

UNIVERSITY OF SOUTHAMPTON
FACULTY OF LAW, ARTS AND SOCIAL SCIENCES
School of Education

**EXPLORING FOUNDATIONS: SOCIOCULTURAL
INFLUENCES ON THE LEARNING PROCESSES OF FOUR
YEAR OLD CHILDREN IN A PRE-SCHOOL AND RECEPTION
CLASS**

Volume I of II volumes

by

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ABSTRACT

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Children's differing Foundation Stage experiences are briefly acknowledged in the Guidance for the Foundation Stage Curriculum (DfEE, 2000:7). However, the possible consequences are not. This study considers differences in the experiences of two small groups of children, analysing within a sociocultural framework the pedagogical processes and learning outcomes involved in two common scenarios for four year olds in England.

The study examines two distinct sub-cultures of pedagogy and children's learning within them over the year from different viewpoints, including the children's. It explores patterns of interaction and the complex flow of teaching and learning in episodes typical to the settings. It uses an innovative blend of outline video stills, contextual features, diagrams and detailed transcription to analyse participation, meanings and understandings across data for the year. In reception, multimodal delivery was expertly used to focus on entry to vertical discourse (Bernstein, 1999), creating new common contexts for learning, but with few opportunities made for negotiated entry via horizontal discourse for children who found access difficult. All children made progress, but differences between them were exacerbated, contributing to less positive learner identities for some. Pre-school provided inter-subjectivity on a more individual basis, using horizontal discourse and collaborative, proleptic instruction (Addison Stone, 1993), but with few links from these to more abstract vertical discourse. Children made less measurable progress, but there appeared to be a 'levelling' effect, contributing to more positive learner identities.

Although using a small sample, the innovative methodology allows for highly detailed analysis. It adds depth, extends understanding and raises new issues related to findings of the large-scale EPPE project. EPPE (2004a:5; Melhuish et al, 2001; Siraj-Blatchford et al, 2003) points to more months in pre-school leading to children's increased intellectual and social gains, persistent to the end of Key Stage 1, and emphasises 'sustained shared thinking', balance between adult- and child-initiated activities, and extending children's interactions as effective early years pedagogy. This thesis highlights how school entry policy can cause some children to experience *less* time in the Foundation Stage and the differential effects of this. It explores what is involved in effective sustained shared thinking, extending detailed examination beyond words to non-verbal factors. It reveals interaction patterns that determine space for adult or child initiated activities, sub-cultural features influencing the formation of such patterns, and factors influencing the subtle, multi-modal ways in which adults can effectively extend or restrict children's interactions.

The study provides new insights into the subtle ways in which pedagogic sub-cultures create differential learning experiences for young children. It invites new attention to children's cues about their learning and invites practitioners to audit their *own* communicative cues in pedagogic encounters.

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The children, families and staff involved in the study may not realise how closely involved with them I have felt, not only as I shared their year from 2002 to 2003, but also as I relived it through the painstaking data analysis from 2003 to 2004, watching their actions and listening to their voices over and over again. I am deeply indebted to all of them and I sincerely wish them happy and successful futures. As professionals (teachers, learning support assistants, pre-school practitioners), under the beady-eyed scrutiny of research, the staff made themselves vulnerable. I am very grateful for their generosity in so doing. Where critique is implied in the analysis or interpretations, I have tried to make it clear that it is the suitability of the structures, policies and histories, and their influences on practice, to provide the best foundation for young children's learning that I am questioning. The commitment of staff to the children was beyond question. I have had the advantages of time, resources and, of course, the 'replay' facility, without immediate responsibilities of teaching. I am very grateful for these. I claim no other advantage for my interpretations.

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Part 1

Background to the study

Part 1 of the thesis provides the background information for the study. Chapter 1 begins with some introductory remarks on the topic of the study and my interest in it, and preliminary details about the places and people involved. It moves on to locate the study in its historical context. The theoretical underpinning and previous research evidence pertinent to the study are discussed in Chapter 2, providing the conceptual framework. Building on this, Chapter 3 outlines the methodological approach and discusses the way in which the study was conducted.

Chapter 1

Background and historical context

1.1 Background

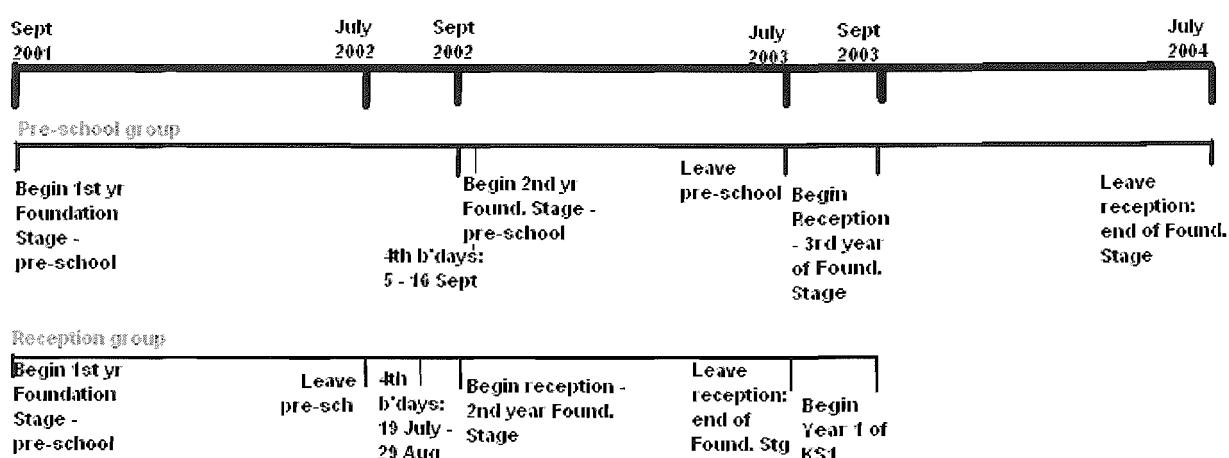
In England, there is a common curriculum, the Foundation Stage Curriculum (DfEE, 2000), for children from three years to the end of the reception year (between ages of almost five and almost six years). Yet children's experiences of the Foundation Stage Curriculum vary according to the sub-culture of pedagogy of the setting, the children's identity within it and their season of birth. In counties where children begin reception in the September before their fifth birthday, some spend only two years in the Foundation Stage whilst others have three, depending on birthdates. This study followed the experiences of ten children in two settings through the year from when they were four to almost five years old. Five of the children spent the year in a pre-school and five in a reception class in a primary school.

My interest in the topic of children's differing early years experiences has developed as a result of my professional, personal and research background. Over fourteen years lecturing in further education, mainly on childcare and education courses, led me to question the seemingly implicit notion that early years education, particularly in the pre-school years, was primarily about simply providing suitable activities, resources and social and emotional support. The approach appeared to be based on a largely Piagetian model of child development with insufficient attention paid to what the adult says and does with the child. Research and study added further weight to my growing view that interaction had a key role to play in children's learning and that the theory and research of Vygotsky and the post-Vygotskians offered more to understanding this role. My research and personal experience also brought into focus the sharp contrast between the culture and discourse of school and those of pre-school. On a personal level, voluntary involvement in running a pre-school and employment in a crèche led me to listen to the concerns of parents of young children and drew my attention to the question of the age at which children might best start school. In particular, parents of some of the children (though by no means all) who began school at just four years reported a loss of the child's self-confidence and self-esteem that took years to rebuild. Others talked of their children, the oldest in pre-

school and not due to start school until almost five years of age, becoming bored with the pre-school routines and activities.

The early years of education have been shown to have a far reaching impact on children's later educational experiences (Wells, 1985; Tizard et al, 1988; EPPE, 2004a and b; Schweinhart, Weikart, and Larner, 1986; Schweinhart and Weikart, 1997), thus indicating the value of researching further the processes involved in young children's differing educational experiences. From the mid-1990's, it became common practice for schools to take all children into reception classes in the September before their fifth birthday. At a similar time, pre-schools began accepting a proportion of their intake at the age of two years nine months. The result is that four-year-olds can now have apparently widely different experiences during their fourth year, depending on when their birthday falls. Those who are four just before September have a short time in pre-school, and spend most of the year from when they are four to when they are five in a reception class, usually becoming 'full-time' from the end of the first half-term. This is their second and final year in the Foundation Stage before being launched into year 1 of the National Curriculum. Those with birthdays just after September can spend just over two years in pre-school, with the year from age four to five spent in the familiar pre-school environment, perhaps with some much younger children, usually part-time. For them, it forms the second of three years in the Foundation Stage, the third year being spent in a reception class from five to almost six years of age. The Foundation Stage experiences of the two sample groups of children in this study are illustrated in Figure 1.1.

Figure 1.1
Timeline of sample children's Foundation Stage experiences



The Early Learning Goals (DfEE, 1999a) and later the Foundation Stage Curriculum (DfEE, 2000) implied that the experiences of four-year-olds should all follow the same curriculum guidelines and be similarly inspected. Government funding to pre-schools for four-year-olds is dependent on regular satisfactory inspections. However, researchers such as Joseph (1993) and Adams et al (2004) have expressed concern about the adequacy of provision for four-year-olds in reception classes with an emphasis on the National Curriculum and, more recently, subject delivery in the shape of the literacy and numeracy strategies. Conversely, Browne's research (1998), writing from a Piagetian perspective, questioned the 'developmentally inappropriate' formal literacy teaching offered to some four year olds in pre-schools since the introduction of government funding. In setting out aims for improving Early Years provision, Hurst and Joseph (1998) singled out four year olds as requiring particular attention given the situation in which many found themselves, and later research by McInnes (2002) and Adams et al (2004) indicates such earlier concerns to be justified and to merit further examination.

The study brings together two separate but related issues. First is the issue of early education for four year olds and the anomalies in the current system. The second is the issue of the impact of the micro-processes of interaction in early education. The two issues are related via the reality of different patterns of interaction and discourse apparent in different settings catering for four year olds, primarily school reception classes and pre-school playgroups.

The study draws on Vygotskian theory, making use of the concepts of mediation and situated learning in sociocultural historical contexts (Vygotsky, 1986; Rogoff and Lave, 1984). It takes cultural context as something which is woven through and re-enacted in each part of the learning process, rather than something which surrounds learning or pedagogical sub-cultures (Cole, 1996; Rogoff, 2003). This re-enactment is visible in the interaction in which people participate during the learning process. Edwards and Mercer (1987; Mercer, 1996) point to the use of language in the classroom to guide and create knowledge and understanding. This study broadens the remit to look at communication that does not rely solely on verbal interaction. Such interaction is the focal point of analysis and the site of potential change, though the importance of influences upon it are acknowledged and incorporated.

The study looks beyond specific situations to individual's movements between situations and the learning implications for this. I use Dreier's concept of learning in personal trajectories of participation to consider links between a person's participation in numerous different learning situations, each influenced by the societal arrangements, subject to 'resources and constraints' (Dreier 2002:3). Also used are Bernstein's theoretical concepts to examine how the resources and constraints operate in pedagogical settings, linking them to wider societal power relations (Bernstein, 1996 and 1999). Hasan's work (in Cloran et al, 1996) links back between educational and home settings, considering the ontology, enactment and reproduction of power relations and discursive practices, which children learn by taking part in day to day communication. The ways in which individuals contribute to and make sense of this learning is addressed by reference to Dreier's notion of the 'personal action potency' each individual brings to bear on learning and learning contexts (Dreier, 2002:3), which is taken to be agency tempered by resources and constraints. Individual learner identities are both formed by and indirectly contribute to the agency, resources and constraints which comprise personal action potency, and so have a powerful role to play in children's learning trajectories. These ideas are applied to the processes involved in the teaching and learning of four-year-olds to address the questions of how and what they learn.

1.1.1 Research questions

The starting point for addressing the question of how influences on learning processes differed for four year olds close in age but at opposite ends of cohorts was to consider the following questions:

1. What are the adults trying to ensure that children 'learn' in each setting? What are the explicit teaching aims in the curriculum and teachers' explicit intentions in each setting?
2. What are the implicit messages of teaching and learning in each setting?
3. By what means do the adults attempt to ensure/facilitate learning in each setting?
4. What are the different types and frequencies of interaction between adults and children in the settings?
5. What is the evidence for the children's appropriation and learning?

6. What is the evidence for the sources of this learning?

1.1.2 The settings and participants

The settings were in a suburban ‘village’ at the edge of a large conurbation. The pre-school began as a Pre-school Playgroups Association (PPA) community-run playgroup in 1985 and changed its name to ‘pre-school’ in the mid 1990s, reflecting a national shift in the PPA movement towards emphasising its ‘educational’ component. It echoed the PPA’s change of name to the Pre-school Learning Alliance. The pre-school opened on a sessional basis, offering five two-and-a-half-hour sessions each week with places for up to twenty-four children at a time. It was in a late Victorian building, originally the village school, now used as a community centre. Though well-resourced, all equipment had to be brought out and packed away before and after each session so that the hall could also be used as a dance school, history group and so on. The building had an outdoor fenced play area, used at other times as a car park, one large room, a smaller room, kitchen, two toilets and a storage room. Displays could be mounted on display boards high on the walls, but any free-standing displays or unfinished work also had to be packed away each session. Staff made use of all available permanent display areas, but their position high on the walls in rooms with high ceilings made it difficult for young children to see them clearly. The pre-school was staffed by a rota of part-time pre-school practitioners with five people on duty at any one time, at least one of whom had to be qualified with the Diploma in Pre-school Practice. The pre-school was managed by a committee of parents and run on a daily basis by the supervisor and deputy supervisor. It was typical of pre-school education in Britain and certainly in the county of study where pre-school playgroups provided by far the most places for pre-school children.

The school was a Church of England primary for four to eleven year olds based in a modern building catering for around two hundred and fifty children. It began to take four year olds into school in 1993, quickly moving to all children beginning in the September before their fifth birthday. Again this was typical nationally, though there are variations, but particularly typical of the county in the study. In its last Ofsted report (2000), the Key Stage One teaching was seen as particularly good: there have been several staff and organisational changes since. It took up to forty children each

year into reception, and divided them between two classes: spring and summer born reception children in one class, and autumn born reception children in another class with year one children. The reception class in the study had its own large room, a smaller room shared with the other reception/year 1 class, variously used as a role play room, computer area, library or writing area, and a large communal area stocked with resources and work areas, which was shared with the rest of Key Stage 1. The reception class also had a small, fenced outdoor play area with a wooden house/ store. The classroom was light, bright, well-equipped and attractively decorated. It had wall and table display areas, tables and chairs, a 'mat' area and a sink. It was staffed by a primary-trained teacher and a learning support assistant with an early years diploma.

The children in the study all lived within a ten minute drive of the settings and were very close in age, as shown in Table 1.1.

Table 1.1: The study children

<u>Pre-school children</u>	<u>Date of birth (1998)</u>		
Stuart	Male	16 Sept	Lived with mother, father and sister, aged 7.
Henry	Male	10 Sept	Lived with mother, father and sister, aged 7.
Molly	Female	5 Sept	Lived alone with mother.
Lloyd	Male	7 Sept	Lived alone with mother.
Carly	Female	6 Sept	Lived with mother, father and sister, aged 8
<u>Reception children</u>			
Tom	Male	1 Aug	Lived with mother and sometimes with two half brothers, aged 11 and 15.
Paul	Male	29 Aug	Lived with mother and father.
George	Male	28 Aug	Lived with mother, father and two brothers, aged 8 and 14.
Lydia	Female	19 July	Lived with mother, father and sister, aged 7.
Robert	Male	26 July	Lived with mother, father and two brothers, aged 14 and 7.

The first step in attempting an understanding of the issues involved in this study is to learn something of the context in which it took place. The next section therefore provides an historical background to policy and provision for the education of four year olds with a consideration of recent changes and their likely impacts.

1.2 Early years education for four year olds in England: historical context

England has a chequered history in the provision of care and education for young children. The Second World War saw vast numbers of men drafted into armed service and women encouraged out of the home to aid the war effort, taking on previously male-dominated jobs in industry, agriculture and service industries. Childcare of varying type and quality was provided to allow women to work. Once the war was over and men again dominated the workforce, childcare provision was withdrawn as women returned to the home (Tossell and Webb, 1986).

The move was further strengthened and rationalised in the 1950s with a growth in the idea, largely influenced by the work of John Bowlby (1951), of a natural deep emotional attachment between mother and child. If the attachment were broken even for a relatively short period of time, it was suggested, it would result in a form of serious emotional deprivation. There has been renewed interest in attachment theory in more recent years:

Attachment theory and research, now linked to brain development, have led to an explosion in understanding about the implications of early attachment experience on social and emotional development and consequently on teaching and learning (Geddes, 2003:232).

In the 1950s, care and education of young children outside the home away from mother became an undesirable notion. The idea of maternal deprivation was later challenged and modified (for example, by Rutter, 1972). Nevertheless, in 1970 the Pre-School Playgroups Association (PPA) still felt the need to address perceived criticism that playgroups encouraged mothers 'to leave their children and go to work' (Johnston and Plunkett, 1970:7).

However, in response to the paucity of state nursery education, voluntary playgroups began to develop tentatively in the late 1950s, springing into accelerated development in the 1960s. In July 1962, the Pre-School Playgroup Association was founded to act as a co-ordinating and advisory body for voluntary playgroups. The philosophy of the PPA was one of small community-run groups, often based in village halls or

community centres, organised by parent-run committees with an emphasis on play for learning, fun and social development. Traditionally, groups admitted children when they were three years old and provided sessional play for two-and-a-half-hours two or three times a week until the children were admitted to school, usually at the beginning of the term in which they became five (Department of Health, 1992). Children therefore used to spend almost two full years at playgroup, progressing from being the youngest, attending for two sessions, to being the oldest and most experienced in the group attending for three or possibly four sessions for one term at least.

