Peer Effects in Negotiating Participation in the Adjustment to School

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Abstract

This study identifies the processes by which the ‘enacted curriculum’ (Darling-Hammond & Sykes, 1999) and social participation within the classroom facilitate successful adjustment in the transition to school. Current understandings of development and pedagogy claim that the role of the teacher is important in creating an environment in order to enable successful transition to occur. The process is seen as social participation, negotiated in the classroom between teacher and child and peers (Dyson, 1997). There is a strong link made in the literature between early academic achievement and learning related social skills. The prediction of this study was that adjustment to school is strongly influenced by peer interaction and scaffolding, developed from models for guidance that have evolved from the social constructivist theories of Vygotsky (1962), Bruner (1986) and Rogoff (1990) in relation to the classroom activities and curriculum.

Two studies investigated the role of teaching practice that may ‘transform’ the participation of the new entrant children in the classroom. Analysis of the systematic observations of the enacted curriculum highlighted the importance of the teacher structuring activities to maximize participation and engagement with learning. Analysis may also promote a clearer understanding of each child’s developing strategies, as well as how the teacher can extend children’s repertoires and build on the social practices of the classroom and school. The relative absence of studies that describe the relationship between curriculum process and social development in facilitating a successful adjustment to school highlights the need for further empirical study.
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# Table of Contents

Abstract.................................................................................................................................................. ii
Acknowledgements ............................................................................................................................... iii
List of Figures........................................................................................................................................ vi
List of Tables ......................................................................................................................................... vi

## Chapter 1 – Overview ....................................................................................................................... 1

**Overview of chapters** ..................................................................................................................... 2
- Chapter 1: Overview of thesis chapters ............................................................................................ 2
- Chapter 2: Literature Review ............................................................................................................. 2
- Chapter 3: Method ............................................................................................................................. 4
- Chapter 4: Study One – Coping with the transition to school: Teacher perceptions of social skills and learning ................................................................. 6
- Chapter 5: Study 2 - Transformation of participation: The classroom and curriculum ................. 7
- Chapter 6: Profiles of Children: Transformation of Participation ..................................................... 7
- Chapter 7: Discussion ....................................................................................................................... 9

## Chapter 2 – Literature Review ......................................................................................................... 10

**Introduction** .................................................................................................................................... 10
- Transition and adjustment to school ................................................................................................. 11
- Adjustment and peer acceptance ..................................................................................................... 13
- Social constructivism and scaffolding .............................................................................................. 22
- Ecological theory .............................................................................................................................. 24
- Cultural practices and reciprocal learning strategies ......................................................................... 29
- Participation as discourse .................................................................................................................. 32

**Perspectives on observation** ........................................................................................................ 43
- Social perspectives on transition in the New Zealand context .......................................................... 45
- Validity and methodology ................................................................................................................ 49

## Chapter 3 – Method ......................................................................................................................... 55

**Introduction** .................................................................................................................................... 55

**Study One** ....................................................................................................................................... 55
- Teacher beliefs and pedagogy ........................................................................................................... 56
- Curriculum issues ............................................................................................................................. 58
- Method .............................................................................................................................................. 60

**Study Two** ...................................................................................................................................... 62
- Method .............................................................................................................................................. 63

## Chapter 4 – Study One ..................................................................................................................... 79

**Coping with the transition to school – Teacher perceptions of social skills and learning** ............ 79
- Introduction ....................................................................................................................................... 79
- Results ............................................................................................................................................... 79
- Comments: Adjustment to School and Teacher Expectations ......................................................... 84
List of Figures

Figure 1 - Number of attempts by category during mathematics sessions .................. 95
Figure 2 - Number of attempts by category during writing sessions ......................... 96
Figure 3 - Number of attempts by category during reading sessions ....................... 98
Figure 4 - Overall attempts by category of collaboration over all sessions .............. 100
Figure 5 - Kingi's collaboration strategies used across activity sessions ................. 115
Figure 6 - Toby's collaboration strategies used across activity sessions ................. 117
Figure 7 – Elena’s collaboration strategies used across activity sessions .............. 119
Figure 8 - Mere's collaboration strategies used across activity sessions .............. 122

List of Tables

Table 1- Categories of collaboration ............................................................................ 71
Table 2 - Activity session description ........................................................................ 73
Table 3 - Categories of Collaboration ......................................................................... 114
Table 4 - Target children's high use strategies of collaboration across activities ....... 125
Chapter 1 – Overview

This study investigates the processes by which the ‘enacted curriculum’ (Darling-Hammond & Sykes, 1999) that is made up of both the official and unofficial classroom practices, together with social participation facilitates successful adjustment in the transition to school. The transition to school takes place in a specific site, the new entrant classroom, where peers play an important role in providing guidance and support for the new entrant in the first weeks of school. Recent models regarding understandings of development and pedagogy claim that the role of the teacher is important in creating an environment to enable successful transition to occur. Social participation is negotiated in the classroom between teacher and child and peers (Dyson, 1997), and there is a strong link made in the literature between early academic achievement and learning related social skills. However, the relative absence of studies that describe the relationship between curriculum process and social development in facilitating a successful adjustment to school highlights the need for further empirical study given the importance of social participation. There is also a need to develop further the research base regarding peer effects in the classroom.

The prediction guiding this study is that transition and adjustment to school is strongly influenced by peer interaction and scaffolding in relation to the classroom activities and curriculum. In the new entrant classroom, peers play an important role in providing guidance and support for the new entrant in the first weeks of school, a process called ‘peer scaffolding’, which has evolved from the social constructivist theories of Vygotsky (1962), Bruner (1986), Rogoff (1990) and others. Therefore, it is assumed
that specific properties or processes of the enacted curriculum and patterns of socialization can be identified. This ‘transformation of participation’ (Rogoff, 1997) that changes the new entrant into a school pupil can be identified as classroom activities develop. The central question is how the teacher and more expert peers facilitate that transformation.

Overview of chapters

Chapter 1: Overview of thesis chapters

Chapter 2: Literature Review

The transition from pre school to school is one of the most important transitions in education, and there are many opportunities to practice and learn the discourse features of school in order to participate as fully as possible. In New Zealand, where children normally start school on their fifth birthday, the transition to school period usually occurs sometime between five and six years old. The preparation for this transition includes diverse types of childhood experiences ranging from the richness of the home environment to a variety of early childhood education (ECE) options. The curriculum of these early childhood settings is designed to cater for diverse cultures, and many such as kohanga reo are centres where Māori or other languages are the medium. The periods of transition can be further broken down into the time before entering primary school, during the time they start school, or after they have begun school. For the purposes of this investigation, the timeframe will be the period starting school and up to the child’s first year at school. Effective transition and adjustment to school involves several distinct features, including the influence of peers in the process.

Vygotsky (1962) and Bruner (1986) saw the cultural context as central to development. The concept of the zone of proximal development (Vygotsky, 1978) describes 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. In this view, adults and peers stimulate the child’s cognitive development, including the collaborative dialogues that occur during the transition, and which can facilitate the adjustment to school. Successful adjustment to school is about the quality of participation, and the author will use the term ‘adjustment to school’ to describe the quality of children’s participation throughout the thesis.

In order for the child to successfully negotiate their participation in this new setting, a sharing of focus and purpose between children and their more skilled partners is necessary; a process that is called guided participation (Rogoff, 1990). This potential for ‘peer scaffolding’ to support the child’s transition to school has been described by Dockett and Perry (2003) as the potential for peers to bring insights to what is important for children to know that adults might not be aware of. Hill, Comber, Louden, Rivalland and Reid (1998) proposed that learning this culture of the school, and their role in it, i.e. what it means to ‘do school’ is a necessary step before children could focus on the content of schooling. This sociocultural approach is also evident in apprenticeship models of learning, used to describe socialization processes in many cultures (Cole, 1996; Rogoff, 1990, 1997). Successful adjustment to school is not only about negotiation of participation, but also about engaging with the curriculum content that focuses on learning.

The sociocultural perspective on learning and development provides a frame to view how the teacher-child-peer relationship can develop for the new entrant. Rogoff (1995) has challenged the prevailing view that learning and development occurs through the
transmission of information and ideas to the brain, either from the outside world or through acquisition of information and ideas by the brain. She proposes that people change through ‘transforming’ their participation in sociocultural activities – in which both the individual and the rest of the world are active. The boundary between individual and environment disappears if development is viewed as participatory, since it inherently means involvement (Rogoff, 1997). To analyze the process one needs to consider three ‘planes’, which are community, interpersonal and personal planes. From this perspective, one might consider how the activity, its purpose, and people’s roles in it transform as participation develops. Another question could be how do people prepare, drawing on their earlier experiences, for participation in present activities in the light of later expectations? The central question from a transformation of participation view has to do with how people’s participation changes as an activity develops.

**Chapter 3: Method**

Two studies were undertaken to explore the influences of scaffolding in the adjustment to school that occurs between the teacher and child and other children, and also in relation to the classroom activities and curriculum. In the first study, three experienced teachers were interviewed about their beliefs about social learning and children’s successful adjustment during their first year at school. The study posed the question: What do teachers see as the relationship between children’s social participation in their first year of school and their access to the formal curriculum? The relationship between teacher’s beliefs about the importance of social participation in the classroom and the opportunities available for this to occur were investigated.

The second study investigated the roles of teaching practice and peer behaviour in the successful adjustment to school. Two specific questions guided the research.
1. What are the characteristics and functions of peer interaction in the development of participation in the new entrant classroom setting?

2. How do classroom activities provide space for the ‘transformative effect’ of experiences that influence participation and interaction between the new entrant child and teacher and peers?

The research explored the hypothesis that the success of the process of engagement with teaching and learning depends on teachers and children using talk with joint activity, and relating to previous activities in order to build a shared contextual framework (Light & Butterworth, 1992). In the context of this study, the activities and opportunities for interaction that were assumed to make a child’s successful transition into a particular school context were observed in that discourse environment, including teacher management of peer interaction. Observation of this participation during the main morning activities of reading, writing and mathematics in the new entrant class required a careful plan to video aspects of sessions that would help to illuminate these practices.

The classroom ‘sites’ for observation of the daily morning classroom programme were developed. Activity settings are the contexts in which collaborative interaction, intersubjectivity and assisted performance occurs, all of which are part of the teaching process (McNaughton, 1995; Tharp & Gallimore, 1988). In this study, the following contextual parameters relate to categories of participation and collaboration that describe the sequences videoed in the classroom. These are routine activities, teacher assigned curriculum tasks, and child initiated curriculum tasks that occur under less supervision from the teacher that usually maintain the intended curriculum activity and may include other children. After the analysis of the sites for the activities, peer interaction and participation was observed using a video recording for five weekly
morning sessions that included mathematics, writing and reading sessions. The results and discussion of these studies are outlined in Chapters 4-6.

Chapter 4: Study One – Coping with the transition to school: Teacher perceptions of social skills and learning

A series of questions was asked of each of the three teachers in structured interviews regarding their beliefs about what adjustment to school means for new entrant children and how they believe participation relates to successful adjustment. The meanings they brought to their statements, particularly when they described classroom practice, gave some insight into their views of children’s participation and adjustment to school. An analysis of the main themes provided descriptions of beliefs that these teachers shared about the importance (or not) of social learning and opportunities for this to occur.

All the teachers believed that social learning is necessary for children to access the curriculum, and that peers can help foster inclusion to a greater or lesser degree. However, they saw the apparent constraints of the recent changes in the curriculum for New Zealand schools as limiting these opportunities to help children cope with the transition to school. The study supported previous work regarding the importance of the role of the teacher in creating an environment conducive to successful adjustment to occur. Classroom practices that create a ‘community of learners’ may promote this environment, and finding out about teacher’s beliefs is one way to get a picture of how teachers see the importance of helping children to manage this transition. These include espoused teacher beliefs about approaches to teaching and learning and how young children can become successful learners. The inconsistency in teachers’ beliefs about the best way to manage this transition pointed toward a further understanding and analysis of the role of peers in developing social competency in new entrants to school.
This leads to a second study that shifted the focus to the processes entailed in children making the transition to school.

Chapter 5: Study 2 - Transformation of participation: The classroom and curriculum

Four target children (two boys and two girls) who started school since the beginning of the year were chosen to be the focus (along with any peers next to them) of the recording. After transcription of the verbal and associated nonverbal interactions in the small groups that were videoed, the data was analysed according to categories of collaboration strategies used.

The three main categories of joining, maintaining and excluding in the peer interaction analysis were derived from the categories from the Jones-Parry et al (2000) activities, and were expanded with the use of Verba’s (1994) categories of collaboration in peer interaction. The categories of collaboration between groups of children in the classroom were then coded from the video transcript for the three final morning weekly sessions that include sessions of mathematics, writing and reading. This helps to understand the extensiveness of peer interaction and also the quality of that interaction. A reliability check was done from an analysis of approximately 10% of the total tape time in the classroom. Overall, the check showed the categories used for instances of collaboration and definitions for coding were reliable, and could consistently infer the intent of the child’s action or verbal utterance.

The activities that support, for example, the literacy and numeracy programme in the classroom, foster the child’s developing social competence as well as the intention of developing early academic skills. During this stage of transition, children’s interpretations (their sense of activities’ functional possibilities) change, as do the social
roles (responsibilities) they assume as well as their skills and concepts (Dyson, 1999a). The role of the teacher in facilitating these ‘social spaces’ that may encourage peer interaction in the classroom that in turn may have follow-on effects as far as the child’s adjustment to school was also part of the investigation, and is part of the discourse analysis that looks at the classroom within a particular social and cultural context. Successful adjustment to school becomes not only a ‘mediating’ process between teacher and the new entrant and between the child and peers as far as social participation (teacher and peer scaffolding), but also mediation of curricular ‘space’ that links activities to the child’s social relationships, cultural tools and traditions or routines. In this view, schooling creates intersections with the learning process begun in the home.

**Chapter 6: Profiles of Children: Transformation of Participation**

Profiles from four target children provided detailed case studies which gave a more descriptive and qualitative account of their adjustment to school, as well as to individual strategies used by the children in their attempts at collaboration. These case studies centred on the child’s experience, both from a personal and interpersonal analysis, provide a more intensive insight into the enacted curriculum, especially since much of the peer interaction occurred in ‘small group’ tasks. At the end of the video filming, selected episodes of video were shown to the classroom teacher in order to provide analysis of these sessions from a teacher perspective. One of the main themes that became apparent from these discussions with the teacher was her own awareness of peers as ‘scaffolders’. Another theme was the role of the video observations in either supporting or discounting her views of the role each child plays in developing participation in the classroom. Another interesting aspect discussed was her view of
‘bending the rules’ for small group activities that the children engaged in, which the teacher felt was usually ‘off task’ behaviour, especially during the reading activity group sessions.

Chapter 7: Discussion

Chapter 7 discusses the theoretical implications of the findings from the two studies and makes recommendations about good teaching practice. Certain activities in the classroom promote interaction and socialization between children more than others, and the analysis of the preferred collaborative strategies that each child used gave the classroom teacher an insight as to how to better facilitate participation and engagement with learning. Peer interactions in informal groups inside and outside the classroom are associated with social and academic outcomes that may contribute to learning (Wilkinson, Hattie, Parr, & Townsend, 2000). Wilkinson et al. (2000) also argue that the major peer effects are within the classroom, and more attention to this level of analysis is needed rather than attention to the mix of peers at the school or classroom level. These finding support the assertion of the importance of the teacher in creating a positive environment for learning to occur, evidenced by the teacher’s great interest in getting feedback shown by the ‘enacted curriculum’ interactions. This increased ‘visibility’ of the sometimes hidden curriculum enabled her on review of the classroom episodes, to either confirm or not her perceptions of classroom interactions. Further analysis is needed to see how these opportunities for negotiating social and curriculum space are fostered or hindered by the teacher and peers and the new entrant in the classroom.
Chapter 2 – Literature Review

Introduction

The author’s interest in the area of children’s participation in the school discourse environment came about through participation in a collaborative research project that took place in an early childhood centre entitled “You’re not batman!” Insiders and Outsiders: The ecology of discourse’ (Jones-Parry, Hagan, & Anderson, 2000). The premise in that study was that there has been an increasing emphasis, in research and theory in early years education, on the importance of context in observation and analysis of children's play. The investigation of these ideas came from the application of the Discursive Action Model (Edwards & Potter, 1992; Potter & Wetherell, 1990) which provided a framework for the observation and analysis of children's play in the family area of a childcare centre. Children at play were videotaped and the tapes observed to develop a code of analysis that would be functional in that context. The focus of the code was children's language. The code developed included context categories of role-play, metaplay and reality. The categories of intent were joining, maintaining and excluding. This code usefully identified the patterns of participation in play of individual children and may have application as an observation tool for childcare centre teachers. The observation tool was then further refined practically in order to interpret aspects of the social interaction of children in the pre-school setting (Hagan, Anderson, & Jones-Parry, 2000). This background research informed the current study of the individual and contextual issues that impact on the transition to
school for children, particularly how patterns of participation in the classroom facilitate or hinder the process.

Transition and adjustment to school
The process of transition into new school settings may be seen as an induction into a new discourse or discourses within that setting. Considering the length of time most children in New Zealand are in compulsory education, there are many opportunities to practice and learn the discourse features of school. The periods of transition to school can be broken down into the time before entering primary school, during the time they start school, usually at age 5, or after they have begun school. This investigation focuses on the last component, or the period starting school and up to the child’s first year at school.

Processes involved in children making effective adjustments over the transition to school can be viewed from an ecological perspective. Bronfenbrenner (1979) refers to ‘ecological transitions’ as taking place “whenever a person’s position in the ecological environment is altered as a result of change in role, setting, or both” (p.26). Bronfenbrenner proposes that the interconnections between settings can be as decisive for development as events taking place within a given setting. His ecological approach makes the assumption that not only individual but also contextual issues are important in the transition to school for children. When the setting changes, for example, from kindergarten to school for the new entrant, there are also new patterns of participation. The time of transition into new school settings or contexts is about being inducted into a new environment described as the child’s secondary discourse environment, home being usually the primary one (Gee, 1989). Within this theoretical approach, transition can be understood in terms of the child being actively inducted into becoming a ‘pupil’ within the school setting.
Kagan and Neuman (1998) concur with these views, suggesting that viewing transition to school in terms of children arriving at school ready to learn and schools being responsible for being ready for children is limiting and insufficient. They maintain that the home, early childhood settings, school and community need to be involved, providing both vertical and horizontal aspects of continuity. Family, teachers, other school members and peers, as well as the child are affected by transition to a greater or lesser extent. All have to develop new roles, relationships and ways of acting (Bronfenbrenner, 1979). Landesman-Ramey and Ramey (1998) similarly identify old and new paradigms of transition. In the old paradigm what children bring to school is seen as important, while the new paradigm recognises a dynamic social-ecological perspective, where the child is part of a set of interactive systems. Effective transitions occur where there is a degree of linkage, match or continuity between settings (Carr, 1998; McNaughton, 1998; Richardson, 1997).

These views are consistent with sociocultural theory and the Vygotskian perspective regarding development and learning. Rogoff (1990) proposes the concept of guided participation as a general process operating in children’s socialisation. This occurs when children, peers and caregivers build bridges from children’s present understanding and skills to enable them to reach new understanding and skills, and can be enhanced if the ‘bridges’ are there from all the settings in which the child participates. These bridges may be missing for children in a New Zealand context, for example from a non-English speaking background or because of different cultural or religious backgrounds when they start school in New Zealand. Drawing on his ‘socialisation model of emergent literacy’, McNaughton (1995; 1998), suggests that teachers can optimise children’s development during transition to school, by deliberately introducing a broad range of matching activities across settings. This model assumes that children learn by
participating in activities on their own, jointly with someone who is more expert, or by observing others. Each setting, for example, early childhood centre, home and school, provides activities that reflect the valued socialisation practices of that setting, and children’s expertise is situated in these activities. Thus, there are interdependencies between the various learning environments that children experience. What happens in any one of these will have an effect how the child understands the new entrant classroom. Where the cultures of the two learning environments are very different, the transition will be more difficult than if they are very similar (Timperley, Robinson, & Bullard, 1999). Other barriers such as differences in teacher and caregiver expectations, pedagogy, curricula and other organisational factors may create discontinuity and mismatch between early childhood and primary settings. The authors argue that settings are said to be weakly linked if the child enters school alone and strongly linked if the child enters with someone familiar, for example a parent. Parents, who are frequently directly involved in their child’s early childhood education, may not develop as strong a relationship with schoolteachers as they were able to with early childhood teachers (Ledger, Smith, & Rich, 1998). Familiar peers can also create continuity and help children adjust to school.

**Adjustment and peer acceptance**

In general, when young children form strong relationships, such as friendships from early childhood centres, from the wider community and siblings and cousins, this helps the child to make links between home and school. Peers may assume an important role in initiating children into the role of being a participant in the new discourse environment of school, and as a novice learner in that environment. They scaffold the school beginner into the roles, routines and expectations of school (St. George &
Cullen, 1999). This is important in New Zealand as children frequently start school on their fifth birthday and enter an already functioning classroom.

The importance of social relationships and shared knowledge from peers and others is part of the ‘initiation’ process into school, and as Vygotsky and others would attest, is crucial to the development of learning and thinking. The early development of friendships is also important for new entrants to school, as Peters (1997) study of children transitioning from kindergarten to school in the Waikato showed. Out of 24 children she interviewed, eight hated lunchtimes because they had no one to play with. While teachers were aware of the problem and found a buddy for new children, observations showed that these pairings only worked if the children were already friends. This study highlights the complex factors of what ‘adjustment to school’ means.

Social development, including opportunities to develop friendships and peer acceptance is an important factor during the early years. Successful adjustment to school is about not only the quality of relationships children have, but also about the quality of ‘engagement’ with the curriculum and classroom programme.

Ladd (1999) reviewed research on peer relationships and social competence during early and middle childhood. He looked at basic research that developed in the 1970s and 1980s about understanding how age mates influence social development, and how interpersonal competence and skills acquired affected the individual’s long-term adjustment. Investigators also tried to find the origins of later-life social problems (e.g. delinquency), and poor peer relations during childhood were consistently implicated.

A cognitive-social learning approach to train social skills in preschool children (Mize & Ladd, 1990) was found to produce behaviour in children that enhanced peer acceptance and friendship. Peer rejection or friendlessness was attributable not only to deficits in
behavioural skills, but also the cognitive understandings that might underlie and maintain such deficits, such as misplaced goals or strategies or debilitating self-perceptions.

Another line of inquiry was based on the premise that children acquire social skills or manifest skill deficits within the family or early socialisation contexts. In the models used to guide this research, conceptual distinctions were drawn between direct family influences and indirect influences, e.g. family processes with no direct bearing on children’s peer relations such as parenting and attachment. “Children (especially boys) tended to be adept with kindergarten classmates if their parents had arranged peer-play activities before school entrance or had taught them to initiate their own play dates” (Ladd, 1999, pg.3). Other findings from research on direct influences (Parke & Ladd, 1992) suggested that parents who supervised play in supportive and developmentally sensitive ways, and provided regular opportunities for peer interaction (e.g. play groups, preschool) tended to have children who were skillful and successful in their peer relationships. Also, during this time, researchers attempted to differentiate among the types of relationships children formed with peers. Conceptually, arguments were made for distinguishing between friendship and peer acceptance. Friendship was defined as a voluntary, dyadic form of relationship that often embodied a positive affective tie, whereas peer acceptance was defined as a child’s relational status in a peer group, in other words the degree to which they were liked or disliked by the group (Bukowski & Hoza, 1989).

Thomas and Chess (1986) noted that certain aspects of infant temperament tend to cluster in predictable ways, forming broader temperamental profiles, such as ‘easy and difficult’ temperaments. Temperamentally difficult children have been found to be
more likely than other children to have problems adjusting to school activities, and they are often irritable and aggressive in their interactions with siblings and peers. Other children who were called ‘slow-to-warm-up’ and were quite inactive and somewhat moody may also show adjustment problems because of their hesitancy to embrace new activities and challenges which may cause them to be ignored or neglected by peers. Thomas and Chess see child rearing as being able to alter these early temperamental profiles. Their ‘goodness of fit’ model implies that development is likely to be optimized when parents’ practices are sensitively adapted to the child’s characteristics. This may also hold true in the adaptation to the school environment for new entrants, and the teacher’s ‘goodness of fit’ in their developing relationship with the child may either foster or hinder their relationship and subsequent adjustment to school. Dunn and Cutting (1999) investigated concurrent linkages between 4 year old children’s temperament and the quality of their interaction with a friend. Negative emotionality was related to one aspect of peer interaction, called ‘coordinated play’ (e.g. agreeing with the other child’s suggestion) which, while appearing socially competent, may reflect a more dependent interaction style. “In general, temperament traits regarded as problematic are associated with poorer social developmental outcomes, but interestingly, aspects of negative reactivity appear to enhance development of conscience, and the cross-cultural studies of Chen and colleagues indicate that the role of inhibition is moderated by culturally based beliefs about desirable child outcomes” (Sanson, Hemphill, & Smart, 2002). Expectations of a particular social context clearly have a role to play in making assumptions about simplistic notions of temperament.

Ladd’s (1990) study of the school adjustment of 125 children at school entrance, after 2 months of school, and at the end of the school year, showed that children with a larger number of classroom friends during school entrance developed more favourable school
perceptions by the second month, and those who maintained these relationships liked school better as the year progressed. Ladd and Kochenderfer (1998) define school adjustment as the degree to which children become interested, engaged, comfortable and successful in the school environment. Children’s classroom peer relations, including peer acceptance, affect their initial adjustment to school. Other areas that have been explored since then have established links between ‘prosocial’ behaviour and peer acceptance, as well as the determinants of peer rejection (Ladd, 1999). “We have learned, for example, that certain behavioural patterns (e.g. aggression withdrawal) increase children’s risk for peer rejection or loss of friendship but that these patterns may be expressed differently in males and females and have stronger or weaker links with relational outcomes depending on the child’s age and social-cultural context” (p.16). A longitudinal study of the role of chronic peer difficulties in the development of children’s psychological adjustment problems (Ladd & Troop-Gordon, 2003) found support for the argument that the effects of relationship adversity on children’s adjustment would be mediated through their social beliefs, and where these beliefs create unfavourable views of themselves. This supports a mediated child by environment model as a guide for the investigation of processes that precede psychosocial maladjustment. Accepted children, on the other hand, are more sociable, helpful, and cooperative than less accepted children, and display better leadership, perspective taking, and problem solving skills (Hymel, Vaillancourt, McDougall, & Renshaw, 2002).

