the potential to contribute to a more socially and culturally equitable pedagogy that recreates, rather than reproduces, the culture of schooling.

The results of this study suggest that peer assistance in literacy learning may be intentional or unintentional. Intentional peer assistance takes three major forms, each characterised by differences in the way in which knowledge is exchanged and the extent to which the knowledge must be applied or transformed to solve a literacy-related problem. These three forms were identified in this study as "Tell me what ...", "Show me how ...", and "Guide me through ...". Unintentional peer assistance occurs through children's management of roles and relationships within Story Writing Time; through their appropriation of peers' skills, strategies and ideas; and through children holding peers accountable for culturally appropriate literate action.

The view of peer assistance developed in this study closely parallels Rogoff's (1990) concept of guided participation:

Guided participation involves collaboration and shared understanding in routine problem-solving activities. Interaction with other people assists children in their development by guiding their participation in relevant activities, helping them adapt their understanding to new situations, structuring their problem-solving attempts, and assisting them in assuming responsibility for managing problem-solving. This guidance of development includes tacit and intuitive forms of communication and distal arrangements of children's learning environments; it is often not designed for the instruction of children and may not involve contact or conversation (p.191).

The findings of this study reveal that when allowed to interact freely during self-selected writing activities, young children assist each other with a broad range of knowledge, skills and strategies. Eight categories of content of peer assistance in literacy learning were
identified in the present study. These were: assistance with the conventional spelling of words; extending written texts; choosing or varying topics; the meaning and use of literary conventions; reading or word identification; drawing; the mechanics of writing; and adherence to classroom rules and procedures. These categories varied in frequency of occurrence, with spelling being far the most common category of peer assistance among the children in this study. This overwhelming emphasis on assistance with spelling is perhaps indicative of the preoccupation that beginning writers often have with 'getting it right' (Graves, 1983), and has been noted by previous researchers (e.g. Crouse & Davey, 1989; Power, 1989; Dixon-Krauss, 1995) in their work with first and second grade children.

In several of the categories of content of peer assistance, there were examples which pertained to the construction of meaning through written text rather than solely to the skills of text production. However, these examples were not classified as a separate category. Rather, the influence of peers on children's construction of meaning permeated many of the interactions documented in this study. This finding supports Cairney's (1992) view that the connections children make between texts as they interact in rich social contexts impact on children's intertextual histories.

A further finding of this study is that the patterns of interaction in which peer assistance in literacy learning is embedded are both complex and idiosyncratic. Although all children in the study engaged in some form of peer assistance, not all children used all of the identified forms of assistance, and some children were more successful than others in seeking help from, and offering help to, their peers. It is clear that the patterns of assistance were not hierarchical in the sense of more knowledgeable children always assisting less knowledgeable peers. There was also no evidence to suggest that either girls or boys were consistently more successful in seeking and providing peer assistance, and neither girls nor boys restricted their interactions to peers of the same gender. Rather, the patterns of peer assistance identified in this study were influenced by a range of factors including the establishment of intersubjectivity and the relative status and expertise of the children concerned.

However, the findings do suggest that some forms of peer assistance in the classroom may not be clearly visible to the participating teachers and students. The classroom teacher's perceptions of the children's interactions reflected the dominant patterns of interaction that emerged from the study, but failed to recognise more subtle patterns that impacted on the children's construction of literacy. Similarly, interviews with the participating children revealed that most were able to identify at least one way in which they helped, or were helped by, their peers, but no child was able to identify all of the ways in which peers assisted each other. Finally, there were a number of forms of assistance and categories of
content identified in the study which were not mentioned by the classroom teacher or any of the children interviewed.

The study identified a number of ways in which peer assistance in literacy learning both constructs, and is constructed by, the culture of the classroom. First, the talk that surrounds children's engagement in written language activities contributes to children's growing ability to use a range of literacy-related knowledge, skills and strategies. Second, through their interactions with peers, children come to define themselves as writers and helpers within the familiar context of Story Writing Time. Third, through the processes of discussion and argumentation children negotiate shared understanding of literacy-related concepts. Finally, through their interactions peers define what constitutes culturally appropriate literate action. Thus, the study provides evidence of peers assisting each other's literacy learning in both the Vygotskian and Piagetian perspectives:

In Vygotsky's perspective, skilled peers may serve a function like that of adults in interaction in the zone of proximal development. ... In Piaget's view, peers promote the advancement of one another's cognitive development through attempts to resolve cognitive conflict or discrepancy deriving from differences in their perspectives (Rogoff, 1990, pp.171-2).