By 1972, there were 10,600 playgroups in England providing 263,000 places for three and four year olds. Between 1972 and 1980, there was a 38% growth rate in the number of playgroup places and by 1990 playgroups in England provided 416,381 places for young children (DoH, 1992). In 1986, around half of all three year olds and a third of all four year olds in England attended a playgroup and it is fair to say that playgroups provided the main pre-school provision for under-fives (DoH, 1990). More recent figures from the Department for Education and Employment (2001a) show that playgroups still provide the majority of pre-school education for young children, especially three year olds. It is by far the usual situation for three to five year olds to receive some form of early years education, with 91% of three year olds and 98% of four year olds attending 'nursery education' (any setting providing inspected and registered delivery of the Early Learning Goals) between Summer 1999 and Spring 2001. Of these, the three year olds were mainly in playgroups for a few sessions per week, with over 66% of three year olds attending for less than five sessions. Of the four year olds, most were catered for in reception units. Overall, from 1997 to 2000, playgroups provided for 22% of all three and four year olds, clearly heavily weighted towards three year olds (DfEE, 2001a).

The early philosophy of the PPA has been briefly described and can be summarised as providing group play experience with the close involvement of parents, mainly mothers. However, by the late 1980s there was a distinct shift evident by the PPA towards emphasising the educational aspects of its work. As the National Curriculum came into being (Department of Education and Science, 1988), pressure began to be felt in early years education to prepare children for the National Curriculum. In response, and in the midst of criticism of child-centred pedagogy, the PPA offered

guidance and justification of its own role in children's education. The PPA publication of 1991, 'What Children Learn in Playgroup: A PPA Guide to the Curriculum', focused on its role in preparation for the National Curriculum, in preparation for school, and social and emotional development (DoH, 1992). The PPA later changed its name to the Pre-School Learning Alliance and many playgroups followed suit.

The Thomas Coram Research Unit Playgroup Project from 1987 to 1991 (DoH, 1992) examined the position of playgroups in Britain. The research revealed that most parents were satisfied with what playgroups offered, though of the parents surveyed, 47% said they would prefer nursery education. Those who were dissatisfied, however, were the parents of older children in a cohort who had attended playgroup for two years. The older children were said to find the approach and resources insufficiently stimulating. The research found there to be more and better playgroup provision in middle class areas, but the playgroups themselves operated in 'an environment of poverty' (DoH, 1992:101), without dedicated premises and insufficient funds. This meant that 80% of playgroups had to 'clear away' all resources except wall displays after every session, limiting staff time, type of resources and the type of activities possible. Extended projects and nature observation studies would, for example, be extremely difficult to run in such an environment and the use of outdoor play space is often severely limited. Fees generally covered only staff wages and the hire of premises, whilst regular fundraising by parents was used to purchase resources and equipment. Members of staff were and still are generally poorly paid and in the past have had to pay for their own training. More recently, it has become usual for training fees to be funded, but for staff to still attend training in their own time without pay.

For 30 years or more, playgroups have played the part of the caring but poor relation amongst providers of pre-school services, offering an essential service for want of any other offers and taken for granted for their pains (DoH, 1992:104).

Also noteworthy is the relationship between playgroups and maintained educational provision for under-fives in either nursery or reception classes. In areas where children have maintained nursery education provided from three and a half years of age, as is the case in some inner city areas, children tend to attend playgroup from two

years nine months of age until they are three and a half. In counties where there is a negligible amount of maintained nursery education, but with a single annual intake of children into reception units in the September before their fifth birthday, children attend playgroup from two years nine months of age and stay until they begin school. This can be between three and six terms. Changes in policies relating to maintained nursery provision and school entry, though having a substantial impact on playgroups, have in the past rarely included any form of consultation with playgroups (DoH, 1990).

In many ways, the pre-school playgroup in this study is typical of the majority of pre-school playgroups. A brief look at its history illustrates the relationship between local education authority policy and the nature of playgroup provision. The playgroup was established in 1985 in a largely owner-occupied suburban residential area as a voluntary, community-run organisation. It opened for between five and six sessions of two-and-a-half hours during school term time in a village hall. Whilst providing a long term 'home' for the playgroup at a very reasonable rental cost, the premises are not entirely adequate for use as a pre-school setting. All equipment and resources have to be packed away into a storeroom at the end of each session. The use of sand and water is frowned upon by other hall users and the hall committee members because of inconvenience and potential damage to the floor. The toilet facilities are inadequate. There is however a large, fenced outdoor playground, though no grass or planting areas. In the past, children began at playgroup once they were three years old for two sessions a week and progressed to three sessions when they were four years old. At this time, the education policy was for children to begin school at the beginning of the term in which they became five years old. The staggered intake meant that around seven or eight children left playgroup each term and their places were filled by younger children coming into the group as they reached three years of age.

In 1993, the county policy, partly in response to growing pressure to provide nursery education for four year olds, changed to one of admitting all children to school in the September before their fifth birthday. The playgroup fell into financial difficulties.

Fees from children attending playgroup had only just covered the running costs of the group; the loss of all four year olds by the end of July each year meant a loss of sufficient income. Not all incoming children became three in September to replace the outgoing four year olds. Some playgroups in the county adopted a policy of admitting as many three year olds as possible in the autumn term to fill the playgroup places, thereby staying financially viable, but discriminating against children who became three much later in the academic year. Such children may have been on the waiting list for some time, but no longer found a space waiting for them. The playgroup in this study maintained its policy of holding places open for the 'later' three year olds on its waiting list. Its financial position was therefore very tenuous. The financial loss was initially offset to some extent by a county one-off grant towards the cost of losing younger four year olds. Social services also changed the registration rules to allow entry of children aged two years nine months, with the condition that they did not constitute more than 25% of children in attendance at any one time, and that some 'younger' resources were made available, including rest facilities (a bean bag). The 'lean' periods were sometimes dealt with by staff taking unpaid periods of leave or by reducing the number of sessions they worked each week so that fewer staff were on duty, again reducing staff income. The group has generally prided itself on having five staff to a maximum of twenty-four children, usually with a parent helper in attendance too, which is above the minimum recommended ratio for three to seven year olds of 1:8 (DfES, 2001a). In recent years, the group has been able to return to these numbers.

The financial hardships were further offset in the mid 1990s when 'nursery vouchers' became available for parents of four year olds to pay for the early years education they had 'chosen' from what was available for their child. This was replaced in the late 1990s by direct nursery funding for four year olds, paid to the institution chosen. Both systems gave the pre-school more money per child (for four year olds only from the beginning of the term after they became four) than they had charged in fees and so helped to offset some of the losses. Both were, and remain, attached to a system of satisfactory inspections initially from both Ofsted and social services, but now combined into one system of inspection. Inspections are made against criteria set for

the standards of sessional day care (DfES, 2001a) and for standards of early education against a set curriculum (DfEE, 2000).

The image of pre-schools now catering almost exclusively for three year olds, having 'lost' four year olds to school, and of children spending less time in pre-school masks the more complex reality. Whilst it is certainly the case that all four year olds in this county, and throughout much of the country, begin school at the beginning of September, leaving pre-school in July with some children having spent only three terms in pre-school, this is only part of the picture. A 'snapshot' of the position of children at the beginning of September would reveal this pattern. As the academic year progresses, though, there will of course be an increasing number of four year olds in pre-school, matched by an increasing number of five year olds in reception. Given a roughly normal chronological distribution of birth dates, it can be assumed that by the end of December in any one year, around 33% of a cohort in playgroup would have become four years old and remain in playgroup for the next two terms. By the end of March, this figure would have risen to 58% who would be aged four and would not begin school for another five months. Only the youngest in a cohort spend the majority of their fourth year in reception, accounting for around 42% born between 1st April and the end of August. Of these, some will be just under four and a half when they start school.

In the pre-school in this study, opening for five sessions with a maximum of twenty-four children in each session, by the end of December 2001 seven children were already four years old. By the end of March 2002, this figure was up to eleven children out of the total of forty-six with places. With the older children attending more sessions at pre-school (usually four each week) than the younger children (two at first, then three), the four year olds make a sizeable proportion in each session.

Catering adequately for the four year olds and rising fives is still therefore an issue for pre-school.

The pattern of early years provision available for the four year olds not yet in school is becoming more complex with many children using a variety of services such as maintained nursery schools, nursery classes, private nursery schools and 'pre-prep' departments, private day nurseries, and playgroups. However, the major providers continue to be voluntary playgroups or 'pre-schools' affiliated to the Pre-school Learning Alliance. In the county in which this study is based, the provision for nursery education for four year olds other than in reception units is outlined in Table 1.2.

Table 1.2: Nursery education establishments for four year olds in county of study
(Approximately 15000 four year olds in the county)

	No. of establishments
Maintained nursery schools	2
Maintained nursery units	12
Independent schools	50
Day nurseries	130
Pre-schools	650

(Figures from discussion with Early Years Development and Childcare Partnership EYDCP, March 2002).

Pre-school playgroups therefore continue to provide the core of early years education in group settings for four year olds not yet in school. This county has chosen to support the development of pre-schools as a main provider, making grant aid available to the PLA, commissioning pre-school development workers previously employed by the PLA to support pre-schools, and making bursaries available for training of pre-school staff. (EYDCP, 2001:12).

What of the reception classes that many four year olds move into? Much has been written, mostly in the early 1990s, but also in more recent years, about how four year olds fare in reception classes (Bennett and Kell, 1989; Cleave and Brown, 1991; Joseph, 1993; Brown and Cleave, 1994; Adams et al, 2004; McInnes, 2002). Most of the results of such studies have emphasised the less than ideal nature of the children's

experiences given schools' narrower curriculum, less flexible routines, less freedom of movement for children, less developed use of outdoor space and more concentration on static assessment measures and outcomes. The personal and social implications of being the youngest and least able in the peer group and of young children trying to make sense of routines and language, the meanings of which are often left implicit, have also been documented (Joseph, 1993; Barrett, 1986).

Nevertheless, it is routine practice in most of England, and certainly within the county in which this study is based, to admit children to school in the September when they are four. It is also usual for these children to become full time fairly quickly, with even the youngest becoming full time sometime between October and January, or even earlier.

Since 1st June 1999, all local education authorities have had a duty to secure free early education for four year olds (DfEE, 2001b:2). In any county where very little maintained nursery education is provided, without an existing structure of nursery education, this is most simply achieved by admitting four year olds to school. Those children who become four during the academic year have their entitlement to free nursery education at whichever suitably inspected and registered provision their parents choose until they begin school the following September. Choice is of course limited by availability. Once a school place is offered, parents again 'choose' whether or not to take up the offer of a place, given that the children are not legally required to attend until they are five years old. In reality, very few do not. Anecdotally, some parents report feeling under pressure to allow their children to begin well before their fifth birthday for fear of losing the child's place at the local school, or of their children 'falling behind' their cohort peers. Daniels, Shorrocks-Taylor and Redfern's study (2000) suggests, though, that starting early does little to prevent any 'falling behind', at least in terms of test results at the end of Key Stage 1.

Some changes have taken place in reception units since they began to admit the younger four year olds. The units have, for example, provided separate outdoor play space and some 'younger' resources. The introduction of the Foundation Stage Curriculum provided an opportunity for all children from three years old to the end of reception to follow a common curriculum with stages for progression set out,

wherever the children happen to spend most of their fourth year (DfEE, 2000). Recent guidance specific to reception units for the National Literacy and Numeracy Strategies (DfES, 2001c; DfES, 2001b) attempts to address the issue of how delivery of these strategies can be compatible with the Foundation Curriculum. The success of doing so in practice, though, is still open to debate (Campbell, 2001; Thompson, 2001; Sweeney-Lynch, 2002). The LEA in this study is currently at the stage of trying to ensure that staff teaching young children, especially in school, have had some training relevant to the Foundation Stage, an issue also raised in the findings of national research by Aubrey (2004).

The socio-political climate in which these changes have been taking place has itself changed. From an unrealised promise to provide free nursery education for all who wanted it in the 1972 White Paper *A Framework for Expansion* to a rhetoric of free market-led provision in response to parental demand (Lawlor, 1995), it has taken until 1999 to ensure a free 'nursery education' place for all four year olds. The nature, quality and extent of that provision are still very varied. The focus of drives for and measures taken to improve provision also appear to have shifted. They have moved from one in which the debate centred on whether nursery education was worth state investment in terms of what it was able to do for children's development against a background notion that young children are better off when cared for at home by their mothers. More recently, the focus has shifted to one in which providing convenient, good quality childcare as a service to working parents, indeed to encourage at least single parents to have paid employment, has become at least as important as issues relating to what is best for the child (Great Britain, 1998). Far from playgroups having to address criticism that they encourage mothers to work (Johnston and Plunkett, 1970:7), they now have to justify themselves for not providing long enough hours of care to allow for working parents. 'Wraparound' pre-schools offering longer day care have developed and more are planned. Early years provision is implicitly now addressing issues of quality not only in terms of the care and education they offer the children, but also in terms of flexibility as a service to working parents.

In May 1998, the government published its Green Paper *Meeting the Childcare Challenge* and launched its National Childcare Strategy (Great Britain, 1998). Local

Education Authorities were given a statutory duty to set up Early Years Development and Childcare Partnerships with responsibility for planning and delivering the Strategy. The Strategy aimed to respond to the demographic changes of increasing single parenthood and higher proportions of parents of young children in employment. For example, from 1990 to 1997, the proportion of cohabiting or married women with dependent children aged under five who were working went up from 45% to 57% (Office for National Statistics, 2000). The phrasing of questions asked in the General Household Survey (GHS) are indicative of change. In 1971-1979 and 1986, questions were asked relating to provision for under-fives based on attendance by age at playgroups, nurseries, schools, crèches and childminders. However, in the GHS carried out in 1998 (Office for National Statistics 2000), questions instead related to childcare for children aged from birth to eleven years specified in broad age bands (for example, 0-5 year olds) divided into term-time and non-term-time care by type of childcare provision. Detailed figures on attendance at early years education and care providers grouped more specifically in narrower age bands appear to no longer be available. The shift in focus reflects the socio-political shift from provision for children's early years education towards provision for working parents.

A potential danger of this shift is it may lead to effort spent exclusively on trying to provide a sufficient number of 'slots' at the correct times of day, losing sight of variations in quality assessed along differing scales, or age-appropriateness. The Early Years Development and Childcare Partnerships are attempting to address these issues. They are setting minimum standards for staff qualifications and introducing Foundation Stage training for all early years providers. They are working towards ensuring that a qualified teacher is available to give advice and support to every ten non-maintained Foundation Stage settings, the vast majority being pre-school playgroups, by 2004 (EYDCP, 2001).

Further planning constraints relate to the ready availability of appropriately trained and qualified teachers in the Foundation Stage, as shortages of such staff are already apparent (EYDCP, 2001:11).

Further plans for expansion are afoot locally to widen provision of nursery funding for three year olds so that by September 2004 all children will be eligible for a nursery

grant in the term following their third birthday. Any extra places required to meet the expansion are again to come from the private and voluntary sectors (EYDCP, 2001:6).

1.2.1 Parallel lives

The early education experiences of four year olds have changed somewhat in the past ten to fifteen years. Broad policy changes can mask the differing experiences of children in their daily lives. When looking more closely at where and how children spend their fourth year, it seems apparent that the youngest and oldest children in a cohort have parallel but differing early years experiences. Children whose birthdays fall between 1st September and the end of December (around 33% of a cohort) may now begin at a pre-school playgroup when they are two years nine months old and stay for at least six terms. They will begin school when they are almost five and be almost six years old by the time they leave reception. Children born between the 1st June and 31st August (again around 33% of a cohort) may begin pre-school at two years nine months and spend only three or four terms in pre-school before starting school when they are just over four. They leave the Foundation Stage when they are just over five. They are always the youngest in their peer group. Considered as a journey, the children's destinations are the same. They begin at the same time in terms of age and pass through the same stations. But their speed of travel is entirely different and they arrive at their destination at different ages in different states. What is the journey like for these two groups? What are the differences and do they matter?

Before looking at the study in detail, it is necessary to explore the research and theory that might best inform policy on young children's education. In the following chapter, I examine what is known of young children's learning and how this might inform the shape of an inquiry into the learning processes of four year olds.

Chapter 2

Young children learning

There is a long tradition in the history of early childhood research, care and education of a duality between the individual and the social. Varying emphases have been placed on the importance of, on one hand, the individual child's genetic heredity, autonomous learning and unfolding development, and on the other the importance of environmental influences and of teaching, direct or indirect, on the 'unformed' child. The duality has been typified by the nature/nurture debate, the hegemony of different positions holding sway at different times with varying impacts on policy and practice.

Since the 1960's, much of the debate has centred around the theories of Piaget and Vygotsky, with the Piagetian approach emphasising intra-psychological development and those adopting the Vygotskian approach emphasising social influences. The influence of the Vygotskian approach has begun to be felt at school, partly due to the work of people such as Edwards and Mercer (Edwards and Mercer, 1987; Mercer, 1995), and in research and practice relating to very young children, especially with regard to scaffolding in adult/child dyads, influenced by the work of Bruner and Wood (Wood et al, 1976; Bruner, 1960, 1996). In early years education and care (traditionally defined as up to age eight, but more recently taken to mean from three years to the end of reception), the rhetoric of Vygotskian influenced approaches are sometimes more evident than the practice (Wood and Bennett, 1998). Practice in pre-schools is still largely influenced by Piagetian theories of child-directed investigative development and learning. In the busy early years environment, early years practitioners are faced by individual children, each developing physically, intellectually and emotionally at apparently different rates. Each child has different needs, preferences and backgrounds, each often showing great motivation and perseverance in pursuing their own goals, whilst still vulnerable and in need of physical and emotional care. It is therefore not surprising that the Piagetian tradition makes most sense to such practitioners, although elements of Vygotskian theory certainly appear in their training (for example, see Beaver et al, 1994, a text book for level 3 vocational qualifications in early years care and education). As Connolly puts it:

It is not an exaggeration to say that the work of Piaget (1962, 1965, 1977)

has, since the 1960s, largely set the agenda regarding early years theory and practice (Connolly, 2004:66).

However, evidence continues to show the influence of social factors on children's learning, not least with regard to the impact of social class and culture on school achievement (Brooker, 2000; Mortimore et al, 1988). That these influences are operating during the child's early years means that intrapersonal theories alone cannot be sufficient.