Theories of cognitive and social development

Since 1950, cognitive theories of development overtook behaviourism in popularity among professionals as Piaget’s theory of the development of cognition was given more
consideration. His work became popularized among developmental psychologists and others in North America, even though his theory was known about since the 1920s in Europe. His work in developmental psychology regarding cognitive development has continued in popularity through alternative theoretical conceptualisations. His view of the developing child’s acquisition of knowledge is that it is a process in which the child acts on objects, images, and symbols that the child’s perceptual lens has cast into patterns that are somewhat familiar to her or him (Piaget & Inhelder, 1969). Therefore, the development of intelligence is pictured as a constant effort on the part of the child to expand and refine their knowledge, or repertoire of actions. These adaptations to their environment are called ‘schemas’ or schemes that are biological or mental or both, and are described in the functions of assimilation and accommodation.

Piaget described four stages of cognitive development which characterise infancy to the formal operation period (about age 11 to 15). Each stage follows a relatively ordered sequence of development, with variations in regards to different aspects of personality or mental life. This concept of a series of ordered developmental tasks through which the child progresses then became the focus for many developmental task screening assessments for young children. Analysis of the learning activity of children in the early years of education (preschoolers and up to age 8) has frequently been carried out by describing what the child can do in specified tasks which have been established in a developmental sequence (Piaget & Inhelder, 1969). Piaget’s theory, with its emphasis on the active, constructive nature of human development, is often referred to as a ‘constructivist’ approach (Wood, 1998).

Writers such as Vygotsky (1962), Rogoff (1990) and Reed (1995), have challenged this approach. Their work identifies the importance of context and the position the child
inhabits as central to development. Vygotsky emphasized that sign, or symbolic tools, are the critical link between the social and psychological planes of functioning. The ‘tool of the mind’ that is of pre-eminent importance to Vygotsky is language. Since it is the major means for influencing thinking and behaviour, language plays a corresponding role on a psychological level (Wertsch, 1985).

Vygotsky and Piaget differed in their concepts of cognitive development in children with regard to the phenomenon of ‘self talk’ or private speech. Self-talk is that talk which is common in preschool children, and does not seem to be addressed to other children. Such talk has been a focus of research in children’s development over the past 30 years. Piaget viewed these utterances as ‘egocentric’, expressing the view that it was a symptom of cognitive immaturity, and that it showed the preschool child’s inability to take the perspectives of others (Berk & Winsler, 1995). According to this view, as children’s cognitive abilities develop, egocentric speech should decline and be replaced by more mature and effective social interaction. However, the majority of self directed speech serves the function of self-regulation. Winsler and Diaz (1995) observed children in kindergarten classrooms and found that kindergartners engaged in a great deal of self-talk while involved in goal-directed, problem-solving, or academic activities, and used less private speech in other contexts. Other studies have shown that while working on problem-solving tasks, for example, that children use more private speech when the task is difficult compared to when it is easy (Berk and Winsler, 1995).

The notion that language shapes mental functioning is not unique to Vygotsky’s approach. Case’s (1992) neo-Piagetian theory of intellectual development describes children’s ‘central conceptual structures’ in a number of domains. These structures are ‘blueprints’ of children’s understanding and consist of an internal representation of a
number of concepts. ‘Conceptual’ refers to the semantic nature of the relations – the meanings, representations, or concepts that children assign to a wide range of more specific concepts in their world. One of the number of central conceptual structures is uniquely social. Bruner (1986) described meaning making as the simultaneous construction of two landscapes, one of which is action and the other consciousness, which is what those involved in the action know, think, and feel, or do not know think or feel. Children acquire the capability to coordinate the landscapes of action and consciousness around the age of 5 or 6. Porath (2003) conducted a study that is part of a larger study of social understanding, social behaviour and social acceptance in early childhood. It has focused on conceptual analysis of children’s understanding of role and intentions and the relationship of this understanding to their ability to analyse and reflect on social experiences in their classrooms and to their psychological vocabularies. The framework for instruction suggested by this study is that of ‘conceptual bridging (Griffin, Case, & Siegler, 1994). The neo-Piagetian theoretical framework provides a ‘roadmap’ of children’s development in the understanding of their own and other feelings, thoughts and intentions. Children’s current level of conceptual understanding can be assessed then, based on knowledge of the next step in the developmental sequence, a conceptual bridge can be built from the current to the next level.

The example of young children’s use of ‘private speech’ and developing social speech gives more insight into how language is used as a tool. Vygotsky’s view was that children used private speech for a different purpose than communication with others, and that with increasing age, the frequency of private speech declines so that by the end of the preschool years whispers and inaudible muttering replace children’s overt private speech. He felt that it does not become more social with age, but becomes less understandable to others as it is internalised. He found that social and private speech
seem to go together. Language, he argues, is first used as a tool for social communication, then turns inward, becoming a tool of the mind for speaking to the ‘self’ and guiding behaviour. In this sense, Vygotsky’s views are unique in that he views symbolic tools such as language as socially generated, not as biologically given or individually constructed (Wertsch 1985) as some of the neo-Piagetians propose. Context, therefore, in regards to the case of the development of children’s speech and thought is an important variable. Vygotsky saw maturity as the developing ability to engage in reflective discourse, and once the ideas to be expressed are developed, then there is the opportunity to participate in the social environment. Children acquire cultural beliefs, values, and problem solving strategies in the context of collaborative dialogues with more skillful partners as they gradually master tasks within their zone of proximal development (ZPD). Learning occurs best when more skillful partners properly scaffold their interventions through a process of guided participation.

The neo-Piagetians are sometimes compatible with Vygotsky and sociocultural theory, in the first instance from the shared notion that language shapes mental functioning. Vygotsky, however, lacks some detail in his description of symbolic tools, as contrasted in the descriptions of Case’s ‘central conceptual structures’, one of which is uniquely social. The theoretical framework discussed earlier of ‘conceptual bridging’ (Griffin et al, 1994; Porath, 2003) provides some answers to the issues of context and elaborates what ‘optimal support’ may look like in developing a road map of children’s understandings.
Social constructivism and scaffolding

Newman, Griffin and Cole (1989) emphasize the importance of the dialogue between the child and teacher. This dialogue and nonverbal interactions become actions that are understood by the teacher and by the child, and the teacher thereby infers, for his or her own understanding, what the child’s mental processes are. This further explains what occurs in the ZPD between the child who struggles to understand the task at hand, and the teacher, who struggles to understand the child’s thinking. Therefore, knowledge is ‘co-constructed’ within the zone by the child and adult (Newman et al., 1989).

The term ‘scaffolding’, although not originally used by Vygotsky, was introduced by scholars trying to determine the most important components of tutoring (Bruner, 1986; Wood, 1989). Bruner came to the study of child development after extensive research into adult thinking and problem solving, and his background provided him with a more detailed sense of the processes involved in mature, socialized cognition and is grounded in the language of information theory. Bruner, along with Vygotsky, stressed the role of social interaction and cultural practices in shaping the course of human development (Bruner, 1996; Wood, 1998), an approach often referred to as ‘social constructivism’.

Several studies report effective collaboration and cognitive gains from peer interaction during problem solving among pre-schoolers (Brownell, 1990; Tudge, 1992). Vygotsky also emphasised the importance of mixed-age grouping of children. His view was that this granted each child access to more knowledgeable companions and permitted each child to serve as a resource for others as they actively seek to integrate into the roles of the play situation (Vygotsky, 1978). The main component of scaffolding is engagement of children in an interesting and culturally meaningful, collaborative problem solving activity. This social cognition which is shared is always situated in activity, and it follows that children learn best when they are working with others while actively
engaged in a problem (Lave & Wenger, 1991). Others can also act as a sounding board for a peer or as the expert or novice as the case may be, which is the basis for peer tutoring. Intersubjectivity, a concept introduced by Newson and Newson (1975) further explains the qualities of scaffolding by outlining the process whereby two participants who begin a task with a different understanding arrive at a shared understanding. To achieve true collaboration and to communicate effectively during joint activity, it is essential that the participants work toward the same goal. The concept of intersubjectivity is seen as the sharing of purpose and focuses among individuals, and is itself a process involving cognitive, social and emotional interchange. Martin Coles (1996) suggests that for young children, peer-group discourse is an opportunity to engage in reasoned thinking without direct adult influence, and usually "since the discourse status of the members of the group is equal, they learn to collaborate in order to make meaning" (Coles, p. 5).

Rogoff (1990) develops the argument concerning the role of social context in individual problem solving skills, by stating that problem solving is not ‘cold’ cognition but inherently involves emotion, social relations, and social structure. Thinking in regards to development is therefore seen as a functional effort to solve problems, which has interpersonal and practical goals. Discourse then is codified in action, and relates to the world view that children’s behaviour is more socially constructed and mediated by cultural experiences than developed innately. The Vygotskian perspective regarding development and learning proposed here is based on sociocultural theory, a perspective in which there are not distinct boundaries between theory, methods and practice (Rogoff, 1997). The perspective is built upon emerging discourse across disciplines and cultural and historical communities using the concept of activity and an emphasis on integrating levels of analysis that came from the Laboratory of Comparative Human

This perspective is contrasted with the view that learning occurs through the transmission of information and ideas to the brain from the outside world or through acquisition of information and ideas by the brain (Rogoff, Baker-Sennet, & Matusov, 1994). This view is premised on a storage metaphor, in which learning and development is conceived as the accumulation of mental objects such as plans, memories or reading skills. With an emphasis on participation, the main research questions shift from trying to understand the acquisition of capacities or skills or mental objects to understanding the processes of participation. Thus development is an aspect of participation (Rogoff, 1997).

Rogoff’s (1990) concept of ‘guided participation’ suggests that both guidance and participation in culturally valued activities are essential to children’s apprenticeship in thinking. This involves children and their caregivers and companions in the collaborative processes of building bridges from children’s present understanding and skills to reach new understanding and skills. In addition, this process includes arranging and structuring children’s participation in activities, with dynamic shifts over development in children’s responsibilities. (Rogoff, 1990, p. 8). Other theorists such as Bronfenbrenner have elaborated the role of social context in children’s development through ecological theory.

**Ecological theory**

Bronfenbrenner (1979) developed a model regarding the importance of social-environmental structures in charting the course of development. His perspective came from the background of social learning theory that developed from Piaget’s (1969)
cognitive development schemes, and Lewin’s field theory. Bandura (1977), who emphasised imitation in the way children acquire behaviours, and also behaviour analysts Bijou and Baer were the forerunners of Bronfenbrenner (R. M. Thomas, 1996). Bijou and Baer cited in Etzel, LeBlanc and Baer (1977), developed their concept of reciprocal reinforcement, and argue that both child and caregiver reinforce each other’s behaviour.

Bronfenbrenner (1979) defines development as a lasting change in the way a person perceives and deals with the environment. He conceptualises the ecological environments of a developing individual as four nested, interacting systems. The innermost layer, termed the microsystem, is the complex interrelation within a person’s immediate settings. Examples of microsystems that are important in the transition to school include the child’s home environment, early childhood centre, and school. Microsystems are nested within the child’s mesosystem, the group of settings in which the child actually participates. Bronfenbrenner states that strong mesosystem links and continuity are especially important for young children, and the developmental potential of settings in a mesosystem is enhanced if the role demands in the different settings are compatible.

Mesosystems are further nested within the exosystem. This includes ‘settings that do not involve the developing person as an active participant, but in which events occur that effect or are effected by, what happens in the setting that contains the developing person’ (Bronfenbrenner, 1979, p.25), which could include, for example, the school Board of Trustees and the Ministry of Education. The macrosystem, or all encompassing layer of the ecological structure refers to consistent patterns in the overarching culture or subculture, including any belief systems or ideologies, in which
the lower order systems exist. Bronfenbrenner emphasized his own ‘three R’s’ of learning and development which where roles, rules and relationships, and he suggested that development is about children learning these three Rs in an increasing number of settings. He and other writers (Wertsch, 1991) emphasised activity, and saw the learner not as an individual, but as a learner ‘in action’ or as a learner ‘in action in a place’.

Others, such as Lerner and Valsiner looked at the importance of children’s habitats in development. Valsiner (1987) argues this variability in sociocultural environments accounts for stressing variability over similarity among children in their development. He proposed that children have a very active engagement in the process of growing up. Wozniak and Fischer (1993) observed that analyses of the ecology and the dynamics of behaviour have become popular, emphasising the particulars of people acting in specific environments, and the many complex factors of human body and mind that contribute to action and thought, with those activities being studied as they naturally occur in everyday contexts. In addition, an "ecological" approach to research in many fields including early childhood is becoming well established (Lier, 1997).

Play as an activity mediates the developing interaction and collaboration between children. Fisher's (1992) meta-analysis of 46 studies on play and development concluded that play resulted in "moderately large" to "noteworthy" improvements in children's development, enhancing the progress of early development from 33% to 67% by improving adjustment and reducing language and socio-emotional difficulties. Pellegrini and Yawkey (1984) found that play in the housekeeping corner of an early childhood centre was a particularly strong predictor of 3 and 4 year old's aptitude for imaginative, symbolic play. The observations the author made in previous research (Jones-Parry et al., 2000) with a mixed age group of children (2-5 yr olds) showed that
active participation and negotiation between children was needed in the family play corner in order to develop play scenarios. These role plays ranged from ‘batman’ and ‘mums and dads’ to more unstructured play scenarios developing, such as building a big tent with blankets and chairs. There was much discussion and negotiation around the development of these roles as well as to include or exclude others in the play.

Margaret Brennan (1999) reported children’s use of representational play prompted by television watching in her qualitative case study for her thesis. She concluded that Superhero play and other forms of television play are the outcome of children’s appropriation of sociocultural influences, with the use of these language ‘scripts’ from their favourite characters demonstrating this. When the children became Teletubbies, they used ‘funny’ language from the characters. In McDonalds scripts, they used consumerist terms and principles in their play and talk. Novice learners in early childhood centres may use these ‘scripts’ from TV in order to join in, and they also connect with home life. Brennan felt that as a play tool, they unify children, and create an involvement in adult thinking, and are tools of ‘culture’.

Corsaro’s (1997) work on the mediating influences of ‘peer culture’ and the sociological study of childhood refers to childhood as a structural form, which is a category or part of society, and children are temporary ‘members’. As a structural form, childhood is interrelated with other structural categories like social class, gender, and age groups. The concept of ‘childhood’ is also a relatively modern construct, as children were viewed as ‘small adults’ even into the 19th century. The Danish sociologist Jens Qvortrup (1991) in his international project looking at childhood as a social phenomenon, sees childhood as integrated with society. Children themselves are co-constructors of childhood and society, and they have always been useful in the nature of
their contributions to society, whether in school or the home, organised sports or leisure or work activities. Corsaro suggests that socialisation is not only a matter of adaptation and internalisation, but also how children negotiate, share, and create culture with adults and each other. His notion of ‘interpretive reproduction’ captures the innovative and creative aspects of children’s participation in society.

This perspective is still a social theory of childhood, but has moved further from Bruner’s view of looking at individual development and the appropriation of the adult world through communal processes of sharing and creating culture. Corsaro sees children as social agents who contribute to the reproduction of childhood and society through their negotiation with adults, and through their creative production of a series of peer cultures with other children (Corsaro, 1997). The influence of peer culture becomes much greater in adolescence, but in the early years the features of peer cultures such as in basic themes of communal sharing and control are very much evident. As conflict and social differentiation are central elements of peer culture, which in turn can influence children’s development of a sense of group identity, this perspective can be useful to look at the discourse of children as ‘social problems’ in the context of peer acceptance and rejection in the early years of school (Ladd, 1999; Ladd & Troop-Gordon, 2003).

Margaret Carr (Carr, 2000) argues that “social interactions during early learning also communicate to the adult (as well as the child) messages about what the children see as the ‘learning’ project in this place, what their role is in the learning process, and how they are disposed to meet success and failure” (p. 38). Carr calls these developing favourite patterns of discourse, social interaction and approach to success and failure ‘dispositions’ and argues that children will call on them to edit and select learning
experiences later on (Carr, 1999). These learning dispositions or developing learning strategies or ‘habits of the mind’ develop through the child’s increasing reciprocal and responsive relationships in the transition to school and are under some conscious and voluntary control (Carr, 1998). Dispositions are a very different type of learning from skills and knowledge, and include values and attitudes that are generally not prescribed in curriculum, but are prescribed as an outcome for the innovative New Zealand early childhood curriculum Te Whāriki (Ministry of Education, 1996). Carr discusses five dispositions from her research on four-year-olds that might be appropriate for early childhood and link with Te Whāriki. One of them, for example, is taking responsibility, or taking another point of view and listening to others that links to the strand of collaboration in Te Whāriki. “Here I want to combine being communicative with taking responsibility, to suggest that the inclination towards sharing responsibility, joint attention, responsive and reciprocal relationships is a key learning disposition at all levels of education” (Carr, 1998, p.23). She proposes that allowing children to develop participation repertoires and associated meanings can foster this and the other four dispositions as children start school. This relates to the Māori concept of ‘nga hononga’ or distributed competence or cognition, which means literally learning ‘stretched over’ peers, teachers and/or culturally provided tools (Carr, 2003). These cultural tools and repertoires that children develop have links to cultural practices and apprenticeship models of learning.

**Cultural practices and reciprocal learning strategies**

The sociocultural approach (Cole, 1996; Rogoff, 1990; 1997) is evident in apprenticeship models of learning, which are found in many cultures. This concept is also illuminated in the Māori practice of ‘tuakana and teina’, where an older child assists a younger one in his/her learning (Royal-Tangaere, 1997). Teachers and children
interact in a context in which teachers transmit official discourses that are underpinned by regulating and discursive rules (Bernstein, 1990, 2000). Pedagogy, according to Bernstein, is the mechanism by which official discourses are relayed to learners and by which unofficial discourses are screened out of the process of transmitting and acquiring legitimate knowledge. Linda Mead (Mead, 1996), applied Bernstein’s concepts of pedagogy, particularly in the understanding of the recontextualising of Māori knowledge in order for it to become an official pedagogic discourse. In her analysis of the development of Taha Māori (or Māori dimension) programmes in schools during the decade from 1984, she found that although this dimension was intended to be included in all aspects of the ‘total school environment’, in practice it became separated out as a curriculum subject which students go to a classroom ‘to do’, even though at the primary school level, the development of integrated approaches to the curriculum have allowed more space for the ‘infusion’ of Māori topics. The teachers in schools who were Māori have been trained in this ‘official discourse’, but have brought with them a wide range of cultural resources that could be employed in support of the programme. This discourse that Māori teachers brought with them was called pedagogic recontextualising by Bernstein (2000), and is often opposed to the ‘official discourses’ that teacher’s are trained in. This was supported by Mead’s analysis in her study. The concepts and songs that were used in the Taha Māori programme by Māori teachers brought with them aspects of this ‘alternative’ discourse as opposed to the ‘official’ one. Mead postulates that Māori teachers may bring with them into the classroom other ways of knowing which offer possibilities, particularly for Māori students, to make connections between their school programme and cultural value system. These occur in the spaces within the curriculum, or ‘alternative discourse’ that can be created/reclaimed for Māori. Many parents and teachers filter aspects of valued
secondary discourse into their interactions with children in an attempt to advantage their children’s acquisition of that discourse, whether they may be school-based or community-based discourses (Gee, 1996). Therefore, in a broader sense, teachers that are able to engage children who might otherwise find the curriculum inaccessible, open the door for this curriculum space to allow the child to negotiate their way into the classroom activities.

Successful adjustment to school becomes not only a ‘mediating’ process between teacher and the new entrant and between the child and peers as far as social participation (teacher and peer scaffolding), but also mediation of curricular ‘space’, such as the above example. The activities that support, for example, the literacy and numeracy programme in the classroom, foster the child’s developing social competence as well as the intention of developing early academic skills. During this transition, children’s interpretations (their sense of activities’ functional possibilities) change, as do the social roles (responsibilities) they assume as well as their skills and concepts (Dyson, 1999a). If learning involves participating appropriately in socially organised activities, then the children are dependent not only on the guidance of teachers, but also on features of activities that make their developing resources relevant (Rogoff, Radziszewska, & Masiello, 1995). These resources may be particular goals, social relationships, cultural tools and traditions or routines that link activities. In this view, schooling creates intersections with the learning process begun in the home.

The sociocultural perspective on learning and development provides a frame to view how the teacher-child-peer relationship can develop for the new entrant. This framework helps to understand questions about the new entrant’s developing social roles in the classroom along with their making meaning in regards to the activities they
participate in. Rogoff’s (1997) planes of analysis with the complementary focus on the individual, interpersonal and community processes is for the purposes of study and communication. “The three planes cannot be isolated, and none is primary except with regard to being the current focus of attention, when we can focus on one or another, keeping the others in the background for our analysis” (p. 269). From this perspective, developmental processes are not just within individuals but also within group and community processes, and individual change is studied as it is constituted by and constitutes interpersonal and community processes in sociocultural activities. This is the basis for the organization of classroom activities into ‘communities of learners’ in which teachers, along with students, engage in integrated projects of intrinsic interest to class members (Newman et al., 1989; Rogoff, Goodman Turkanis, & Bartlett, 2001; Tharp & Gallimore, 1988). “These communities of learners focus on deliberate instruction; they differ from informal learning settings or apprenticeships in which some other function (such as getting work done) has priority over the instruction of the young” (Rogoff, 2003). Instead of teaching skills out of the context in which they are actually used to solve problems, this approach focuses on learning in the context of communicating and accomplishing goals. It also involves complex group relationships among students who learn to take responsibility for contributing to their own learning and to the group’s projects (Rogoff et al., 1994).

**Participation as discourse**

The analysis of child and teacher discourse in the classroom can help to unpack what participation ‘looks like’ as well as its purpose in the classroom. The more recent theories of social psychology, particularly the ‘new paradigm’ of discursive psychology are built on the idea that the main characteristics of interaction/behaviour are best understood as constructed through discourse. Discourse is defined by Gee (1989) as
‘saying, doing, being, valuing, and believing’ (p.5) combinations. Discourse is seen as coming more from an action orientation, not just a narrow linguistic definition. This helps give us an insight into the forms and functions of children’s talk in play. The mind-body dualism of the old paradigm of social psychology reflected in the behaviourist and experimentalist traditions was seen by Harré and Gillett (1994) to promote experimental manipulation of the ‘subjects’, usually in a laboratory setting. They reject the traditional view that a ‘scientific’ psychology must rely on an experimental psychology.

Change has come from two directions, firstly from the development of ethogenics, or the study of animal life in its real environments, and also the beginning of cognitive psychology at Harvard, by Bruner, Miller and others in their early work in the 1970s. “The idea that the mind is, in some sense, a social construction is true in that our concepts arise from our discourse and shape the way we think” (Harré & Gillett, 1994, p. 22). They outline three main characteristics for this ‘new cognitive psychology’:

1. Many psychological phenomena are to be interpreted as properties or features of discourse, and that discourse might be public or private. As public, it is behaviour; as private, it is thought.

2. Individual and private uses of symbolic systems, which in this view constitute thinking, are derived from interpersonal discursive processes that are the main feature of the human environment.

3. The production of psychological phenomena, such as emotions, decisions, attitudes, personality displays, and so on, in discourse depends upon the skill of the actors, their relative moral standing in the community, and the story lines that unfold. (p. 27)

This viewpoint denies the idea that the workings of the mind are inaccessible, for example, acts of remembering are not manifestations of hidden subjective, psychological phenomena. This view negates the Cartesian idea of mind-body dualism.
that was also expressed as mental life being the ‘inner’ and behaviour the ‘outer’, and the inner workings of the mind were not seen as accessible to study. The workings of each other’s minds are available in what is jointly created conversationally, and if that private mental activity uses essentially the same symbolic system, it can then be chosen to be made available or not.

“Another important consequence of the second cognitive revolution is the priority that must be given to ordinary languages in defining what are the phenomena for a scientific psychology” (Harré & Gillett, 1994). So the focus of discursive psychology is the action orientation of talking and writing, that is what talk and writing is being used to do. Discursive actions are examined in the context of their occurrence, and their precise nature makes sense to participants and analysts alike in terms of the social action these descriptions accomplish (Edwards & Potter, 1992). In the classic Newtonian ontological view, entities are perceived as things and events and described as cause and effect, but in discursive ontology, entities are speech acts and are described as rules and story lines, and may equate in part to the roles children take on in the classroom, for example the role of teacher/storyteller in their reading groups when using poem cards or big shared books.

Vygotsky’s and Bruner’s concepts of the zone of proximal development and scaffolding mentioned earlier have reference to the discursive paradigm in that the child is an active participant in their own learning through collaboration and interaction with peers, teachers and caregivers. Further, roles and rules can be substituted for the notion of ‘position as a speaker’, in which narrative convention is simply an expression of the ways in which stories are told in our culture (Harré & van Langenhove, 1991). Positioning indicates the perception of the relative importance to the child of the
situation in terms of their participation. This relates to Vygotsky’s assertion that conversation includes both public and private language. Howie argues (1999) that Vygotsky’s model of the cultural imbeddedness of thought and language is reflected in mediated activity, since both uses of language described above derive from its social and public use. This idea in turn underpins the concept of ‘subjectivity’, which expresses the way things appear to be by the speech and action of a person seen in relation to a discursive context (Harré & Gillett, 1994).