The findings of this study are consistent with the findings of Schmidt (1995) that the "literacy learning of children from ethnic minority backgrounds may be hampered by the informal social interactions that take place in the classroom" (p.404). This was evident in the interactions observed between Adam (the 'best' writer) and Paul (who struggled in his use of both oral and written English). However, the interactions between Paul, James and Christopher provide evidence that, if given the opportunity to interact freely with a range of peers, children from minority backgrounds need not be disadvantaged in the social world of the classroom. These findings suggest that better understanding of peer assistance in literacy learning is vital to the improvement of educational outcomes for students from minority backgrounds.

When the children in this study negotiated meaning, their shared understanding was a result of their interactions with each other rather than one imposed by the teacher. For children who come from homes and communities where the understanding and practice of literacy differs from that of the school, the opportunity to negotiate new meanings and understandings (rather than the imposition of the teacher's meanings and understandings) presents a possible avenue for overcoming the educational disadvantage of cultural mismatches. The results of this study therefore suggest that better understanding of peer assistance in literacy learning has the potential to contribute to a more socially and culturally equitable pedagogy that recreates, rather than reproduces, the culture of schooling.
8.3 Implications for Classroom Practice

This study contributes significant insights into the nature and role of peer assistance in literacy learning among young children. These insights have important implications for how teachers structure classroom environments and promote literacy learning.

First, the study clearly shows that even very young children are quite capable of productive student-directed activity. One of the most striking observations, overall, was the amount of time children spent 'on task'. In the classroom studied, Story Writing Time was a time of student-centred and student-directed activity. Guidelines and procedures were established early in the year. By the time I commenced observations, approximately eight weeks into the school year, the children were very familiar with the routine and worked through the entire thirty minutes independently. From collecting their writing folders through to packing up at the sound of the lunch bell, there was little or no teacher direction. These were Grade 1 children, mostly six year olds (at the beginning of the study), and when their teacher gave them responsibility for directing their own work, and trusted them to do so, they responded by staying 'on task' for the vast majority of the time while having the freedom to interact with their peers as they wished.

Even though children's 'time on task' is considered important, Harste, Woodward and Burke (1984) caution against giving it too much emphasis:

... there is much research in reading and writing which suggests that 'time on task' is a key variable in literacy learning. Our experience would suggest that not all encounters are of equal worth, and that the quality of the encounter must be studied in conjunction with time on task if simplistic formulas are to be avoided (p.48).

While 'time on task' itself may not be a critial factor in literacy learning, it certainly influences the type of classroom environment that teachers create. Teachers who are concerned about young children's ability to stay 'on task' may be reluctant to relinquish control of classroom learning situations. However, the implication of this study is that, provided procedures and routines are well established and children's progress is carefully monitored, teachers do not need to control all of students' activity for students to stay 'on task' and for learning to take place.

Second, young children can and do assist each other in a wide variety of ways as they interact in the classroom. If, as this study shows, interactions among peers can facilitate literacy development in individual children, then this has implications for how teachers structure the classroom environment. If we structure classrooms and learning programs in
ways which restrict social interaction among peers, then we deprive children of access to one important avenue of learning language and learning about language. Inhibiting natural interaction either by insisting on a quiet classroom, rigidly controlling seating arrangements or dominating classroom talk can only result in a restriction of children's opportunities to learn from each other. If we believe that there is only one 'teacher' in the classroom, then we are doing a great disservice to our 'learners'.