Over the last few years, the divide between pre-school and school has become a little more blurred. Since local education authorities, in response to national government initiatives such as nursery education grants, began taking children into reception units from the September before their fifth birthday, it has become widespread for four-year-olds to find themselves in quite differing educational settings depending on when their birthday falls. It has been decided that they should all be taught according to the same curriculum, based on the Early Learning Goals and the Foundation Stage curriculum (DfEE, 1999 and 2000), within which there is a blend of constructivist and social constructivist views of early years education. However, the educational settings sit within very different contexts. One, reception, is under pressure to 'work towards' the National Literacy (DfEE, 1998) and Numeracy strategies (DfEE, 1999b) with implications for classroom management, style of teaching and learning. The other, pre-school, is working within a sessional environment, catering for children from two years nine months. Two different pedagogic styles and discourses operate (Willes, 1983).

Many people have called for a more coherent approach to theory, policy and practice in early years care and education (David, 1999). This issue will be dealt with later with regard to constructions of early years education, and what is known of how these operate in day to day interaction (sections 2.2 and 2.3). However, I will first look at the theoretical background to young children's learning. In particular, I attempt to address the dilemma of reconciling an understanding of the growing, developing child with an understanding of the social formation of mind. To do so, I draw on Vygotskian and neo-Vygotskian theory, on situated cognition theory and brain research studies. Overlaying all of this will be a consideration of the role of the early

years practitioner. This, I suggest, can best be understood and fostered through the notion of ‘making connections’, recognising both the influence of environmental, social and educational factors, and the active undertakings of the individual developing child related to the gradual formation of body, brain and mind. It could have implications for where practitioners position themselves with regard to children’s early learning, thereby influencing practice.

2.1 Theoretical background to understanding young children’s learning

Vygotsky’s theory, based on research in Russia by himself and his colleagues, suggests that cognition is socially formed. Whilst Piaget acknowledged the role of socialisation in providing experiences on which the child operates to actively construct his/her cognitive development, the ‘social’ was seen as an overlay to intrapersonal development (Piaget, 1995:278). Vygotsky, on the other hand, understood the social not simply as setting the *parameters* for what is learnt, but in *actively forming* the higher mental functions in partnership with the child’s spontaneous development, mediated by psychological ‘tools’ and interpersonal communication. Vygotsky is clear in stating that it is a case of ‘instruction preceding development’ (Vygotsky, 1986:184), not of them running in parallel, but rather of a complex interrelationship where one sometimes leads the other.

Thus our investigation shows that the development of the psychological foundations of instruction in basic subjects does not precede instruction, but unfolds in continuous interaction with the contributions of instruction (1986:184).

Although often recognised as contributing most to our understanding of the impact of social and cultural determinants of development, Vygotsky also clearly acknowledged the biological aspects of development.

We must, therefore, distinguish the main lines in the development of the child’s behaviour. First, there is the line of natural development which is closely bound up with the processes of general organic growth and maturation (Vygotsky, 1994:57).

Similarly, Vygotsky noted a duality in concept formation in children with different forms of childhood experience leading to different types of concept development. Although ‘scientific concepts’ originated in the highly structured nature of classroom

activity and imposed logically defined concepts, ‘spontaneous concepts’ emerged from ‘a child’s own reflections on everyday experiences’ (Kozulin - introduction to Vygotsky, 1986:xxxiv) and were empirically rich and disorganised. Again, the two are inextricably linked and interwoven. Each acts on the other. The child interprets ‘scientific’ concepts based on his or her own ‘spontaneous’ concepts. Likewise, a child makes different use of the spontaneous concepts based on the more concrete scientific concepts. The nature of their inter-relatedness is explained partly by the Vygotskian assertion that the words of concepts cannot be simply passed on to the child and result in conceptual understanding, but instead it is the beginning of a ‘long and complex’ path to appropriation (1986:152).

Our experimental study proved that it is not only possible to teach children to use concepts, but that such ‘interference’ may influence favourably the development of concepts that have been formed by the student himself. But the same study shows that to introduce a new concept means just to start the process of its appropriation. Deliberate introduction of new concepts does not preclude spontaneous development, but rather charts the new paths for it (Vygotsky, 1986:152).

Kozulin (1986) argues that the process has never been fully researched as a dual process. Instead, almost in response to Piaget’s focus on purely spontaneous concept formation, Vygotsky’s work and that of the neo-Vygotskians (for example Wertsch, Rogoff, Walkerdine) have concentrated on explicating the impact of learnt ‘scientific’ concepts. Indeed, the quotation above suggests a critique of Piaget’s position to be the stimulus for the comments.

Kozulin interprets Vygotsky’s writing as stating that scientific concepts originate in classroom activity and Vygotsky certainly does imply this to be a central role of school education.

Accumulation of knowledge supports a steady growth of scientific reasoning, which in turn favourably influences the development of spontaneous thinking. Thus, systematic learning plays a leading role in the development of school children (Vygotsky, 1986:148).

However, anyone who has had close contact with children in their pre-school years, and certainly any pre-school practitioner, is likely to know that the introduction of scientific concepts begins long before ‘schooling’. That these scientific concepts are often introduced in response to children’s own spontaneous enquiries, interests and

hypotheses and that there continues to be a long relationship between the scientific and spontaneous is also clear. A simple example remembered from one of the ‘long conversations’ (Maybin, 1994) with one of my own children when aged three to four years serves to illustrate.

One of my sons, then aged four, had noticed (not surprisingly) that it was dark at night. The sun had disappeared and light with it. He asked where the sun had gone and why it was dark. I explained that in fact the sun hadn’t really gone, but that the earth had turned and our part was no longer facing the sun. Over a period of time, following more questions, we talked about planets turning on their axes and orbiting the sun. Questions about ‘falling off’ inevitably followed with more resultant explanation about gravity. Sometime later, as we drove to the supermarket, a voice from the child-seat in the back of car asked completely unprompted ‘Is gravity here now?’ I explained that it was all around us all the time on our planet. ‘How come I can do that, then?’ he asked, raising his arm above his head. Explanations about muscles obviously followed.

The point of the anecdote is that the ‘scientific’ explanations were prompted by the child’s desire to know; that they had a real purpose for his growing understanding of the world, and that he didn’t just accept them at face value, but considered them, acted upon them, and hypothesised from them using his own spontaneous concepts. I would not have anticipated teaching a four-year-old about physics, the solar system, or aspects of biology. They were honest answers (Bruner, 1960) to interests expressed and, I suggest, illustrate how ‘child-centred’ need not mean avoidance of teaching, allowing only discovery, as the term has often come to imply. It also illustrates how ‘subject’ knowledge has a place in early years education, though teaching in subjects may not.

For Vygotsky, the zone of proximal development (ZPD) was the place in which the child’s empirically rich but disorganised spontaneous concepts met the adult world of scientific, systematic and logical reasoning. The systematic and logical reasoning also clearly conveys cultural heritage, which is internalised as the child’s understanding of the world and way of thinking about the world.

The final product of this child-adult co-operation is a solution, which, being

internalised becomes an integral part of the child's own reasoning (Kozulin in Introduction, Vygotsky, 1986: xxxv).

Concepts do not have to be naturally developed in the child. Instead, Vygotsky sees a significant role for learning and instruction in which the child adapts scientific concepts to formulate his/her own understanding.

This becomes obvious only if one agrees that scientific concepts, like spontaneous concepts, just start their development rather than finish it, at a moment when the child learns the term or word meaning denoting the new concept (1986:159).

The role of the adult, then, is clearly one of providing guidance and instruction as well as in providing support and experiential opportunities for the child's development of spontaneous concepts. It is one of beginning the processes of understanding and helping them to develop, and of encouraging and guiding child-centred understanding. Vygotsky's term, zone of proximal development, has become well known in developmental psychology and education. It describes the distance between a child's independent problem solving and his/her potential development, which can be determined in problem solving with an adult or more competent peer. It has been elaborated on and the processes involved described more fully by Wood, Bruner and Ross (1976) as 'scaffolding', Rogoff (1990) as 'guided participation', and Newman, Griffin and Cole (1989) as the 'construction zone'. More recently, it has been used as a measure of older children's learning potential (Meijer and Elshout, 2001) and seen as more effective than traditional 'static' test procedures. In the Meijer and Elshout study, it measured children's performance on mathematics tests in which assistance was available to them as requested. The authors claim that it therefore goes some way towards identifying 'intelligence' rather than already acquired knowledge. However, questions could be raised about what makes one child more receptive to learning than another, or more able to recognise the assistance required, request it effectively and then use it. Past experience may again be as important as any implied inherent 'ability'. There are also unexplored issues about how effectively the assistance is given once requested.

The adult therefore acts as a mediator, but the role of the adult, how effectively it is carried out and the results of different forms of mediation are not themselves straightforward or unproblematic. In the Vygotskian model, the 'social' is often taken

to imply a homogeneic structure with the cultural practices passed on in complex though largely unproblematic ways (Duveen, 1997). This broad-brush version of the model does not explain individual and social sub-group differences in the acquisition of cultural knowledge.

Children are born into specific cultural and historical worlds which shape their childhoods. Children learn about their world through the activities and interpersonal relationships of people around them. They learn about and take up their own place in that world. Vygotsky argues that individual consciousness is built from the 'outside' through relations with others and that intrapersonal processes are internalised interpersonal relations. Interpersonal relations lead to internalised higher mental functions which are socially, culturally and historically specific. Interaction is therefore the key to understanding and promoting children's cognitive development, and the processes of internalisation central to the means by which children learn. Interaction needs to be considered on two levels. These are firstly the level of cultural/historical environment in which the child finds himself with its structures, activities, language, roles, and experiential possibilities, and secondly at the level of interpersonal interaction through which the socio-cultural environment is mediated and at which point the social and individual meet.

But what of the child's role in this? What is internalisation; how does it occur and how can it be determined? Internalisation implies something more than information simply passed on by the adult or other. It implies the child acting upon, understanding and taking as her own the information given. Rogoff (1990) uses the term 'appropriation' to describe the process, implying a 'taking possession of'. She describes how the process gradually emerges during a period of 'apprenticeship' in which the child becomes more and more actively involved in problem solving and decision making.

Aspects of internalisation may be difficult to determine in early years learning. Observation is a widely used individual method of assessment of young children's progress in early years pre-school settings (Hurst and Joseph, 1998), though less regularly used in school settings even with children of similar ages. However, observation generally involves following the child's lead, rather than actively seeking

out the child's understandings as the use of the ZPD would imply. In school, assessment is generally more static and task-centred and, with the pressure of higher ratios of children to staff, more a rapid measure of performance in set circumstances than of understanding and application (for example the Baseline Assessment, SCAA 1997).

There is a possibility that a combined use of analysis of the ZPD and 'immediate retrospection' (Cooper and McIntyre, 1996) may give more insight into how and which types of teaching and learning lead to internalisation, and their differing impacts on the child. I raise this issue because the choice of method of determining learning is so closely linked to the underlying beliefs about what constitutes learning and cognitive development. Equally, the results of investigations, dependent on the methods chosen, can themselves fuel theoretical development and the growing body of knowledge about the subject. The Effective Provision of Pre-school Education (EPPE) project (DfEE, 1997-2003: Sylva et al, 1999a; EPPE, 2004a and b) focuses on measuring 3,000 children's verbal and numerical skills from age three years onwards using the British Ability Scales (Elliot et al 1996), social behaviour using the Adaptive Social Behaviour Inventory (Hogan et al 1992). At school entry, alphabet knowledge is added, and reading skills thereafter to provide evidence on the long-term effectiveness of pre-schools. The cognitive skills tests for children from 3 to 5 years were administered by EPPE researchers, adults who were unknown to the children, in a one to one test situation. The results of such research could equally become catalysts for greater emphasis in early years education on verbal, numerical and early reading skills. The tests used may miss other vital aspects of learning and internalisation such as creativity, perseverance, inquisitiveness, motivation and concentration (see Pascal, Bertram and Ramsden, 1997). Since aspects of intrapersonal psychology such as attention span have been shown to be culturally specific and learnt through different expectations and practices (Charajay and Rogoff 1999; Heath 1983), they could be vital indicators of learning how to learn successfully. This may be an alternative to relying overly on content-dependent factors, though of course education is about learning 'content', too.

Vygotsky himself referred to the complex role the individual has to play in acting upon and interpreting the social interactions and internalising through thought. In

particular, he referred to this with regard to word meaning and with regard to the impact of the affective domain. Word meaning is taken by Vygotsky to be the unit of analysis for studying thought and speech. He defined word meaning as being not only a generalised referent, but also as containing ‘word sense’ which is peculiar to the person using the word and conveys the feelings and experiences that person associated with past uses of the word. Similarly, Vygotsky, writing in the 1930s in a critique of contemporary psychological approaches to the study of mind, stated:

The first question that arises is that of intellect and affect. Their separation as subjects of study is a major weakness of traditional psychology, since it makes the thought process appear as an autonomous flow of ‘thoughts thinking themselves’, segregated from the fullness of life, from the personal needs and interests, the inclinations and impulses of the thinker (Vygotsky 1986: 10).

Vygotsky later turned his attention to the emotions as a focus of study, having reasoned that intellect alone does not explain motivation (Kozulin in Vygotsky 1986). Research by Hartley (1986), Scheirer and Kraut (1979), and Moore (1986) have all provided persuasive evidence of the powerful effects of aspects of the affective domain such as self-concept, levels of self-confidence based on previous success or failure, and of praise and respect on children’s abilities and understanding.

So, individuals have a specific role to play in internalisation, in actively making sense of the socio-cultural world around them and in participating in interaction that guides and shapes their knowledge and understanding. That much ‘teaching’ can lead to little ‘learning’ (Duveen, 1997) may be evidence that the individual has to be engaged and active in the process. Research by Schweinhart, Weikart and Larner (1986), and Schweinhart and Weikart (1997), for example, has demonstrated the long term advantages of informal, active learning in early years education in the USA compared to more formal, directive styles.

When considering young children, the individual is also subject to a physical maturation process. The young child is in a body growing and developing at a very fast pace. What a child cannot do today becomes a physical possibility unaided tomorrow: sitting up, crawling, standing, walking. ‘Norms’ have been developed as descriptors and monitors of ‘average’ development (Sheridan, 1997) with ‘milestones’ for each aspect and age of a child’s early years. Such norms are socially and

historically specific and closely tied to child rearing practices, care, nutrition and other environmental factors (David, 1999). However, the broad sequence of development is generally unchanged. As the central nervous system (CNS) matures, voluntary action replaces primitive reflexes and the development of motor skills follows a downwards and outwards direction, from head control to upper back to legs and feet, and from uncontrolled arm movements to fine manipulative skill (Beaver et al, 1994). The brain itself is developing with the body during the early years with networks of connections between neurons forming.

Peaks in neuronal numbers, connectivity, synapses, and activity are followed by decreases, often sharp decreases, to adult levels at later points in development (Nelson, 1996: 34).

Brain development appears to be a ‘pruning away’ of unused potential: what we know of the brain’s development emphasises its plasticity (Brierley, 1987; Nelson, 1996).

The openness of the CNS to the influence of the external environment over long periods of developmental time is consistent with the strong view of neural and cognitive plasticity in the human species (Nelson, 1996: 35).

Early learning in its broadest sense is development. Physical maturation has a role to play, but even physical maturation is dependent largely on environmental influences. Vygotsky acknowledged the importance of biological factors in understanding the origins and nature of a child’s psychological development. He argued that such factors could only explain psychological functioning to a certain level, beyond which socio-cultural factors became a necessary means of explanation. Vygotsky believed that understanding of individual psychological processes must begin by attempting to understand the historical sociocultural development and social processes before attempting to explain the individual psychological development. However, he did not suggest ignoring physical growth and development of individuals, nor individual experiences.

Indeed, one of Vygotsky’s basic assumptions – an assumption that has often been misinterpreted or ignored – is that a major force in ontogenetic change is the dialectic that emerges when the ‘natural’ line of development comes into contact with socioculturally defined tools and patterns of activity (Wertsch, Minnick and Arns, 1984: 153).

The explanatory framework must take into account both factors and the interaction between them (Wertsch, 1985), though as has already been noted, research along

Vygotskian lines has not yet fully explored the role of the maturing, thinking individual child in the process.

Alongside socioculturally defined stages of physical development, stages of cognitive development have been identified by Piaget and colleagues (Piaget, 1970; Inhelder, and Piaget, 1958). According to this view, whilst the child requires access to stimulating environments and exploratory activity in order to allow development, the cognitive development is seen as essentially natural, intrapersonal and qualitatively different to adult cognition. The stages, it is suggested, follow a natural sequence based on the growing brain and mind and are led by the transition from autistic thought, through egocentric thought to logical thought. Before seven to eight years of age, Piaget saw egocentrism as dominating speech and thought in young children. He gave two reasons for this:

It is due, in the first place, to the absence of any sustained social intercourse between the children of less than seven or eight, and in the second place, to the fact that the language used in the fundamental activity of the child – play – is one of gestures, movements, and mimicry as much as of words. There is, as we have said, no real social life between children of less than seven or eight' (Piaget, 1959: 40).

Piaget's theory and the evidence on which much of the theory is based have been heavily criticised by many later developmental psychologists (Donaldson, 1978; Thornton, 1995; Vygotsky, 1986). The criticisms have related to an underestimation of children's social interpretation of the experimental task setting and the impact of this on their performance. Other work (Rogoff and Lave, 1984; Zimiles, 2000) has demonstrated that the cognitive developmental sequencing of abilities described by Piaget are in fact descriptions of what is typical of children similarly raised, with similar experiences and socio-cultural backgrounds in similar test conditions. Zimiles (2000) questions the base of research knowledge on child development as being fragmentary, subject to specific context and interpretation problems and non-naturalistic. He states that the fragments cannot be pieced together to make a 'whole' child development science because they do not 'add up'. He calls into question also the 'populations' from which samples for dominant child development research studies were drawn. These populations no longer represent the populations and cultural history of today's children and are therefore often no longer relevant. Vygotsky saw development as being driven by multiple forces and complex, changing

relationships between the forces. He was critical of any single explanatory principle, emphasising instead qualitative shifts in type of development. For each new form of development, the explanatory framework must be reformed in terms of the new and old factors and the interactions between them (Wertsch, 1985). Yet others have shown that Piaget vastly underestimated the role of interaction with adults and more competent peers in a partnership of forming the child's cognitive development (for example, Wood et al, 1976; Rogoff, 1990; Schaffer, 1996). Each critique points to different aspects of the importance of social influences and Anning et al acknowledge the 'theoretical seachange' in early years education

that has seen individualistic developmental explanations of learning and development replaced by theories that foreground the cultural and socially constructed nature of learning (Anning et al, 2004:1)

Piaget did, however, contribute greatly to an understanding of the child's active endeavours to learn, and to the need for cognitive engagement.