The work of James Gee (1990) provides a useful model for interpreting the child's status as a participant in play and in the classroom in the early years. His theory of primary and secondary discourses suggests children will be more or less novices in the discourse of the school as a whole and of the particular play areas of the school. This model sees participation as a product of the child's active attempts to identify and practice the discourse features of the immediate environment. Discourse environments or ‘contexts’ are made up of some elements that are relatively fixed but also made up of some elements that are new and changing (Gee, 1989). The features of the environment will be based on a generic set common to the culture but will also have a configuration unique to the context. Primary and secondary discourses can be dominant or non-dominant, and there is sometimes tension or conflict between any two of a person’s discourses, for example in a child whose first language is not English, and they are in an English speaking world. These discourses can be studied, in some ways, like language. This distinction between primary and secondary discourses is not meant to be airtight and unproblematic. As discussed earlier, many social groups filter aspects of valued secondary discourses into the socialisation of their children in an attempt to advantage their children’s acquisition of that discourse, whether they may be school-based, community-based or religion-based discourses (Gee, 1996).
Discourse analysis focuses on the thread of language embedded in any context, which could be called a ‘situation network’ (Gee, 1999). This includes an activity and material aspect, as well as a political and sociocultural aspect. All languages are composed of many different ‘social languages’ (Bakhtin, 1981), and each social language uses somewhat different and characteristic grammatical resources. “A discourse analysis is based on the details of speech (and gaze and gesture and action) or writing that are arguably deemed relevant in the situation and that are relevant to the arguments the analyst is attempting to make” (Gee, 1999, pg. 88). It therefore does not contain all the physical features present, and the judgments of relevance about what goes into the transcript are ultimately theoretical judgments, which do not stand outside the analysis, but rather are part of it.

Gee (1999) argues the work that we do with language to construct or construe a situation in certain ways and not others is built on six building tasks, which starts with word and activity building, which focuses on meaning. The next tasks are socioculturally situated identity and relationship building, which are using cues or clues to assemble situated meanings about what identities and relationships are relevant to the interaction. The last two building tasks are political building, which are cues or clues to construct the nature and relevance of various ‘social goods’ (status and power), and connection building, cues or clues to make assumptions about how the past and future of an interaction are connected to the present moment and to each other.

The above approach relates to more recent ‘bottom up’ approaches to discourse, in which language is studied in relation to the more immediate discursive context, that is what it achieves for the user. The emphasis here is on the action orientation of talk to accomplish specific tasks, such as rhetorical devices and manoeuvres used by speakers
(Edwards & Potter, 1992). The other main approach is more one of a ‘top down’ approach, which emphasizes the structuring of talk by prevailing ‘discourses’, or ‘interpretative repertoires’ (Wetherell, 1998). This approach concentrates on issues pertaining to power, ideology and subjectification. ‘Top-down’ approaches concentrate on how people are positioned within discourse/s, ‘bottom-up’ analyses underline people’s agency in conversation (Gough & Peace, 2000). The latter approach was used in the ‘batman’ study (Jones-Parry et al., 2000), since the focus was on the immediate context of the play frame for the child and various tools were used in order to carry out the intent of the play. Success in becoming an "insider" in the discourse of this particular environment is a measure of the child's level of participation and thus of their learning opportunities. The context of participation in the study was play and reality, and play was divided into role play and ‘metaplay’ for the purposes of setting up a code of analysis.

The concept of metaplay is useful to look at briefly here since it demonstrates the importance of children’s active participation and negotiation in role playing and the development of peer culture. Trawick-Smith (1998) defines metaplay as the act of stepping out of a make believe role to think or communicate about play. During these "out of frame" discussions and negotiations about play, children must think and talk about symbolic representations and other internal mental processes (Fein & Schwartz, 1986). Trawick-Smith's three categories of metaplay are Initiations, Responses and Constructions (physical actions regarding props or the physical play setting, which may be accompanied by verbalisations). These become the tools children use to carry out the intent of play. He found that older children performed more metaplay behaviours than younger ones, and that it is an indicator of greater social and cognitive competence. He also reports a growing need to represent the world with accuracy, and this explains why
children relate play to real life events as a "reality check". Therefore, metaplay does not occur in the play frame, but is tied to maintenance of it and is negotiated between players. In the ‘batman’ study (Jones-Parry et al., 2000) Trawick-Smith's definitions were used to identify metaplay but confined to analysis of language used.

For example:

Child D is sitting on a chair and waves to Child E to come and join.

Child E: Where's my chair? (Construction)

Child D: You don't get one, you sit on the cot. (Response)

Child E: This is the Dad's chair (Construction - pulls chair out from under the tent, sits next to child D). (p. 95)

Having set themselves up as Mum and Dad, these two sit in their chairs side by side, laughing, chatting and whispering to each other for several minutes with the "Dad" maintaining a straight backed pose keeping his arms in an uncomfortable position on the armrests. In this example, the children negotiated about the correct prop for their Mums and Dads game. This describes the "construction" category of metaplay and set them up for several minutes of "in role" play.

The description of role-play that includes metaplay is a way of describing the context within which the nature of children’s intent or interest in play and in the context of school, group activities, have developed. A useful background to the contextual meanings that the children give to these activities is the theory of language use called speech act theory that Austin, Searle and others (Craig, 1998) developed from Austin’s (1962) work ‘How to do things with words’. It is sometimes called pragmatics, as
opposed to the theory of meaning, or semantics. The distinction between ‘speaker meaning’ and ‘linguistic meaning’ aims to differentiate the nature of communicative intentions and how they are expressed and recognised. Types of speech acts are systematically classified as ways they can succeed or fail, depending on whether there is a response from the other person, particularly for what Austin calls ‘illocutionary acts’, or talk that infers what a person should do next. In the example of children’s talk above, when the child said “This is the Dad’s chair” the other child took the meaning to be an invitation to take on the role of Dad, and responded with an appropriate conversation that developed into a few minutes of ‘in role’ play. Harré and Van Langenhove (1991) describe the conversation process as including first order positioning, whereby in conversation people position themselves and others within an ongoing and lived story-line, as the two children above did within the theme of a ‘mums and dads’ role play. In their conversation, the two children are not only acting as individuals, but as developing a shared meaning of what ‘mums and dads’ are all about, or as Howie and Peters (1996) put it, they are ‘collaborators’ in the positioning that occurs as the story line develops, which relates to scaffolding and the development of ‘intersubjectivity’ (Newson & Newson, 1975).

In the ‘batman’ study the analysis of the categories of intent of joining, maintaining or excluding arose from the Discursive Action Model (DAM) proposed by Edwards and Potter (1992), Harré and Gillet (1994) and Harré and Stearns (1995). This set of principles is somewhat like attribution theory, but disputes the ‘window on the mind’ epistemology of language that is generally implicit in attribution theories (Edwards & Potter, cited in Harré & Stearns, 1995). Rather than viewing attributional reasoning as a matter of figuring out the best sense of perceived events or how best to inform another person of what she needs to know, it requires much empirical and theoretical analysis of
what goes on in ordinary discourse to make situated conversation possible (Edwards & Potter, 1995). It also advances the idea that what people (children) do is never neutral but that they will have some form of ‘interest’ or ‘stake’ in the activity (Potter & Wetherell, 1990).

The first element of DAM is Action. This model proposes that the most useful data for analysis comes from natural, uncontrived activity sequences. The second element in the model is Fact and Interest, which relates to the way participants in any activity construct their understandings around their motivation or stake in the outcome of activity. The third element is labelled Accountability, which suggests that participants position themselves as part of their construct of the situation in relation to their sense of accountability for the progress and outcome of the activity. “In relation to children’s play, child initiated play as the most useful object of observation seems obvious, as children have a stake in becoming ‘insiders’ or maintaining their position as established insiders, and that this motivates activity is a compelling idea” (Jones-Parry et al., 2000). Children may also construct themselves as independently accountable for the maintenance of the ‘game’ or conversely desire to become part of the game and thus construct their accountability position as dependent on the insiders. Intent here is identified as the children’s attempt to become members of the prevailing discourse (insiders), to maintain their positions as already competent participants or to exclude some potential players (outsiders).

Edwards and Potter (1995) offer several areas of support in the literature for this model, including the broad base of research on discourse and interaction, and linking it to a small number of studies on the issues of causal attribution. Corsaro and Miller (1992) see the process of meaning creation, which includes child and context together viewed
as a system, drawing upon the interpretive theory tradition. Meaning can only be understood by situating children in their cultural contexts. This means that a western assumption of child development, for example in generalizing from European or ‘pakeha’ New Zealand traditions to understandings from different Pasifika cultural perspectives, is often problematic.

Wertsch cited in Resnick, Levine & Teasley (1991), describes the ‘prevailing discourse’ as ‘social language’, and he draws on the work of Bakhtin, a contemporary of Vygotsky to develop this idea. Social language is a way of speaking that is characteristic of a particular group in a particular sociocultural setting. “Such an analysis moves away from an exclusive focus on unique (i.e. unrepeatable) utterances to a focus on types or categories of utterances, but it continues to be grounded in the essential assumption that linguistic expressions cannot be understood if they are treated as if they belong to nobody” (Wertsch, 1991, p. 95). These expressions of social language are best understood in context and not in isolation. The individual and interpersonal planes of analysis when viewing the classroom practices that encourage participation in children learning to ‘do school’ can give meanings to the social language of the new entrant.

It is an oversimplification to suggest that all children need to be "insiders" in the context of joining in the conversation around the ‘play’, as there are many nonverbal features of play that children engage in to join or maintain play. There are similar constructs for positioning children in the new discourse of group activities in the new entrant classroom at school. The discursive action, for example of standing alongside the speakers and being a ‘silent’ participant, can be a very powerful position to either join in or maintain the flow of the activity. As Dockett and Perry (2003) found in their
research in the Starting School Project, even when children’s perspectives are sought and listened to, these are not necessarily representative of all children in all situations. Some children do not feel empowered to express their views, and some choose to remain silent. Some voices and some views are not heard (Viruru & Cannella, 2001), possibly because children do not express them, or perhaps because the adults listening do not hear them. It is important that the frame of reference adopted by researchers is attuned to the messages children convey, and take into account the ways in which the researcher interprets children’s expressed views in the context of their own experiences, expectations and beliefs.

The analysis raised in the ‘batman’ study provides a framework for considering the issues of intent proposed by the Discursive Action Model. The coding system developed from the observations sometimes suggested that a child's intent was to join, but was failing or was excluded or acted to exclude. Tools that help clarify teacher observations so they can act on the information they provide are the important first steps in early intervention. May and Kundert (1997) in their review of school readiness practices and children at risk argue that being identified as at risk includes many more factors than the student characteristics and their background conditions. They suggest that best practice intervention programmes for at risk children should consider these issues from a constructivist perspective that recognises the ongoing interactions between students and instructional programmes. Few studies examine both the content of the curriculum and how the curriculum influenced the children. The importance of the teacher in ‘setting the scene’ through classroom activities that engage children who might otherwise find the curriculum inaccessible can open the door to participation and learning. The focus of this study is how the teacher and more expert peers facilitate the
children’s participation in valued classroom discourses and activities to promote successful adjustment to school.

**Perspectives on observation**

There are some issues around how best to observe children in the classroom setting to investigate the role of teaching practice and peer behaviour in the adjustment to school. Pellegrini (1996) identifies two perspectives guiding the use of observation tools. He calls them the insider perspective and the outsider perspective, which generally correspond to the qualitative, or interpretive approach, and the empirical, or quantitative methodology, respectively. In linguistics, the distinction between the interpretive and the empirical is referred to as the emic and etic distinction. For example, phonetic analysis describes certain sound properties, and description is concerned primarily with measuring those properties of the sounds produced, which is the outsider (etic) or empirical, quantitative approach. Phonemic analysis, however, is concerned with the extent to which different sounds have different meanings for specific groups, and relates more to an insider (emic) qualitative approach.

The research methods chosen, according to Glesne and Peshkin (1992), need to reflect personal choices, but are also embedded in our cultural and historical contexts. They cite Popkewitz (1984) as placing the move from positivism toward interpretive approaches as responding to that larger sociocultural context. Context here means any physical or social feature of an activity that channels behaviour (Rogoff, Gauvain, & Ellis, 1991). Recent work in developmental psychology that has focused on cultural variation in human development has brought researchers’ attention to the role of context in human development. Variations in cultural context may give different meanings to otherwise identical behaviours, through the experience of different cultural groups.
Social contexts are differentially ‘scripted’ in different societies, and these cultures transmit generalized guides to action (Cole & Cole, 1989).

Rogoff (Rogoff et al., 1991) further argues that cross-cultural psychologists distinguish degrees of sensitivity to the broad contexts of human functioning in discussions of emic and derived etic research strategies. These descriptions correspond roughly to Pellegrini’s ‘insider and outsider’ perspective (Pellegrini, 1996). In an emic approach, an investigator attempts to maintain the rich interplay of all aspects of the cultural context in the description of a cultural group. Therefore, such research makes use of ethnographic observation and participation in the activities of the culture studied. In the ‘derived etic approach’, the researcher adapts general statements regarding human functioning to fit each cultural group studied. The resulting statements may be sensitive to the cultural context and the varying meaning of the variable across cultures. This is in contrast to what Rogoff calls an ‘imposed approach’ where the investigator attempts to make general statements across cultural groups, but with insufficient attention to the cultural contexts used to support that generalisation.

The success of the process of engagement with teaching and learning depends on teachers and learners using talk with joint activity, and relating to other activities in order to build a shared contextual framework (Light & Butterworth, 1992). In the context of this study, the observed activities and opportunities for interaction that make a child’s successful adjustment into a particular school context will depend on careful observation of that discourse environment, including teacher management of peer interaction. The ‘outsider’ approach or derived etic approach to observation may uncover the immediate or person-centered externalization of these processes, what Valsiner (1997) calls the ‘personal culture’ that is publicly visible. Personal cultures are
almost always expected to transcend the expectations inherent in the collective culture, and will provide diversity. This observational approach and tools were useful in order to begin to answer questions regarding the transformative effect of peer interactions in the new entrant classroom.

**Social perspectives on transition in the New Zealand context**

Several New Zealand studies have looked at the transition and adjustment issues from the socialisation perspective in the early years. Renwick (1984) discussed implicit measures of readiness that teachers in New Zealand hold that were highlighted in the critical comments teachers made about some children’s lack of attention or language skills. This study indicated that children were being assessed against an image of what they expected of a five year old. The Competent Children research project (Wylie, 1996) aimed to explore whether home and education have different roles in the development of New Zealand children’s competencies, and whether those roles change over time and as children have other experiences. The ‘being’ competencies studied were communication, curiosity, perseverance, social skills with other children and with adults, and individual responsibility. The second stage of the project followed up 300 New Zealand children at age six, after they had been at school for a year (Wylie & Else, 1998). The findings showed that some of the impact of children’s experiences before the age of 5 shows up at the age of 5 when starting school, but the impact of these experiences does not show up until at least a year later for others. It also showed that differences in school resources do make a difference for children, and that children’s current home activities also matter, regardless of family income, e.g. having a computer in the preschool years and getting a daily newspaper.

As discussed earlier, the ‘socialisation model’ of emergent literacy that McNaughton developed (1995; 1998) outlined the interdependencies between the various learning
environments that children experience. The issues around differences in the ‘cultures’ of the home and school learning environments have been highlighted by the evidence that Māori and Pasifika children in New Zealand are not provided with educational provisions sufficient to guarantee nationally expected rates of progress (McNaughton, Phillips, & MacDonald, 2000; Timperley et al., 1999). Literacy instruction that was based on sociocultural and co-construction views of the nature of learning, language, and literacy (Phillips, McNaughton, & MacDonald, 2001) in the Picking up the Pace study has become the basis for an intervention involving 72 teachers from 12 largely socioeconomically disadvantaged schools (Phillips, McNaughton, & MacDonald, 2004). A mixed longitudinal and cross-sectional design was used to examine the effects of an intervention through professional development of teachers from a range of backgrounds that modified instructional practices in beginning literacy instruction during the first 6 months children attend school. The intervention was designed to create repeated opportunities for teachers and children to be actively engaged in problem solving situated in the literacy practices of classrooms using four instructional settings within the context of the general literacy programme. Implications for effective instruction of literacy and language in classrooms are that instead of relying on discrete programmes alone for daily activities, teachers need not only a deep understanding of literacy and language, but also an awareness of the moment-by-moment developments that occur while learning in the joint activities of daily classroom interactions. “A further implication is that teachers need to know how to arrange, select, and deploy activities that reflect and build on the social practices of the school, and understand how they act as an ‘expert’ within such activities” (Phillips et al., p. 314). The success of the professional development is consistent with other research highlighting properties of more effective teaching in these urban settings with diverse cultural and language
students, such as the participation in a community of learners to develop shared understandings about effective practices (Fullan, 2001).

In their study of social life and learning in a new entrant classroom, St. George & Cullen (1999) wanted to identify developments in the ways children make use of peer modelling and assistance in order to ‘scaffold’ their knowledge and demonstrate their increasing competence to ‘do school’. They used a narrative observation technique to record children’s ongoing sequence of actions as well as to capture details of broader classroom activities that impinged upon the child’s activity.

Each child’s observations were coded sequentially, with natural units of behaviour grouped within categories that included moving into routines, response to demands from adults and attending to the teacher, as well as non task-related verbalizations. Case studies from the eight target children selected on the basis of time of entry to school were described, with peer related behaviours ranging from simple awareness of peers as a source of information, to being a provider of scaffolding as new children joined the classroom. To capture the emerging interactions the new entrant child makes in the gradual adaptation to the role of school learner over time, it was necessary to conduct observations over two school terms, with weekly observations one term and for three weeks at the beginning of the next term. This developed the indicators of ‘scaffolding’ that emerged, as well as an acknowledgement that a rich peer ‘underlife’ operated in the classroom, which was separate from the official class programme.

The assessment of children’s social behaviour in the early years of schooling is documented as being of great importance in New Zealand schools, as indicated by official Ministry documents, including curriculum statements as well as school mission statements and report formats, and also teachers’ comments (Burgon & Thompson,
In Burgon & Thompson’s study, 14 teachers were interviewed from randomly selected schools in the greater Wellington area about schooling and the desired behaviour for five-year-olds. A comparison was made between the ‘official curriculum’ (as in the documents), alongside the ‘actual curriculum’, when teachers described particular children. There was an agreement as to the definition of a core set of social behaviours which figured predominantly in both the official and actual curriculum, including students’ ability to work cooperatively, communicate with peers, work independently, respect peers, and accept and respond to group discipline. There was some disagreement, however, about how a number of other dimensions appearing in the official curriculum might be defined in the actual one, such as conflict resolution, coping with peer pressure, and playing and working competitively. There was also of note the frequent identification by teachers of the importance of routines, a dimension of not great import in the ‘official curriculum’.

The methodology and techniques of observation over time has much relevance for the question of this study relating to how children’s active participation will benefit children’s transition and adjustment to school. The observation techniques from the two studies mentioned above highlight the importance of preliminary observations to begin to understand the discourse environment and develop categories for observation to begin to explain what adjustment and peer acceptance is in the transition to school.

A case study analysis of four twelve year old children’s public and private recorded statements to peers and themselves during a social studies lesson, gives a useful insight into the ‘enacted curriculum’ (Alton-Lee, Nuthall, & Patrick, 1993). It is part of a larger New Zealand research programme (Understanding Learning and Teaching Project) that explains knowledge acquisition in classrooms as a developmental process.
in which children generate specific ‘knowledge constructs’ as they participate in both the ‘official’ world of the teacher’s instruction, and the ‘unofficial’ one of children’s talk in response to it. “Children’s utterances, when triangulated with other data, can illuminate the hidden cognitive and cultural processes that mediate their learning and well-being” (Alton-Lee et al., p. 52). The data sources used from a single class lesson were the transcripts of the public enacted curriculum, and the children’s private utterances (transcribed from the audio recordings), as well as video observational records of the four children, tests of short and long-term learning outcomes, and interviews with the teacher and with the children. Video observation in the classroom is a powerful tool and will be used in this study to help understand and analyse the school discourse environment.

**Validity and methodology**

The importance of results in an investigation being believable and trustworthy is of prime consideration in any research. Internal validity, which is sometimes argued as reflecting an external reality, is described more in the context of this study as the extent to which research findings are congruent with relevant constructs developed from a well argued, consistent and logical framework. This framework developed by the researcher comes from the consideration of prior research and theory. External validity, the extent to which the findings of a study can be generalized to other situations, is the other main aspect of validity. In quantitative research, there are statistical methods to measure validity from working hypotheses. However, in qualitative research, working hypotheses and arguments are often supported by alternatives to statistical analysis such as concrete universals, naturalistic generalisation, and user or reader generalizability (Merriam, 1998).
The methodology that underpins both studies in this thesis comes from a small-scale observational study as well as case study methodology, that both fit into a qualitative framework with some quantitative components. The video observational method was developed from Pellegrini’s outsider or ‘derived etic approach’ (1996) discussed earlier. The main issue from this perspective is the interpretative nature of meaning making that can have many variables across cultural groups for example, and therefore the resulting statements from the observations must be sensitive to the context. In qualitative research, the understanding of what constitutes reality is generally the researcher’s interpretation of participants’ interpretations or understandings of the phenomenon of interest. As Stake (1994) notes, knowledge gained in an investigation “…faces a hazardous passage from writer to reader. The writer needs ways of safeguarding the trip” (p. 241). Several strategies can be used to enhance the validity of qualitative studies.

Triangulation is a strategy employed to establish the internal validity of a study. This can be achieved by using multiple investigators, multiple sources of data or multiple methods to confirm emerging findings. The present study uses multiple data collection methods of interviews with teachers and observation of children in the classroom by using video, which in itself gives a more holistic view of interaction, especially since it can be replayed many times. This is triangulated with the analysis of the perceptions of the teacher and researcher, which is the ‘personal culture’ (Valsiner, 1997) that is publicly visible and provides diversity. Peer review by the educational research community is also important. Validity for interpretative research is greatly strengthened through these methods.
Discourse analysis focuses on the thread of language embedded in any context, and the activity and sociocultural aspects are the focus of this study. The validity for discourse analysis and other qualitative methods is not constituted by arguing that it reflects ‘reality’ (Gee, 1999). The analyst interprets his or her data in a certain way and that data so interpreted, in turn, renders the analysis meaningful in certain ways and not others. Gee argues that discourse analyses are not necessarily ‘subjective’, and that a range of validity criteria can be used. He does not see it as how one tool of inquiry works on its own, but rather, how our various tools of inquiry work together. “We test the whole analysis in terms of how much data it covers, how well it works on new sources of data, how much agreement we can gather from others, how well tied the analysis is to a wide variety of linguistic details, and whether or not there are competing analyses that work better in any or all these respects than ours” (p. 7).

Discourse analysis is based on four main elements according to Gee, one of which is convergence, in which the answers to the six tasks of constructing a language situation are compatible and convincing to the reader. The second element of these tasks is called agreement, in which the answers to questions are more convincing to the ‘native speakers’ of the social language, and the analysis reflects how such social language actually can function in their settings. The analysis adds validity by coverage, so that it can be applied to related sets of data, and finally linguistic details, which tie it tightly to details of linguistic structure. Gee (1999) argues that it is highly probable that the answers to the building tasks of the analysis, the perspectives of different ‘inside’ and ‘outside’ observers, additional data sets, and the judgments of ‘native speakers’ and/or linguists will converge in many respects. In many cases, for the individual piece of work, convergence and linguistic details are the most immediately important aspect of validity. This piece of work is then juxtaposed to earlier and later work in the field to
be socially judged and adjudicated by peers and readers. The studies in this thesis give convergence with the triangulation of the various data sources used from interviews to observation. The linguistic detail comes from the analysis of the transcripts (both audio and video) that provided developing themes to begin to answer the questions.

For external validity, the basic question that applies equally to both quantitative and qualitative research is the extent to which the findings of one study can be applied to other situations. In qualitative research, the small samples usually are selected precisely because the researcher wishes to understand the particular in depth, not to find out what is generally true of the many. The most common way generalisability has been conceptualized in qualitative research is as reader or user generalisability (Merriam, 2002). Case-to-case or user generalisability is common practice in law and medicine, where the practitioner decides whether a previous case is applicable to the present situation. The researcher, however, must provide enough detail of the study’s context through rich, thick description in order for these comparisons to be made. The logic behind this method is that if there is some diversity in the participants interviewed or observed, then the readers can apply the results to a greater range of situations, which enhances external validity. The in depth descriptive analysis that this study provides of classroom practices will have relevance to other urban school settings in similar socioeconomic environments in New Zealand.

Research that uses narrative description more than measurement description, such as qualitative research, must be ‘well grounded or justifiable,’ but the sometimes narrow criteria for well-groundedness or justifiability that the measurement perspective carries with it can be difficult to apply in interpretive research (Graue & Walsh, 1998). Lincoln & Guba (1985), for example, have given up on the notion of validity, preferring
to develop the concept of ‘trustworthiness’ in judging interpretive research. Graue and Walsh go on to describe four interrelated dimensions of validity in case study research that are situated in a specific text and in the relationship that text has to various communities of practice, which in this case is the educational (schooling) community and those concerned with it. These dimensions have to do with technical and methodological validity as well as interpretive validity in which there is a balanced, grounded interpretation within the intersection of theory and data. The next dimension they outline attempts to answer this question: “Within a set of research questions, how does the written format relate to the theoretical perspective taken and the understandings generated?” (p. 247). The validity of the text is a judgment related to the purposes and frameworks of the researcher as well as the needs and intentions of those who read the work. In representing the agendas of writers and readers, the write-up must portray the complexity of the context and also be congruent with the theoretical perspective and sources of theory that support it. Their final dimension of validity has to do with praxis-oriented validity, or how does this work create possibilities for new understandings of children’s lives in this educational setting, and further, how does it promote action to that end in relation to teaching and learning in the classroom? This type of validity has to be negotiated and renegotiated throughout the life cycle of the research project, also considering the links between each phase of the project since there is more than one study in it.