Third, teachers need to be aware that children differ in their interactive skills and strategies. It cannot be assumed, for example, that a student who knows a great deal about literacy will necessarily be able to pass on that knowledge to his peers. Nor can it be assumed that girls are better helpers than boys, or that a student with limited literacy skills cannot be of assistance to more capable peers. This is not to suggest that teachers should never intervene or direct children's interactions: teachers who observe carefully and are aware of their students' 'helping skills' may well be able to enhance peer assistance within their classrooms. Certainly, the teacher of the class observed in this study was able to do so when she asked Adam to write a story with Nicolas, resulting in a learning experience from which both boys benefited. However, it does suggest that teachers need to actively promote interaction among peers, and structure learning situations so that all children have an opportunity to develop effective strategies for both seeking and providing assistance among peers.

Fourth, this study highlights the need for teachers to be aware that the literacy curricula they establish in their classrooms impact on children's conceptions of reading and writing, as well as the interactions in which they engage. As Rasinski and DeFord (1988) point out:

the literacy curricula used in first grade classrooms establish an environment for socialization in which children take on underlying notions about the nature of reading and writing. Because such conceptions of literacy are not readily visible, we advise and encourage teachers to become more sensitive to the reading and writing instruction they provide their children, realizing that what they do can affect some important and deep seated orientations about the use and functions of reading and writing (p.60).

This point is illustrated by the findings of this study which are in conflict with those of MacGillivray (1994). In her study of the tacit shared understandings about writing that develop in a writing community, MacGillivray noted that first-graders provided little assistance to each other in the spelling of unknown words and that "although writing and talking were central to the daily life of (the) writing community, talk about writing was limited" (p.253). In contrast, the children in the present study provided a great deal of
spelling assistance to peers, and engaged in extended talk about their writing during Story Writing Time.

MacGillivray suggested that, within the writing community she studied, there developed a tacit assumption that writers were expected to work out the spelling of words on their own, perhaps prompted initially by the teacher's assertion that writers were "the boss of their own spelling" (p.254). The teacher's emphasis on encouraging the children to attempt invented spelling may also have contributed to their reluctance to use other strategies. MacGillivray speculated that the lack of extended talk about writing may have resulted from the children's "relatively infrequent opportunity to share or receive a piece and then spend time discussing it" (p.253). However, the lack of extended talk about writing may equally have resulted from the classroom procedure of writing silently for the first few minutes of any writing session, and thereafter talking only quietly to peers.

In contrast to MacGillivray's findings, the children in the classroom studied in the present research were encouraged to use their peers as resources for working out the spelling of unknown words, and were allowed to interact with minimal restrictions during writing sessions. These conditions resulted in many interactions involving peer assistance with spelling, and numerous opportunities for extended talk about writing. Thus, in these two examples of contrasting findings there is evidence that the classroom environment and literacy curriculum established by the teacher can impact not only on children's interactions with, and opportunities to gain assistance from, their peers but also on children's conceptions of the nature of reading and writing.

Fifth, this study suggests that failing to acknowledge peers as a legitimate source of help can have implications for how children see themselves as writers. This was evident in James' reaction when his teacher prohibited him from asking his friends for help with spelling during Story Writing Time. While the well-meaning teacher may have intended to encourage James to draw on his own resources in his attempts to create meaning in his written texts, the effect of her action was to undermine James' belief in the value and legitimacy of his attempts to solve his literacy-related problems. Having worked hard to learn how to successfully gain help from friends, James was denied the opportunity to use the strategy. The result was a marked change in James' view of himself as a writer. This highlights the need for teachers to carefully consider the possible consequences of encouraging or prohibiting particular strategies for solving problems.

Finally, the findings of this study suggest that, in encouraging peer assistance, teachers need to consider not only the relative expertise of partners but also their interactive styles. This was highlighted by Adam's interactions with Paul. Of all the children in the study, Adam
was the one who most devalued Paul's efforts at creating meaning, and most consistently refused to help him, even when asked. For Adam, more than for any other child in the group, communicating with Paul required 'calibration' (Bruner, 1986). The children who were most accepting of and helpful to Paul were James and Christopher, both of whom were considerably less proficient than Adam in their use of written language. So what happens to children like Paul in classrooms where they are not given opportunities to interact with children like James and Christopher? Many teachers, had they been asked to appoint a tutor for Paul in this classroom, might well have chosen Adam in the belief that he would be the one most able to help Paul since he had the most 'expertise' as a writer. Yet, careful observation reveals that, in fact, Adam was perhaps the least suitable candidate for such a role.