If Piaget's theory, though useful in emphasising the constructivist nature of the individual, is inadequate, and Vygotsky's theory has not fully explored the part played by the individual, what can help us to understand more fully the role of the individual in internalisation? Situated cognition theory, which claims to be a blend of anthropology, critical theory and Vygotskian socio-cultural theory drawing on psychoanalysis, neurology and semiotics, aims to address this question. It 'explicates the nature and participation of individuals within the social processes of cognitive activity' (Kirshner and Whitson, 1997: 3). It has largely looked at learning in 'out of school' life in everyday settings. Generally, it places its unit of analysis in the sociocultural setting in which activities are embedded. It considers the appropriation of knowledge within the ZPD from the individual's developmental point of view and from the point of view of those (or those 'things') providing support. It also considers the ways in which the 'arenas' and 'settings' of activity are linked to broader social and political institutions. The approach therefore addresses the issue of specific sociocultural environments, thus avoiding the problems of viewing the social as broadly homogenous. A need to avoid a one-dimensional view of the individual when focusing on the social is also one of the pitfalls situated cognition theorists aim to avoid. Another is that of assuming a simplistic model of the use of the ZPD, in which the child unproblematically and passively 'soaks up' the adult's input in stages and

through demonstration (Kirshner and Whitson, 1997). Within this situated view of learning, Cole (1996) and Rogoff (2003) point out that cultural context (such as the influences of home, pedagogical sub-culture and societal structures) is not something which surrounds learning, but which is woven through and re-enacted in each part of the learning process. Rogoff states that ‘individual and cultural processes are mutually constituting rather than defined separately from each other’ (2003: 51). Cole points out that ‘The boundaries between “task and its context” are not clear-cut and static but ambiguous and dynamic’ (Cole, 1996: 135). Data presented and analysed in Chapter 6, section 6.1 illustrate just how clearly context becomes constitutive of and constituted by momentary enactment, in words and actions, of teaching and learning.

St. Julien (1996: 266) notes that as situated cognition theory takes knowledge as context specific, ‘Knowledge is decidedly social and always situationally contingent’ (St. Julien, 1997:264). Whilst this opens up the possibility of understanding competence and unsuccessful transfer, it does not provide explanation for the individual as a thinker who can transcend situation. Dreier’s concept of learning as rooted in people’s participation in social practice looks beyond specific situations to individual’s movements between situations. Learning is therefore located not in ‘isolated acts’ but in how the acts are placed in people’s personal trajectories. Learning is not fixed or complete, but is constantly open to disruption and impermanence. It can be combined or altered based on learning in different contexts at different times. ‘All in all, learning trajectories are full of interruptions; they are discontinuous’ (Dreier, 2002:4).

Such a model of learning implies a study not of a situation or learning in isolation, but of how people learn and act across the range of social structures in which they participate.

We move from studying how a person deals with one particular situation to how a person conducts his or her life in a trajectory of participation in and across social contexts (such) as one’s home, school, workplace and so forth (Dreier, 2002:3).

This is not simply a matter of learning in one context and applying in the next. Rather, Dreier points out that social contexts are constantly recreated by a particular ‘constellation’ of people, particular to that social context, in different positions.

As a person moves from one context to another, his or her position varies, and so does that person's possibilities, resources and degree of influence on what may be done (p. 5).

Different 'positions' a person holds in each context may call into question or add to what has been learnt in other contexts. Each context implies finding a way of participating in that context, a way of acting, with different 'personal action potencies', or agency, required for them. And each carries with it the societal arrangements or structures, acting as resources or constraints.

According to this argument, persons do not fashion their conduct of everyday life in a purely subjective or intersubjective manner, but in relation to societal arrangements for members' everyday lives, including for [sic] access to particular social contexts and for members' participation in them (Dreier, 2002: 3).

Though not 'all determining', the societal arrangements or structures do act as significant resources and constraints for individuals' trajectories.

Bernstein (1996) provides a theoretical framework which offers insight into how societal arrangements or structures operate as resources and constraints in pedagogical settings.

Class cultures act to transform micro differences into macro inequalities and these inequalities raise crucial issues for the relation between democracy and education... This requires us to have an understanding of the intrinsic stratification features of modern educational systems and of the social groups upon which these stratification features are likely to be inscribed (1996: 12).

Bernstein's concept of classification, which carries power relations in the degree of insulation between groups or categories, and framing, which controls communication of classification, are useful in describing pedagogies.

Classification refers to what, framing is concerned with how meanings are to be put together, the forms by which they are to be made public and the nature of the social relationships that go with it... Framing is about who controls what (Bernstein, 1996: 27).

Classification and framing can be strong or weak. Framing regulates two systems of rules: the rules of social order or the regulative discourse (RD) and the rules of discursive order or instructional discourse (ID). RD refers to hierarchical relations, expectations about conduct, character and manner. ID is embedded in the RD and

refers to selection, sequence, pacing and criterion of knowledge. Generally, strong framing gives rise to a visible pedagogy with explicit ID and RD, whereas weak framing gives rise to an invisible pedagogy with implicit ID and RD, ‘largely unknown to the acquirer’ (1996:28).

Bernstein’s work offers a way of considering children’s access to and positions in the pedagogies, depending on their home backgrounds.

Where framing is strong, that is when the external (e) feature is strong, social class may play a crucial role. Where the external framing is strong, it often means that the images, voices and practices the school reflects make it difficult for children of marginalised classes to recognize themselves in the school (Bernstein, 1996: 29).

He points out how, within a pedagogic context, a participant needs to have access to both recognition rules, ‘the means by which individuals are able to recognize the speciality of the context that they are in’ (1996: 31) and realization rules, which ‘enables appropriate realizations to be put together [and] determines how we put meanings together and how we make them public’ (1996: 32) to enable him/her to participate in producing the ‘expected legitimate text’, in other words, to access and participate in the educational practice. Bernstein points out how children from marginalised classes are less likely to have access to both of these, or may have access to the recognition rules but be unable to realize the ‘text’. Bernstein (1999) distinguishes between discourse in types of knowledge: horizontal and vertical discourse; and within vertical discourse: vertical and segmented structures. Horizontal discourse is characterised as segmented, local, oral, tacit and context specific. Vertical discourse is:

a coherent, explicit, and systematically principled structure, hierarchically organised...or...a series of specialised languages with specialised modes of interrogation and specialised criteria for the production and circulation of texts (Bernstein, 1999: 159).

These, too, have implications of accessibility for children of varying backgrounds. The work of Corsaro et al has also emphasised the impact of power relations on children’s participation and learning (Corsaro et al, 2002). Hasan’s work (in Cloran et al, 1996) offers a detailed way of linking back between educational and home settings in considering the ontology, enactment and reproduction of power relations and discursive practices, which children learn by taking part in day to day communication.

Hasan ‘provides a bridge between statements about social structure and about meaning-making in language’ (Cloran et al, 1996: 9). From her extensive field study on mother-child talk in the home, she concludes that the way talk is participated in shapes children’s consciousness. It is here that the (sub-) culture’s values and power structures are passed on in the early years.

And the mechanisms for this ontogenesis are the habitual forms of communication, wherein the taken-for-granted nature of the social world is transmitted (Hasan in Cloran et al, 1996: 143).

The qualities conveyed in communication are so ‘everyday’ that they become invisible, making what is said ‘inevitably real’ (Hasan in Cloran et al, 1996: 147), but a close analysis of communication can reveal ‘habitual forms’ in which values are transmitted and to which children become accustomed.

The ways in which *individuals* contribute to and make sense of this learning of what is expected and what is possible can be addressed by reference to Dreier’s notion of the ‘personal action potency’ that each individual brings to bear on learning and learning contexts, which is taken to be agency tempered by resources and constraints.

As a person moves from one context to another, his or her position varies, and so does that person’s possibilities, resources and degree of influence on what may be done. It, therefore, takes different personal action potencies to participate in them, and a person participates in different ways and for different reasons in different social contexts (Dreier, 2002: 3).

Individual learner identities are both formed by and indirectly contribute to the agency, resources and constraints which comprise personal action potency and so have a powerful role to play in children’s learning trajectories. Dunlop, in her work on children’s transitions from pre-school to primary school, stresses the importance of children’s agency as instrumental in the transition process in ‘making successful connections’. She defines agency thus:

Here it is proposed that for children to feel active, and therefore to have a sense of their own agency, is synonymous with feeling involved, feeling worthwhile and being able to contribute: all factors which influence successful learning (Dunlop, 2003:8)

Bruner refines the concept of agency as one in which the ‘record of agentive encounters with the world’ (Bruner, 1996:36) provides not only a story or perception of how agentive one can be, based on past experiences, but also a ‘possible self’

drawn from this, which ‘regulates aspiration, confidence, optimism, and their opposites’ (p. 36). Thus, it is a powerful concept in theorising about children’s learning:

Yet we may not be the final arbiters of success and failure, which are often defined from ‘outside’ according to culturally specified criteria. And school is where the child first encounters such criteria—often as if applied arbitrarily. School judges the child’s performance, and the child responds by evaluating himself or herself in turn (Bruner, 1996:36-37).

Identity has become a central concept in social theory and research (Bendle, 2002; Woodward, 1997; Warin, 2003; Appleby, 2003; Yeung and Martin, 2003) and is important to a study of learning. As Warin points out

Researching the construction of identity is important because identity has a profound influence on learning. This is because our beliefs about self operate to select, filter and organise our perceptions of the world around us and crucially influence our construction of meaning (Warin, 2003: 2)

Yet the concept of identity is also problematic. Bendle, in his critique of the theories of Giddens and Castell, argues that accounts of identity are ‘inconsistent, under-theorized and incapable of bearing the analytical load required’ (Bendle, 2002: 1). He points out the contradiction in seeing identity as, at once, both ‘crucial to personal well-being’ and also ‘something constructed, fluid, multiple, impermanent and fragmentary’ (Bendle, 2002: 1). Drawing on a review of the various uses and underpinning theories of identity, Bendle notes that they occupy the space somewhere between constructionism and essentialism, a view which Woodward’s writing supports.

Thus it can be seen that the debate between essentialist and non-essentialist views takes different forms. At some points it is articulated as a tension between biological and social constructionist approaches, and at others it takes the form of a dispute between a view of identity as fixed and transhistorical, on the one hand, and as fluid and contingent, on the other (Woodward, 1997: 4).

Bernstein (1996) sees identity as linked to social structure and individuals’ positions within it, noting that education, ‘like health, is a public institution, central to the production and reproduction of distributive injustices’ (Bernstein, 1996: 5). In such a model, there is little room for analysis of fluidity and agency. Lave and Wenger (1998) and Wenger (2001) more fully acknowledge agency and individual subjectivity in their model of the relationship between identity construction and

learning by considering people's differential participation in 'communities of practice'. Wenger develops the idea of communities of practice in his 2001 work, describing them as 'an integral part of our daily lives' (page 7). He describes three dimensions through which practice and community interrelate to form communities of practice: mutual engagement (for example, doing things together, relationships), joint enterprise (for example, negotiated enterprise, mutual accountability and interpretations) and shared repertoire (for example, discourses, tools, historical events) (Wenger, 2001: 73). Identity, then is 'a way of talking about how learning changes who we are and creates personal histories of becoming in the context of our communities' (page 5). It 'includes our ability and our inability to shape the meanings that define our communities and our forms of belonging' (page 145), taking into account issues of non-participation as well as participation. However, Lave and Wenger, conversely, do not fully address the impact of societal forces and power relations within which communities exist and operate. As Appleby (2003) points out, Wenger (2001) goes some way towards acknowledging power as an influential factor in shaping 'institutional arrangements' which can act to marginalise or include individuals participating in a community of practice, but does not address wider social systems within which such communities and their institutional arrangements occur. The sociocultural theory view of identity as fluid and grounded in social interaction, and as membership of and participation in a range of sociocultural groups offers a useful way of considering the impact of emerging and changing identities on children's learning, but the entrenched social inequalities in educational attainment call for an acknowledgement also of the role of individuals' positions in broad social structures in shaping the range of possible identities and the ease or difficulty required to achieve them. In this thesis, then, I take identity as powerfully influenced by social position, but open also to shaping and modifying in social interaction. Black's research (2003) into primary pupils' identity formation in mathematics lessons points to the shaping effect of social interaction with the teacher, but also the initial influences of the teacher's perceptions of pupils according to their gender, social background and ability, all taken as fixed values in the ethos of the classroom.

Situated cognition helps to explain the usefulness of 'embedded' understanding, of links to familiar experiences, the impact of affective contexts of learning, and the role of the 'active learner', all of which are routinely referred to and used in 'good

practice' in early years education (Hurst and Joseph, 1998; David, 1999). It explains the impact of the sociocultural environment whilst allowing for individual change and differences. It clearly sets out a role for adults, not only in providing an enriching, supporting environment, born out by the results to date of the EPPE project (Sylva et al, 1999b; Siraj-Blatchford et al, 2003), but in helping associative patterns and connections to be formed. Children remember only those things to which they attend; things ignored leave no trace in the brain, and monotony is disregarded (Brierley, 1987). Awareness of common and definitive properties can be slowly deduced by induction, but can be developed more quickly by someone explicitly drawing attention to them. The adult can provide experiences for the development of the same concepts in different forms to encourage attention, and attention can be drawn to items of significance, to similarities and to connecting ideas. Explanation and demonstration of principles and generalities related to specifics can provide a frame for children's understanding.

Examples of the actual and potential success of adults adopting such an approach can be found in many studies of young children's learning. Heath (1983), in examining the differences in home language use between the more academically successful 'townspeople' and the less successful people from 'Roadville' and 'Tracton', notes the way in which townspeople create links with preschool children between items and events using language, and later between home and school activities.

When children do not initiate these links, parents suggest them, and when too many weeks go by without direct and extended talk of what is going on at school, parents begin looking for ways to build anew some connections (Heath, 1983: 350).

Heath describes the process with great clarity, drawing out the role of adult and child, and how it translates into mental functions of use in successful school education.

Through their focused language, adults make the potential stimuli in the child's environment stand still for a cooperative examination and narration between parent and child. The child learns to focus attention on a preselected referent, masters the relationships between signifier and the signified, develops turn-taking skills in a focused conversation on the referent, and is subsequently expected to listen to, benefit from, and eventually to create narratives placing the referent in different contextual situations....The child is not left on his own to see the relations between the two occurrences or to explore the ways the integration of the referent in a new context may alter its meaning....In essence, this process enables the child to view each new referent

out of its context, and to approach it with decontextualized labels of identification and attribution, rather than only with contextualised responses which link it to specific dated events or situations (Heath 1983: 351-352).

Donaldson (1978) points out the importance of teaching children to ask questions, examine things closely, and tell adults when something doesn't make sense, all of which do not feature heavily in school discourse. Instead, school discourse is often characterised by teachers questioning pupils and effectively limiting their responses (Willes, 1983; Sinclair and Coulthard, 1975; Edwards and Mercer, 1987). Donaldson also points to the importance of adults helping children to understand the general nature, purposes and possibilities of a system, its 'shape', before or alongside trying to master the detailed workings of parts of it (for example, in literacy learning). This helps the child to fit the detail into a more broadly conceived pattern. Her references to contemporary psychology experiments by M. Hughes, J. McGarrigle, and B. Wallington, challenging Piaget's findings, also emphasise the adults' role in ensuring a shared understanding with children of intention and purpose if the children's cognitive performance is to be deemed successful by the adults' criteria.

Edwards and Knight (1994) draw on research findings to argue for the importance of curriculum content and subject specific meanings in early years education, not necessarily in the form of 'subject' delivery. These provide the basis for growing understanding and the groundwork for 'mastery of the key categories or concepts and patterns in which they relate to one another' (page 49). Walkerdine (1988) draws attention to the impact of precision of language in helping young children to develop understanding, and questions the validity of using domesticated replacements for 'technical' language in what superficially appears to be a more child-friendly approach. Domesticated replacements have been shown to blur meanings making it more difficult for children to grasp and apply the concepts.

Yet language is only one aspect, albeit an important one, in young children's learning and in the communication of the cultural heritage by more experienced members of the community to the child. Learning and meaning making are multimodal and in recent years there has been a renewed interest in considering this in empirical studies, not only in relation to young children (Matoesian and Coldren, 2002; Bourne and Jewitt, 2003; Kress et al, 2004; Pahl, 2002; Anning, 2003; Lancaster, 2001; Kress &

Van Leeuwen, 2001; Flewitt, 2003; Wang et al, 2001). Since the 1960s, social psychology has contributed an enormous amount of empirical research, largely from a positivist, non-situated, experimental stance, to an understanding of non-verbal aspects of interpersonal communication (Argyle, 1988; Burgoon, 1994). As Argyle asserts, 'Language is highly dependent on and closely intertwined with NVC, and that there is a lot that cannot be expressed adequately in words' (1988:2). Argyle identifies nine channels through which NVC is conveyed: facial expression, gaze, gesture and body movement, posture, bodily contact, spatial behaviour, non-verbal vocalisations, smell and clothes/appearance; he reviews the evidence for each separately. More recently, Martin, Crnic and Belsky (2003) examined the importance of 'social looking' in pre-school children's transition towards independent self-regulation skills. Burgoon, however, pointed out the importance of viewing NVC as an integrated communication system.

The traditional decomposition into separate codes leads to a piecemeal and distorted understanding of the social and communicative role of nonverbal signals. Nonverbal behaviours operate as an integrated, coordinated system in achieving particular social functions, and their importance becomes apparent when they are examined collectively (Burgoon, 1994: 238).

Knapp, Miller and Fudge (1994) go further to suggest the value for research into interpersonal interaction lies in addressing both verbal and non-verbal messages. 'We can learn much by tapping the depths of verbal and nonverbal behaviours separately, but we will learn more about interpersonal communication when the interaction of both systems forms the basis for analysis' (Knapp, Miller and Fudge, 1994: 11).