Internal validity also involves inter rater reliability from the observational coding used, which in this case comes from the categories of collaboration in the classroom, as well as the interpretative validity from the derived categories developed and supported by previous work by the researcher and others. The overall analysis of the amount and type of collaborative strategies used in the classroom sessions, along with an in depth
analysis of the preferred strategies used by four of the children will also give some quantitative account as to the usefulness of the categories in describing participation.

The researcher is the primary instrument for data collection and analysis, and interpretations of reality are accessed directly through observations and interviews, which gives ‘closeness’ to reality. “Most agree that when reality is viewed in this manner – that it is always interpreted – internal validity is considered a strength of qualitative research” (Merriam, 2002, p. 25). These multiple data sources and different perspectives used help to give evidence of how the new entrant child engages with the ‘culture’ of the classroom. The concept of praxis-oriented validity (Graue & Walsh, 1998) is important in creating possibilities for new understandings of children’s lives in educational settings, in particular the role of peers in relation to classroom activities, that can promote children’s successful adjustment to school.

The assumption that specific properties or processes of the enacted curriculum and patterns of socialization in the classroom can be identified through these observations and interviews using the sociocultural perspective as framework to do this will be investigated in the following studies. The next chapter will discuss the method used to do this for both studies, and the results and discussion of these investigations will be discussed in chapters 4-6.
Chapter 3 – Method

Introduction
Two studies were undertaken to explore the influences of scaffolding in the transition and adjustment to school that occur between the teacher and child and other children, and also in relation to the classroom activities and curriculum.

Study One
The first of the two studies explored the individual and contextual issues that impact on the transition to school for the children and their peers. This context of a developing ‘community of learners’ is largely organised or managed by the classroom teacher who holds beliefs about teaching and learning and also engages in practice. The development of complex group relationships among children who learn to take responsibility for contributing to their own learning (Rogoff et al, 1994) is of prime importance in ‘doing school’. The potential tension between teachers’ beliefs about social learning and creating opportunities for this to occur in curriculum learning was the focus of this study. The study posed the question: What do teachers see as the relationship between children’s social participation in their first year of school and their access to the formal curriculum? This question was explored by investigating the relationship between teacher beliefs and practices that become apparent during the child’s transition and adjustment to school.

In their interviews and analysis of documents in the New Zealand system, Burgon and Thompson (1997) outlined a definition of a core set of social behaviours that figured
predominately in both the official and actual or ‘enacted’ curriculum in the primary school classroom. This definition includes social skills such as the ability to work cooperatively, communicate with and respect peers, and respond to group discipline.

A number of researchers have documented what teachers believe about the importance of children’s social competence in Australian and New Zealand new entrant classrooms. A major survey in New South Wales (Dockett & Perry, 2004) where parents and teachers were asked to rate a list of 20 important items about deciding whether a child has had a successful first two terms of school found that most emphasis was on the areas of children’s adjustment to the school context and their dispositions or feelings about being at school. Less emphasis was attributed to areas such as knowledge. A study in New Zealand urban schools (Timperley, McNaughton, Howie, & Robinson, 2003) asked teachers what they would like early childhood education centers to do when preparing children for the transition. The most frequent reply was for the centers to establish children’s routines, such as following instructions, toileting, understanding rules and developing social skills. However, when early childhood centers were asked, they nominated preparing children through literacy and numeracy activities as their highest priorities, thus creating a mismatch in expectations. This example of the mismatch in beliefs related to ‘social learning’ also becomes evident in discussing how the transition experiences are managed by the teacher in order to promote the child’s successful adjustment to school.

Teacher beliefs and pedagogy
Teacher beliefs about helping children learn about the world are made up of a body of assumptions that can be called ‘folk pedagogy’ (Olson & Torrance, 1996). This is not just about how teachers adjust their teaching to the backgrounds, abilities, styles and
interests of the children they teach, but includes beliefs about different sets of assumptions about how children learn.

The dominant view of learning and teaching in early years education in New Zealand is the classic maturationist view, which includes the concept of ‘readiness to learn’. McLachlan-Smith & St George (2000) found in their interviews of 12 head teachers in New Zealand kindergartens that they had “a good understanding of the stages of child development, a firm belief in the individuality of development and the use of observations, checklists and discussions with parents were all used to understand how children were developing” (pg. 42). New entrant teachers also use the first two weeks at school to observe how children are settling in to the new environment and make informal notes about this progress.

Even though teachers can describe their particular approaches to teaching, what remains problematic in pedagogical practice is that teachers are often unaware of their beliefs about how children learn (Astington & Pelletier, 1996). In many ways, the inherent theories of teachers are eclectic. There is almost always a belief in appropriate practice, but as McLachlan-Smith and St. George (2000) outlined, the speech genre that the teachers used to describe practice appeared to be based in a belief in social constructivism. These authors asserted that this set of beliefs has been facilitated by the promotion of child-initiated programs as a common sense way of coping with few teachers and 80 children in two sessions a day in a kindergarten.

As noted earlier, the social constructivist models of learning and teaching that have their roots in Vygotskian theory include the concepts of scaffolding and apprenticeship into a community of learners. These concepts offer a particular way of understanding the teacher-child relationship, but also peer interaction in the classroom. In the
transformation of participation perspective Rogoff (1997) views participation as a collaborative process between teacher and student, and observation of the roles that children begin to carry out in the learning activities in the classroom may help the teacher evaluate the intent of that child’s participation. Unlike the early childhood center, the primary school classroom is a more structured environment, in which the teacher directs many of the activities that support the curriculum. The child in the new entrant classroom, therefore, is seen as a novice in the community of learners, and develops a new discourse of participation through engagement in actions and interactions (Gee, 1989). Wenger (1998) also asserts that experiences of non-participation do not necessarily build up to an identity of non-participation, especially for newcomers, but these experiences may lead to marginality and exclusion over time, especially if collaboration does not occur. The ‘folk pedagogy’ of new entrant teachers with their own set of teacher beliefs is likely to encourage different provisions for peer interaction than those in early childhood settings.

Curriculum issues
Besides different teacher beliefs and assumptions about learning, there are curriculum differences between early childhood and primary classrooms in New Zealand that can create discontinuities (Cullen, 1996; McNaughton, 1998). While the cognitive dimensions of development and learning are embedded in Te Whāriki (Ministry of Education, 1996), the New Zealand early childhood curriculum document, the missing dimension of early childhood teaching practice has tended to be knowledge about curriculum areas, which makes continuity with the primary curriculum difficult to achieve and may act as a barrier to creating effective links between settings (Cullen, 1996).
The revision of the official curriculum for New Zealand schools (Years 1-10) over the past ten years has coincided with the devolving of the management of schools to their local communities. The revised national education guidelines (1999) encourage learner participation and engagement to access the curriculum, an example of which is shown in its first goal. This goal promotes high standards of achievement that enables all students to realize their full potential as individuals, and to develop the values needed to become full members of New Zealand's society. The Ministry of Education’s curriculum stocktake reference group, which has undertaken a literature review and further research into the first ten years of curriculum implementation, has already found many gaps in the implementation of the national curriculum in schools. The group’s consensus is that the national curriculum is overcrowded, that depth is sacrificed for breadth and that there are negative implications of the overcrowding for student learning. The recent revision of the National Administration Guidelines (Ministry of Education, 1999) with the increased emphasis on numeracy and literacy (especially in years 1-4) is seen to have addressed this issue positively but insufficiently. The focus on attitudes and values that may relate to children’s participation and adjustment to school was seen to be a strength of the national curriculum, but feedback given to the curriculum stocktake reference group stated that more emphasis was needed in this area.

The possible tension regarding opportunities for successful participation in the early primary school curriculum, and the relative importance of social learning that teachers perceive often competes with ‘formal learning’ was the focus of the first study. The analysis of what the teacher’s espoused beliefs about successful adjustment to school from the interviews conducted was compared to the themes that emerged in their descriptions of the classroom. The role of peer culture and engagement with the curriculum helped to give a clearer picture of what they saw as coping in the new
environment. This may help to outline some of the issues for teachers in helping to manage the transition and adjustment experiences for new entrant children.

**Method**

**Subjects and Settings**

Three interviews took place with three teachers in two schools. Both schools were selected through network sampling. The researcher has had contact with School A through practicum supervision of students. This was useful as the researcher had already established a professional relationship with two of the senior managers, but had not known the two teachers from the junior syndicate previously who were subsequently interviewed. School A later became the site for further observations in Study 2, and the shared and sometimes different perspectives they had about successful adjustment to school provided a critical basis for describing the developing classroom participation in the new entrant classroom.

One of the new entrant teachers (Jane) had responsibility for the junior teacher syndicate. The other teacher at School A (Katy) was the Assistant Principal (AP) at the school, and was a Year 2 teacher. Both teachers have taught at the school for over 14 years, and the AP has also taught new entrants. School A had a roll of 547 children in a socioeconomically disadvantaged urban community in Auckland. There has been an emphasis on social skills and values teaching as part of the school’s behaviour management program, and the school employs a student support person who works with a group of children and individuals who require social skill development, and has implemented a school wide anger management program with the staff.

School B had a roll of 440 students, and is situated in middle to high socioeconomic area with a rural/urban mix in Auckland. It provided a contrast not only in the
community the students came from, but there was also a contrast in how the children were placed into classrooms upon entry to school. Megan, who is the Deputy Principal of the junior school, has taught at the school for 13 years, and is responsible for the seven teachers who make up the vertically grouped reception/Year 2 classes. She has also been a mentor on a Bachelor of Education programme, and organised students’ teaching practices in schools. This mentoring experience and contact with a wider range of schools helped her to compare her school’s vertically grouped reception programme to the majority of other schools who did not use these groupings for new entrants. All three teachers could be seen as experienced and highly competent junior class teachers with management experience of working with other teachers both within and sometimes outside their school.

**Interviews**

A series of questions was asked of each of the three teachers in a structured interview concerning the following topics:

- Teacher beliefs about what adjustment to school means for new entrant children
- How they believe participation relates to successful adjustment
- What they know about a child entering school, as well as what informal/formal assessments are used to describe ‘settling’ into the new environment.
- Their beliefs in regard to social learning and children’s engagement with the formal curriculum

Their statements, particularly when they described classroom practice, were used to draw some insights about their views of children’s participation and adjustment to school. These interviews were audiotaped and transcribed. All the teachers had an opportunity to read the transcript of their interview and add, amend or delete any section. There were few instances of corrections to the transcript after this had been completed, and they were minor corrections that did not affect the meaning of the statements made. An analysis of the teacher discourse from the transcribed data was
then done by the researcher using the qualitative software tool NUD*IST N4 (Richards, 2000) that helped to group the statements into common themes. The codes used for software analysis emerged through preliminary analysis of the transcripts. These themes centred on beliefs that these teachers shared about the importance (or not) of social learning and opportunities for this to occur, including any ‘silence’ in their descriptions concerning a main theme.

**Study Two**

The focus for Study two was about both the characteristics and functions of peer interaction in the development of participation as well as how classroom activities provide space for the ‘transformative effect’ of experiences that influence participation. Two specific questions guided the research.

1. What are the characteristics and functions of peer interaction in the development of participation in the new entrant classroom setting?

2. How do classroom activities provide space for the ‘transformative effect’ of experiences that influence participation and interaction between the new entrant child and teacher and peers?

As reported in Chapter 4, the first study showed an apparent discrepancy in teacher beliefs about the role peers play in the development of successful participation in the classroom. In general, Study two explores how the new entrant engages with the ‘culture’ of the classroom and the importance of ‘teacher structuring’ in this process. Activities are structured events, and in the context of the classroom, there are known patterns of action within activities, but they allow for dynamic variations in participation. These settings incorporate cognitive and motoric action, as well as the external environmental and objective features of the occasion. The meanings of
activities, and thus the motivations for them, are to a degree given by the goal. In addition, the meanings are developed by the emergent intersubjectivity of group performance in its time and place (Tharp & Gallimore, 1988). The different strategies of participation used by the new entrant child during the classroom sessions, along with other children are a part of the new discourse the child learns. The activities of the classroom, whether formal or informal, become curriculum spaces for participation to develop.

**Method**
The description of participation during the main morning activities of reading, writing and mathematics in the new entrant class used video observation and analysis of the peer collaboration that occurred in sites around the classroom. The study proceeded in two phases. The first phase started with observations in the classroom setting that allowed identification of potential sites and activities where peer interaction, both formal and informal, occurred. The second phase was systematic observation using video records of the classroom morning sessions over five weeks providing details of the development of participation and collaboration between four target children and their peers. Activity settings such as literacy and numeracy sessions are the contexts in the classroom in which the collaborative interaction and development of intersubjectivity occurs, which is part of the teaching and learning process. Activities are structured events, and in the context of the classroom, there are known patterns of action within activities, but they allow for dynamic variations in participation. We assume that participants must come to have shared understandings about the goals of, and ways of acting, in the activities that aim to promote learning and development (McNaughton, 1995).
“Activities can be defined more precisely than we have thus far by describing their specific features. These include the ways of participating and the forms of guidance that they offer, the goals for carrying them out held by participants, and the range of expertise developing from the activity” (McNaughton, 2002). The teacher’s presentation of a poem to the children, for example, may vary in goals, ways of participating, forms of guidance, and learning outcomes. These all create different roles for the activity. The overall form of the activity can be seen as what the teacher and child generally do to get the business done (McNaughton, 2002). Activities can be joint, in which the learner engages directly with another or others, and which includes teacher direct instruction. They can also be ‘personal’, in which the learner engages relatively independently, and the child determines the structure, for example in the classroom this often occurs in small group or individual set tasks (McNaughton, 1995). In this study, the following contextual parameters relate to categories of participation and collaboration that describe the sequences videoed in the classroom. These are routine activities, teacher assigned curriculum tasks, and child initiated curriculum tasks that occur under less supervision from the teacher but usually maintain the intended curriculum activity and may include other children. The latter two tasks became the focus for the video observations in the classroom.

Participants
The primary school where the study took place had a roll of 547 children (August 2002), and is in a socioeconomically disadvantaged urban community in Auckland. There is an emphasis on social skills and values teaching as part of the school’s behaviour management programme, and the school employs a student support worker who works with a group of children and individuals who require social skill development, and has implemented with the staff a school wide anger management
programme. The classroom teacher was a new entrant teacher who also had responsibility for the junior teacher syndicate and had been at the school for over 14 years. She often had a teacher aide in the classroom with her who sometimes assisted with small group work.

There were 22 children in the classroom at the start of the observations in term two, 12 children were recorded as European, 7 Māori, with one child from the Cook Islands. There was one Chinese and one Indian child. When the video observations started in the third term, there were 25 children in the class, and no new entrants came into the class that term. The children were engaged members of the classroom after settling in during their first few weeks at school. They ranged in age from 5 years 3 months to 5 years 7 months. The majority of children had early childhood education experiences and the oral language age ranged from 3.1-7.7 years on the listening comprehension test from the School Entry Assessment (Learning Media, 1998).

Four target children (2 boys and 2 girls) were picked by the researcher in order to provide a ‘snapshot’ of the class at that time, with two children having started school in the first term and the other two during the second term. One child was observed in the week he started school in term 2 during the preliminary (setting) observations. Two of the children were Māori and two were European, which were the two main cultural groups in the class. The researcher chose the ‘target children’ so that that they and the children surrounding them could be more easily filmed from the range of view towards the back of the classroom as they moved from activity to activity. This allowed the researcher to have at least one of the four children in view and within sound range during these activity sessions. Chapter 6 contains more background information about the children. All the four target children were present for all sessions on the three days.
except when Mere was sent out of the room briefly during the first session on the last
day to show another classroom the good service school cup she had received for the
week. The names of the children have been changed in order to protect privacy.

**Phase 1 Setting observations: procedure**
After the usual consent procedures were followed (see Appendix C for participant
information sheet and consent form), and parents/caregivers of the children were
consulted regarding any questions about the project, an observational exercise was
started in Term 2 (week 5-6). This consisted of 2 morning observations of the
classroom programme and helped to obtain descriptions of the formal and also informal
aspects of the programme, such as when large group and small group activities occurred
and also when and where the usual curriculum activities happened. This helped to
establish not only the context of these activities, but also the best position for the
camera to record these events in the classroom in the main phase of the study. It was a
time for the children to familiarize themselves with the researcher’s presence in the
classroom and answer any questions they might have. This was in the morning activity
times that included language/reading and mathematics sessions. During week 6, three
new entrants started in the class, which made it possible to observe them as they started
school to give some background to the class in this early stage of transition before video
observation (Phase 2) began the following term.

**Phase 2: Classroom activities analysis: procedure**
To get a useable descriptive picture of the activity sessions in the classroom
observations, the researcher recorded the ongoing discourse between the teacher and
children and between groups of children over the course of 28 episodes that made up the
activities during days 3-5. The video observations took place in the classroom for 5
morning sessions on Wednesdays from August to September during mathematics, language/writing and reading activities. The videotape from Day 1 and 2 contained full sessions from these 3 activities, and Day 3-5 focused on teacher assigned curriculum tasks in small groups, generally further away from the teacher. The transcript of talk (teacher and/or children) and other nonverbal interaction was completed for all the classroom sessions, except for short periods in Day 1 and 2 where there were sound difficulties. For this reason, the time frame sample focused on the tapes from Day 3-5.

The approach to discourse analysis that was used focused on the activity of language, rather than the language use itself, and is an approach (Wetherell, Taylor, & Yates, 2001) that studies “language use as a process, investigating the to-and-fro of interactions (usually talk) between at least two parties and looking for patterns in what the language users (speakers) do” (p.7). This was a useful approach for analysis of the ongoing interactions between children that followed on from the previous communication and that is inevitably shaped by what has gone before. This analysis can give an idea of how meaning has been created within the interaction, that is jointly constructed, and also how the language user is constrained by this classroom context.

The transcript created from the video produced of the activity sessions presents the talk (and nonverbal interactions) of the target children and others in the group in a sequence that develops meaning through interaction, or a ‘new discourse’. The teacher talk may be seen as what is called an ‘interpretative repertoire’ that introduces the language of the classroom, for example, the meanings for different teacher instructional commands.

The activities that became the focus of observation were generally after a large group introductory session with the teacher and the whole class, where the teacher gave instructions to the small task groups of children on what to do next. These groupings
were different for each session depending on what maths and reading activities were assigned to them that day, but did follow a pattern with up to 5 reading groups working at a time, during which most groups rotated and had some time with the teacher. During the writing activities, the children were generally in 3 groups at the 3 tables with two children working at a small desk away from the tables. The two main activities the children took part in that were on video were child initiated curriculum tasks, which were personal activities that occur under less supervision from the teacher that maintained the intended curriculum activity and may include other children, and ‘other activity’. In this category are joint or personal activities that are not intended to relate to the curriculum task at hand, for example ‘conflicting action’ which may disrupt the intended task.

**Categories and coding**

The perspective of peer scaffolding as discussed by Cullen and St. George (1996) describes the ways children make use of peer modelling and assistance in order to build their knowledge and demonstrate their increasing competence. The natural units of behaviour were grouped into categories that included moving into routines, responses to the teacher as well as non task-related verbalizations. The peer related behaviours focussed on procedures (rules and routines), were incidental (e.g. reactions to anything out of the ordinary) or related to curriculum centred interactions occurring in curriculum ‘spaces’ as children move from the role of receiving peer scaffolding to giver of scaffolding as less experienced peers join the classroom. It is the classroom activities and interactions, particularly peer interactions that provide opportunities for peer scaffolding that was the focus of the observations in this study. The social features of activities, e.g. the level of teacher input, the children’s response and amount of peer interaction, whether it is formal or informal interaction, and whether peers use direct or
indirect guidance as givers of ‘scaffolding’ are all potential categories for description. The observation of this collaborative process, particularly of the roles that peers play in activities in the classroom, may help the teacher evaluate the intent of the new entrant’s participation (Rogoff, 1997). The child’s newly developing discourse of participation through engagement with the activities of the classroom and curriculum can be described.

The child’s intent to participate in any activity alongside their more experienced peers can be categorized as peer interaction that helps a child to join in the activity (inclusion), maintain the activity, or be excluded by peers or act to exclude others. These categories were used in the Batman study (Jones-Parry et al., 2000). They were useful in determining from the contextual factors whether the children in the family play area of the early childhood centre were joining into the play frame, maintaining the play or acted to exclude others. The context of types or degrees of peer scaffolding in the new entrant classroom may also be interpreted in regards to the intent of the new entrant child to be included in or maintain the activity, or act to disrupt that activity. These interpretations may give information as to the quality of the ‘transformative effect’.

The three main categories of joining, maintaining and excluding in the present classroom peer interaction analysis were derived from the categories from the Jones-Parry et al (2000) activities, and were expanded with the use of Verba’s (Verba, 1994) categories of collaboration in peer interaction (see Table 1). Verba developed functional categories of joint activity collaboration using observational data with groups of younger children from 18 months to 4 years that started with elaboration of activity, such as repetition of partner’s action with same object or strategies or completing partner’s action. She found different modes of collaboration between age groups.
ranging from observation/elaboration to co-construction and guided activity. The main socio-cognitive processes were highly similar across all groups, however, and resemble those reported in experimental problem-solving studies involving older children. In the group of school aged 5-6 year olds in this study, the observation-elaboration mode and the one of interest in a partner (see Joining category) became the first aspect of the intent of joining an activity in the coding of the transcript. The development of what Verba called inter-comprehension or understanding through expression of ideas and intentions is described in the maintaining (receiving) category in Table 1. Receiving is about the maintenance of the activity and developing shared meanings, and includes self-monitoring strategies such as requests for help and expression of ideas, e.g. clarification and questioning. The other category that Verba (1994) called guiding strategies (involvement, facilitation and evaluation or feedback) is also a management strategy that corresponds to the maintaining (guiding) category of the research (Jones-Parry et al, 2000) discussed earlier.

The third category of exclusion developed from the above research included opposition or conflicting action called disagreement by Verba under her inter-comprehension category. Since conflicting action was the key aspect to this category for this group, and included verbal and non-verbal responses, the name was changed to conflicting action, and aggression (verbal or physical) was also included in the exclusion category. In addition, any routine activity such as a child interrupting an activity to go and let someone in the door was coded.
Table 1- Categories of collaboration

<table>
<thead>
<tr>
<th><strong>Category</strong></th>
<th><strong>Sub - Category</strong></th>
<th><strong>Definition</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Joining</strong></td>
<td>Joint interest</td>
<td>- in partners object or action</td>
</tr>
<tr>
<td></td>
<td>Repetition of (partner's) action</td>
<td>- with same object or strategies</td>
</tr>
<tr>
<td></td>
<td>Social bond</td>
<td>- reciprocal attention, establishing or sustaining interaction, showing of joint pleasure</td>
</tr>
<tr>
<td><strong>Maintaining (receiving)</strong></td>
<td>Information gathering</td>
<td>- observation of partners activity, request for info</td>
</tr>
<tr>
<td></td>
<td>Request for help</td>
<td>- appeal to partner</td>
</tr>
<tr>
<td></td>
<td>Expression of ideas</td>
<td>- information, clarification, questioning</td>
</tr>
<tr>
<td><strong>Maintaining (guiding)</strong></td>
<td>Involvement</td>
<td>- directing partners attention</td>
</tr>
<tr>
<td></td>
<td>Facilitation</td>
<td>- helping partner reach goal (demonstrating, correcting, suggesting)</td>
</tr>
<tr>
<td></td>
<td>Feedback</td>
<td>- giving feedback</td>
</tr>
<tr>
<td><strong>Exclusion</strong></td>
<td>Conflicting action</td>
<td>- opposition or 'off task' behaviour</td>
</tr>
<tr>
<td></td>
<td>Aggression</td>
<td>- verbal or physical</td>
</tr>
</tbody>
</table>

Each session (maths, writing and reading) was grouped according to episodes. An episode was defined in this study as an instance of an activity (features include goals, patterns of action and participation structures) which is initiated by the child or someone else with the target child, and ends with a change of goals, patterns of action or participation; or a period of non-interaction (Phillips et al., 2001). In the discourse analysis perspective, it is an extended discourse event treated as a narrative. The categories of collaboration between groups of children in the classroom that attempt to describe participation and peer interaction were then coded from the video transcript for the three final morning weekly sessions (days 3-5) that include sessions of mathematics, writing and reading. The videotape from day 1 and 2 contained full sessions from these three activities, but were incomplete since there were some sound difficulties. For this reason, and because days 3-5 focused more on teacher assigned curriculum tasks that
showed more peer interaction, it was decided to do a coding analysis from the final three days in the classroom.

As discussed earlier, four target children (two boys and two girls) who started school from the beginning of the year were chosen to be the focus of analysis, which included peers in their vicinity or with whom they interacted. Table 2 is a description of the sessions by episode and the type of activity and sites where they happen. Since the camera was positioned in the back of the room close to the door, the sites where group activities took place in closest proximity to the camera were the ‘mat’ or carpeted floor area and the two big tables that were closest to the camera and furthest away from the teacher. This enabled a clear view of the more informal and small group activities that were usually teacher directed, but since the teacher was usually positioned further away from the camera, more of the child directed activity episodes could be recorded that sometimes were not within the range of attention of the teacher. The children’s profiles and individual strategies will be discussed in more depth in a later section.
<table>
<thead>
<tr>
<th>Day</th>
<th>Session</th>
<th>Activity episode description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1 - Maths</td>
<td>1 – Small group on floor with 2 large dice taking turns in subtracting the large number from the smaller one</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – Short period of ‘other’ non curriculum task activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – Small group dice activity continues doing addition this time</td>
</tr>
<tr>
<td>4</td>
<td>1 – Maths</td>
<td>1 – Individual counting activity in bags with markers for recording numbers on the floor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – Individual white board addition activity (plus one) with markers at table</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – Same activity with different target group</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 – Resume activity after teacher talk to the whole group</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 – Small group memory card game on floor</td>
</tr>
<tr>
<td>5</td>
<td>1 – Maths</td>
<td>1 – Children sitting around table, each have a green chalk board, there is a container of Cuisenaire rods in the middle for addition task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – Teacher directed group addition task with the same children using rods</td>
</tr>
<tr>
<td>3</td>
<td>2 - Writing</td>
<td>1 – Large group activity on mat with teacher telling a personal story</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – Children sitting at tables writing a story about the school cross country day with teacher sitting at one end of the room</td>
</tr>
<tr>
<td>4</td>
<td>2 – Writing</td>
<td>1 – Children sitting at tables writing their own stories</td>
</tr>
<tr>
<td>5</td>
<td>2 – Writing</td>
<td>1 – Children sitting at tables writing their own story using a sentence story starter, 2 children are on opposite sides of a desk near camera</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – Two children initiate ‘keyboard writing’ activity at the desk</td>
</tr>
<tr>
<td>3</td>
<td>3 – Reading</td>
<td>1 – Large book reading group activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – Activity packs used by individuals or small groups on floor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – Small group around whiteboard with pens, activity packs</td>
</tr>
<tr>
<td>4</td>
<td>3 - Reading</td>
<td>1 – Teacher directed large group dictation with chalk boards on mat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – Reading small group letter matching game on floor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – Individual story book reading in small groups on floor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 – Activity packs used by individuals or small groups on floor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 – Tidying up activity materials in classroom</td>
</tr>
<tr>
<td>5</td>
<td>3 – Reading</td>
<td>1 – Reading group does picture letter sound cards activity on floor, another group also on floor reads large print books</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – Drawing/colouring activity at a table (different group)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – Small group activity on floor reading from a pile of poem cards</td>
</tr>
</tbody>
</table>

All activities containing episodes were individual or small group tasks except for two short episodes, one of which was setting the scene for story writing (3-2-1) after a large group spelling activity on the mat. The second episode (4-3-1) was also a large group
teacher directed spelling dictation task with the children using whiteboards on the mat. This was just before the children broke up into activity groups.