In summary, the implications of this study support Cairney's (1995) advice that, as teachers:  

we need to be less concerned with debates over methods, schemes and procedures, and more concerned with the interactions and relationships that we permit and encourage in our classrooms. Also, we need to constantly reflect upon the discourses we promote in the classroom and the extent to which individuals are empowered or disempowered by the discourses we privilege (p.16).

### 8.4 Limitations of the Study

While the results of this study provide a sound basis for tentative theorising about the nature and role of peer assistance in children's construction of literacy, they are nonetheless limited by the length of time and number of observation sessions over which the study was conducted, the number of children observed, and the exclusive focus on one learning context within one classroom. These limitations are a result of the limited resources available to me, particularly in terms of time and access to classrooms.

While this study was conducted over a period of approximately eight months, it would nonetheless have yielded greater insights if it had extended over a longer period of time or included more observation sessions. In particular, it would have been productive to observe a large number of consecutive Story Writing Time sessions, especially in the latter stages of the research when most of the children constructed their written texts over a number of days. Focusing on one child over consecutive days may have resulted in more direct evidence of causal links between peer assistance and individual children's development of literacy in the sense of a clearly delineated link between the knowledge, skills and strategies encountered by children in interactions with peers, and children's subsequent use of the same knowledge, skills and strategies to solve problems independently.
The study involved observations of a group of twenty children, with primary focus on four children. With hindsight, selecting Paul as one of the focal children may have yielded more insight into the role that peer assistance plays in the literacy learning of children from minority backgrounds. However, the selection of focal children was completed early in the study and was based on the teacher's assessment of the children's level of literacy development, as well as my observations of the children's interactive styles. It was only as the study progressed that the significance of the interactions between Paul and his peers became evident.

While the relative lack of detailed data involving Paul may be considered a limitation of the study, it is likely that a decision to include Paul as a focal child would have necessitated the omission of detailed data involving James. This would have resulted in a failure to document James' difficulties in his interactions with his peers and the impact that these had on his perception of himself as a writer. What is most important to note here is that (as pointed out in Chapter 7) there are individual differences not only in the skills and strategies that children use in both giving and receiving peer assistance, but also in the impact that peer assistance has on children's concept of themselves as literacy users. Therefore, closer study of a larger number of children would almost certainly have yielded greater insights into the nature and role of peer assistance, but was not possible in the present study.

While this study shows that peer interactions among Grade 1 children during Story Writing Time play a role in the construction of literacy within that particular context, what impact they have on children's construction of literacy in other contexts can only be found through the study of other classrooms and other contexts. Despite these limitations, this study provides significant insights into the nature and role of peer assistance in literacy learning among young children.

8.5 Future Research Directions

The findings of this study show that young children can indeed assist each other in literacy learning, that this assistance can take a variety of forms, and that the patterns of peer assistance are complex. However, much further research is needed into the nature of peer assistance, the patterns of interaction and peer assistance that are constructed in our classrooms, and the impact that such interactions have on children's construction of literacy.

Perhaps the most pressing need is for further research into peer assistance in a range of different contexts. Does peer assistance in literacy learning take the same forms in other contexts as it does during self-selected writing sessions? Do older children assist each other in the same ways that younger children do? What knowledge, skills and strategies are the
focus of peer assistance in other contexts, and among other age groups? Do children of different ages assist each other in the same ways as children of similar ages? What forms can peer assistance take in classrooms with children from a larger range of cultural backgrounds than the classroom studied in this research? Valuable avenues for future research may also be to investigate the effects on children's literacy learning when peer interaction is explicitly encouraged in a range of contexts, and whether children can learn to interact in more productive ways.