In light of the work of Kress and Van Leeuwen (2001), to the study of verbal and non-verbal communication in interaction should be added the consideration of other modes and the media chosen including semiotic devices such as models, diagrams, resources, colour, to name but a few. As Kress and Van Leeuwen assert:

Meaning is made in many different ways, always, in the many different modes and media which are co-present in a communication ensemble...that language is the central means of representing and communicating even though there are 'extra-linguistic', 'para-linguistic' things going on as well – is simply no longer tenable, that it never really was, and certainly is not now (2001: 111).

Instead of treating each as separate aspects to be then added together, Kress and Van Leeuwen propose a theory of multimodal communication which concentrates on the semiotic resources – the modes and media used, and the communicative practices employed – the discursive, production and interpretative practices and, where applicable, design and distribution practices. Kress and Van Leeuwen suggest that the move away from monomodality raises new issues about cognition, learning and knowledge (for example, the impact of design on discourse and vice versa, and the question of control over choice of modes, what is represented and how it may be represented by the experiencer; 2001:131-132). A consideration of the educational world as a multimodal entity entails a fresh look at such issues. With regard to young children's learning, in educational settings as well as at home, this should include consideration of use and choice of resources, image, bodily communication, room layout, physical boundary setting and deployment of adults.

The value of looking at the world of education and of young children's learning in a multimodal manner has been highlighted in the past by the work of psychologists such as Schaffer (1977), who examined the growth of communication and sociability in very young children in interacting with their carers by attention to vocalisation and turn taking with pre-verbal infants (p. 71-73), picking up and tactile contact (p. 53), gaze (p. 76-77), and the way in which the many modes of communication are blended and used responsively (p. 82). More recently, the works of Kress (1997), Kenner and Kress (2003), Pahl (2002) and Anning (2003), working with Kathy Ring, have looked at children's meaning making through drawing, model making, scene creation, and symbol design. Wells (2001) and Lancaster (2001) have examined the use of body position, gaze, gesture and use of resources in conjunction with vocalisation and speech in representing and interpreting meaning by and between children and adults. Wells in particular looked at the interaction between the child's and teacher's reading of each other's multimodal cues, 'communicated by gaze, gesture, and spatial orientation' (p.94), and the impact it had on teaching and learning.

More importantly, as a teacher, I have learned how my 'logocentrism' has blinded me to other modes of meaning making that, when attended to, can make a difference in how I view students' interests and abilities and enable me to be more effective in coconstructing meaning with them in our zones of proximal development (Wells, 2001: 94).

The co-construction of meaning, then, is a multimodal enterprise and should be researched as such.

So what shape might a study into the learning processes of four year olds take? The best theoretical evidence to date for understanding children's learning points to the importance of the sociocultural environment, the importance of the role of the adult in interaction with the child as mediator of the sociocultural environment, and the importance of the role of the child as an active thinker, investigator and receptor moving between different social situations. Overlaying this is the understanding that each occurs and is communicated multimodally. To carry out a useful investigation into the learning of four-year-olds, the study therefore needs to focus on these areas. This is echoed by the words of Hatano and Wertsch (2001). They emphasise interaction with other people and artefacts, and that '*what occurs in the microenvironment in which individual learning is observed is affected by larger contexts, both at community and global levels*' (page 78), with the 'practices' involved being of significance. Bruner (1985) similarly calls for a focus on 'props' such as the curriculum, 'processes' by which he means the learning that is taking place, and 'procedures' used by the adult, tutor, or peer.

As Christensen and James point out:

Although children may share in a common biology and follow a broadly similar developmental path, their social experiences and their relative competencies as social actors must always be seen as contextualised, rather than determined by the process of physiological and psychological change (2001:176).

'Childhood' is a social construction and children's experiences of childhood(s) vary with time, place and culture (Jenks, 2000; Rogoff, 2003; Maybin and Woodhead, 2003). It is with this in mind that I emphasise in the study the contextual and specific nature of children's experiences and contributions as learners, accepting Qvortrup's assertion that research in childhood requires:

insight in both interpersonal relations at a local level and in the macro-structures...It goes without saying that without a dialectical approach to social realities we will not be able to finalize our intellectual journey convincingly (Qvortrup, 2000:92)

This then is the approach I intend to adopt, foregrounding the micro- but with

reference to the macro-level influences on children's learning. The study will examine the specific educational sociocultural environment in which the four-year-olds find themselves. It will examine the interaction, conveyed multimodally, between staff and children and attempt to identify the sense made of the learning by the children. First, it is therefore necessary to consider what is already known about the sociocultural environment of pre-school and reception, and what is known of interaction in relation to young children's learning at this age.

2.2 Sociocultural environment of early years education.

The sociocultural environment of early years education is one with a history of great variety in type and quality of provision. Given that historically it has generally fallen outside the scope of state provision and government legislation and funding, a variety of private, voluntary and local authority institutions have developed with varying emphases on education and care. Research has shown also that 'education' is very differently interpreted, with the result that children are provided with widely varying curricula and modes of delivery (Hurst, 1994; David, 1990; Sylva, Siraj-Blatchford and Johnson, 1992; Jowett and Sylva, 1986). Staffing in early years education also shows variety in the levels of qualifications and experience, ranging from no qualifications or previous experience to experienced and qualified nursery teacher status (Menmuir and Hughes, 1998). Although there are examples of excellent early years provision, it is the incoherent, inconsistent and ad hoc nature of the provision that leads to the 'lucky dip' for young children, a state of affairs that David (1998) points out would be unthinkable for any other period in a child's education.

Why is it assumed this treatment is perfectly satisfactory for children under five? Is this any way for a society to inculcate ideas about 'learning properly' or to capitalise on the immense potential of the young brain? (David, 1998: 63).

Research has shown that early years pedagogy is characterised by a strong belief in a constructivist approach to learning, seeing learning as a developmental process centred around individual children's learning needs. Learning is broadly defined, and more emphasis is often placed on social and emotional development than on intellectual development, with affective, physical and intellectual domains seen as at least equally important (Moyles, 2001; Hurst, 1994). In the 'Principles into Practice: Improving the Quality of Children's Early Learning' research project (Blenkin and

Yue, 1994), a questionnaire followed by structured interviews with nursery heads included a question about ideas of a quality curriculum for young children. Many responded along the lines of observation and continuous monitoring as the lead for individually developed curricula. Autonomy of learners was emphasised, but most respondents saw subjects as having a place within a developmental curriculum. Alongside this is an often recorded call by practitioners for more education and training in child development to enable them to better do their jobs (Hurst and Joseph, 1998; Menmuir and Hughes, 1998). Early years practitioners are, however, characterised by an underpaid, low-status and varyingly qualified workforce, often lacking the power and self-esteem to become a strong lobbying group for their own beliefs. The situation is exacerbated by anomalies in government legislation, policy and training provision that further undermine their position (Pascal, 1996; Blenkin and Yue, 1994), in spite of evidence from a major study in the USA which found that training made a measurable difference to the quality of early years education (Whitebrook, Howes and Phillips, 1989). More recently, however, moves are afoot to create a common core of training for all involved in work with young children (DfES, 2004b:27).

The impact of the imposition in 1988 of a National Curriculum filtered down into early years education and led to claims of early years teachers being ‘expected to follow a subject-based curriculum derived downwards from the requirements of the secondary curriculum’ (Hurst, 1994: 37). It also led to claims of inappropriate practices for young children as the developmentally appropriate curriculum, based on individual needs and from a largely Piagetian model of learning, was challenged (Lally 1991; Hurst 1994; Hurst and Joseph 1998; David 1998). More recent government initiatives have led to early school entry for many four-year-olds, to the inspection of early years settings tied to funding for four-year-olds, and to the development of new curriculum and assessment methods (DfEE, 1996, 1999 and 2000; SCAA, 1997). The ‘Foundation level’ has been identified, though provision for its delivery is still very varied. Concerns are being expressed and measures underway to provide further training, professional development, advice and support for early years educators in pre-schools and reception units (Early Education and Childcare Unit, Hampshire County Council Education Department, 2001).

For early years educators in reception units, typically an infant teacher, or more recently a primary teacher, with some additional learning support assistance, the sociocultural environment is somewhat different in that the concerns for a developmentally appropriate approach to learning sit within a school environment more recently characterised by targets, standard assessments, inspections, league tables, and policies that impose not only a curriculum but also modes of delivery (SCAA, 1997; DfEE, 1998; Moyles, 2001: 87). Research by Kernan and Hayes (1997) provides evidence that such an environment leads reception teachers to spend most of the school day on pre-academic skills with four-year-olds, in spite of their stated priority for social and language skills. Kernan and Hayes link this to the training of teachers, which prepares them for ‘primary’ as opposed to specifically early years. Adams et al more recently found that the introduction of the Foundation Stage Curriculum had done little to change what they describe as ‘conceptually and emotionally ‘impoverished’’ (Adams et al, 2004:22) learning experiences for young children in reception classes, referring to emphasis on narrowly defined literacy and numeracy activities. Conversely, Moyles and Suschitzky (1995) found that qualified teachers in the early years sector tended ‘to ‘work down’ to the level of their variously trained and qualified colleagues’, rather than using their expertise to raise standards. This could lend weight to the argument that individuals’ practice is shaped not only by their training, expertise and beliefs, but by the pedagogic culture in which they find themselves.

In summary, it seems that four-year-olds in Britain find themselves in varying sociocultural pedagogic environments, which are themselves in a state of flux with still widely divergent influences from their linked ‘larger contexts’ (Hatano and Wertsch, 2001: 78). These are the contexts within which the children’s learning takes place and which contribute to the nature of that learning. Research has so far provided evidence about underlying beliefs of children’s learning, how these translate into provision and the influences on these including professionalism, training and government policy. What has been less well explored is the beliefs and practice relating to day to day interaction in the settings. So how do these influences translate into interaction between adult and child, and between child and the learning environment provided by the adult?

2.3 Interaction around the time of school entry: previous research.

What is known to date of interaction around the time of school entry can be drawn together into five main strands of investigation. These will be considered in turn. The first provides evidence of differences between intended and experienced curricula, and intended and experienced patterns of interaction. The intended curriculum as found by Anning (1998) in Early Years Units was of cognitive development within a broad, informal play-based curriculum for three to five-year-olds. However, the reality showed patterns of ‘flitting’, self-directed largely physical activity for the younger children, while the older children experienced broad delivery of the Desirable Learning Outcomes (DfEE 1996) in mostly teacher-directed activities. Bennett and Kell (1989) demonstrated differences between infant teachers’ stated aims of promoting social and emotional development and the actual school experience of young children dominated by cognitive development. Adams et al (2004) found discrepancies between reception teachers’ reported responses of welcoming the Foundation Stage curriculum, finding no difficulty in incorporating it into reception practice, and observation results which showed practice as not reflecting the principles of the Guidance document (page 18). Orchard (1993) found that in reception classes, teachers recognised the value of talking with children and considered it a priority. However, whilst the teachers themselves interacted non-stop with the children, from the children’s point of view it was brief, teacher-led and restricted, as reflected in other studies of classroom discourse (Sylva et al, 1980; Tizard et al, 1983; Willes, 1983). This was explained in terms of the reality of dealing with a complex curriculum and a large number of young children in a limited time. It lends weight to the argument that any theory or model relating to the guided construction of knowledge (Mercer, 1995) or guided participation (Rogoff, 1990) must reflect the reality of the busy classroom and not be based purely on research with dyads or extended child-centred conversations.

In an attempt to uncover the effectiveness of the teaching and learning process, Pascal, Bertram and Ramsden (1997) developed two observation scales. These were the Involvement Scale, based on work by Laevers (1994) in Belgium, for measuring how involved a child is in the learning process, and the Engagement Scale measuring

adult features of interaction affecting the child's learning, such as sensitivity, stimulation and autonomy. The scales do not appear to include any matching of process to learning outcome. The methods were used as part of the Effective Early Learning Research Project, which aimed to involve practitioners in using the measures as catalysts and indicators for reflective practice. Instances were given of practitioner-led change once the research uncovered differences between intended and actual practice. Wood and Bennett (1998) used practitioners' reflections on video taped practice in a similar way to effect changes. Oliveira-Formosinha (2001) points out the different interpretations that can be made of the results of observation using the Engagement Scale. In particular, a high level of 'autonomy' on the scale may be taken to indicate a Piagetian child-centred view of education. Oliveira-Formosinha instead suggests that it includes aspects of interaction fostering higher psychological functions through mediation, a more Vygotskian analysis.

The second strand of investigation relates to the contingent and responsive nature of successful adult guidance or teaching (Wells and Nicholls, 1985), its dependence on capturing or recruiting interest (Wood, 1988), staying one step ahead of the learner by gradually making the task more complex and keeping within the ZPD (Bruner, 1985), creating joint understanding and guiding the child to make links (Rogoff and Lave, 1984; Rogoff 1990; Edwards and Mercer, 1987; Mercer, 1995) or participating in 'sustained shared thinking' (Siraj-Blatchford et al, 2003:v), and the importance of noting fully the social, affective and intellectual aspects of the child's understanding (Thornton, 1995; Donaldson, 1978; David and Goouch, 2001). Much of the research relating to this strand (with the exception of that by Edwards and Mercer, 1987 and Mercer, 1995) is based on experimental methods, observation of dyads carrying out researcher-given tasks, or observation of dyads in naturalistic settings, usually the home. The reality of early years education is rarely of an adult working one-to-one with a child for any length of time, though this may be slightly more likely to be seen in pre-school than school settings. When it does occur in reception, the adult is likely to be subject to a constant stream of interruptions by other children and to be keeping an eye on the activities of a large group at the same time. What constitutes effective interaction for learning in such a context with young children requires further investigation.

The third strand offers clear evidence of the effects of expectations on the patterns of interaction and ultimately on learning outcomes. Whilst most of the evidence relates to the expectations of teachers, some relates to children's expectations of the learning situation. Within this category would also fall some of the studies in which the child's expectations with regard to purpose and the reading of the situation affect the child's understanding and performance (Donaldson, 1978; Gauvin and Rogoff, 1986; Thornton, 1995; David and Goouch, 2001). Brooker's action research project (1996) shed light on how children's expectations for routine teacher appraisal prevented them from taking responsibility for reflecting on their progress and learning themselves. Once the teacher withdrew this automatic response and waited instead for the children's views of their work, there was a shift towards reflection on what had been learnt and how well it had progressed.

The other evidence addresses aspects of teacher expectations and the impact on interaction. Childs and McKay (2001) examined teachers' perceptions of sixty-three children with regard to learning behaviour difficulties such as distractibility, apprehension and uncooperativeness, for academic achievement, and teachers' personal perceptions at ages five and seven years. The results of boys generally, but more specifically boys of lower socio-economic status (based on father's occupation), were more likely to be viewed negatively by the mostly female teachers. These negative ratings persisted over the two years and affected teachers' perceptions of those children, their academic expectations of them, and the way in which they were taught, although the detail of interactions between teacher and child are not presented as evidence to support the assertions. Daniels, Shorrocks-Taylor and Redfern (2000) similarly see teacher expectations of the youngest children in their classes as affecting tasks given and pupil performance. They showed that summer born children's results in standard tests at the end of Key Stage One were not significantly affected by spending seven or nine terms at school because they remained the 'youngest' in their class.

Kernan and Hayes' studies (1998 and 1999), based on work from the cross-national study of pre-primary education in Ireland, examined teacher and parent expectations for the learning of four-year-olds in terms of learning priorities and responsibilities of teachers. They found general agreement between school and pre-primary teachers on

the importance of social skills with peers and language skills for children, though parents considered children's interaction skills with adults to be important too.

Observation of children's experiences in schools showed similar results to Bennett and Kell (1989) with children spending most of their time on pre-academic skills, though in pre-school time was more evenly divided between personal/social, expressive and physical skills. Of note is the lack of emphasis placed on children's skills of interaction with adults given the weight of theory and evidence from the sociocultural school of thought on the importance of adult/child interaction to learning.

Expectations are clearly profoundly but subtly important to experiences of learning, but may be tempered by the values and expectations of broader or more powerful sociocultural influences such as government directives, teacher perceptions of parents' expectations, or the ways in which teachers are 'assessed'. Nutbrown (1998), in examining baseline assessments, draws attention to how choice of assessment method and its linked primary purpose – for example as a management tool to measure school effectiveness or 'value added' – impacts upon the value attached to certain aspects of development or skill. This in turn affects expectations, what is delivered as planned curriculum and what is experienced in interaction in the classroom. These become central to the day to day experience of how young children learn.

The fourth strand of research has identified the specific and characteristic nature of school discourse (Willes, 1983; Sinclair and Coulthard, 1975; Mercer, 1995), its potential for restricting child/adult interaction (Edwards and Maybin, 1987; Edwards and Mercer, 1987), and its potential for making explicit, though more often leaving implicit, the nature, purposes and principles of the learning to be undertaken (Willes, 1983; Donaldson, 1978; Edwards and Mercer, 1987; Mercer, 1995). Willes was influential in pointing out the link between discourse and purpose, noting that the style of whole class discourse derives from a need for control rather than from a directly educational function. Importantly, she also points out that well-ordered, collaborative, interactive teacher-with-whole-class texts conceal great variation in individuals' comprehending participation. Wegerif, Mercer and Dawes (1999), in a study with eight to nine-year-olds, showed that exploratory talk can improve

reasoning, can be taught, can transfer between educational contexts, and can improve individuals' scores on non-verbal reasoning tests. The results suggest that changes to the pattern of educational discourse can lead to changes in individual learning. Their hypothesis that social reasoning can improve scores on measures of individual reasoning was supported by the evidence, and has implications for how certain types of talk may be fostered from an early age to support learning. Again, making explicit the purposes and giving guidance on *how* to participate in such talk affects the quality of the learning.