The transcript of the tapes from Days 3-5 (total tape time approximately 250 minutes except for one part where there were sound difficulties) was coded first for instances of collaboration with the target children and others (both verbal and non-verbal), and then coded further for the type of collaboration according to the categories. In addition, each interaction was further described as positive or negative to show the value of participation from the original teacher direction and the child’s intent to participate. A positive interaction generally maintained the activity, or could be interpreted by the teacher as ‘on task’ behaviour, and a negative value was an interaction that disrupted the intent of the activity.

**Reliability**

A reliability check was done from an analysis of the total video recording time in the classroom. Ten per cent or approximately 25 minutes of the Day 5 sessions were chosen for checking. Of the 25 minutes chosen, approximately equal amounts of time for each of the 3 activity lessons of mathematics, writing and reading were made available to be assessed. The reliability was assessed in two ways. The first came from viewing the tape and checking the transcript for any instances of collaboration (verbal or nonverbal) that were either incorrect or needed to be added for the four target children. The second reliability check was an analysis of the coding done in the areas of joining, maintaining, and exclusion. A check was also done on the assignment of negative and positive values of the children’s participation from the original teacher direction.
A colleague not involved in the study participated in the exercise. Tape segments from Day 4 were shown in order to develop a shared definition of instances of collaboration that involved the target children. Specific instances were chosen for analysis in the transcript. The subsequent coding was then discussed with opportunities for the colleague to ask questions about how it was defined. The ‘training’ of the colleague took two hours, and involved the researcher showing two short episodes from the 3 lessons in Day 4 (segments that were different from the ‘test’ Day 5 tape) and that gave a reasonable sampling of the instances of collaboration. These instances were defined as what the target children said or did with another child that showed the intent of ‘joining, maintaining or exclusion’ in regards to the activity.

The tape segments were replayed at the checker’s request and clarification was given as to why the researcher assigned a code, i.e. ‘information gathering’, for example. The focus for agreement between the researcher and colleague was the percentage of instances of collaboration recorded as well as the coding definitions used. Overall, the check showed the categories used for instances of collaboration and definitions for coding were reliable and will be discussed further in Chapter 5.

The researcher’s interpretation of the value of the interaction may not always have been the same as the teacher’s interpretation, and some of these discrepancies later formed useful discussions with her regarding participation. The analysis of the instances and categories of collaboration the children used helped to understand how extensive peer interaction is in the classroom, and also the quality of that interaction. After the videotaped sessions were completed, selected episodes of video were shown to the classroom teacher in order to provide analysis of sessions from the teacher’s perspective. This will be discussed in more detail in Chapter 6.
Validity

The multiple data sources and different perspectives used helped to give evidence of how the new entrant child engages with the ‘culture’ of the classroom. The context of types or degrees of peer scaffolding in the new entrant classroom may be interpreted in regards to the intent of the new entrant child to be included in or include others, or to maintain the activity. The child may also act to disrupt that activity. These interpretations may give information as to the quality of the ‘transformative effect’.

The categories of collaboration that were developed from previous work about how children join and/or maintain an activity, or are excluded by peers or act to exclude others were shown to be a reliable indicator of participation in this context. This aspect of validity has to do with what Graue & Walsh (1998) call technical and methodological validity. This leads to interpretive validity in which there is a balanced, grounding interpretation within the intersection of theory and data. The ‘outsider’ approach or derived etic approach to observation may uncover the immediate or person-centred externalisation of these processes, whatValsiner (1997) calls the ‘personal culture’ that is publicly visible. Furthermore, the reflection of the teacher in the daily life of the classroom is of necessity restricted because of the complexity of simultaneous events the teacher must manage. Systematic recordings of children’s participation in class can illuminate curricular, task, pedagogical and peer-group effects that are invisible to teachers in the daily visible world of classroom activities (Alton-Lee, 2001). The opportunity for the teacher to view and reflect on parts of the video recorded day that uncovers some of the unofficial classroom discourse enhances this analysis.

The validity for discourse analysis is not how one tool of inquiry works on its own, but rather, how the various tools of inquiry work together (Gee, 1999). The discussion about teacher beliefs regarding what constitutes successful participation and adjustment
to school in Study 1, as well as the development of the earlier methodology of the Batman study that describes how participation develops with a younger age group both inform this study. Analysis and triangulation of these various data sources from different perspectives with regard to validity as discussed in Chapter 6 will help to illuminate the characteristics and functions of peer interaction in the development of participation in the new entrant classroom.

The present study develops triangulation by using multiple data collection methods of interviews with teachers and observation of children in the classroom using video as mentioned previously. It is important to understand the perspective of the teacher and children involved in the context of the classroom, and to present a holistic interpretation of what is happening to understand better the relationship between curriculum process and social development in the adjustment to school. The validity is also strengthened in the video observational part of the second study by using two approaches to the discourse data – one is the analysis of the classroom and curriculum participation in the reading, writing and mathematics tasks, and the other is the case studies of the strategies of collaboration that each of the four target children used. This view looks at the curriculum activities in relation to how individual children access it, that comes from a transformation of participation perspective (Rogoff, 1995, 1997). The detailed description of the rich peer under life that uncovers some of the unofficial discourses in the classroom is a child centred approach that gives an insight into the enacted curriculum. The next two chapters discuss the two studies that were undertaken to explore the influences of scaffolding on children’s participation after the initial transition and subsequent adjustment to school. The first study looked at teacher perceptions of participation in the new entrant classroom, and the second study shifted
the focus to the processes entailed in children making the transition and adjustment to school.
Chapter 4 – Study One

Coping with the transition to school – Teacher perceptions of social skills and learning

Introduction

In the first study, three experienced teachers were interviewed about their beliefs about social learning and children’s successful adjustment during their first year at school. The method for this investigation is outlined in chapter 3. The relationship between teacher’s beliefs about the importance of social participation in the classroom and the opportunities available for this to occur were investigated. The importance of their context of a developing ‘community of learners’ that is largely organised or managed by the classroom teacher who holds beliefs about teaching and learning, and who also engages in practice was the focus of the interview analysis.

Results

Three main themes emerged from the teacher discourse about the shared beliefs they espoused and possible opposing views. These themes centred around:

- What constitutes successful/unsuccessful adjustment to school for children
- The role peer culture and learning related social skills play in facilitating engagement with learning
- The tension around managing the expectations of the revised curriculum

Adjustment

Adjustment according to the teachers was about how well the child is coping with the transition to a new learning environment. Jane described these children in this way:
They’re the ones that can listen and follow instructions, at least one. They can share, they can use the equipment, and they can talk amongst themselves, and have a good conversation. They can listen, and they’re working co-operatively. A lot of them are starting to use their initiative, for example, when they’re finished with one activity they go to another…they’ve got that spark in their eyes, and they’re able to cope with a lot of things like frustration, self control…that to me shows they’re ready for fuller participation. (Jane, School A)

All three teachers shared this view of successful adjustment, and described the process of ‘settling in’ during the first couple of weeks at school. The planning and organisation of the reception classes were very different in each of the schools. School B used vertical grouping, and also had a close tie to one kindergarten. School A received new entrants from a wider variety of early childhood centers, and had a horizontal structure. Most of the information received about a child’s preschool experience came from teacher visits and discussion with early childhood teachers as well as parents, along with more formal meetings for those children who were part of the Group Special Education transition planning process. The teachers collected evidence of patterns of adjustment in mostly informal ways, the main way being observation of things like:

“…whether the child comes in with a smile on their face and greet you, if they’re comfortable in the classroom, whether they’re happy to even answer the teacher at roll time, whether they’re willing to share news at sharing time, or whether they’re still wanting to be within a small group sharing rather than reporting back in front of the whole class…how they work and mix with the other kids within activities” (Megan, School B)

These observations are mostly recorded informally, and if there is any cause for concern it is discussed with the senior teacher, particularly if a child is not settling in easily or taking longer than the rest. Megan also discussed ways in which the reluctant child could be either ‘invited’ to join in by keeping them close to the teacher, or given ‘space to go away’ and engage in some free play as long as they felt comfortable and included.
She also described the ways some children were being excluded, as did the other two teachers.

If they’re being excluded, it is a concern. It will be a concern for the teacher, and the teacher will need to work with that. But that is suggesting that participation is a problem for that child at that stage…I can think of some times we as teachers need to look at ourselves, see that children are part of groups…encouraging that sort of inclusion for all children, in one way or another, or teaching children how to include other children which is also really important, so that they are part of the classroom. (Megan, School B)

**Peer culture**

The second theme that emerged was about the role of peer culture and engagement with learning. The comment that all new entrant children sometimes have to go through the experience of being excluded to ‘know what it’s all about’ at school as Megan said, shows the importance of peer culture and modelling in the adjustment to school, and the new entrant teacher in School A shares that view. Jane discussed a class group that was ‘unwelcoming’, for example:

And I often think that’s on purpose, when they (the class) meet the child, if they don’t know the child, or the child’s stroppy, it lets the class just sort of back off…and instead of encouraging (the new child), they’re just so egocentric, they just go and do their own thing. (Jane, School A)

Katy, however, in her description of peer culture in regards to participation and adjustment to school, looked at it more from the teacher perspective and the facilitation of it. She described peer influences as good role models, who were there as supports to the teacher’s behaviour management program in the classroom, which also helped manage the influence of negative role models.

“…the advantage is that you have a class that is reasonably settled, and except at the beginning of the term, you sometimes get only get one or two coming in (at a time), and the advantage of having them come in on their birthdays is that it’s a reasonably settled group that
can provide a role model for this child that comes in.” (Katy, School A)

She goes on to talk about the child they know may be a behaviour problem, and they adjust the entry into school so that the child has several visits before they are enrolled, so there is time to ‘get them into (the) adjustment’ before they come in for the full day.

All three teachers believed that social development and skills were required in order to develop readiness for learning in the transition to school. Jane said:

You know, I mean just two people sitting with an activity, the fights that can ensue because he’s taken my piece, those sort of things, there’s no established social behaviour pattern. So there’s a lot of social adjustment before real learning can take place. (Jane, School A)

Megan expanded on her view of what coping in a new environment means:

I always say to the parents, and I will say to the teachers, it’s really important that children are secure, and they’re happy within their environment. If you’ve got that you can then bring in the other aspects, the academic areas and the routines and those bits and pieces. But unless you’re secure, and comfortable within yourself, it’s very difficult to learn, because you’re not open to experiences…and I’ve always felt like that for the first year (of school). I recognize that it’s important that we must start teaching skills, but I still think it can be done in such a way that children enjoy themselves… (Megan, School B)

Megan and Katy both talked about children who came to school with behaviour issues, and how important teacher expectations are in children ‘settling in’ to school. Both schools often use gradual visits to school over some time in order to help the child settle in. During one of these visits in School B the student teacher had full control of the classroom.

And it was interesting, because this little boy sort of tried to do a little bit of it (behaviour problem)…and the student teacher just very quietly said to him ‘We do not do that at school’, and she just gave him the eye and I thought, what’s going to happen now, and he looked at her, put it down, and did nothing for about three minutes. And then he quietly, when the rest of the class got on, (he) went and sat with his
Mum, but within about half a minute he was back in the class and carrying on. And that was all there was to it, and he’s been fine. (Megan, School B)

Curriculum issues

The third theme that emerged was about the role of curriculum in relation to engagement with learning. All three teachers agreed with the changes to the national curriculum guidelines that promoted an increased emphasis on numeracy and literacy as well as oral language. However, in spite of this apparent change in focus, they still highlighted concerns about the first year at school becoming more and more dominated by curriculum and assessment, and one teacher was concerned enough about this issue to raise it spontaneously. Megan and Katy both said that trying to include science and social studies learning outcomes as well in the first two years of school might lead to a ‘crowded curriculum’, often at the expense of wider experiences and integrating learning opportunities.

I would like to see (the curriculum) opened up a bit more. Having our expectations but not tying them down so narrowly…I think that we’ve become so tight with our overviews that you’ve got to cover this and that and the other thing. (Megan, School B)

Megan gave the example of the good teacher who will seize the moment to engage children’s interests at the time, e.g. when they might bring in snails or butterflies and develop the program around that interest, which she inferred was not as easy when time becomes an issue in dealing with the breadth of the curriculum. The tension here may not be as directly due to the issues regarding the ‘crowded’ curriculum itself, although it was topical at the time of the interviews, but more to do with the ‘space’ in the daily activities to create informal opportunities for participation that promotes adjustment to school.
Comments: Adjustment to School and Teacher Expectations

Transition to school, according to the three teachers was about coping with the new environment, a view supported by Bukowski and Newcomb (1998), who describe the settling in process as becoming interested, engaged and ‘successful’ in the school environment. Although there were organizational differences in the structure of the reception classes in both schools which could have an impact on the process, particularly in preparing for the new entrant’s arrival, the ‘settling in’ process and what counts as ‘successful adjustment’ was seen as similar for all the teachers. Possibly the organizational demands for School B with seven reception classes were greater, and therefore required more information and liaison between the local kindergarten (which was their main source of enrollments), and the school. Both schools seemed to have good relationships with their local early childhood centers, and all three teachers had much background and experience in understanding and working with them in their local communities, which could be also a positive factor in helping the transition.

However, the possible ‘mismatch’ as discussed earlier as far as expectations between teachers in early childhood education and these primary school teachers that favored the importance of children’s social competence in the transition and adjustment to school was evident in the discussions we had. Their views supported the primary teacher’s beliefs about social competence being important in the transition to school (Timperley et al., 2003). The collection of evidence of this transition or ‘settling in’ phase for new entrants was also done or viewed as an informal process by all three teachers, with any concerns being noted and discussed with other teachers and senior staff. One of the teachers said she would like to do more ‘formal’ social skills assessment during the child’s first month at school, and it was noted that the school had chosen 15 new entrants this year to take part in a national ongoing comparative assessment of
children’s progress in the primary school years. The descriptions the teachers gave of successful adjustment and participation in the transition to school corroborates the beliefs reported in general for primary school teachers, especially regarding the core sets of social behaviours Burgon and Thompson (1997) mentioned.

The use of checklists and the developmental view of acquiring work related social skills by new entrants has parallels with the ‘maturationist view’ of readiness to learn that McLachlan-Smith and St. George (2000) describe as the dominant view of learning and teaching. This practice may be at odds with the social constructivist perspective and was not a strong espoused belief in the three teachers, and may also highlight the eclectic nature of theories in use discussed earlier.

**Participation and peer culture**

The often rich descriptions that the teachers gave of the importance of peers and peer modelling in supporting the new entrant to participate and be included in the classroom activities shows in practice not only the role of the teacher, but also the strong underlying beliefs about the importance that peers play in this process. This was evidenced by many examples the teachers gave when children were excluded, with Megan commenting that all new entrant children sometimes have to go through that experience to ‘know what it’s all about’ at school. Jane talked about a class group that was ‘unwelcoming’ at times, whether because they don’t know the child or the child may have been difficult. Megan alleged the view that if participation is a problem for a child at this stage, sensing this might lead to labeling them when in fact it is a learning experience most children go through, and teachers need to appreciate that children are part of groups.
These examples are consistent with theoretical beliefs that participation develops as a collaborative process between teacher and students (Rogoff, 1997; Wenger, 1998), and that the transition and adjustment to school is about the process of being active participants and constructing identities in relation to the (new) community of learners they have become part of. Megan’s belief that concerns about participation only develop over time when those experiences lead to marginality and exclusion, links with Wenger’s (1998) assertion that not all children who don’t participate develop into an identity of ‘non-participants’. The speech themes both these teachers use to describe successful participation in the classroom appears to be one of constructivism, or co-constructivism, where teachers collaborate with children by taking an active role in guiding learning. However, one of the teachers in practice may be more eclectic in her approach, seeing the benefits of the ‘readiness’ model when it comes to assessing children (either formally or informally) as to their suitability to be moved on to the next class from the reception class.

The beliefs about the importance of the teacher in this process of ‘settling in to school’ also suggested some discrepancies. Megan’s view of the teacher’s role was highlighted by her description of ways in which the reluctant child could either be ‘invited’ to join in by keeping them close to the teacher, or given ‘space to go away’ and engage in some free play as long as they felt comfortable and included. This belief that the child has an active role in ‘negotiating’ their way into the classroom has parallels with the description that Wilkinson et al. (2000) provide of how teachers in New Zealand primary classrooms use ability-level grouping effectively to support emergent and early readers. They see a link to the early adjustment to the classroom and the establishment of routines, but also the importance of social grouping in deciding reading groups. The term ‘roaming around’, which is a term Wilkinson and Townsend (2000) used to
describe how children in the classroom were given ‘space’ to join in any reading or writing group they want to for a day or two, and facilitated teacher observation of which children they associate with and what activities they feel comfortable with. Roaming around as described above is a technique that Megan used as well in developing working groups in the classroom, although not specifically using that term to talk about it.

Katy’s view of the importance of peer influences is seen as promoting good role models in regards to participation and adjustment to school. This shows not only the importance of establishing a ‘settled class’ before a new child comes in, which in New Zealand is on the child’s fifth birthday, but also acknowledges that peers can be a strong positive or negative influence in that process. Burgon and Thompson (1997) noted that teachers often identified that importance of establishing ‘routines’ in reception classes, but in their analysis of the ‘official curriculum’ (documents developed by the Ministry of Education), it was not seen of great importance. Katy did not give as ‘rich’ a description of the role of peer culture in this process as the other two teachers did, which may be because she now teaches in a Year 2 class, and as Assistant Principal she has shared administrative responsibility with Jane in the junior school, so her descriptions of the new entrant classroom situations are not as recent as Jane’s. Her emphasis on supporting teachers in developing good behaviour management programs as well as the importance of teaching social skill development in the school may be evidence, however, that she views the teacher as the most important person in the transition and adjustment to school. This does not support the belief that participation develops as a collaborative process between the teacher and children. The apparent discrepancy in beliefs may also highlight a possible mismatch between espoused theory and theory in use for at least one of the teachers.
**Curriculum issues**

It was clear from all three teachers that the sometimes informal or ‘enacted’ curriculum (Darling-Hammond & Sykes, 1999) that may or may not help new entrants ‘do school’ along with their peers is seen as a very important part of the development of the child’s new ‘discourse of participation’ (Gee, 1989). This includes the development of learning related social skills in the classroom, which is also seen as a determinant of early academic achievement (McClelland, Morrison, & Holmes, 2000). As stated earlier, the initial feedback from the Ministry of Education curriculum ‘stocktake’ group was that in official documents about the curriculum, participation and successful adjustment to school were seen as strengths, but in the actual curriculum the stakeholder feedback was that more emphasis was needed in these areas. Several of the essential skills in the Curriculum Framework (Ministry of Education, 1993) such as self-management, social and co-operative skills, as well as their relationship to work and study skills give a mandate to schools to ensure that all students have the opportunity to develop the full range of these skills to the best of their ability. The lack of objective information about the translation of the curriculum at the school and classroom levels from policy into practice, as well as the effect on learning and achievement was also reported, and as a result there has been further investigation and research by the Ministry of Education into these issues (Alton-Lee, 2003).

In summary, the teachers saw a strong relationship between children’s social participation in their first year of school and their access to the formal curriculum. However, there was some apparent discrepancy in beliefs about the role peers play in this process. This may lead to some of the tension between the dominant ‘espoused’ teacher beliefs about social learning from the co-constructivist perspective in the first year at school for the teachers interviewed, in relation to the challenges they
experienced in creating opportunities to enable students to access the curriculum to promote successful adjustment to school. These teachers maintained good links with the parents and caregivers of the children in their schools as well as the support services and contributing early childhood centers. Their beliefs about both creating an environment and the programs to support social competence in their new entrants, including encouraging peer supports to a greater or lesser degree, reinforced expectations of successful adjustment for the majority of children they work with.

These teacher beliefs about social learning in the classroom were maintained despite ‘anxieties’ about managing the pace of curriculum change and community expectations as their surrounding communities experienced growth. The background of the increasing complexity of our communities in this new millennium, along with an attempt to reshuffle priorities in order to not only just provide a ‘basic education’, can sometimes be at odds with the expected education a highly skilled workforce needs in a ‘knowledge economy’. This creates both challenges and opportunities for teachers to make a significant difference in children’s lives. Like their charges, they saw their success as being able to cope and gain skills to manage these changing and sometimes challenging environments in which they work.

There is a need to explore the characteristics and functions of peer interaction in the transformation of participation for the new entrant child to help teachers understand more fully how to successfully manage the transition for the children in the classroom. The new entrant classroom will be the focus for this observation of the curriculum in action during the next study. This study will consider how the classroom activity, its purpose and people’s roles in it transform as participation develops.
Chapter 5 – Study Two

Transformation of participation: The Classroom and Curriculum

Introduction

The previous study examined the more general aspects of teacher beliefs about the transition and adjustment to school which included the curriculum in the new entrant classroom. The focus for Study two is about both the characteristics and functions of peer interaction in the development of participation as well as how classroom activities provide space for the ‘transformative effect’ of experiences that influence participation. Two specific questions guided the research.

1. What are the characteristics and functions of peer interaction in the development of participation in the new entrant classroom setting?

2. How do classroom activities provide space for the ‘transformative effect’ of experiences that influence participation and interaction between the new entrant child and teacher and peers?

Besides teacher interviews, the activities and opportunities for interaction that were assumed to make a child’s successful adjustment into a particular school context were carefully observed in a school discourse environment in the second study, including teacher management of peer interaction in the classroom. The key question was how the teacher and more expert peers facilitate the transformation of participation that changes the new entrant into a school pupil.
Reliability

A reliability check of the codings used for collaboration (see Table 1, p. 71) during the final 3 days of sessions videoed was undertaken as outlined in Chapter 3. Out of the 54 total instances of collaboration that involved the target children, there was only disagreement in 8 of those instances, which were additions by either the researcher or checker to the number of total instances. There were two instances where the checker assigned a code to a child other than the target child, which were not counted. The overall percentage agreement for number of instances of participation was 85%, which can be considered high for multiple categorical coding. The method for obtaining the percentage was by dividing the total number of agreements by the total instances and then converting it to a percentage agreement. Each of the three lessons that were checked had additions, with the reading lesson having only one.

The percentage of agreement for the coding reliability (which used the same formula for overall agreement) was 83%, with the mathematics lesson showing the lowest agreement and the reading lesson the highest. The only notable trend was a substitution for the term feedback (facilitation) twice in the mathematics lesson. This did not happen elsewhere, and although there could be some confusion as to the definitions, both these codes of collaboration fall in the maintaining (guiding) category that may mean they closely fit anyway. Perhaps the simple definition of ‘feedback’ which was ‘giving feedback’ needed to be elaborated, since the Concise Oxford Dictionary definition states that it is a response given, or information about the result of an experiment. Verba (1994) did add to the simple definition ‘appraise means-end relationship in partners activity’, and this may have elaborated on what was meant by ‘giving feedback’ further. Feedback was confused for ‘involvement’ in one instance, which is another definition about directing partner’s attention that is also under the
category of maintaining (guiding). There was only one instance where there was a
disagreement as to the value (positive or negative) of participation, and therefore scored
highly as far as overall agreement for this category. Overall, this check showed the
categories used for instances of collaboration and definitions for coding were reliable,
and could consistently infer the intent of the children’s nonverbal or verbal interactions.

Results

Setting observations

A snapshot of the class that was ‘evolving’ as new children entered was provided by
these observations. Of the three new boys that started school, two sat next to each
other with one clutching his teddy. During a maths task one of them told the other “you
make it up to 3” and the other didn’t respond. There was a diverse range of ethnic
groups in the class, with the majority being European and Māori. During this time,
children became aware of classroom routines, for example one child commented “no
squishing” (of paper) to another while they were putting away their drawings in their
chair bags.

Generally there was a high level of direction from the teacher, but it had lessened since
the beginning of the term (according to the teacher), and there was already a move to
more self directed activities where they were next going to use task boards to complete
a range of activities. During reading time, there was one table close to the teacher,
including a child that had behaviour difficulties, and the others worked individually or
in pairs, while the far table worked as a whole group, occasionally with a disagreement
over crayons or what other children said. After the beginning of the sessions
(mathematics, writing/language and reading), the large group broke into smaller group
work that was teacher directed tasks. Since there was much greater peer interaction in
these smaller group activities (usually arranged in groups at the 3 tables or on the floor),
and since they were generally further away from the teacher, this became the focus of
the intended viewing with video the following term. There were to be no more new
entrants in this class in the next term, which would allow for more stable groupings for
teacher assigned curriculum tasks. The sites that were chosen to video were activities
that ranged from a large dice addition/subtraction game to reading poem cards together.
The target children needed to be in audio and visual range of the camera and that was
helped by the use of the floor microphone. In addition to gaining knowledge of the
best classroom ‘sites’ for observation as well as familiarization with the morning
programme, it was useful to have observed the ‘new arrivals’ who started school that
week, one of whom would be chosen as a case study.