One avenue raised by this study which needs further exploration is the origin of 'status' in the classroom, and the impact that status has on patterns of peer assistance. It was clear that among the children in this study Adam enjoyed the highest status as 'helper', and was the one from whom peers most often sought assistance. Yet, he was not the most effective 'helper'. He was the one who was seen (by himself and others) as the 'expert' writer in the class, and he was the only child whose interactive style was reminiscent of a teacher providing evaluative comments on students' efforts. Why is it that Adam was the child most often asked for assistance? Was this merely a reflection of the children's preoccupation with spelling, and of Adam's reputation as the 'best speller' in the class? Or was it related to Adam's interactive style and the extent to which this resembled typical teacher-student interactions? To what extent are we socialising children, even at ages six and seven, into discourses and interaction patterns that are reproductions of our current pedagogy? What role does this play in the reproduction of power relations in school, as well as in society at large?

Future research might profitably explore teachers' and children's perceptions of peer assistance in a range of contexts. The evidence in this study that some forms of peer assistance are not visible to teachers and students may be related to cultural differences in what constitutes learning situations. For example, in conducting research into caregiver-child interactions in the Mayan community, Rogoff (1994) found that:

In interpreting videotapes, middle-class European-American observers have difficulty understanding the different model of children's learning in the Mayan community because they, like the middle-class European-American caregivers, focus on one activity at a time and think of organizing the child's learning through instruction as the format for caregiver-child interaction. ... European-American coders often require extensive training to be able to see meaning in richly structured group activities (p.5).

Like Rogoff's "European-American observers", it may be that many teachers have difficulty 'seeing' the complexity of the assistance that children give to their peers when they are allowed to interact in "richly structured group activities" in the classroom. Are some
teachers more aware than others of the potential of peer assistance to contribute to children's literacy learning? Does the extent of teacher awareness of peer assistance influence the interaction patterns and types of peer assistance that occur in classroom situations? How can teachers become more aware of peer assistance, and what effect does increased awareness have on existing patterns of interaction?

Like the classroom teacher in the present study, the children themselves were unaware of many of the ways in which they were assisting each other to become literate. Future research might therefore explore whether or not children can be made more aware of the importance of peer assistance, and what effect this might have on patterns of interaction. Are those children who are most aware of peer assistance also the most likely to engage in peer assistance? Does greater awareness of some forms of peer assistance result in increased engagement in a wide range of forms of assistance? These and many other questions can only be answered through further research into the nature and role of peer assistance in literacy learning.

8.6 Conclusion

The introduction to this thesis suggested two ways in which an investigation of the nature and role of peer assistance in literacy learning may have significance for our understanding of children's development. The first of these related to the ways in which peer interactions foster the literacy learning of individual children, while the second related to our understanding of cultural recreation. This study has demonstrated that peer interactions among young children engaged in self-selected writing activities can and do contribute to the literacy learning of individual children. It has also demonstrated that peer interactions influence children's construction of literacy and can constitute a way of changing pedagogy and the role that schools play in the development of culture from one of mere cultural transmission to one of cultural recreation.

Whether or not the importance of social interaction in learning will be recognised among teachers and educators, however, remains problematic. Bruner (1986) warned of the ramifications of theories of cognitive growth which place the individual at the centre of importance. He suggested that all the curriculum advances in times of economic and social difficulty like the present will concentrate on providing or developing ways to ensure that individuals master particular skills or content areas. He predicted that while we are in times of economic and social malaise there will be no significant advances in our theories of cognition and learning.
The current emphasis in Australian education on literacy 'standards' reflects the preoccupation with the individual of which Bruner warned. The increasing emphasis on mass testing to ensure standards are maintained suggests that individual learners travel a single path to become literate and that this path (and an individual's place upon it) can be simply and accurately described and measured. This directly contradicts the constructivist view of learning as being a process of negotiating meaning with others in one's world. If reality is created by the negotiations of the members of a culture, then that reality cannot be predetermined. Culture is ever changing, ever evolving, according to the negotiations of its members. Although written a decade ago, the following words of Bruner are as true now as they were then:

We are living through bewildering times where the conduct of education is concerned. There are deep problems that stem from many origins - principally from a changing society whose future shape we cannot foresee and for which it is difficult to prepare a new generation. ... What can we expect to emerge by way of a theory of development that will be compelling enough to shape a new reality? ... I think that its central technical concern will be how to create in the young an appreciation of the fact that many worlds are possible, that meaning and reality are created and not discovered, that negotiation is the art of constructing new meanings by which individuals can regulate their relations with each other. It will not, I think, be an image of human development that locates all of the sources of change inside the individual, the solo child (1986, p.149).