The fifth strand reveals the importance of the similarities or differences between children's previous broadly-defined learning experiences and their school performance. Included in previous 'learning' experiences would be language use, access to resources, the values attached to experiences and resources, and the types of support available in using those resources. Within this strand is the influential work by Heath (1983), which draws out the complexities of the language/culture socialisation process and calls into question more superficial, single factor analyses of the link between language socialisation and success at school. Other work includes that by Jowett and Sylva (1986) showing the influence the type of pre-school attended has on a child's 'readiness' for school, Kenner's work on home influences on early writing development with regard to script and genre (1996), work from the Bristol 'Language at home and School' project by Wells (1981) and Walkerdine and Sinha (1981), and Brooker's study of starting school as 'learning cultures' (2000). Research by Gregory et al (2004) offered insights into the economic, social and cultural capital families possess and the impact on children's likely success in making sense of school learning. Their research also makes clear, however, how the creation of particular classroom cultures can exacerbate or ameliorate difficulties and how 'one teacher creates a particular culture with her class that defies existing paradigms of social class, capital and early school success' (page 85). I suggest, however, that the classroom cultures teachers create in Gregory et al's study reflects in part how they position *themselves* in relation to the social, economic and capital carried by the children and their families. Mercer's work (1987 and 1988) provides an overview, references and readings relating to this area of investigation.

2.4 Conclusion

Young children's learning is a complex process. The roles played by the environment, the 'teacher' and the learner cannot be simplified or treated unproblematically, nor the interrelations and concurrent effects between these roles be overlooked. Each of the elements is multidimensional, and the impact of each layer of each element cannot be ignored. Environment, for example, includes an international element, an historical element, cultural, socio-political elements, neighbourhood and very local elements including the individual 'others' within the environment. 'Teacher' in its broadest sense encompasses all parental input, that of older siblings and peers, other significant adults, untrained, unqualified staff, and qualified experienced teachers, each influenced by 'environment'. The individual learner is a physically maturing child, an active learner, of a particular family position and gender, of a particular sociocultural history, has an 'age' position in relation to peers, has a genetic composition, and a history of experiences and feelings.

The sociocultural theoretical position with the more recent findings of situated cognition theory offer some understanding of this complexity and help to map out the role for early years education. From the evidence, these appear to be to provide a rich environment of opportunities, offering breadth, novelty, quality, and a nurturing atmosphere; to provide for experiences that support positive self concepts, self-confidence and pleasure; to seek out and use ways to extend and enrich child-initiated learning; to suggest and initiate new ways of learning, helping children not only to 'know', but 'how' to know, and to know 'what' they know by making explicit connections, links, frames of reference and purpose.

The gap in knowledge appears to be in the specifics of the interactive interface and the learning outcomes of different aspects of interaction in the reality of the busy early years settings, whether at pre-school or in reception, with their different environmental influences. Indeed, the systematic review of early years research by the British Educational Research Association Early Years Special Interest Group (2003) included pedagogy in nursery and Key Stage 1 and young children's identity development in its five recommendations for further early years research. How can the learning of four-year-olds best be fostered and the most useful

intellectual/social/physical/affective connections for future educational and personal success promoted?

The approach to the study will now be outlined with an overview of the guiding methodological principles and details of the study design.

Chapter 3

Conducting the study

In the first section of this chapter, I explain the methodological approach adopted before outlining the design of the study. I then give further details of data collection and analysis methods, followed by a consideration of issues of quality. The chapter ends by considering the strengths and limitations of the study.

3.1 Methodology

As Pring (2000) points out:

One could argue that some 'theory of human nature' lies behind any particular approach to educational research (p. 56).

My methodology was largely determined by the theoretical stance described in Chapter 2. In summary, children's learning is best explained and understood by locating it in the sociocultural environment in which it takes place and by examining interaction, incorporating the many communicative strategies employed, between the adult as a mediator of the environment and children as active thinkers, investigators and receptors. To do justice to such a theoretical underpinning, the methodology needed to meet certain criteria: it needed to be naturalistic in its data collection; to acknowledge the complexity of the situation in its design and methods of analysis; to pay attention to the wider environmental influences and to take account of how these were played out in day to day interaction, including the multimodal nature of interaction and learning; and it needed to track the changes or learning that occurred as children participated during the year. In addition, the study needed to be ethically sound and sufficiently transparent to be replicable. As well as acknowledging complexity and avoiding simplification, I aimed to provide sufficient clarity to allow for meaningful analysis and identification of issues.

To capture the nature of relationships and interactions as they occurred, the study was located in and derived from everyday events in the children's and adults' daily lives in teaching and learning situations. Much of the research was based on routine, 'normal' life unaffected as far as possible by the research process, though some compromises

to naturalness were made for the research to take place. For ethical requirements of openness and informed consent to be met, the impact of the researcher's presence on the situation had to be acknowledged, along with the impact of the subjects' understanding and perceptions of the research. Aspects of information were required that were unavailable in the observation of daily routines, requiring the use of other data collection methods: semi-structured interviews, asking parents to keep diaries of children's changes and responses over the year, informal assessments in the home, discussing children's perceptions with them. All had some impact on the situation. Nonetheless, the aim was to interfere as little as possible in the normal course of events, whilst acknowledging my own starting point, the likely impact of the relationships formed with the settings and with the researched, and noting the reactions of others to the research as it unfolded.

The study aimed to take account of the complex issues and inter-related nature of the teaching and learning situations and of the overlapping and nested contexts within which these situations operated. Taking account of the wider influences offered insights into the motivations and factors limiting people's beliefs and actions. It drew on the elements children brought with them to the situation: their previous experiences of learning in its broadest sense; their understanding of what was required of a school pupil or pre-school child; their perceived strengths, weaknesses, interests and attainments; their self-images and identities at home and in more public domains such as education or care establishments. The children's individual home contexts were influential in their concepts of self, of learning and of the educational settings they entered, and in their ways of relating to and communicating with others. The methodology also examined the educational learning environments: the purpose, history and aims of the settings; the adults involved in the learning process, their beliefs and perceptions of what they set out to do, to whom they did it, and expectations for likely outcomes. The influence of practitioners' professional culture related to training, professional organisations and publications were considered and the relationship between the settings and funding and regulatory bodies such as government were addressed. The methodology aimed to recognise the interrelationships and fluidity between aspects of the study:

Because they are interrelated within a dynamic system, these influences cannot be defined in isolation or in a static way. Their interpretation and role

vary depending on how they contribute to shaping the action under consideration (Wertsch, 1995:63)

The approach aimed to recognise and explore power relations, linking to the macro level: people from some social groups have less power in society than others; children are not equal partners to adults in educational settings; individual adults are not equal partners to collective sub-cultures; regulation, funding, inspection and assessment tied to particular political ideologies are perhaps some of the most powerful influences of all in education at the present time.

The methodology also explored how such influences were played out in the day to day interaction between children, adults and children, and children and tasks. It is at the point of interaction and in the selection and provision of learning resources that adults mediate between children and sociocultural environments, the point at which children interpret those environments. The study therefore included a consideration of the learning environments, resources, and interactions, allowing for consideration of influence between participants and from context to participant. The ‘bi-directionality’ (Shalveson et al, 1986) of influence was acknowledged, though power relations within this were not ignored.

The study pays attention to the multi-faceted modes of communication, the ‘communicative ensemble’ (Kress and Van Leeuwen, 2001:111) or ‘multimodal ‘orchestration’’ (Bourne and Jewitt, 2003:71) when analysing interaction. Influenced by Kress and Van Leeuwen, Bourne and Jewitt and by Matthesian and Coldren (2002), I maintain that it is the *totality* of the modes used in the interaction that is of importance, that they interrelate and cohere (though not always agree) to convey meanings. However, not all modes are always equally drawn upon; the relative valence of modes varies between and during interactions depending on the situation, participants, event and purpose. Nonetheless, interpretation was drawn from *all* modes, not simply as a supporting cast for language, but woven together with it, sometimes overshadowing, emphasising, echoing, contradicting, but always contributing to the overall meanings.

Whilst focusing largely on *processes* involved in teaching and learning, the methodology also considered children's learning outcomes in a search for associations between patterns of influence and outcome, which may be pertinent to other settings and individuals. It is acknowledged, however, that learning outcomes are partly a construction of the methods chosen to record and measure, based on perceptions of learning, and of the type and degree of participation by children in the learning environment. It was this construction of learner identities, balanced by alternative views of learning held by parents and children that the methodology aimed to examine. A longitudinal view of learning and participation was required, though in the context of a three year PhD study, data collection was necessarily restricted to four terms (March 2002 to July 2003).

In summary, the approach was one that:

Allows us to build up a picture of the actions and interpretations of children and adults and locates them in the shifting networks of complex interactions that make up the contexts providing the constraints and possibilities for action and interpretation (Edwards, 2001:117).

It implies a qualitative, inductive approach in which beliefs, perceptions and relationships were investigated, uncovering issues, patterns and incidents for further investigation. It was based on an ontology of relational meanings and shifting, changing identities, but with the belief that clarity and analysis can reveal meaningful issues. Hammersley asserts that '*research investigates independent, knowable phenomena*' (1992: 52) which he refers to as 'subtle realism'.

Subtle realism shares with scepticism and relativism a recognition that all knowledge is based on assumptions and purposes and is a human construction, but it rejects these positions' abandonment of the regulative idea of independent and knowable phenomena (Hammersley, 1992: 52).

The approach was ethnographic in that the rich detail of context, meaning and identity could be laid before the reader. Rogoff's summary (1995) of her methodological approach to observing development in three planes of analysis fits well with the approach I have adopted. The planes she refers to are personal, interpersonal and community with the corresponding developmental processes being apprenticeship, guided participation, and participatory appropriation.

The approach emphasizes seeking patterns in the organisation of sociocultural activities, focusing variously on personal, interpersonal, or community aspects

of the activities, with the other aspects in the background but taken into account. Research resulting from this approach emphasizes observing both similarities and differences across varying sociocultural activities, as well as tracking the relations among aspects of events viewed in different planes of analysis' (page 161).

She also clarifies that:

'The approach does not prescribe the use of specific methodological tools but does emphasise the relation of particular tools to the theoretical purposes to which they are put' (page 160).

It is to the specific methodological tools and study design employed that I now turn.

3.2 Design of study

This was a two stage study in which Stage 1 acted as a pilot and precursor to the second, providing an understanding of the contexts and a means of piloting methods and ideas for Stage 2. The study moved from tracking the ethos of the settings, influenced by wider societal and political factors, to how the ethos was visible in the patterns of interaction in settings and on to examine how the settings' values were conveyed in the small detail and nuance of communication in teaching and learning episodes. Alongside this, participation in the settings and learning over the year by two small groups of children were scrutinised. Stage 1 investigated the subcultures of pedagogy in the two settings, a pre-school playgroup and a reception class. Stage 2 investigated children's experiences, interactions and learning in those settings over the year. Stage 1 was an instrumental case study in that the case was the culture of pedagogy rather than the setting. This is embedded in the main study, also instrumental, in which the case was sociocultural influences on learning processes, that is the broad patterns of interaction, the micro-processes of interaction, and the associated learning.

3.2.1 Outline

There follows a brief outline of the steps involved in each stage of the study.

Appendix xi details links between the research questions, sources of data, methods of collection and means of analysis.

Stage 1: March to July 2002

Small ethnographic two-site case study of the specific ideas and culture of teaching and learning in each, the '*settings*', and wider culture of pedagogy within which they sit, the '*arenas*' (Kirshner and Whitson, 1997).

Pre-school:

- Observation of four pre-school sessions (10 hrs)
- Staff planning meeting attended (1.5 hrs)
- Individual staff questionnaires (6 of 8 returned)
- Staff group interview (1 hr)
- Interview with supervisor (0.5 hrs)
- Day with Diploma in Pre-school Practice course; informal interviews with students (5 hrs)
- Interview with tutor for Diploma in Pre-school Practice (0.5 hrs)
- Documentary analysis of inspection report and planning documents
- Brief discussions with Pre-school Development Worker and Strategic Manager for Early Years Development and Childcare Partnership
- *3 video and 1 audio short attempts at 'immediate retrospection' of children (pilot for Stage 2)*

School:

- Observation of three half day sessions (8 hrs)
- Individual staff questionnaires (0 returned; followed up with individual interviews)
- Interview with teacher of reception/year 1 class (0.5 hrs); interviews with reception teacher (1 hr) and LSA (1 hr) carried out during Stage 2
- Documentary analysis of 'Pre-school booklet' for new parents, Child Education, Inspection report
- New parents meeting attended (field notes)
- Visits to PGCE and B Ed (Advanced Early Years) courses; observation, discussions with tutors and students.
- *1 short 'immediate retrospection' interview with child (pilot for Stage 2)*

Pre-school and school:

- 2 joint 'Early Years' group meetings attended (1 hour each; field notes)

Stage 2: September 2002 to July 2003

Study of interactions and influences on the learning of two groups of children from their fourth to fifth birthdays in two settings.

- Study of five children in each setting as close in age as possible (4th birthday between July and Sept 2002. See Figure 1.1)
- Preparation with staff, families and children
- Initial investigation into backgrounds and initial learning of children (parent/child interviews at home, adapted Baseline Assessment (BA), staff assessments, observations)
- Initiated parent diaries
- Video/audio recording, informal discussions with staff and children, field notes of interactions and learning in settings, collected (and discussed) examples of children's work. 1 day/session per week spent in both settings during year. Recordings focused on staff or target child each day comprising 6 days/sessions per child in each setting plus 2 days/sessions in each focused on staff, spread throughout year.
- Development of interaction taxonomies for analysing broad patterns of interaction
- Cataloguing and tracking of video/audio data; development of transcription methods to allow more detailed analysis of interaction and learning processes.
- Reviewed video/audio evidence with staff (and parents).
- Monitored learning outcomes for children (parent diaries and 2nd home interviews, BA updates, staff assessments, observations) linked to video/observational and interview evidence of learning processes.

3.3 Data collection

Data collection methods are itemised in the outlines above and in more detail in Appendix xi. However, the following are points to which it is worth drawing further attention.

3.3.1 Sampling

The sampling was 'purposive' (Miles and Huberman, 1994: 27): settings were chosen to provide information rich cases, typical of the institutional early education experienced by the majority of four year olds in the county of study (see Chapter 1, Table 1.2) and were therefore broadly representative, though specific settings differ in ways of operating and experiences depend on location within the county and family circumstances. The pre-school in the study was a 'feeder' for the school. The settings were typical suburban/village establishments in what had once been a village of mainly owner-occupied housing and was now a suburban residential area on the edge of a large city local authority housing estate. Children in the settings came mainly from the 'village', but also from the surrounding estates. Most children in the study came from the village; two came from nearby estates. The settings were chosen for their potential to offer 'opportunity to learn' (Stake, 1998: 102). Both were organisations with which I had formed various relationships over a period of more than ten years. Issues of access, trust and understanding routines, relationships, and culture were thus streamlined, though the issue of looking afresh at familiar territory must be acknowledged. The wealth of information proved rich not only in the data collection, but in sparking interest in the subject originally and in forming the research focus.

Children were chosen on the basis of criterion sampling with the aim of examining learning experiences throughout the year from age four to five years in one of two settings. They were selected to be as close in age as possible, with fourth birthdays near to September 2002, five of whom would begin reception in September 2002 and five of whom would remain at pre-school. The children were therefore easily chosen, though staff were consulted about possible reasons for discounting children from the study, such as current family difficulties. All children selected were deemed 'researchable', parents approached and written consent obtained (see section 3.5.2 on children's consent). In the final sample, children's birthdays ranged from 19th July to 16th September. With age as the main sampling criteria for this study, gender took secondary consideration. The final sample included three girls and seven boys. Including a more even number of boys and girls would have meant extending the age range by several months or including children from more than two settings. This would have broadened the scope of the study, but allowed for less depth given the limitations of time and resources.

3.3.2 Capturing the multimodal nature of data

During data collection, attention was paid to the multimodal nature of environment and interaction. Field notes taken at the beginning of each observation recorded the room layouts, adult deployment, resources and their positioning, and changes to displays (table top and wall displays), as well as changes to routine equipment, such as 'theming' of the role-play area, or to routine boundaries and positioning (for example, if children usually all begin the day on the mat, noting instances of a child taken to a table to start the day separately with an adult). Aspects of these noted characteristics were then often recorded with the video camera, unless a more urgent incident claimed my attention, before focusing on the target for that day's recording.

The use of a very small digital video camera with side viewing screen, thereby avoiding the need to look through a viewfinder, provided a discreet means of gathering highly detailed and flexible data, allowing for analysis and re-analysis as issues and theories unfolded. The use of a tiny, highly sensitive digital audio recorder, small enough for young children to carry in their pockets, sometimes used with a lapel microphone, offered a clearer record of children's quiet, indistinct speech and an additional dimension to the video data. The combined use of video and audio recording gave access to the multimodal world, rendering it available for incorporation into analysis. Both were excellent prompts in recalling the context of an episode, although the context in its fullest sense may not be discernible from an independent review of the tapes. Logs were kept of the video records, detailing place, times, participants, narrative of actions and events and some dialogue. Children were alternately impressed by, interested in, and dismissive of the technical means of data collection. They were, however, unperturbed by it. They were also assertive in declining to use it if they so wished, perhaps in response to my assurance that they did have a choice (see Ethical issues, 3.5.2). Some adults, on the other hand, were more obviously affected by the recording, showing some similarities to experiences reported by other researchers developing the field of multi-modal/digital ethnography (Coffey and Renold, 2004). However, those who chose to be invisible and silent during Stage 1 of the study were behaving in a more relaxed manner by December/January of Stage 2.

Coffey and Reynold (2004) point out the rich potential for data generation, analysis and representation of using multi-media techniques in ethnographic research, but advise caution in dealing with the ethical and methodological implications. Influenced by Pink (2001), I acknowledge the partial and constructed nature of the data collected, the impact of the choices I made with regard to what was recorded and analysed, and the reactions of those being recorded to me and to the medium used. Pink argues that the meaning of visual material is constructed both by image maker and viewer, each bringing her own lenses to bear on it. Although the view is partial, I have aimed for as full a description as possible by combining different ‘views’, views of the settings, their sub-cultures, history and wider environment, and of the participants. Video clips have also been viewed alongside staff from the pre-school and reception on two separate occasions and, with their agreement, the discussions were recorded and fed into the analysis.

3.3.3 Assessing learning

In collecting evidence of the children’s learning, owing to the nature of the study, I was interested in staff interpretations and records of children’s achievements and in the way in which these constructed and were constructed by particular views of learners. These were particularly enlightening when I had observed the assessment procedure and could consider alternative interpretations of the assessment. This staff view of children’s learning was balanced by the parent interviews and diaries, in which the parents recorded their observations of changes in the children’s knowledge, skills and dispositions throughout the year, and by children’s views (sections 4.1.2 and 4.3).