Phase 2: Classroom activity analysis

The video observations for Phase 2 took place over 5 weeks once weekly on a
Wednesday. The data from the video observations that gave information about the
instances of the various coded types of collaboration between the target children and
their peers, as well as the teacher, was analysed for the 3 of the 5 morning activity
sessions in the classroom. As shown in Table 2, the activities varied by curriculum area
(mathematics, writing and reading), particularly the amount of individual versus small
group tasks between writing and the other curriculum areas (maths and reading). The
writing tasks were generally more individual when working at tables, except when two
of the children were paired together at the same desk to do story writing.

The summary activity charts for days 3-5 for each of the maths, writing and reading
sessions are shown in Figures 1-3. In addition, there are individual activity charts for
each session (Appendix A). Each figure looks at the number of attempts at
collaboration by type that each child uses in the different categories (refer Table 1 for a
description of the categories used). A sampling of the codings used for the target
children from the transcripts is included in Appendix B for Day 3 Session 1 (Mathematics).

Instances of collaboration in the sites where the target children (Toby, Mere, Kingi and Elena) and their peers interacted, occurred to a greater extent in the teacher assigned curriculum tasks or child initiated tasks. These were less formal tasks than in the large group (whole class) activities. The number of attempts at collaboration and kinds of strategies used varied not only by curriculum activity, but also varied between individual children during the same activity. Where possible, the teacher direction immediately before the assigned curriculum tasks was recorded along with some analysis using two major classes of exchange in the classroom (Sinclair & Coulthard, 1992). Boundary exchanges signal the beginning or end of what the teacher considers to be a stage in the lesson, which is usually the instruction given just before the class breaks up into group work. The boundary exchanges outlined in the teacher directions are important to understand the teacher’s intent for children’s participation in the subsequent group activities.
In the final three mathematics sessions, there were a high total number of repetitions of (partner’s) action, which often related to the task at hand, such as observing what a child was doing with concrete objects or reading from the blackboard in numeracy activities. The first maths session (Day 3-1) was a group activity where 5 children were sitting on the floor with two large dice and they needed to subtract the smaller number from the larger one (see Table 2 on p. 73). This activity that included all four of the target children engendered a larger amount of expressing ideas (giving answers) and facilitation that is in the maintaining activity category rather than repetition of action since the activity itself was structured as a group game. It required a different code of participation than the individual blackboard addition activity in the final session (Day 5-1) where there was much repetition of partner’s (or others) action. The second maths session contained some episodes where the children were doing individual maths addition activities using a small whiteboard and counters (4-1) that also contained much repetition of action for the four children. However, in the last episode, where
Mere was playing a memory game with another child, she used expression of ideas and feedback more than anyone else in that session. The use of these maintaining strategies also related to the activity of the game and its rules. The different maths activities reflect the variability in strategies used by the children that is shown by high amounts of repetition of action and to a lesser extent the maintaining strategies of expression of ideas and facilitation and feedback. The importance of the context and the role taken in these activities was related to the overall categories of collaboration, i.e. whether the activity lent itself more to joining, maintaining or perhaps even exclusion, and does give a broad picture of what strategies individuals used most over the maths sessions, and the preferred ones for each type of activity.

![Figure 2 - Number of attempts by category during writing sessions](image)

The instances of collaboration that were coded as repetition of action for writing (Figure 2) were also high in comparison to the maths sessions for each of the target children across sessions, particularly in the first two sessions. This sometimes related to teacher directions when she gave sentence starter clues by asking questions about the cross-
country sports day for example. In this case the response was coded repetition of action from teacher direction. At other times the repetition came from a partner’s action such as when Mere wrote the letter ‘O’ after another child drew a circle in the air with his pencil and repeated the sound. The higher number of these instances of repetition could relate to the task of story writing that is a personal activity, although at times it became a joint activity when children read their work to someone else or did a related activity. In the last session (5-2) there was a more even spread of categories used by the four children. In the first episode, the children were allowed to collaborate to a certain extent by choosing their own story starter from a group of written sentences the teacher provided. This activity encouraged some sharing of ideas and requests for help as the two girls in particular developed it into a joint activity at times.

The only other high number of instances of a particular category was for conflicting action, especially for Toby and to a lesser extent Elena. For both of them, it was usually ‘off task’ behaviour, such as Toby after a teacher direction playing with his bag on the back of the chair or sucking his pencil. Elena engaged another child in an activity of pretend ‘computer keyboarding’ after she had completed her story writing. This behaviour, although not the intended activity from the teacher’s perspective, did maintain a ‘writing’ (keyboarding) activity for a short period of time, which is an interesting example of how a peer’s ‘conflicting actions’ can foster intended goals for activities in some instances.
The three reading activity sessions produced a more varied amount of types of collaborative activities, mainly from the joining and maintaining (guiding) categories (see figure 3). All the children attempted the joining strategies of showing joint interest and repetition of action. The two boys Kingi and Toby had fewer instances of attempting these strategies in the first two sessions, but in the last session (5-3) both increased their attempts using these strategies, with Kingi having 3 attempts at joint interest and 2 of repetition of action. These attempts by Kingi were not always positive and in one of the episodes (5-3-2) where the children were engaged in an individual and group activity using picture letter identification sheets, he was sometimes off task and once was drumming to a rhythm with his hands on the table. However, this did lead to later involvement as he tried to find an activity to join in for longer periods of time.

This session was not rated very highly by the teacher as far as groups keeping on task, as there was a lot of noise with frequent reminders to keep doing their work. At one
stage, she had to leave the classroom with a disruptive boy, and Toby went to the door to see where they were going. The children’s evaluation of the session during large group time also showed they were not happy with the disruptions, or agreed with the teacher that it was not a good session. During the reading sessions, there was much variety in activity tasks that the children participated in that resulted in a much broader range of collaborative interaction than in writing and mathematics. However, the fact that the children were getting used to working in five different reading groups caused some conflicting action, especially off task behaviour. This was evident during the middle session (4-3) where in the last 2 episodes the children went from group to group on the floor and chose the activities from the packs that interested them and the clean up time was quite long. During the last session (5-3) there was the highest amount of maintaining activities, especially involvement and feedback, which gives a different view of the development of maintaining (guiding) strategies used in comparison to the teacher’s rating of this session. The awareness of the children as to what will make the session better showed a developing understanding of what useful participation looks like.
Figure 4 - Overall attempts by category of collaboration over all sessions

The overall collaboration across activities (Figure 4) shows that there was a high amount of joining strategies, especially repetition of action. As well, the maintaining strategy of expressing ideas was reasonably high. In addition, there were nearly equal attempts at the 3 areas of guiding strategies in the maintaining category, which were scored as involvement, facilitation and feedback. This is contrasted in the small group activities with less of the maintaining strategies of information gathering and requests for help overall. In general, the amount of conflicting action that occurred was slightly lower compared to the overall attempts at maintaining strategies. It was higher overall in writing and reading activities as opposed to maths. In the reading session 4-3, for example where three of children were recorded as exhibiting confliction action, it was generally actions or disagreements about sharing books or other resources. It is noteworthy to mention that different strategies are favoured by the target children in each of the activities of maths, writing and reading. The only category that was highly
used in all activities and in the overall use in Figure 4 was repetition of action, and the
category not used as frequently overall in the three activities was information gathering,
which was a request for information only, not an appeal for help.

**Comments**

The patterns in the language use and actions of the four children around collaboration
helped them to develop a ‘new discourse’ that related to the activities at hand. The
categories of collaboration observed between the target children and their peers usefully
described their developing participation. The meanings that are created between the
child and peers and teacher develop in their interaction, which is about the ‘activity’ of
language (Wetherell et al, 2001). Some of this discourse occurred from direct teaching
exchanges with the groups around the classroom where the teacher and sometimes
teacher aide were. In many cases, the teacher had little direct awareness of these
developing interactions since they occurred some distance from her. Her structuring of
the activities that lent themselves to the development of participation gives an insight
into how important these skills are for a classroom teacher. In a mathematics session,
for example, the teaching session using rods for addition (5-1) showed much repetition
of action from the teacher direction to make up 3 and 8 and add them together.
Reminders such as “count them Mere” and telling them it was the wrong answer
eventually helped some children like Kingi to check what they wrote by looking at how
others came up with the right answer. Peers assisted by modelling the correct response,
for example when a child checked his number 3 was written the right way around.
During the maths sessions, there were more individual tasks than joint ones, although
there were still many interchanges at each table, as evidenced in the high amount of
feedback given in the addition activity with counters (4-1), for example. The other
maintaining (guiding) areas of involvement and facilitation were low in these tasks,
however.

During reading activities the children had a greater opportunity to use a wider range of
strategies, especially involvement, facilitation and giving feedback. For example,
instances of using involvement as a strategy in the last session (5-3) happened when
there was shared reading of poem cards or stories in pairs or small groups. This can
also be explained by the high numbers of joint activity tasks in reading, possibly as a
result of 5 different reading groups with rotating activities. This strategy for ability
grouping in reading tasks reported elsewhere (Wilkinson et al, 2002) may encourage
more collaborative participation in small group work. Writing, which is sometimes a
more solitary activity in the classroom, also may not encourage collaborative activity,
except in the last session (5-2) where they were given the opportunity to chose their
own story starter that encouraged some sharing of ideas and requests for help. The
teacher also tried a paired writing activity using a buddy that developed some
conflicting action from what she intended. At this stage of beginning writing, most of
the children in the class may not have been ready for less teacher directed tasks as well.

The main point here is that the collaborative strategies used by the children varied by
the type of activity, except in the area of repetition of partner’s action, which is a key
learning strategy in order to develop the skills necessary to engage with the curriculum
activities. The overall lack of use of the maintaining strategy of information gathering
could be because they are still novices in seeking out peers for information using
questioning techniques, and prefer to rely more on the teacher for direction. It may also
be likely that the confident expression of ideas for answers during the maths group
activities, such as the ‘zero arms’ answer when doing subtraction stimulates sufficient thinking for them as their secondary discourse of classroom discussion and participation develops. Either interpretation has implications for teacher planning of activities to encourage interaction and development of concepts in children. The different curriculum ‘spaces’ in the classroom activities created varying opportunities for associated collaborative strategies to promote engagement within the curriculum areas of literacy and numeracy. The level of awareness the classroom teacher had of these curriculum spaces also varied by activity, with the small group activities sometimes occurring further away from her in the classroom creating new possibilities and conflicting actions at times. These insights will be discussed more in the following chapter.

The classroom teacher commented on how the three children who had started school at the same time in Term 2 were participating after being at school for a few weeks. Whereas Toby was more confident than another boy (“J”) and found ways to join in conversations and was able to interact with other children and could follow instructions, the other boy found this more difficult according to her. This was evidenced during the classroom observation scoping exercise during their first week at school when he didn’t respond to Toby giving him simple instructions. As far as the stages of awareness of peers as ‘scaffolders’ (Cullen & St. George, 1996), even though J had an improvement in listening skills and had some awareness of what was going on around him, he was not really aware of peers at this stage as helpers. The number of instances of collaboration with peers that Toby used increased during the sessions, even though they were not always positive, particularly the maintaining categories of involvement and feedback in the reading sessions.
Developing a broader range of strategies for collaboration, particularly those in the maintaining area was seen by the teacher as an indicator of the child’s success at school. This was further reinforced when she noted that all but one of the target group were ready for ‘fuller participation’, and even the one that was having difficulties with vision and hearing issues was showing signs of using more strategies as time went on. From this analysis, successful participation in the classroom activities can be associated with both the number of attempts and range of strategies attempted as far as the categories of collaboration observed. There were also activities that gave more opportunity than others to show these developing strategies.

Although most of the peer interaction was informal, especially in the classroom sites where the observations were done, there were some examples of teacher ‘managed’ facilitation of peer interaction such as the addition activity where the teacher worked with the small group described above. The teacher initiated the process that supported peer learning in a social context and enabled peer tutoring to occur. A distinction can be drawn here regarding peer influences between more ‘tutorially configured’ environments for learning, and the less formal or ‘ambient’ environments (McNaughton, 1995; Parr & Townsend, 2002). The rules for participation in these small group activities were initially set by the teacher, and to a lesser extent, the teacher aide in the classroom. The initial ‘buddy groups’ that the children either were put in or that were sometimes self selected, gave way to work groups that were more task oriented by Term 3, with 5 reading activity groups being set up by session 4, for example. The participation in these activities was further reinforced by classroom rules for interaction that included developing positive attitudes and behaviour, such as the virtue for the week and the ‘rule of thumb’ social rules. In addition, the classroom management techniques such as house points and names on the board for breaking the
rules as well as time out were used to reinforce these routines. The role of the teacher in
facilitating these ‘social spaces’ that may encourage peer interaction in the classroom
that in turn may have follow-on effects as far as the child’s adjustment to school needs
further discussion, and is part of the discourse analysis that looks at the classroom
within a particular social and cultural context.

The greater amount of peer interaction and discourse influenced by the unofficial world
of peer culture within the ambient classroom environment was witnessed because of the
sites filmed generally further away from the teacher. There was noticeably little
reactivity to the researcher and the camera by the third day of filming. The teacher
commented at the end of the filming that the children became more relaxed as time went
on. Two of the target children would occasionally look at the camera, especially when
one of them was working with another child directly beside it. Researchers have agreed
that student attitudes, beliefs, values and behaviours are influenced by natural peer
contexts and that much of the influence is positive and in support of the goals and
values of the school as evidenced in some of the examples discussed in this classroom.
Parr and Townsend (2002) note that it is currently not possible to estimate the
magnitude of peer influences stemming from the ambient environment, particularly
separating them from other confounding influences, such as personal dispositions, mix
of students and teachers and so on. The awareness and ability to see and hear some of
the unofficial peer discourse proved very interesting and useful to the classroom
teacher, however, and was highlighted in discussions about children ‘bending the rules’
and ‘play acting’ during the more child initiated tasks. The analysis of some of the
‘conflicting action’ strategies the children used may help to further understand the
dynamic properties of interaction. These are the spaces where the curriculum and
socially constructed learning takes place that transforms the participation of the new
entrant children into school students. The activities that support, for example, the literacy and numeracy programme in the classroom foster the child’s developing social competence as well as the intention of developing early academic skills. The next chapter will look at individual strategies the four children used to negotiate this transition in the classroom, and that in turn may affect the child’s adjustment to school. The focus will shift from the interpersonal plane to a more personal analysis of participation in the classroom.
Chapter 6 – Profiles of Children: Transformation of Participation

Introduction

The profiles of the children that participated in study two are presented as case studies of the development of strategies of participation in the classroom. Four individual children were chosen who had entered school at the beginning of the year. Their age range at the time of the study was from 5 years 3 months to 5 years 7 months. Their social participation in the classroom with the teacher and other peers was the focus of the video observations. They were chosen to be a representation of this stable class group that were now becoming ‘school pupils’ after their initial few weeks of transition to school. The profiles of these children show how they initiated or maintained social spaces, and/or excluded or disrupted peer social spaces. The profiles form case studies to give a more descriptive and qualitative account of their adjustment to school, as well as the individual strategies used by the children in their attempts at collaboration. These case studies describe the complexity and ‘embeddedness’ of social truths (Adelman, Kemmis, & Jenkins, 1980). “By carefully attending to social situations, case studies can represent something of the discrepancies or conflicts between the viewpoints held by participants” (p.59). These multiple perspectives are capable of offering some support to alternative interpretations. These accounts also present a picture of the quality of the ‘transformative effect’ in the developing participation of the new entrant child. The focus shifts more to the ‘unofficial discourse’ of the classroom, and the participation structure of the teacher and students interacting in small groups (Cazden, 1986), and also how it relates to access to the curriculum. After the video filming was completed,
selected episodes of video were shown to the classroom teacher to provide analysis of these sessions from a teacher perspective. This chapter will help to identify specific properties or processes of the enacted curriculum that facilitate the transformation of participation in the transition and adjustment to school.

**Method**

In the context of this study, the observed activities and opportunities for interaction that make a child’s successful adjustment into a particular school context depends on careful observation of that discourse environment. This includes observation of peer discourse in general as well as teacher management of peer interaction. The ‘outsider’ approach or derived etic approach discussed earlier by Pellegrini (1996) may uncover the immediate or person-centred externalisation of these processes, what Valsiner (1997) calls the ‘personal culture’ that is publicly visible. Personal cultures are almost always expected to transcend the expectations inherent in the collective culture, and will provide diversity. This observational approach was useful in order to begin to answer questions regarding the transformative effect of peer interactions in the new entrant classroom, shifting from the group perspective to the individual and interpersonal frame.

**Participants**

As described earlier in Chapter 3, the classroom where the video observations took place in term three had a roll of 25 children, and no new entrants came into the class that term. The video observations took place for 5 weeks during the month of August until early September. The children chosen to be the four target children were two boys and two girls, all of whom had started school since the beginning of the year, and two children started during the first term and the other two during the second term. As discussed earlier, they were picked in order to provide a snapshot of the class at that
time. One of the children that started school in the second term began in week 7 when the preliminary observation exercise took place. Two of the children were Māori and two were European, which were the two main cultural groups in the class. According to the teacher, all of the children had some early childhood educational experience. The school where the children attended as described in Chapter 4 was in a socioeconomically disadvantaged urban community with a TFEA (Targeted Funding for Educational Achievement) decile group 2 ranking. The TFEA indicator is based on Census data for the families with school age children in the area from which each school draws students, along with data about the proportion of Māori and Pasifika students within the school. Low decile schools have a higher proportion of students from low socio-economic households, and the students in decile 1 and 2 schools correspond to roughly 11 per cent of the total number of school-aged students in New Zealand (Ministry of Education, July 2000).

The effects on individual learning that stem from the family resources that consist of parental encouragement and expectations, and other related factors such as home language and ethnicity, have a greater effect in general at the school and classroom level, and a lesser effect at the small group level and peer learning environments (Wilkinson, Parr, Fung, Hattie, & Townsend, 2002). These effects at the school level are mostly related to the level of homogeneity, usually on the basis of achievement, but in some cases on the basis of socio-economic status, ethnicity or race. The above authors argue that curriculum and teaching resources have greater effects at the levels of smaller group and peer learning environments, and smaller effects at the classroom and school levels. Group and peer learning environments in the classroom are the focus of this study, as opposed to the larger classroom and school environments which may have different effects on individual learning. A brief background description of the four
children from the teacher and researcher’s perspective is outlined below, with the teacher illuminating some of the family and other influences on the child’s adjustment to school. The main focus is the description about how the child’s participation in the classroom is developing, particularly social participation and peer scaffolding. In order to protect privacy, pseudonyms have been used in place of each child’s name.

**Elena**

Elena was 5 yrs 5 months in August of Term 3 and started school on 25 March. The teacher described her as having made big personality changes over the time that she’s been at school, especially in developing independence, and the teacher reported her mother described her as more ‘demanding’ at home. The teacher described her as quickly gaining confidence during her first term at school, being somewhat subdued and ‘sweet’, and “then she was in, there was no stopping her”. She is described as a good role model, but she is “so popular and pulled by those girls left, right and centre that when she gets the chance she rises up and she becomes the dominant person”. The teacher viewed this as positive in some ways in that she was realising her own power and was showing leadership in the classroom, but sometimes she pulled the others off track. Her oral language skills were very good when tested after the first few weeks at school (7.3 years listening comprehension) as part of the School Entry Assessment or SEA (LearningMedia, 1998). As an observer, she was usually in the middle of informal curriculum tasks in the classroom, and she often chose a partner she liked to be with. During classroom observations, she was quick to initiate interaction and other children approached her and interacted with her readily to chat, give or seek help or work alongside her. Other school entry assessments (SEA, 1998) showed in Concepts about Print she scored at stanine 3, and the Early Numeracy assessment showed she was at 1:1 counting materials level.
Mere
Mere was 5 years 7 months in August and is the oldest child in the new entrant class having started school on 30 January. She has an older brother in the school that the classroom teacher has taught as a new entrant, and initially there were expectations that Mere would settle in to school as easily as her brother did, despite having difficulties with hearing and asthma. It wasn’t until her eyes were tested that it was discovered she had distorted sight creating visual problems that led to a prescription for corrective lenses, and she now wears glasses at school. The teacher reported that it was only in the third term that she actually started to learn and to work and was ‘getting her act together’. At the same time, her mother and father decided to live apart, which the teacher is not sure is a factor in some of her behaviour at times or not. Her oral language age was assessed at 4 years 8 months at the start of school, and the SEA (1998) concepts about print score was at stanine 1, while she scored at the emergent pre counting level in numeracy skills. The teacher says she thinks Mere knows she is the oldest, but “she really hasn’t got a position of power in the classroom”, despite being reliable and knowing where everybody is in the school. Her voice could be quite loud in the classroom at times and she could often talk over people, and would call out eventually to the teacher if she was ‘out of her depth’ and no other child would come over to help her.

Kingi
Kingi was 5 years 5 months in August and started school on March 18. In his first term at school, he didn’t want to come each day, and used to cry and wouldn’t leave his mother for a few weeks as reported by the teacher. He responded to adult directions well, and gradually developed awareness of peers, but did not interact successfully with other children initially. The teacher said by the third term he had settled in, and seemed
to benefit from being paired with a classroom ‘buddy’ in the first weeks at school, especially at lunchtime. They became good friends after this initial intervention. His oral language age was 5 years 10 months at the start of school, and the SEA concepts about print assessment showed he was at stanine 2 level. He also scored at the emergent pre counting level in numeracy. The teacher describes him as still developing confidence, but he has “always been one to sit and look”. She describes the little spelling tests from Jolly Phonics every Friday and how his eyes are on everyone else’s work except his own, and he often copies others’ work. From observation, he generally interacts with other children well and is not easily led, but sometimes will do things like ‘drumming with his hands’ on the table to get a reaction from them.

Toby
Toby was 5 years 3 months in August and started school on 27 May. He started school at the same time as another boy, and the teacher reported they were inseparable for a while, but they often ‘play one off against each other’ and are not such good friends now. Both parents keep in close contact with the teacher, and there are often daily talks about his behaviour at school each day. He was physically restless during structured activities, and he was slow to react to teacher instructions. He would seek out the teacher, especially when he was upset about something, and she said he is becoming more mature as time goes on. He has an assessed oral language age 4 years 5 months (SEA, 1998). He scored at stanine 1 in the concepts about print assessment, and was at the emergent pre counting level in numeracy. He can at times ignore the rules and needs to be reminded of appropriate behaviour, such as when he climbed over the back of someone’s chair to get to the teacher’s table instead of walking around. He had his name written on the board for breaking a classroom rule during one session, and the teacher rubbed it off after he completed his story writing. He had one of the older boys
as a buddy as well as his friend in his first term at school. The teacher describes him as “a follower and not a doer” and wanting to be in with the crowd, but not really knowing how to go about it. She says if someone’s going to act up he’s in there “boots and all” to join in, and she has taken an active role in separating him from poor role models.

**Procedure**

Phase two of the study followed from the initial classroom consent procedure for observation in the classroom. The four case studies were developed from the classroom observation data discussed in Chapter 5 to give a different perspective regarding participation. The classroom teacher and the researcher were the only ones that were aware that the four target children and their peers were the focus of observations, and placing the video camera in one site in the classroom helped the researcher and equipment to have a routine presence in the classroom, especially after the first two sessions when the children’s reactivity to the camera decreased. The transcript from the video of the activity sessions presents the talk (and nonverbal interactions) of the target children and others in the group as meaning becomes jointly constructed in relation to the classroom literacy and numeracy activities. The classroom teacher was also part of this discourse, as well as another adult helper in the classroom. As discussed in Chapter 5, the transcripts from Day 3-5 that focused on teacher assigned curriculum tasks in small groups, generally further away from the teacher, were used for the categories of coding analysis described. These observations of the collaborative process give a good description of the child’s developing discourse of participation through engagement with the activities of the classroom and curriculum. The categories of collaboration outlined in Table 1 in Chapter 3 were used for the coding analysis that described the instances of collaboration in the main categories of joining, maintaining and exclusion that the four target children displayed. The analysis of the instances and
categories of collaboration the children used helped to understand how extensive peer interaction is in the classroom, and also the quality of that interaction, including the coding of the value of the interaction, whether positive or negative. These will form case studies to give a more descriptive and qualitative account of their adjustment to school.

**Results**

**Profiles**

The following summary charts for the four children (Figures 5-8) show the overall instances of collaboration over the morning activity sessions from Days 3-5. Table 3 repeats for the reader’s convenience the categories and sub-categories for joining, maintaining and excluding strategies.

<table>
<thead>
<tr>
<th>Table 3 - Categories of Collaboration</th>
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<tr>
<td><strong>Category</strong></td>
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<tr>
<td>Joining</td>
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<td><strong>Maintaining</strong></td>
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<tr>
<td>(receiving)</td>
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<td></td>
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<td><strong>Maintaining</strong></td>
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<td>(guiding)</td>
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<tr>
<td>Exclusion</td>
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The charts indicate the most used strategies of collaboration by the four children in the activities observed from the coded transcript data. These charts show that Kingi and Toby primarily used joining strategies (joint interest and repetition of action) rather than maintaining ones, although Toby also had high use of feedback. Mere and Kingi used similar strategies across activities, and Mere used facilitation and expression of ideas.
most of the maintaining strategies. Elena used a wider range of collaborative strategies across activities, especially the maintaining strategies. Generally, most of the interactions were rated as positive, except for one episode for Toby and another for Elena. A brief profile of individual children’s strategies is discussed below.