An essential part of any such theory of development will be greater understanding of how interactions among peers contribute to the construction of new meanings and new realities. The study described in this thesis has attempted to take a small step towards the development of that understanding.
APPENDIX A: LETTER TO PARENTS SEEKING PERMISSION TO INCLUDE THEIR CHILD IN THE STUDY.

Dear ________________.

My name is Jenny Ruge and I am a teacher. This year I am studying for a Master of Education degree in Language and Literacy at the University of Western Sydney, Nepean. As part of my degree, I am researching the ways in which young children help each other to learn to read and write. To do this, I need to watch and listen to young children when they are involved in reading and writing activities at school. This term and next term I will be spending 30 minutes twice each week in Mrs C__________'s classroom. I will be taking notes on what the children are doing, tape-recording what they say to each other as they work, and talking with them about who helps them learn to read and write.

As your son/daughter is a member of this class, I am asking for your permission to observe your child and to use the information I gain to write my research report. The names of the school, the teacher and the children will be changed in the report so that they will not be identifiable.

If you do not give your permission, (or if you withdraw your permission at any time for any reason) I will not collect any information about your child.

If you do give your permission, would you please sign the attached copy of this letter and return it to Mrs C________________ as soon as possible.

Thanking you in anticipation,
Yours faithfully,

(Mrs) Jenny Ruge

I, __________________________, give my permission for Jenny Ruge to observe my son/daughter __________________________ in class and to collect information about his/her writing activities. I understand that the purpose of the observations is to conduct research as part of study towards a Master of Education (Honours) degree.

Signed: __________________________
Date: __________________________

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APPENDIX B: TRANSCRIPTION CONVENTIONS USED IN THIS STUDY.

<table>
<thead>
<tr>
<th>Example</th>
<th>Convention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>David:</strong> I told you I'm right.</td>
<td>Names on the left are pseudonyms for speakers (consistent throughout).</td>
</tr>
<tr>
<td>2  <strong>James:</strong> Where?</td>
<td>Numbers on the left indicate individual speaking turns.</td>
</tr>
<tr>
<td>3  <strong>Thomas:</strong> There.</td>
<td></td>
</tr>
<tr>
<td>Zac: Hit me.</td>
<td>Italics indicate contextual information added from field notes.</td>
</tr>
<tr>
<td><strong>Richard hits Zac.</strong></td>
<td></td>
</tr>
<tr>
<td>'Cause I didn't ask (...)</td>
<td>Dots in parentheses indicate the transcriber's inability to hear what was said.</td>
</tr>
<tr>
<td>Lift the chair up!</td>
<td>Standard punctuation (?, !, .) indicates the speaker's intonation.</td>
</tr>
<tr>
<td>You can use a pen, alright?</td>
<td></td>
</tr>
<tr>
<td><strong>I know</strong> how to spell it.</td>
<td>Underlining indicates emphasis placed by the speaker.</td>
</tr>
<tr>
<td>I want to draw -</td>
<td>A dash at the end of a line indicates an incomplete utterance.</td>
</tr>
<tr>
<td><strong>Gina:</strong> Grass gets mixed up with sand</td>
<td>A gap at the beginning of a line indicates that the speaker's utterance overlaps with the previous speaker.</td>
</tr>
<tr>
<td><strong>Elizabeth:</strong> with sand.</td>
<td></td>
</tr>
<tr>
<td>You do a H like this.</td>
<td>Capital letters in isolation indicate that the speaker used a letter name.</td>
</tr>
<tr>
<td>We got, g-o-t.</td>
<td>Lower case letters in isolation indicate that the speaker used a letter sound (eg, in 'sounding out' words).</td>
</tr>
<tr>
<td>I writ it!</td>
<td>Non-standard spelling of words in transcripts reflect speakers actual utterance.</td>
</tr>
</tbody>
</table>
REFERENCES


Swafford, J. (1995). "I wish all my groups were like this one": Facilitating peer interaction during group work. *Journal of Reading, 38*, 626-631.