To offer some comparability across the sample of children and to interfere as little as possible in the ‘natural’ course of events, I drew on aspects of Baseline Assessment (BA), which was already being used in reception in the autumn term, 2002, and in which I asked the pre-school children to take part, too. Although BA was superseded by the Foundation Stage profile in reception in the summer term, 2003, I continued to use the adapted Baseline, carrying out assessments in the children’s homes. As far as possible, the mothers’ support was enlisted in requesting and supporting task

completion. In all ways of looking at assessment, it was the process involved in gaining the assessment outcomes that was most enlightening. Further details are given in Chapter 4, section 4.2.

3.3.4 Participants' views

Children's viewpoints were sought throughout wherever possible, but were difficult to obtain immediately after learning episodes in the form of immediate retrospection, often because of timetabling or a shift in the child's attention to the next activity. Cooper and McIntyre (1996) used a method of 'informant style interviewing' with teachers and pupils as soon as possible after an observed session of classroom activity, asking about their perceptions of the teaching and learning that had taken place. Such an approach was challenging with four-year-olds. However, brief informal chats at any opportunity, often audio-recorded, and the interpretation of verbal and often very expressive non-verbal behaviour during learning afforded rich information. This was balanced with sensitivity to avoid impinging on the children's personal space and concentration (see Ethical issues, 3.5.2). In line with other researchers' findings, offering of my own views and ideas, with less questioning, was most productive in prompting children's interested and open responses (Hutt et al, 1989: 151). I also sought and incorporated parent and staff perceptions of aspects of the research, details of which are given in section 3.5.1, Validity and reliability.

3.4 Data analysis

Again, methods of data analysis are summarised in Appendix xi, but the following points provide more detailed explanation. The aim was to consider the data through different 'lenses' with differing fields of vision and degrees of magnification so that a picture could be constructed reflecting the complex, multilayered nature of the influences on learning processes, from 'community' with its macro level influences through to the interpersonal and the personal with their micro level influences and back to the ways in which the macro influences can be seen in the microprocesses. The analysis tacks back and forth between the different levels. This multilayered approach provided scope for examining inconsistencies and alternative or contradictory interpretations of the evidence. It also provided scope for using different ways of representing the data so that participants' perceptions, voices, actions,

gestures, values, use of resources, and the influences and restraints on these became available for inclusion and cross reference. I comment on the ‘layers’ below in sections 3.4.1 to 3.4.3, but first refer to the ways in which analysis of the variety of communicative modes surfaced in each.

Although attention has been paid throughout the study to the many modes drawn upon in communicating and learning, the level of visibility of multimodality varies in different parts of the analysis. In Stage 1, the sub-cultures of pedagogy are drawn from a composite of data collection methods which included taking account of the physical settings, the resources used, the displays, the positioning and organisation of adults and children, and their actions. The dominant modes featuring in the ensuing descriptions are nonetheless largely language based texts. In Stage 2, for the analysis of the patterns of interaction, both audio and video recordings were used alongside field notes, paying attention to words, actions, and use of resources to arrive at the coded categories of interaction. It is in the analysis of the micro processes of the teaching and learning episodes (reported in Chapters 6 and 7), however, that the saliency of their multimodal nature is most visible. Here, the transcriptions are set within descriptions of the physical setting, attention to body spacing, the resources available, and the timing of the episode. The description places the episode in context in terms of the history of its time, place, participants and relationships. (For example, what does this time of day usually signify? What was happening previously? What are the identities participants bring to the episode?) The transcriptions, showing some influence by Jewitt et al (2003), combine actions, words and diagrams, for example of constructions in progress, for each of the main participants with time running alongside on the left. In this mosaic approach, I attempt to capture the communicative ensemble as multifaceted and often simultaneous. What I also attempt to capture in the analysis is the way in which context is not simply something the episode happens *within*, but which the episode *creates*. Matthesian and Coldren (2002), in their study of language and bodily conduct in focus groups, criticise more typical analyses in which only talk is studied as foregrounding ‘referential content over the more indexical functions of language and other communicative modalities’ (p. 472). Part of their criticism is of the often implicit view of context as stable. Evidence from the analyses of episodes in this thesis support the view that context is ‘an emergent and dynamic

contextualisation process unfolding on a moment-by-moment basis in the very linguistic details of its realisation' (Matoesian and Coldren, 2002:473).

3.4.1 Ethnographic analysis

Drawing on the interview data, field notes from observations, notes made from the audio and video recordings, documentary evidence and reflective diary, the corpus of data was interrogated for emerging themes and issues in relation to the research questions and sub-questions. This again was an iterative process, carried out in different stages to address different parts of the study and aimed to incorporate the perceptions of participants (see Validity and reliability, section 3.5.1). Much of the ethnographic analysis relating to Stage 1 was guided by a series of sub-questions, reported in more detail in Appendix ii and summarised at the beginning of Part 2. In Stage 2, ethnographic analysis of parents' and children's views and of their ways of interacting and learning at home were incorporated into Chapter 4. Themes (summarised in Appendix ix) associated with the influence of interaction on learning processes reported in Chapter 7 (see 3.4.4 below) were arrived at through a means of data reduction, noting patterns and themes and 'clustering' in a similar manner to that described by Huberman and Miles (1998:187).

3.4.2 Patterns of interaction

The interactions of adults and children in the settings were analysed for broad patterns and used as a backdrop to the more detailed analysis of the micro-processes of interaction. The patterns analysis mapped out the landscape of interactions in the two settings and individuals' places within it. Taxonomies of children's and adults' interactions were developed from categories emerging from the data and influenced by previous studies, referred to below. The taxonomies combined descriptions of the function of interactions, with whom they took place and something of their nature. The boundaries of an interaction (determining category and code change) were determined by its function and sometimes by its target participants. What constituted an interaction was not confined to spoken language, but incorporated actions, facial expressions and other non-verbal communicative features. The taxonomies and analyses based on them are therefore influenced by child tracking techniques, drawn

from a history of ethology (Sylva, Roy and Painter, 1980), and by ethnographic discourse analysis (Cameron, 2001).

The taxonomies draw on but differ to the categorisation of adult/child interaction in previous studies. For the categories of adult interaction, I have been influenced by the work of Siraj-Blatchford et al (2002), which drew attention to the grouping of categories under cognitive and social headings; Moyles et al (2002) which drew attention to adults' encouragement of children's self-evaluation; and Pascal et al (1996) from which the Adult Engagement Scale informed my category formation. For example, I further divided Pascal's category of 'stimulates' into 'extends, enriches, explores, reinforces, practices and assesses'. The Adult Engagement Scale refers primarily to the quality and nature of adult interactions, rather than the function, and was also used as an indicative tool for the micro-analysis (see 3.4.3).

For the categories of child interaction, previous studies have been difficult to find in the early years literature. In fact, Ghuman et al (1998) reviewed 36 social interaction measures and came to the conclusion that there were no measures available for evaluating young children's interaction. Instead, the available measures shed light on parent-child interactions, social skills, social competence, play, adaptive behaviour, communication, general development and problem behaviour measures. Although my aim wasn't to *evaluate* children's interactions, but to find out what they did with the opportunities afforded them, it does highlight the difficulty in finding appropriate tools.

Here, I refer briefly to the studies considered. Siraj-Blatchford et al (2002) adapted the work of Sylva et al (1980) and Sylva (1997) in which the learning activity/curriculum area was a main focus, 'interaction' being one category within it. Looking further back, Tough (1973) categorised young children's language by function into three broad divisions: language for maintaining or promoting self-interest; language for commenting on the ongoing scene and their own actions; language to express complex meanings such as cause and effect (page 26). The focus was on language and did not include interaction with the learning environment, provided tasks and resources or non-verbal aspects of communication. It also appeared to miss the altruistic, heuristic and problem-solving aspects of children's interaction. Pascal et

al's (1996) Child Involvement Scale indicates the depth and length of involvement in an activity or interaction rather than the type of interaction with others or resources, although there is obviously some overlap. Again, it was used in the micro-analysis of interaction (section 3.4.3). The child interaction categories for the purpose of this study were therefore derived from the data.

The taxonomies were used to categorise a sample of interactions for each child and adults within each setting. Further details are given in Chapter 5, sections 5.1 and 5.2 and comments on reliability and validity are included in section 3.5.1 below. Coding took place after the event from video recordings, supported where necessary by audio recording, and was placed alongside the time, a description of actions and events and dialogue. This allowed for re-coding if necessary as the taxonomy developed, or for coding of different participants. Some of the categorisation was inferential and relied on broader knowledge of the child, adult and setting. For example, deciding whether or not a child is practising a current skill or exploring a new one depends on knowledge of the child's current skills. Interactions from an adult to a group of children often serve different functions for different children – practising, reinforcing or extending – depending on each child's current level.

3.4.3 Microprocesses

First level: analysing and reporting complex audio/visual data

I have already referred to the ways in which episodes of data were transcribed to render visible as much of the 'whole' situation as possible, thus making it available for the type of analysis advocated by Rogoff (2003). The analysis involved a search for salient features in the episode which contributed to its potential influence on the children's learning. The focus of analysis was the interpersonal/interactional features of the episode, akin to that outlined by Rogoff (2003:58), seen as but a part of an interconnected whole: 'The distinctions between what is in the foreground and what is in the background lie in our analysis and are not assumed to be separate entities in reality' (Rogoff, 2003:58). What counted as salient was influenced by the theoretical underpinning, evidence from previous research, responses of staff to the viewed video tapes and researcher background (see 3.5.1 and 3.5.3). For example, part of the analysis was influenced by Pascal, Bertram and Laevers' work on Child Involvement

and Adult Engagement scales (Laevers, 1994; Pascal et al, 1996; Bertram, 1996; Pascal and Bertram, 1997. See Appendix i). The scales itemise and describe children's deep interest and involvement in what he or she is doing and adults' intervention in the learning process under headings of sensitivity, stimulation and autonomy. Though not used in this study as measurement scales or separate tools, the dimensions were useful reference points for analysing the flow of teaching and learning, looking at both simultaneously in an episode, and indicated more clearly the fluid, interrelated nature of interactive features and learning.

Representing visual data in words alone is an unsatisfactory process. So much remains 'unseen'. As Graue and Walsh point out, 'All transcriptions are approximations' (1998:136) and, I would add, compromises, but they are also powerful determinants of what becomes available for analysis. In spite of the painstaking transcription process used, much *precise* detail (of intonation, timing, pauses, facial expressions) remained unreported. I have tried to balance noting for analysis the subtleties of interaction, and the vital ways in which they contribute to communication, with the practicalities of limited researcher time and resources for reporting. I have also struggled with ethical issues in relation to this. A more satisfactory way of reporting on the data would be to include video excerpts or at least video stills. Yet I have been unable to resolve the ethical issue of visually identifying participants (see section 3.5.2). The compromise reached has been to include tracings of video stills (similar to those used by Jewitt, 2002, and Lin, 1995, reported in Graue and Walsh, 1998:140), which adequately convey some of the visual data whilst maintaining anonymity, though clearly fail to convey the impact of movement.

Second level: issues across the data

Critical features generated from the first level of analysis of the microprocesses in Chapter 6 were then used to track similar features across the recorded data for the year (Stage 2), checking for saliency. Alongside this, all analysed data (audio and video notes, transcriptions, field notes and the reflective diary) were scanned for other themes and issues, influenced by the theoretical framework. The two were combined (see Appendix ix) and are reported on in Chapter 7. The purpose of the analysis in Chapter 7, then, was to highlight interactional issues that influenced learning

processes and examine their variance between settings and participants. Chapter 8 then brings the study full circle by relating the microprocesses back to the macro level.

3.5 Quality

3.5.1 Validity and reliability

The way in which the design of the study and, in particular, the ideas and issues for further investigation developed in an iterative manner has helped to ensure validity and reliability. For example, general observations and informal discussions in Stage 1 paved the way for adapting individual questionnaires. Responses to the questionnaires highlighted issues to pursue in the group interview and informed the analysis of the video data. Not only did I endeavour to let the developing body of data lead the subject matter of the study, but in the phrasing of questions I tried to reflect the discourse of the staff and setting in order to gain a closer match between my understanding and theirs, more accurately reflecting their reality.

Triangulation of data collection methods (observation, informal discussion, semi-structured interviews and questionnaires, documentary analysis), and sources (parents, staff, children, training bodies, external agencies) further contributed to validity and reliability. In many ways, however, triangulation in the means of analysis (during and after data collection) has provided the greatest weight to a claim of quality research, by applying different approaches to thoroughly examine the data, offering interpretation from differing viewpoints and relating back to research literature.

Throughout, data collection and interpretation have been validated by participants. Assessments and interviews carried out in the home were summarised and sent to parents for comment, followed by a verbal request for any comments or alterations during the subsequent visits. Observational data and interview transcripts were given to staff for comment and some minor changes made. The taxonomies for the categories of interaction were also shared with staff for validation during their development, as were the routines of 'typical days' on which the analysis for 'Typical Days' (Appendix ii, section ii.2) was based. The reliability of coding for the patterns of interaction was checked by two experienced, independent researchers (Chapter 5,

page 144 for details). Towards the end of the data collection for Stage 2, staff from pre-school and reception (on two separate dates) were invited to view and discuss video excerpts from their own setting. These were particularly informative sessions. Issues from the discussions were fed into the micro analysis of episodes.

During the study, I discussed emergent themes, issues and interpretations with educational researchers who face similar methodological approaches and challenges relating to different substantive foci, with other early years researchers, with researchers working from a sociocultural perspective, and with a wide range of early years professionals (practitioners, advisors, inspectors, trainers). These discussions have helped to shape and validate the study and its findings.

3.5.2 Ethical issues

Informed consent

Information was sent to parents of children in the settings, who were not part of the sample groups, outlining the research, methods and any likely (minimal) impact on their children, with opportunity given to opt out of video or audio recordings. For the sample children, further written details followed by brief discussions were given and written consent for participation in the study obtained from parents. For staff, written information, again supported by discussion, was given and consent to participate obtained. The process began with the head teacher and supervisor, but was followed through with other staff, emphasising their right to withdraw from the study. All people approached agreed to participate. However, consent was always assumed to be provisional and could be withheld at any time. Two participants did, in fact, partly withdraw from the study because of changes in personal circumstances, but were happy for information already obtained to be included.

Issues of research with young children

The children were accepted as powerful agents in deciding whether or not they wished to participate in the study. However, because of their young age and associated limited experience and understanding of what they were agreeing to, consent was taken as something that required negotiation on a minute by minute basis. By this, I mean that in addition to telling the children that I was finding out about their learning

and asking if that was alright, I listened and watched for clues about whether or not a particular child minded being observed, recorded or conversed with at any particular time. The children were very clear in conveying their wishes. At times, the audio recorder was returned to me mid-way through recording with the assertion that it was distracting or they had had enough of wearing it. At other times, for example when children were involved in fantasy play, I noticed furtive glances and slight turning of the head away from me when one child was speaking to another, clearly indicating unease with an adult's presence and observation. At such points, I stopped observing and moved away. This required a commitment to seek out, interpret and respond to children's signs indicating or withdrawing consent. Such interpretation became easier as I became more familiar with individuals and their usual responses in different settings.

In spite of my confidence that children could and did negotiate consent, I remain convinced that they did not have the experience to fully grasp how the results of 'finding out how children learn', and their place in it, would be reported. As they become older, more knowledgeable teenagers, they may well wish not to have appeared in such reports. It is primarily for this reason that I decided not to use video excerpts or stills in the reporting. Assuring anonymity is incompatible with visually identifying participants.

Control and its impact on the research process was potentially an issue with young children. Simply by being an adult, perhaps associated by the children with other adults who are more usually in control, and at times the only adult immediately visible to a child, could imply a position of power and control. It was compounded at times by the need to intervene for the sake of safety and well-being. This had the potential to influence the responses and actions of the children and so the quality of the data obtained. Yet carrying out more covert observation, though less disruptive, removed the opportunity for children to negotiate consent. I tried to balance these issues by forming easy, friendly, non-controlling relationships with the children and by sharing the use of recording equipment with them. However, this was never fully resolved.

Reporting the detail of ethnographic research

Working with families at home and in educational settings, I have had access to arguably private details of people's home lives and also to staff perceptions of parents and children's home lives. Both are relevant to the research in that they impact on participants' relationships, expectations and interactions. Yet reporting the detail of such data runs the risk of identifying participants through the circumstances revealed, at least to readers closer to the research. It also runs the risk of betraying trust between participants, between researcher and participants, of making participants vulnerable to readers' potentially negative responses to which they have no form of redress.

Boundaries between informal discussion and 'off-the-record' conversation and between private and pertinent details are very blurred, necessarily so, in ethnographic research. Decisions about what to put in and what to leave out of the reporting have involved difficult ethical considerations.

3.5.3 Reflective comment: researcher's position

Greene points out that, 'human knowledge is literally constructed during inquiry and hence is inevitably entwined with the perceptual frames, histories, and values of the inquirer' (Greene, 1998:390). I acknowledge fully the impact of myself as researcher on the research process in conceiving of the issue as something worthy of investigation, in framing the research questions and the format of the study, in generating the data and interpreting them through analysis. The research diary has been an invaluable tool in reflecting on dilemmas, interpretations and assumptions as they have arisen and I share some of this in the reporting in an attempt to make the process visible. Here, I support that information by providing a brief resume of my personal and professional background through which the research process has inevitably been mediated.

I was born and spent my early years in inner-city Birmingham in terraced housing in a very poor neighbourhood, a legacy from the Industrial Revolution fit only for demolition. I moved with my family as part of the inner-city 'slum clearance' to an 'overspill' town fifteen miles north just before my fourth birthday, where families such as mine were resented by local residents. Their response was understandable, given the way in which the large influx of inner-city people changed the face of a mediaeval market town. However, my childhood memories are warm and happy,

though realistic enough to remember some difficult times. We lived on a large council estate where I remained until early adulthood, being educated at a local grammar school and, later, a city polytechnic. I now have three children and have been involved for some time as a parent and in a voluntary capacity with pre-school and primary school education, with some (limited) experience of special needs. In addition, I was employed for three years as a part-time crèche supervisor. My professional background includes work as a research assistant with a community health council and as a health education officer in inner-city Birmingham, working with schools, voluntary groups and health professionals. I lectured in further education colleges for fourteen years, teaching (and advising and inspecting) on social care and early years care and education courses.