**Figure 5 - Kingi's collaboration strategies used across activity sessions**

Kingi used joining strategies over half the time when interacting with his peers or the teacher (see Figure 5). This occurred especially during mathematics activities, but was evident in reading and writing activities as well. An example of this was the individual backboard addition activity in the final session (Day 5-1) where Kingi is counting aloud, sometimes using his fingers. When he found he ‘ran out of fingers’ to use in adding up, he observed Mere using counters to make up the numbers for adding, and joined in sorting them out alongside her. He later picked up that the counters were the best way to do addition, and commented to another child that she was not allowed to use fingers for counting. An additional note along with the simple code was made of whether the repetition of action was from teacher direction or was a ‘self correct’,
meaning that the action was to correct an error response. For example, Kingi corrected
the written number 3 that was reversed after he looked across at another child’s work.
As discussed previously, the teacher’s perception of him as having his ‘eyes on
everyone else’s work except his own’ shows that he often learns by observation, and a
high number of the self corrects from repetition of action were his. The response of
pointing out that counting using fingers was not a useful method of addition in that task
was recorded as a conflicting action when he said “you’re not allowed to do that” in the
custom of the classroom task at hand, but on analysis he might have just gone about
trying to give feedback from his own learning.

Kingi produced very few conflicting actions with only one instance of aggression.
Another high use maintaining strategy for him was involvement or directing partner’s
attention to him or the task. He did this during the reading session (5-3), for example,
by often making sounds or clicking noises to gain attention, especially during one
activity where his table was doing a drawing activity with coloured markers and there
was some off task behaviour from others. The teacher’s interpretation of this segment
when she viewed it later was that one of the other children in the group was dominating
the activity, and Kingi after unsuccessfully participating, went to another group that was
working on poem cards and joined in there. This freedom to ‘roam around’ and join in
an activity of interest and one the teacher approved of helped his participation and
engagement with learning. Despite his verbal ability, his use of verbal language
strategies with his peers to develop collaboration was not very high during these
sessions observed compared to the other children. Although his attempts were not
always successful, his use of involvement strategies and requesting help during writing
time shows a development of collaboration and increased maintaining skills after his
first few months at school.
Kingi looks over at what S has written and starts writing himself.

Kingi says “a…A”, S writes.

Kingi says “How do you do….”. S turns around to see what the teacher is doing.

**Figure 6 - Toby's collaboration strategies used across activity sessions**

Toby also used joining strategies, especially showing joint interest and repetition of action 37% of the time (see Figure 6). However, he did use a range of maintaining strategies 50% of the time, with giving feedback 22% of the total instances. His range of strategies is broader than Kingi’s, as evidenced during a reading session (Day 4-3) when he and another child were doing a letter bingo activity, and Toby introduced the game and the other child couldn’t get the hang of it, so Toby introduced some new rules and they were able to play after that. After viewing this episode, the teacher was pleased he was using more “leadership strategies”. Although some of the verbal interaction was not within recording range, in the last reading session (5-3), he used at least once all of the maintaining strategies, and there were 8 instances of giving feedback, only one of
which was negative. An example was when Toby was in a group at a table doing a picture letter identification activity. A girl is calling out letters to him and another child.

**Girl:** Whose got a B?

**Toby:** Not me. (Boy points to his sheet – girl hands it over)

**Girl:** Who’s got a… (Before she can say it Toby identifies it and puts his hand up. She hands it over)

**Girl:** Who’s got an I? (Toby puts his hand up, but holds his sheet close to his chest)

**Girl:** Let me see, let me see. (Toby grins, shows them his sheet)

He most often showed conflicting action/opposition during writing time, with 2 or 3 instances in each of the Day 3-5 sessions. During session 4-2, there were several instances of opposition when he was not engaged with his writing and was ‘off task’. For example, in one instance he held three pencils in one hand, then later dropped his pencil under the table and reached across to take a slip of paper from the boy opposite, and then walked on the chair next to him. After this, he interrupted the teacher who was working with another child to ask for help, and the teacher responded “Sorry, if you don’t get in line for me you have to carry on working”. He was interested in what the teacher aide was talking about to the group at the table about fire hazards in the home, however, and a couple of times gave good feedback responses to her. One thing he said to her was “…if fire comes you have to get out of the room…tell your mummy”, which she responded to. This reliance on the adults in the room to help him or being sought out for interaction, showed he was frustrated in his attempts to do his writing activity on his own, and generally when he interacted with the others, it was negative joining strategies. Toby overall used joining strategies one third of the time and maintaining ones nearly half of the time, especially feedback (22%), which was higher than anyone else. He may have found that in the paired reading activities and games where he was
observed using feedback several times, that he found this strategy a useful and enjoyable way to keep the activity going, especially since he had difficulty using a broader range of strategies in other activities.

Figure 7 – Elena’s collaboration strategies used across activity sessions

As discussed previously, the teacher described Elena as a good role model and she quickly gained confidence during her first term at school, and soon was engaged in classroom activities. Her popularity and oral language skills meant she was often a leader in informal activities, both inside and out of the classroom, and she used a variety of strategies for collaboration that varied across sessions (see figure 7). Most of the instances of collaboration were in the maintaining category (62 %), with expression of
ideas used 20% of the time, and she also used the guiding strategies of involvement, feedback and especially facilitation (19%) equally well overall. During one maths activity (Day 3-1), where all four of the target group were playing a large dice addition/subtraction game on the floor, the initial teacher instruction to the activity group was to do subtraction, but they only had a go for a couple of times, and then they did addition and according to the teacher ‘played the rest of the time’. Toward the end of the episode, Elena withdrew her hands up the sleeves of her long sleeved sweater. She leaned over to Mere making noises like an elephant. The children laughed.

Elena: I’ve got no arms, I’ve go no arms. (leans over Mere making elephant sounds)

Mere: Yes, you have.

Elena: That’s my head and my legs. (play acting continues)

Kingi (leans over and says) You’ve got zero arms!

When viewing this later, the teacher at first saw Elena’s behaviour as ‘off task’, especially considering she was giving directions to the group previously with Mere at her side, and only wanted to do addition, not subtraction with the dice. The teacher’s view of this changed somewhat when she heard Kingi’s “useful comment” about ‘zero arms’ as she said zero is a difficult concept. Whether it was Elena’s intention to have some fun with this concept or not was not the point, as her maintaining responses of involvement and expression of ideas by doing something unintended with the activity were positive contributions to learning about maths concepts in the end with the help of Kingi’s comment.

Another example of the discrepancy between the teacher’s view of ‘on task’ behaviour and some of the child initiated tasks, was Elena modelling ‘keyboard writing’ with her closed writing book (5-2) that her partner enjoyed doing as well, but resulted in little
work output for them both and Elena was subsequently moved away from her to work alongside someone else. This session also produced more collaborative instances than in the other two sessions, with the importance of the social bond and joining actions with classmates, as well as 3 instances of conflicting actions. The social aspects of working out the boundaries and rules of friendship and power between peers were also a theme in the reading sessions, when Elena insisted she remain the ‘teacher’ when she and a partner read poem cards. The partner wants Elena to sit down while she reads.

**Girl:** You have to sit down, remember? (she pushes Elena)

**Elena:** I’m the teacher. (they both stand up reading, then the girl gives Elena the poem cards and sits down, and another girl walks between them)

**Elena:** No, you! (to other girl)

**Other girl:** I’m not in your group! (and walks away)

Elena was often a key player in the developing social relations in the classroom, as she went from dominance with her peers to being pulled between children as friendship groups formed. The teacher saw this as a source of satisfaction and also frustration for her. Her range of strategies used, including conflicting action, were broader than the others and their use was dependent on the task at hand. This was her strength in the development of participation that sometimes brought her into conflict with peers, and often showed a tension between her and the teacher’s intention for her participation in group activities.
Figure 8 - Mere's collaboration strategies used across activity sessions

Mere used joining strategies 28% of the time, and maintaining strategies were used over half the time (55%), with expression of ideas and facilitation used most. In maths and writing time, Mere used more joining strategies and requests for help. In the first maths session observed (1-1), Mere was trying to play a card game of memory. She knew how to set out the cards in rows, but didn’t know what to do next and she tried to watch the others in order to learn. After the teacher asked her to show her what she was going to do next, she tried a couple of times to find a like card unsuccessfully and turned to a boy next to her and said “I don’t know how to do this.” Even after the teacher showed her how to find two cards that matched, she still found it difficult to continue playing the game on her own. By day 3 and 4 in the following weeks, she was using more maintaining strategies such as expression of ideas and feedback. She was playing memory again in (4-1), episode 5, this time with another girl. After a squabble with a
boy when he tried to pick up a matched set, Mere and her partner continue, and her partner gets 3 matches and Mere claps and then it is Mere’s turn:

**Boy:** That one. (pointing to a far card)

**Mere:** Yeah. (it matches, the next two don’t match, and her partner picks another two matches, and so on, then Mere has a set that doesn’t match)

**Mere:** That’s not a bear? (her partner turns over a card Mere has just used and matches it)

**Mere:** Oh, you’re thinking. (claps her hands, and then her partner fails this time)

**Mere:** Oh, lucky, lucky. (claps her hands again)

These interactions show Mere’s developing confidence and awareness of peers as scaffolders as well as beginning to use the language of scaffolding to guide others. Most of her instances of collaboration were rated as positive, except for some instances of conflicting action. In fact, the reading sessions showed a wide range of strategies used with a high amount of facilitation during Day 4 (4-3), episode 4 when Mere passes some activity packs to a girl:

**Mere:** Can you see about that? (she counts the packs, and Mere takes one pack and counts all the pieces out)

**Mere:** What one are you doing? (other girl continues sorting, passing a set and a bag across to a boy to complete)

**Mere:** Have you already done yours? (girl nods)

**Mere:** We have to put them back in here (touching bowl)...ummm I wonder where...is? (picks up large plastic pouch), says to girl:

**Mere:** You read this and we’ll check them off. (starts to put small packs into big plastic pouch)

**Mere:** We’re tidying up...(to group)

Even though the conversation is one sided, the involvement and facilitation to maintain the activity is there. The context of conversation here is teacher role-playing for Mere.
that works for her in this instance as others join in happily, but does not always happen
that way, as in Day 3-3, episode 2 where Mere was sitting on the big teacher’s chair by
the small whiteboard stand used for large group time, and was swinging her legs back
and forth. One boy was doing a puzzle, and Mere turned and looked in the teacher’s
drawer below the whiteboard, then turned and touched the boy in the back with her foot
to get his attention and then in the arm, but he didn’t respond. She tried this again and
he looked up, and she turned back to the drawer. He looked up but returned to his
activity. Mere called out to another girl to show her the open drawer, and the girl and
Mere get up and looked inside it, and the boy followed. The teacher would not have
been pleased with this activity and it took some coaxing to get the boy involved in it,
and he only joined in when another girl became interested in what Mere was doing.

The teacher described Mere in these instances as often using a loud voice or attracting
attention in some other way to do an activity that wasn’t really helping, but just a loud
noise. Mere often did not have a position of power in the classroom, and according to
the teacher was still very reliant on her for guidance, especially if she ‘feels out of her
depth’ and in these circumstances she stops and waits, and usually someone will come
over or if not she will then call out for help. This shows her scaffolding behaviours
were developing, but she often got frustrated with the outcome when she was met with
little participation from others. Like Elena, she also used a broader range of strategies,
even though she was frustrated at her attempts at participation sometimes, and similar to
Toby, her strategies varied according to the task.

A table of the ‘high use’ strategies for each child during the morning activity time is
shown below (Table 4). High use strategies are the two strategies each child used most
often in each of the 3 sessions. There are two exceptions to this pattern, one for Elena’s
writing session that was mainly a solitary activity, and the second was Toby’s maths session, where each of the four strategies occurred equally.

**Table 4 - Target children's high use strategies of collaboration across activities**

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<tr>
<th></th>
<th>Maths</th>
<th>Writing</th>
<th>Reading</th>
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<tr>
<td>Elena</td>
<td>Express ideas, Facilitation</td>
<td>Solitary activity except ‘keyboard activity’ (5-2)</td>
<td>Conflicting action, Involvement</td>
</tr>
<tr>
<td>Mere</td>
<td>Repetition of action Feedback</td>
<td>Repetition of action, Facilitation</td>
<td>Involvement, Facilitation plus Conflicting action</td>
</tr>
<tr>
<td>Kingi</td>
<td>Joint interest, Repetition of action</td>
<td>Repetition of action, Request for help</td>
<td>Joint interest, Involvement</td>
</tr>
<tr>
<td>Toby</td>
<td>Joint interest (2) Repetition of action (2) Facilitation (2) Feedback (2)</td>
<td>Repetition of action Conflicting action</td>
<td>Feedback Repetition of action</td>
</tr>
</tbody>
</table>

In addition, different curriculum activities generally produced different patterns of collaboration, especially with Elena and Mere who used a broader range of strategies.

**Teacher interview**

At the end of the video filming, selected episodes of video were shown to the classroom teacher, and a follow-up discussion around the general theme of her own awareness of peers as ‘scaffolders’ took place at school. The selected sessions (refer Table 2, p. 73) included some episodes from the maths (3-1) dice addition/subtraction activity and reading small group activities (4-3-2 to 4-3-4) from Day 3 and 4, as well as an episode from Day 1(1-1) that gave an earlier view of Mere doing a memory card game she found difficult. Also, episodes from the last day of filming (Day 5) were shown to the teacher to give a current view of the classroom in each of the morning curriculum
activities (5-1, 5-2 and 5-3). There was 26 minutes total tape time shown to her from Day 3-5, and a further segment of 6 minutes from Day 1. The discussion started with each of the four target children who were shown in the video, and how the teacher viewed their developing participation. Some of the teacher’s comments about these children are discussed in their profiles above. It also gave a perspective of how the teacher evaluated participation in general at the end of term (week 10). She found the opportunity to view and review the days filmed very useful and since much of the filming occurred in small group activities generally away from the teacher, there were group interactions that she was either not aware of happening, or was able to interpret with ‘hindsight’ easier with a record of events. The example of the decision to move Elena to another group after placing her next to a girl as a ‘good role model’ during writing time came after viewing the tape of the ‘keyboard writing activity’ that resulted in no written work. This view melded with the teacher’s own observations, such as hearing Elena say in another session “I’ve got to get on with my work”. Her view of Elena was that she is already fully participating, and the expectations that the other children have of her sometimes create problems for her.

…she’s (Elena) actually made big personality changes over the time that she’s been here. Not for the better in all circumstances…they (children in class) are expecting a lot from her, she was a great role model and she still is a good role model, but she is so popular and pulled by those girls left, right and centre that when she gets the chance she rises up and she becomes the dominant person. You know like, “Oh, it’s my chance” you know, and she’s doing that at home because she’s realising a bit of power she never had before, she was very subdued…

Generally she sees the class as having a good, ‘basic grounding’ by the end of the term, but they still need the teacher, and some are still struggling such as one child who needs a good boost as he is immature and has had no kindergarten background. She is noticing those like Mere who need support, especially in the last week of term when she
became ‘very loud’ and she told her “you are trying to pull others off task”. This has also come about because she also feels her own expectations have risen for the children since there was only one term to go until the end of the year, and the pace of everything is ‘up’.

Another question was raised about how the developing structure of the curriculum activities influenced participation. The development of scaffolding behaviour during maths activity time was seen as a good example of this, and there was a general feeling progress has improved with the continued need for more ‘formal activities’, and she would like the focus in small group work next term to use the maths equipment properly and also to develop listening further as well as more self motivation in all the activities. She saw some of the maths episodes as ‘disappointing’ when it came to independence because the children spent a long time ‘practicing’ doing a circuit and the groups do one activity. However, she reported that they still finished ahead of time, and packed everything up and went on to the next activity without prompting, including keeping all the equipment together, which she thought was good.

There was some discussion around ‘bending the rules’ during the reading activities tasks, such as reading poem cards, for example. She was upset the children were not even reading the poems, but were making up their own words after they have read them together several times before. This she saw as off task behaviour, but she was unable to get them back on task since she had five or more reading groups to attend to and could not watch them all the time. However, she said they are actually coming to read the task board now, and it doesn’t throw them when there is a new one. She was disappointed with the last session, and mentioned the disruption to the class with some difficult behaviour, and at one stage the filming had to be stopped when the teacher took
a child out of the room, because of possible reactivity to being filmed without the 
presence of a teacher. Mere said to a child waiting outside the door making noises to 
be let back in “You have to raise your hand to come back in”. At the end of this 
session, she did a quick evaluation with the whole group using faces to describe it 
(good, OK or Oops), and the children told her what went wrong.

The teacher was very positive about their story writing, and happy they were able to use 
full stops, capital letters and spaces and were starting to make sense of what they wrote. 
Only one group was seen as needing to be able to work more independently. Perhaps 
the procedures and rules for participation are easier as they do not vary as much as the 
activities in maths and reading, even though individual children like Toby sometimes 
find writing difficult. She is also aware of herself as a role model and the importance of 
the classroom teacher is also seen everyday.

I was thinking of Toby when he was really upset. He just came and he 
stood right beside me and he just wanted to be beside me. In fact 
Elena was like that when she first started, just always beside me. And 
today when Mere came back after a sick day off on Monday, she was 
all over me and she wouldn’t let me out of her sight all day. And even 
this afternoon she just clung to me and gave me a big hug…I’m like a 
rock in the sea of children when they first come…

Overall, she was able to reflect on her teaching and learn from what peers were doing in 
the less teacher directed activities in the classroom. In some activities there was seen to 
be a need to increase opportunities for participation and interaction or manage the 
interactions better.

Comments

Observations of individual strategies

The charts illustrate the strategies of collaboration used by the four students in the 
activities, based on the coded transcript data. There may be several reasons why Kingi
and Toby overall used more joining strategies (joint interest and repetition of action) than maintaining ones. They started school within 2 months of each other; although Kingi started school in term one. Kingi took some time to settle into school, and it seems his main learning strategy was to watch others and learn correct responses and as his confidence has grown, he has participated more in a small group setting. The joining strategies Kingi used, usually without any conflicting action, show that he saw peers as teachers as well as the classroom teacher, and he was gradually learning the role of maintaining and guiding the activity as he became more expert, which is what Vygotsky would call using ‘a cultural tool’ of intellectual adaptation that facilitates learning (Vygotsky, 1978).

Toby, however, was described by the teacher as immature and had a lower oral language age than the others. He used a wider range of strategies than Kingi, including maintaining ones, especially feedback. Perhaps the paired reading activities and games suited his learning style. His difficulties in the writing sessions where he often showed conflicting action showed his inability to maintain these tasks or possibly the teacher management of the ‘negotiation of participation’ was not effective. His reliance on adults in the classroom for direction or approval may have also hindered him developing a broader range of strategies with peers, as evidenced in his often opposing strategies during writing activities.

Mere used joining strategies 28% of the time, and as discussed previously used an even spread of maintaining strategies that have developed over time, and in addition she had hearing and visual impairment issues that needed attention in her first two terms at school. She was much more confident at trying different strategies as mentioned before, and would say to the other children when she didn’t understand something, but was still
learning like Toby more successful strategies of collaboration. The main conflicting or opposing actions were instances as described in the reading session (3-3) earlier when she got completely off task and tried to get others to join in using the teacher’s white board pens. Even though the children were reluctant to join in this activity, she wanted to maintain it, which often ended up in a power struggle against the teacher.

Elena showed an extensive range of strategies that were used to maintain the task at hand, but as stated earlier, because she was often dominant and a sought after child in the group activities, this sometimes brought her into conflict with peers, but in a different way than Mere. She had the highest number of instances of conflicting action, as evidenced by activities that were off task but showed an ability to think laterally, such as the keyboard activity that the teacher disapproved of, to power struggles with peers as to who was ‘in charge’ during reading activities. Her struggles with authority in the classroom made the negotiation of participation sometimes difficult both with the teacher and peers.

These comments about individual strategies must be taken in context of the different activities in the maths, writing and reading sessions observed. As discussed previously, the strategies used by individual children varied by activity as well as the curriculum area. Perhaps having a wider range of strategies available in their repertoire makes it easier for the children to negotiate these curriculum spaces and that in turn encourages fuller participation. In the child’s developing discourse of participation, there must also be opportunities available for them to utilize these strategies successfully, and the teacher must facilitate this.
Teacher feedback

The teacher generally had good home-school links with all four children and their families, and this followed through with consistent expectations for behaviour in the classroom, and even though Toby for example needed firm boundaries, the teacher felt he was making steady progress with the help of his parents. Mere and also Elena showed more ‘unpredictable’ behaviour with inconsistent participation in the classroom, possibly because of factors outside the classroom and school that the teacher discussed. The teacher’s expectations for Mere were quite high because of her knowledge of her older brother’s participation at school. The developing realisation of her visual impairment and other health issues helped the teacher see some of Mere’s frustrated attempts at collaboration in a different light. Elena’s difficulty with friendships both inside and outside the classroom at times and her parent’s description of her ‘bossy’ behaviour at home showed the effects of peer pressure and possible home influences on her behaviour. The discussion with the teacher around what is ‘bending the rules’ proved interesting, as this became the area where ‘negotiation’ of what behaviour is expected in different classroom activities was not often in agreement with teacher intentions, and sometimes between peers as well. Except for conferring with peers, the instances of face-to-face discussion with the teacher about tasks were limited to times when she worked either individually or with small groups. This meant the ‘unofficial curriculum’ negotiation was mostly one sided or agreed upon with peers. For some children, Toby being a good example, this opportunity for adult direction/discussion in the classroom was often not enough, and as a consequence sought attention through opposing actions. It cannot be assumed these interactions were all negative, however, since they sometimes resulted in the development of self-motivation and internalising the classroom routines, especially in more self directed activities such as writing.
The focus of the children’s social participation and peer scaffolding in this study at the small group level does support the importance of the effects of peer interaction observed in the development of collaborative skills in the classroom (Nuthall, 1999; Wilkinson et al., 2000). This was validated by the teacher’s comment about the class developing a good ‘grounding’ by the end of the term, and that peers and the teacher were negotiating the ways of participation in class activities. Her comments and the data collected in the classroom help to delineate the main aspects of collaboration that the children in the classroom were developing as far as successful participation. These single case studies show the categories of action that describe individual patterns of collaboration. Activities that promote classroom collaboration in reading and maths, for example, help to not only provide opportunities for socialization and problem solving, but also provide curriculum spaces to help children engage with these activities. In general, the broader the range of strategies that a child has available for them to use, the greater the transformative effect for them in regards to participation. These repertoires of strategies develop with practice and support, and are opportunities that are facilitated by teachers and other children in the classroom. Teachers need to consider ways to alter the structuring of activities to promote these forms of collaboration that are most useful for the child in their adjustment to school.
Chapter 7 – Discussion

Introduction

This thesis identifies the processes by which the ‘enacted curriculum’ (Darling-Hammond & Sykes, 1999) and social participation within the classroom facilitate successful adjustment in the transition to school. Successful adjustment for the new entrant child is about developing strategies of collaboration and participation that contribute to their new discourse of becoming a learner in the school environment. However, that adjustment occurs in a context where teacher beliefs and the properties of the curriculum constrain the process of becoming a school pupil. The studies conducted investigated the role of teaching practice and peer activity that changes/develops the new entrant’s participation. One question related to the characteristics and functions of peer interaction in the development of participation in the new entrant classroom setting. A second question looked at how classroom activities provide space for the ‘transformative effect’ of experiences that influence participation and interaction between the new entrant child and others.

The transition to school takes place in a specific site, the new entrant classroom, in which there are significant other participants, for example the classroom teacher, other children and adults in the class as well as other children in the junior school. Peers are predicted to play an important role in providing guidance and support for the new entrant in the first weeks of school. The role of the teacher is also expected to be important in creating an environment to enable successful adjustment to occur. The prediction was that successful adjustment to school is strongly influenced by peer
interaction, scaffolding and the teacher in relation to the classroom activities and curriculum.

As predicted, in the new entrant classroom peers were found to have an important role in providing guidance and support for the new entrant in the first weeks of school as argued by Vygotsky (1962), Bruner (1986) and Rogoff (1990). Specific properties or processes of the enacted curriculum (both official and unofficial classroom practices) and patterns of socialisation were identified. The patterns in the language use and actions of the four children around collaboration helped them to develop a ‘new discourse’ that related to the activities at hand.

Teachers use instructional organisation and task design in order to develop a learning community. As Bossert (1979) found, curriculum task and activity structure play a key role in shaping student relationships. The relationship to the collaborative strategies that is claimed to change a new entrant into a school pupil, the ‘transformation of participation’ (Rogoff, 1997), was elaborated in the profiles developed of the participants studied. The classroom teacher described this negotiation of participation as the class developing a ‘good grounding’ by the end of the term. This can also be described as the child becoming part of a community of learners as they negotiate their participation through the activities that occur in the classroom. This chapter will discuss these findings from this project and also look for future directions this research could take.

**Participation as a collaborative process**

Adults and peers have a major role to play in the child’s successful adjustment to school by providing ‘guided participation’ or scaffolding into the role of ‘doing school’, including the collaborative dialogues that occur during the transition. This process of
‘guided participation’ (Rogoff, 1990) occurs when there is a sharing of focus and purpose between children and their more skilled partners. In today’s classrooms, collaboration, problem solving and developing communication skills is necessary to develop the skills and attitudes for learning to occur. Hill et al. (1998) argue that it is necessary that children learn this culture of the school, and their role in it before they can focus on the content of schooling. In addition, it can be argued that the ‘culture’ of the classroom is made up of many ‘local cultures’ or daily activities that can be organised into ‘segments’ such as seat work, games, paired work and housekeeping (Berliner, 1983). These activities are woven together from numbers of local activities that vary from classroom to classroom, as well as their constituent participation structures (Gallego & Cole, 2001). Even during the mathematics session in this study, there were many activities observed, for example individual seatwork and large and small group activities on the mat that used different materials, which were made up of the observational units of ‘episodes’.

The activity-based structure that was part of this teacher’s programme lends itself to a more dynamic emerging culture with a more distributed system of power and responsibility among participants than perhaps an organisational structure that allowed for less choice for children. The classroom structure in the present study also gave a wider range of opportunities for participation in the classroom and possibly enhanced the range of collaborative strategies that were observed in the target children. This was evident in the reading activity sessions in which the children had a greater opportunity to use a wider range of strategies, especially involvement, facilitation and giving feedback. Collaborative strategies used by the children also varied by the type of activity, except in the area of repetition of partner’s action that was used across all activities. The high number of joint activity tasks in reading may be in part due to the
larger number and variety of activity tasks groups set up for the five groups, and by this stage of the school year there may have been the teacher expectation that the children could start to develop independence in managing these tasks. The numeracy tasks set up by the teacher did not always require the same level of interaction as the reading tasks did. The teacher informal evaluations of how each session went that were observed occasionally showed that the children were starting to be aware of what maintained activities successfully and what sometimes disrupted activities. This aspect of the ‘group process’ is a useful one for new entrants to develop and is worthy of further investigation.

There was evidence of the development of this collaborative process in the children observed in this study. This was shown in the high number of maintaining strategies that they used, such as using facilitation and feedback as they moved from an awareness of peers as ‘guiders of participation’ to giving guidance themselves in their first 2-3 terms of school. As discussed in Chapter 5, Mere and Elena used a wider range of strategies overall that helped them to participate in a variety of ways, or as teacher said, have the capability to show ‘fuller participation’. This breadth of strategies, the use of which varied by activity, did not always work for them, such as when peers had a disagreement as to who should be the ‘teacher’ when reading poems, for example, resulting in the other child or children not accepting their leadership in the activity. Sometimes, however, a more ‘uncharacteristic’ action, such as when Elena withdrew her arms and Kingi said she then had ‘zero arms’ showed the confidence she had to try a different strategy, often lead to new insights in the group. This exemplifies their developing discourse of expressing new ideas and taking turns that encourages participation in group activities.
Kingi used a high amount of ‘joining strategies’, especially repetition of action. He used involvement strategies, especially during reading activities, which showed he was developing a wider repertoire and range of skills. But overall, he was more often the ‘observer’ or passive child in the reciprocal strategies that he may have been more familiar with as evident in the apprenticeship models of learning found in many cultures (Cole, 1996; Rogoff, 1990; Royal-Tangaere, 1997). Including a consideration of the history of a person’s or a group’s related engagements that can account for ‘dispositions’ they may have in new circumstances can be useful (Gutierrez & Rogoff, 2003). Although one must be careful in this case of addressing some of these learning styles as ‘traits’ of Māori children in their approach to learning in the classroom, these learning dispositions available to children relate back to preferred cultural or community practices. These dispositions or ‘repertoires’ are ways of engaging in activities stemming from observing and otherwise participating in cultural practices, such as reciprocal learning strategies. “An important feature of focusing on repertoires is encouraging people to develop dexterity in determining which approach from their repertoire is appropriate under which circumstances” (Rogoff, 2003). A useful strategy for Kingi was having a buddy available to him, which developed into a friendship and also helped him to adjust to school according to the teacher. This possibly helped him to extend his repertoires to other unfamiliar contexts both inside and outside the classroom. His repertoire of strategies appears different from the strategies the other children used, and unless one knows more about his background and participation in other contexts, it is difficult to make inferences about cultural practices without falling into stereotypical descriptions.

Toby can be contrasted with Kingi’s acceptance of guidance from his peers. He more often used strategies of conflicting action, especially during writing time, as well as
often depending on adults to provide guidance and assistance. He probably has not yet
developed the important learning dispositions of a “good attitude, alertness and ability”
or being ‘ready, willing and able’ in order to develop participation repertoires (Carr,
2003). His limited use of strategies of collaboration may be because of less awareness
of peers as sources of learning (St. George & Cullen, 1999). However, when a child
from another classroom he had known previously came into the room during the last
session, it was noted by the classroom teacher that he took a leading role with him in
directing a reading group activity he was familiar with. This showed he was beginning
to develop confidence in demonstrating some participation repertoires or secondary
discourses in certain activities (Gee, 1989; 1999). The opportunity for choosing a
partner for activities can also support positive peer collaboration and engagement with
the task at hand, as noted in the discussion of ‘roaming around’ in children’s choice of
reading groups in their first year at school (Wilkinson & Townsend, 2000). These
eamples help to validate the proposition that participation develops as a collaborative
process between peers and with the classroom teacher (Rogoff, 1997; Wenger, 1998).

The transition to school during the first months for the children in this class is about the
process of being active participants and constructing identities in relation to the new
community of learners they belong to. The categories for participation in an activity
(joining, maintaining, and excluding) developed from the earlier Batman study (Jones-
Parry et al., 2000) helped to explain the child’s intent to participate in the activities
observed alongside their more experienced peers. The development of these ‘secondary
discourses’ (Gee, 1996, 1999) that were the social languages the new entrant children
developed in order to successfully participate, related to the children’s underlying
‘agency’ or active participation in conversation (Gough & Peace, 2000). This ‘bottom
up’ approach to discourse, in which language is studied in relation to the more
immediate discursive context provided a useful frame of reference for identifying not only what was successful participation, but also when collaborative attempts were sometimes frustrating for the children, as sometimes happened with Mere. Difficulty in communication at times may have also been because of hearing difficulties, but developing confidence in reading and writing skills as the result of obtaining prescription glasses encouraged her in other ways. Her frustration at being excluded from collaboration can be identified in the definition from the Batman study of exclusion, which in that context occurred when children who had negotiated meaning for a sequence of play or metaplay, reacted to stop the participation of those who unsettled that meaning. The prevailing discourse in the classroom was not one of perceived ‘inappropriate’ use of the teacher’s materials to start an undirected activity, and therefore they excluded Mere by not participating in that activity. Although her behaviour might often to be seen by teachers as distracting to others, her experiences that were observed in the classroom showed a developing secondary discourse of being a ‘successful school pupil’ in engaging with areas of the curriculum that she previously found frustrating.

Teacher’s Perspective
Observing classroom activities allowed the researcher to gain access to the publicly visible world of the classroom or personal culture (Valsiner, 1997) of its inhabitants from an ‘outsider’ perspective, and provided a window into the richness and diversity of interactions. The official teacher discourse was described through recording the instructional cues given to the children before they broke up into small group activities, as well as any other small or large group follow up discussion on the activity. This also included individual teacher instruction. The follow up interview with the teacher after viewing selected episodes of the videoed classroom sessions did provide some new
insights for the teacher, and as Alton-Lee (2001) argues, illuminated curricular, task, pedagogical and peer-group effects that are invisible to teachers because of the complexity of simultaneous events the teacher must manage. Having access to the teacher’s ‘official discourse’ as well as a discussion about her observation of the ‘unofficial discourse’ of the classroom gave a clearer picture of the regulating and discursive rules that screened out some of the unofficial discourses (Bernstein, 1990, 2000). The classroom teacher’s espoused beliefs of the importance of developing social competence in the adjustment to school for new entrants, was supported by the interviews of the three teachers in Study 1, and also by Robinson et al. (2000) and Pardy-Comber et al. (2004).

The interviews in Study 1 supported previous work regarding the importance of the role of the teacher in creating an environment conducive to a successful adjustment and adjustment to school. The often rich descriptions that the teachers gave of the importance of peers and peer modelling supporting the new entrant to participate and be included in the classroom activities demonstrated their beliefs about the importance of peers in this process. The examples these teachers gave of inclusion and exclusion in peer groups highlighted the ways in which this occurs. In the view of the language philosopher Bakhtin (1981), children’s learning of speech (and language of the classroom in this case), enables them to enter into social dialogue, and engage with particular others in socially valued ways. At the same time, they are also entering ideological dialogues, and as Dyson (1999b) concludes, they are learning the words available to them, given their role, their status, and their place. These dialogues were described vividly in the description the teacher gave and in observations of Elena’s interaction with her peers, both positive and negative.
The description the new entrant teacher in the second study gave of what successful participation and adjustment was in the classroom is mostly consistent with the earlier interviews in Study 1 and also the core sets of social behaviours claimed as essential by Burgon and Thompson (1997). As Olson and Torrance (1996) found, the theories in practice of many teachers are eclectic, and their description of practice may include social constructivist views, even though the dominant set of assumptions about learning and teaching in early years education in New Zealand is the classic maturationist view, which includes the concept of ‘readiness to learn’ (McLachlan-Smith & St. George, 2000). The observed discourse in the classroom activities in study 2 showed varied opportunities for participation both in the amount of peer interaction and also in the range of collaboration that occurred between children. It was shown that apprenticeship into a community of learners that is open to negotiation of participation occurred through the richness of the interactions observed, particularly in the small group activities that may have created a more relaxed atmosphere for this kind of participation to develop. This is in contrast to another teacher’s perspective (Katy, see Chapter 4) in the school, who when interviewed saw the main value of peer interaction as modelling ‘good behaviour’ from the classroom teacher’s perspective, which implies teacher control of peer discourse as very important. This negates a view of children in the class as active participants, and may disrupt the important role that peer influences have on engagement with learning in the classroom (Wilkinson et al., 2000; Wilkinson et al., 2002).

**Negotiating curriculum spaces**

The two studies conducted investigated the role of teaching practice that changes the new entrant’s participation. Successful adjustment to school becomes not only a ‘mediating’ process between teacher and the new entrant and between the child and
peers as far as social participation (teacher and peer scaffolding), but also mediation of
curricular ‘space’. The activities that support, for example, the literacy and numeracy
programme in the classroom foster the child’s developing social competence as well as
the intention of developing early academic skills. During this transition, children’s
interpretations (their sense of activities’ functional possibilities) change, as do the social
roles (responsibilities) they assume as well as their skills and concepts (Dyson, 1999a).
A new entrant teacher’s skillful management of a student seating pattern, and use of
wait time and prompts to enable a five-year-old Māori student to feel sufficiently valued
and safe to participate in a whole class discussion, enabled other Pakeha children to
learn and understand a concept for which they may not have had direct personal
schools where the system uses Western interactional patterns, for example, may
privilege children who know about this code of interaction and can more easily
accommodate these classroom practices. The cultural capital held by some children
does not provide them with a system or knowing or ways of doing which will grant
them easy access to learning, particularly where no mediation by teachers into the codes
of Western schooling occurs.

A child’s dexterity in choosing an appropriate repertoire for the classroom context can
be encouraged by the teacher. This ‘mediation’ can be fostered by an understanding of
Rogoff’s (1997) concept of interpersonal planes of analysis which can also focus
attention on planning for these mediating actions (Fleer, 2002). “Using an
interpersonal plane for programme planning helps us think about not just the content of
an interaction, but to also actively plan the type of interaction or mediation that best fits
with the child/children.” (Fleer, 2002, p. 114). Knowledge of the preferred strategies
for participation that the case study children demonstrated is useful to help the teacher
better plan for interaction and engagement with the activities in the classroom, and to extend the children’s repertoires.

If learning involves participating appropriately in socially organised activities, then children are dependent not only on the guidance of teachers, but also on features of activities that make relevant their developing resources (Rogoff et al., 1995). This mediation of curricular ‘space’ that links activities to the child’s social relationships, cultural tools and traditions or routine is vital for the developing participation of the child. The focus has to be not only on the child, but also the activity system within which the child works (Glasswell, Parr, & McNaughton, 2003). The structure of participation was different for each activity in the setting where the study took place, and even though the focus was more during teacher directed small group or individual activities, the strategies the children used to collaborate not only showed personal preferences, but also individual strategies according to the activity, which has it’s own participation structure (Cazden, 1986). For example, Toby used more maintaining strategies except during writing sessions where he often showed opposing strategies and probably found these sessions more difficult, either because of the individual writing task that was challenging or that he was required to work more independently. Glasswell et al. (2003) in their examination of a struggling writer in a primary classroom note that the construction of struggling writers is a joint enterprise, and is a ‘complex and dynamic social process’ located in the many activity sites provided within classroom writing programmes, which are contributed to by teachers and learners. An awareness of these factors in the classroom teacher’s organisation for learning, for example the use of peer tutoring, the teacher working with smaller groups, as well as using the teacher aide, can help to encourage optimum participation.
The reading session where the teacher aide answered questions and supported Toby’s interest in fire safety was a good example of extending adult support to maintain engagement in the group activity time. It was apparent from observation and discussion with the teacher that she had a major role in recruiting and training the teacher aide, who was from the surrounding school community. The observations in the classroom showed her ease in being able to fit in with the classroom culture, as well as her confidence in giving support that maintained the teacher directed activities. Her presence also helped to lower the adult-child ratio, which helps align the classroom culture better with the culture of the home (Corno, 1989). She also could have provided a ‘bridge’ between the teacher, who represents the culture of the wider social group, and the students, who come from the culture of the local community (Waller, 1965). Even though the teacher aide provided ‘adult support’, the positive modelling she would give to the other children in the group, some of whom she may know outside of the school context, will help the children make links from their community and home context to the world of the classroom. This relates to the importance of the teacher considering the interpersonal plane in planning the classroom programme, since the teacher aide’s interactions with the children provided mediation in these activities through knowledge of the children’s background context.

The resources that become available to new entrants may be particular goals, social relationships, cultural tools and traditions or routines that link activities. In this view, schooling creates intersections with the learning process begun in the home. Besides the motivations for activities being given by the goal, they are also developed by the ‘emergent intersubjectivity’ of group performance in its time and place that allows meaning to continue to develop, emerge, explain and to perpetuate (Tharp & Gallimore, 1988). The key learning dispositions at all levels of education of being communicative
and sharing responsibility, joint attention and responsive and reciprocal relationships (Carr, 1998) that relate to the children’s developing strategies of collaboration in this study expand their participation repertoires and meaning. The Māori concept of ‘nga hononga’ or distributed competence or cognition that Carr (2003) describes as learning ‘stretched over’ peers, teachers and/or culturally provided tools is a useful concept to describe this unfolding participation in the classroom, and each child described in the study developed skills and capacity in this area in addition to the cultural capital they brought to the classroom. In this way, all four of the children were ‘successful participants’ and were engaging with learning, even those whose range of strategies were more ‘limited’ depending on the particular activity context. A key aspect of their developing participation repertoires was the awareness of peers as a source of learning, even through observation.

The teacher directed small group and individual activities that were the focus of classroom observations from the interpersonal plane of analysis allowed for more changing participation structures that were appropriate to the goals at hand. Participants (including the adults present) served as resources to the developing community of learners. These were not solely adult run or child run models of educational activity, but more of the ‘community of learners model’ (Rogoff, 1994), which is not a balance or ‘optimal blend’ of two one-sided approaches, but is instead a distinct instructional model. The connection the teacher aide made about home fire safety in the above example with Toby, helped to connect his understanding of larger concepts of safety that gave him genuine motives for his participation instead of ways that required him to demonstrate preset pieces of an activity related to this topic. The modelling of this collaborative ‘meaning making’ of an earlier classroom discussion is
appropriate to the learning goals for the child and is not a replication of either side of
the dichotomy between adult run and child run approaches.

Future research should identify further the progressions in collaborative skills that may
lead to wider repertoires of participation, as well as investigating how these skills link to
genagement with learning in the classroom. This research will also have links to the
wider research area of the study of peer effects in the classroom, and also the
relationship between participation and achievement. The development of collaborative
interaction skills in new entrant children could also be mapped against other curricula
such as science, the arts and technology to give a broader picture of how participation
unfolds in the classroom. Further analysis is also needed to look at specific task
related components of the mathematics, writing and reading activities that encourage
this developing participation in the classroom and how teachers plan for this in their
programme. This work must also encompass the diversity of children’s backgrounds,
especially in urban settings.

In conclusion, this research supports earlier research that student attitudes, beliefs,
values and behaviours are influenced by natural peer contexts, and that much of the
influence is positive and in support of the goals and values of the school. That the
classroom teacher found the access to some of the unofficial peer discourse in her
classroom very useful in understanding what kinds of activities lend themselves more to
encouraging participation as well as developing her own awareness of peers as
‘scaffolders’ in this transformation was highly significant. The video feedback she got
in addition to informal discussions after each day, helped her develop a better picture of
how to structure activities to maximize participation and engagement with learning, as
well as to develop a clearer understanding of each child’s developing strategies and how
she might extend their repertoires. This should reflect in her planning for curriculum activities as well as enabling the negotiation of participation, particularly during the times when children exhibited the examples of apparent ‘conflicting actions’ that were actually maintaining curriculum activities. This includes an awareness of the relevance of children’s task-related knowledge, as evidenced by the use of reciprocal learning strategies. Teacher professional development, including access to peer mentoring that creates a climate in the school for this to occur is very important. This could include developing a deeper understanding of how teachers can select, plan for, and implement activities that reflect and build on the social practices of the classroom and school. Knowing how to incorporate children’s worlds from diverse backgrounds in their class to enhance their repertoires for successful participation is a key aspect of this. Teacher examination of their ‘theories in use’ and ‘folk pedagogy’ is part of this, particularly the implications for delivery of curriculum activities, if the belief is acknowledged that participation develops as a collaborative process between teacher and children. The challenge to teachers to manage sometimes competing demands of classroom management and control alongside expectations regarding the ‘crowded curriculum’ is considerable. The test for successful participation and adjustment will be if the children in the classroom pick up this new classroom discourse and begin to use it in their everyday classroom interactions, such as the example of Mere responding to another child by saying “oh, you’re thinking” in the appropriate context.
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Appendix A – Daily session activity charts

Maths Activities: Day 3-1

<table>
<thead>
<tr>
<th>Categories of Collaboration</th>
<th>Number of attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint interest</td>
<td>Toby: 5, Mere: 2, Kingi: 3, Elena: 2</td>
</tr>
<tr>
<td>Repetition of action</td>
<td>Toby: 4, Mere: 3, Kingi: 2, Elena: 1</td>
</tr>
<tr>
<td>Social bond</td>
<td>Toby: 5, Mere: 5, Kingi: 4, Elena: 3</td>
</tr>
<tr>
<td>Information gathering</td>
<td>Toby: 6, Mere: 6, Kingi: 5, Elena: 4</td>
</tr>
<tr>
<td>Request for help</td>
<td>Toby: 8, Mere: 7, Kingi: 6, Elena: 5</td>
</tr>
<tr>
<td>Expression of ideas</td>
<td>Toby: 10, Mere: 9, Kingi: 8, Elena: 7</td>
</tr>
<tr>
<td>MG Involvement</td>
<td>Toby: 12, Mere: 11, Kingi: 10, Elena: 9</td>
</tr>
<tr>
<td>MG Facilitation</td>
<td>Toby: 14, Mere: 13, Kingi: 12, Elena: 11</td>
</tr>
<tr>
<td>MG Feedback</td>
<td>Toby: 16, Mere: 15, Kingi: 14, Elena: 13</td>
</tr>
<tr>
<td>E Conflicting action</td>
<td>Toby: 18, Mere: 17, Kingi: 16, Elena: 15</td>
</tr>
<tr>
<td>E Aggression</td>
<td>Toby: 20, Mere: 19, Kingi: 18, Elena: 17</td>
</tr>
</tbody>
</table>

Maths Activities: Day 4-1

<table>
<thead>
<tr>
<th>Categories of Collaboration</th>
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</thead>
<tbody>
<tr>
<td>Joint interest</td>
<td>Toby: 4, Mere: 3, Kingi: 2, Elena: 1</td>
</tr>
<tr>
<td>Repetition of action</td>
<td>Toby: 5, Mere: 4, Kingi: 3, Elena: 2</td>
</tr>
<tr>
<td>Social bond</td>
<td>Toby: 6, Mere: 5, Kingi: 4, Elena: 3</td>
</tr>
<tr>
<td>Information gathering</td>
<td>Toby: 7, Mere: 6, Kingi: 5, Elena: 4</td>
</tr>
<tr>
<td>Request for help</td>
<td>Toby: 8, Mere: 7, Kingi: 6, Elena: 5</td>
</tr>
<tr>
<td>Expression of ideas</td>
<td>Toby: 9, Mere: 8, Kingi: 7, Elena: 6</td>
</tr>
<tr>
<td>MG Involvement</td>
<td>Toby: 10, Mere: 9, Kingi: 8, Elena: 7</td>
</tr>
<tr>
<td>MG Facilitation</td>
<td>Toby: 11, Mere: 10, Kingi: 9, Elena: 8</td>
</tr>
<tr>
<td>MG Feedback</td>
<td>Toby: 12, Mere: 11, Kingi: 10, Elena: 9</td>
</tr>
<tr>
<td>E Conflicting action</td>
<td>Toby: 13, Mere: 12, Kingi: 11, Elena: 10</td>
</tr>
<tr>
<td>E Aggression</td>
<td>Toby: 14, Mere: 13, Kingi: 12, Elena: 11</td>
</tr>
</tbody>
</table>
Maths Activities: Day 5-1

Categories of collaboration

Number of attempts

- [ ] Toby
- [ ] Mere
- [ ] Kingi
- [ ] Elena

<table>
<thead>
<tr>
<th>Categories of collaboration</th>
<th>Toby</th>
<th>Mere</th>
<th>Kingi</th>
<th>Elena</th>
</tr>
</thead>
<tbody>
<tr>
<td>J  Joint interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J  Repulsion of action</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J  Social bond</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M  Information gathering</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M  Request for help</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M  Expression of ideas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M  MG involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M  MG Facilitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M  MG Feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E  Conflicting action</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E  Aggression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Toby: 160
Mer: 0
Kingi: 0
Elena: 0
Categories of Collaboration

Number of attempts by child

- Toby
- Mere
- Kingi
- Elena

Writing Activities: Day 5-2

- Joint interest
- Repetition of action
- Social bond
- Information gathering
- Request for help
- Expression of ideas
- Involvement
- Facilitation
- Feedback
- Conflicting action
- Aggression

Toby

Mere

Kingi

Elena

162
Reading Activities: Day 3-3

Number of attempts by child

Categories of Collaboration

Reading Activities: Day 4-3

Number of attempts by child

Categories of Collaboration
Reading Activities: Day 5-3

Number of attempts by child

Categories of Collaboration

- Joint interest
- Repetition of action
- Social bond
- Information gathering
- Request for help
- Expression of ideas
- Involvement
- Facilitation
- Feedback
- Conflicting action
- Aggression

Toby
Mere
Kingi
Elena
### Appendix B - SCHOOL TRANSCRIPTS: TAPE THREE

#### SESSION ONE – MATHS

| Group sitting on floor with two large dice. Teacher tells them to start with subtraction explaining take the little number away from the big number. Group **Kingi, A, Elena, Toby, Mere.** | Large group session - addition  
**Start of 3/1/1 - 0 min.** |
|---|---|
| A throws the dice in the middle (6 and 2). **Elena** seems to be in charge. **Kingi** says to **Mere** “you’re counting” as she counts the dots. **Mere** says “no”. **Kingi** says “Yes, I saw you go like that”. **Mere** puts her hand up to answer. **Elena** subtracts them and says “six, take away the two”. **Kingi** says “three”. **Elena** says “you didn’t put your hand up.” **Mere** answers (“four”) and **Elena** accepts her answer saying “You put your hand up”. **A** tells **Mere** its her turn to throw the dice now. **Mere** “You have to take the little number away from the big one.” **Mere** throws dice (5 and 2). **A** leans over and points to the 2, “You have to take that one away – what does it make?”. Interruption while **Elena** goes over to let some one in the door. **Mere** still holds the dice, “Roll them” says **Elena**. **Toby** says “Roll them” **Elena** repeats it again. **A** says “She’s already had a turn”. **Mere** laughs and passes the dice to **Elena**. **Elena** turns the dice to 2 and 2 then hides one behind her back. **A** says “Two”. **Elena** then drops the dice down and **Mere** picks them up but **A** takes them off her and passes them to **Toby**. **Toby** rolls them (5 and 1), **Kingi** picks one up, says something to El. “Take one away” says **A**. “That makes five” says **Elena**. Someone says 6. **Kingi** picks up the dice and throws them with a 2 and 4. **Mere** picks up the 4 and says “Take away”. “No” says **Kingi** to her, “No” says **Elena**, “Equals Six” says someone. “Equals zero” says **Mere**. “Put them here” says **Elena**. **Kingi** passes one dice, **Elena** picks it up. **Mere** has other dice and says “I’ve got 2”. **Toby** – “Give them back, I’m telling” **Elena** passes dice to **A**, **Mere** reaches over, says “Give it to me”. | Feedback +  
Conflicting action- |
| | Feedback  
Expression of idea+  
Expression “-” “+”  
Expression+  
(Facilitation+)  
Routine activity  
Facilitation+  
Facilitation+  
(Feedback-)  
Social bond  
Involvement+  
Repetition of action  
Repetition of action  
(Feedback-)  
Facilitation+  
Expression+  
Repetition of action  
Facilitation+  
Feedback-  
Facilitation+  
Expression+  
Facilitation+  
Facilitation- |
“You’ve already had a turn” says A.  
**Mere** “No I didn’t”.  
A “Yes you did”.  
**Toby** says “No, you can have 2 turns”.  

<table>
<thead>
<tr>
<th>Conflicting action +</th>
<th>Conflicting action -</th>
<th>Feedback -</th>
</tr>
</thead>
</table>

Elena plays withdrawing her hands up the sleeves of her long sleeved skivvy. Leans over Mere “ohhing” like an elephant. Children laugh.  
**Mere** still holds on to dice but pulls her arms inwards to her body so her short sleeves look empty.  
“I’ve got no arms” Elena says (X2).  
**Mere** says “Yes you have”.  
Elena says “That’s my head & my legs. “  
A bit more play like this. **Kingi** leans over and says “You know what, you have zero arms”.  

<table>
<thead>
<tr>
<th>Involvement +</th>
<th>Repetition of action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression + (X2)</td>
<td>Conflicting action +</td>
</tr>
<tr>
<td>Expression +</td>
<td>Facilitation +</td>
</tr>
</tbody>
</table>

**END of 3/1/1**
Appendix C Information Sheet for Participants

Consent Forms for Participants

This study, conducted by Bill Hagan, has the approval of the

University of Auckland Human Subjects Ethics Committee 2002/156