My values and beliefs relating to education are more difficult to encapsulate succinctly. However, central to them is a belief that education is about exploration, enrichment and fulfilling potential, as well as finding a useful place for oneself in the world. It is also about equality of opportunity, but not simply of the sort that allows all children to take the same test. It is a belief that equality must acknowledge differences in how accessible something may be, depending on previous experiences. Equally, it is not a belief about compensatory measures for which children can be selected to qualify and given a correct, single 'dose' to ensure success. For education to be successful for all, it needs to acknowledge the subtle ways in which it can be differently accessible, but with high expectations for all children to achieve.

3.5.4 Strengths and limitations of study

The study relates to a small sample of children in only two Foundation Stage settings and, as Hallam et al (2004) point out: 'As with all case study research, there are limitations to the conclusions that can be drawn from the findings reported'. However, the study provides up to date case studies of two of the most common forms of educational settings for four year olds in England today and the ways in which different children fare within them. With its small samples, the study is then able to provide an in-depth analysis of a large corpus of data, moving through different levels to a close scrutiny of the micro level of gaze, movement, expression and words. The strength of the study lies in the way in which this detailed level of analysis is situated

within an understanding and representation of the children: their home learning, what they brought to the settings and their identities in them; and of the staff: the influences upon them, the ethos of the settings and their identities within the settings. This situated study of the influences on learning processes traces back and forth between the macro and the micro, explicating the ways in which children are differently positioned in learning and their responses to it. As with any research, the study also sits within a body of previous and recent research. The study's value lies in the way in which it complements, builds upon, calls into question and resonates with other research, adding to the dynamic body of knowledge referred to throughout the thesis(for example, Aubrey, 2004; EPPE, 2004; Siraj-Blatchford et al, 2002; Siraj-Blatchford and Sylva, 2004; Adams et al, 2004; Brooker, 2002; Flewitt, 2003; Jewitt, et al 2003; Jordan, 2004; Gregory et al, 2004).

To conclude the chapter, Table 3.1 summarises the corpus of data. Appendix xi summarises the sources of data, methods of collection and means of analysis in relation to the research questions.

Table 3.1
Corpus of data

Stage 1	6 questionnaires	18 hrs video/audio recording	4.5 hrs audio recorded* interviews	16.5 hrs unrecorded observation (field notes only)
			2.5 hrs audio recorded* observation	Reflective diary
Stage 2	5 parent diaries	84 hrs video/audio recording of which 1937 minutes coded	18 hrs audio recorded* interviews	84.5 hrs unrecorded observation (field notes only)
			3.5 hrs audio recorded* observation	Reflective diary

Key: * audio recorded only, not video-taped

Total

102 hrs video/audio; of which 32 hrs coded minute by minute

22.5 hrs audio taped* interviews

6 hrs audio taped* observation

101 hrs unrecorded observation (field notes)

6 questionnaires

5 parent diaries

Reflective diary

Part 2

The pedagogic interface

Part 2 of the thesis is concerned with the analysis of the pedagogic interface. It begins with a summary of the findings from Stage 1 of the study, reported in full in Appendix ii, in which the characteristics of the learning environments where the four year olds spent their year are examined as two distinct sub-cultures of pedagogy. Chapter 4 then details the children's learning over the year, their starting points, outcomes and trajectories. How the pedagogy and children's participation in it were realised in patterns of interaction is the subject of Chapter 5, which is followed by a detailed analysis of the nuances of two examples of frequently occurring teaching and learning episodes in Chapter 6.

Learning environments

One cannot develop a viable sociocultural conception of human development without looking carefully at the way these [specific] institutions develop, the way they are linked with one another, and the way human social life is organised within them' (Forman, Minick and Stone, 1993:6).

Stage 1, which formed the pilot of the study, aimed to shed light on the specific contexts in which the four year olds found themselves and to examine the aims, perceptions and relationships within them. It addressed two of the research questions by examining the sub-cultures of pedagogy in the pre-school and reception, and by looking at the routines, timing and organisation of the learning opportunities:

1. What are the adults trying to ensure children learn in each setting (and how might this be differently interpreted)?
2. By what means do the adults attempt to facilitate and ensure learning takes place?

The evidence to support the findings are reported in Appendix ii and bear some similarities to findings of Brooker (2000) and Flewitt (2003), though the specific details differ. Here, I summarise the main findings of Stage 1, which act as an underpinning for Stage 2 of the study.

Pre-school:

Social learning and preparation for school

There was much internal consistency at pre-school between staff perceptions of teaching and learning, their stated aims for the pre-school children's learning, their planning and the actual provision. Throughout, the aims were to:

- separate happily from the parent/main carer
- form new relationships with other adults and children
- operate successfully within an 'open' setting, being able to make choices about activities and be purposefully employed in adult or self-initiated activities
- develop listening skills, physical skills, and social skills with some, though less distinct, emphasis on early numeracy skills and the idea that 'words' begin with 'sounds'
- begin to understand some aspects of 'school' routine and discourse such as registration, story time, questions, lining up, sitting in a circle
- develop physical skills for independence to assist the transition to school (for example, holding a pencil correctly or using scissors).

All were part of the Foundation Stage Curriculum (FSC), but other FSC items received less attention in pre-school. The pre-school, it seemed, aimed to demonstrate for inspection purposes that the whole curriculum was covered through plans and the activities on offer, but did not feel under pressure to ensure that each child had 'achieved' the full range of learning outcomes. Certainly, there was no compulsory form of assessment to monitor children's achievements in pre-school.

Facilitating learning at pre-school

In the routines, structures and ways of communicating at pre-school, staff fostered a sense of success in children's activities and learning, contributing to a sense of 'mastery' and 'efficacy' in children in relation to 'effectance motivation' (Berk and Winsler, 1995:170), facilitated by providing company, support and help where needed. The interactions were adjusted to the perceived needs and interests of individual children. The setting's organisation and interactions were geared towards children's autonomous successes and pleasures, not towards performance against a

standard. Increased challenge, however, may have created a stronger sense of mastery by raising expectations further.

The pre-school pedagogy was largely invisible, both weakly classified and weakly framed, with routines and structures that gave children choices about how and with whom they spent their time, although this allowed other factors such as friendship and gender groups to exert a greater influence on choices made. The instructional discourse (way of learning) was weak; the regulative discourse (way of behaving) in which it was embedded was stronger than the instructional discourse, but weaker than that of school. Both RD and ID were largely tacit, communicated through staff modelling and exemplification. Pre-school pedagogy, built on its community-run playgroup origins, appeared to blend more with the local community ‘family’ ethos than with other educational establishments, except like-minded pre-schools. It continued to be run by a committee of parents, and parents were routinely part of the daily staffing, albeit supernumerary.

Reception:

Learning to be a school pupil

Whilst all round learning including development of the ‘whole child’, encouraged through structured play as specified in the Foundation Stage Curriculum was the stated goal for reception, the goals most emphasised in planning and practice were:

- learning the social rules of the classroom and of the primary school
- learning the rules of appropriate school classroom discourse
- following adult instructions and guidance for individual completion of largely adult-set tasks, using the resources provided, including each other to a limited extent
- progression primarily in literacy and numeracy towards level 1 of the National Curriculum

Facilitating learning in reception

Learning was facilitated through a model of teaching and learning based on curriculum delivery followed by independent activity and assessment to ensure that

the delivery had been successfully ‘received’. The teacher instructed, modelled, questioned and assessed, differentiating to children’s perceived abilities. Four year old children’s time in reception was far more controlled than that of children in pre-school. There was a very visible pedagogy, more strongly classified and framed than that of pre-school. Home and school lives were more separate, though home visits prior to the children starting school (which hadn’t been possible for Paul or Tom) had softened the boundaries initially. The information flowed primarily from school to home although there were exceptions to this and systems in place that attempted to create more of a dialogue, such as notes via the reading diary and parents’ evenings. However, parents were not a routine part of classroom pedagogy.

In class, there was a strong regulative discourse which was not only modelled and communicated tacitly, but was explicitly taught, supported by large visual aids depicting class rules and three bears reminding the children to be polite, kind and friendly, linked to a reward system for behaviour according to those principles. A strong instructional discourse was also apparent and was referred to often. Learning came from listening carefully to the teacher, from following instructions accurately and from individual effort. In spite of the teacher’s stated desire for more learning through play, the adult use of time during the more child-led play parts of the weekly timetable (often to carry out individual assessments rather than to support the play) gave a far higher value to the adult-led instruction and adult-set individual learning tasks. In reception, this blended into the whole school ethos and brought children into direct contact with the rest of the school during assembly, lunchtime and playtimes, and appeared to offer quite different learning opportunities to those of pre-school.

Summary and conclusion: learning environments

From the data analysed in Stage 1: Sub-cultures of Pedagogy, it appeared there were distinct contrasts between the pre-school and reception sub-cultures in relation to the following issues:

- The interpretation of what was meant by curriculum and how this impacted upon practice. Pre-school tended towards providing opportunities and encouraging participation; reception towards ensuring participation to achieve outcomes.
- The starting points and main emphases for planning, whether these were broad areas of interest as themes (most often in pre-school), children’s current levels of

achievement (partly in both), or specific learning objectives attached to learning outcomes (particularly in reception).

- The implicit messages attached to the above about comparative value of curriculum areas, the impact on children's experiences and implications for different areas of 'challenge'.
- The ways of communicating between adults and children in each setting, the link to underlying beliefs of teaching and learning, to power structures and differences between compulsion and choice, and the impact upon the children.

The key to where a setting positioned itself along a continuum from *opportunity* to *participation* and on to *achievement* seemed, in part, to be externally imposed assessment requirements. There was a need in school to meet time-tied achievement targets linked to assessment results, made accountable through published league tables, which ran in parallel with a shift towards emphasising responsibility of those who wish to be included, particularly of groups traditionally excluded – the New Labour agenda (Jones, 2003: 169-171). This shaped the pedagogy four year olds in reception experienced. Pre-schools were not yet fully part of this school-based agenda: four year olds experienced a quite different pedagogic sub-culture in pre-school. In both settings, the sub-cultures of pedagogy involved adults actively working to broaden, hasten or consolidate children's learning within the styles of interaction evidenced in Stage 1, which suggested 'stimulation' (from Bertram's three part engaging behaviours by staff, 1996) to be synthesised from more specific aspects. These, I have identified as extending, enriching, exploring, practicing, encouraging and assessing (defined in Appendix iv).

At pre-school, staff most often used practising and encouraging with some enriching and exploring, but with less evidence of extending and assessing, consistent with the pre-school staff's perceptions of learning as being largely developmental and at the child's own pace. In reception, staff more often used extending, practising and assessing, consistent with their model of teaching and learning as curriculum delivery, independent structured activity and assessment. More detailed analysis in Chapter 5 supports these impressions.

Though the settings offered distinct and widely divergent pedagogies, there was an attempt, in response to a local government EYCDP initiative, to forge stronger links between the pedagogies of pre-school and reception through regular Early Years group meetings. The meetings were led by the schools; schools set the agenda, controlled the delegated funding to finance them, chaired the meetings: the implicit hierarchy reinforced rather than blurred distinctions between the ‘two levels’ of the Foundation Stage.

Evidence presented on Typical Days (Appendix ii, section ii.2) in the two settings gave details of how the pedagogic sub-cultures were enacted in the organisation and structuring of time and resources. It raised a number of issues and questions which need to be addressed: regarding the *quality* of what goes on in the slots on the timetables; the amount of time in each that was supported or guided by an adult; children’s differential uses of and reactions to what was offered or made compulsory in the timetable; and the issue that *attendance at* an activity was not the same as *involvement in* an activity. The detail of what occurred within teaching and learning opportunities needs to be examined, together with the outcomes in terms of children’s learning. It is the children’s learning that I now scrutinise.

Chapter 4

Learning over the year

In this study, I have adopted a concept of learning influenced by Dreier (2002), as rooted in people's participation in social practice. This involves a consideration of people's personal trajectories as they move between social practices in different contexts. Learning is therefore located not in 'isolated acts' but in how the acts are placed in the trajectories. In this chapter, I consider some of the children's learning in the main contexts in which they had participated prior to their fourth year, their learning in the educational settings in which they spent their fourth year and the children's and parents' views on the learning. Initially then, in this section (4.1), I consider what the children brought with them to the educational settings from home and in some cases from previous educational/care settings. In section 4.2 following, the children's recorded learning at the beginning and end of the year is examined, drawing on assessments from home and the settings. In section 4.3, evidence from the parent diaries and from interviews with the mothers and children is added to provide another perspective on learning through the year. Finally, learning as continuities or discontinuities in children's personal trajectories is more fully explored through the experiences of three of the study children.

4.1 What did the children bring to the settings?

How were the children positioned at home? How were they viewed? How did they interact? What did they spend their time doing? What were the resources, constraints, relationships, knowledge and skills that contributed to the ways in which they acted and which they took with them as they participated in the social contexts of pre-school and school? Evidence towards answering these questions was taken from what was known of the children's home circumstances, the mothers' views of the children with regard to their strengths, weaknesses and interests, and the children's and mothers' interactions in the home during the researcher visits, particularly in relation to the assessment tasks.

4.1.1 Home backgrounds

Eight of the ten children in the study lived within ten to fifteen minutes walking distance of each other's houses in a suburban 'village' of mainly owner occupied housing of various sizes. Seven of them had lived in these houses for all or most of their lives. One, Paul, had moved in from another part of the city quite recently at the beginning of the study, but had been a frequent visitor to the house beforehand as his father had lived there for sometime in a different relationship. His mother and father had recently reunited, married and they had moved into the house all together. The two remaining children in the study, Tom and Molly, lived about a ten minute drive away, Molly in a flat and Tom in a house on the edge of a large local authority housing estate. With regard to family structures, seven of the children lived with both parents, though this was a new arrangement for Paul. Three of the children, Tom, Molly and Lloyd, lived with their mothers. All had siblings who lived at home with them except Molly, Paul and Lloyd, who were the only children in their immediate families. Tom had two half-brothers who lived with him for some of the time.

The main wage earners in the families included accountants, coach driver, dance school principal, doctor, builder and those with clerical or administrative employment. Detailed information on the families' socio-economic backgrounds was not systematically sought and I have not attempted to allocate socio-economic groupings to the families. Nonetheless, it became apparent throughout the year, from home visits and informal conversations, that there were differences in family circumstances and family culture which appeared to have a bearing on how a child perceived and was perceived by the educational setting attended. These did not hinge clearly on social class, economic status, or type of housing, but instead appeared to be a composite of factors to do with expectations, ways of communicating with each other, relationships and how these were enacted, and the organisation of home life. In other words, they related to the families' ways of saying, being and doing, some of which were influenced by structural/hierarchical factors such as socio-economic status. In particular, the degree of difference between these and the sub-cultures of the

settings in which children found themselves appeared to be pertinent to the child's progress in the setting.

4.1.2 Mothers' and children's views of the children at age four years.

Table 4.1 sets out the mothers' views of what the children brought to the settings, balanced by the children's views where possible. The mothers' views of their children emphasised interpersonal skills, physical skills, creativity and learning dispositions such as concentration span, perseverance, independence and problem-solving. In the sample, there were distinct gender differences in the characteristics and strengths emphasised. For the boys, the mothers frequently referred to their children's skill, interest and pleasure in physical activities such as ball games, cricket, climbing, cycling and in construction. These were things the boys themselves also emphasised. The girls' likes and strengths according to their mothers, however, lay in their interpersonal skills, reasonableness, empathy, sociability, and in their creativity in role play – often in typically feminine scenarios, and in painting and drawing, though some of the boys shared these too. Observations of the children throughout the year supported these views.

The evidence suggested young children leading busy lives engaged in activities reflecting their individual and family interests and dispositions. Henry, for example, was very keen on all ball games, an interest he shared with his father and which formed a common pastime for them. Carly did little painting or drawing at home, something she said she didn't enjoy in the context of a question about interests at home, though she picked them both out as enjoyable at pre-school. Her mother expressed a similar dislike of drawing and painting and said that her other daughter felt the same way. Lydia's mother made explicit the influence of her own interests on her daughter's activities, saying she hadn't particularly encouraged puzzles because she herself did not want to spend her time 'sitting on the floor doing jigsaws' (first home visit, 8.11.02). All except Paul's mother readily identified what they saw as their children's particular strengths. For three children, Lydia, Robert and Lloyd, their mothers could not easily think of things that might be categorised as weaknesses, with Lydia's mother again explicitly stating 'Not something you dwell on, so it doesn't come to mind immediately. She's always been a delight' (8.11.02). For most, the impressions conveyed in the evidence were of children perceived as competent and

capable with clear interests, most of which were treated as valued and legitimate, balanced by one or two concerns and some noted weaker areas.

Table 4.1: Mothers' (and children's) views of children's strengths and interests, weaknesses and dislikes at the beginning of the academic year, autumn 2002.

Child	Strengths and Interests	Weaknesses and Dislikes
Pre-school children		
Henry (boy) 1 st home visit 21.10.02.	<p>'You are very good at cricket, aren't you? Anything with a ball you're good at aren't you?'</p> <p>'You're just beginning to get quite good at drawing aren't you...cricketers.'</p> <p><i>('Cricket'. 'Ah, I'm <u>very</u> good at kicking a ball. I'm good at rounders. When I draw Scooby Do...and he has lipstick on him. I think I'm good at bicycles'. 'Indoor cricket')</i></p> <p>'You like making zoos, don't you? Loves cricket, he loves golf, he loves football, he loves running'</p> <p>'You like splashes, don't you?'</p> <p><i>('Playing with the cars and playing with...lions and animals. And I like chasing round things')</i></p>	<p>'Not very good at sitting still'. <i>(I don't enjoy doing playdough very much)</i></p> <p>'You're not really one for making things very much are you?'</p>
Stuart (boy) 1 st home visit 21.10.02	<p>'He's quite inventive, got quite a good imagination.'</p> <p>'He's good at puzzles – well I think he is and he's very patient. I don't know whether it's patience or determination, but if he wants to do something, reading or wants to do something, or he needs to work something out, he'll not let you help him. <u>He</u> wants to do it.'</p> <p>'Loves playing with his cars and tractors and he loves puzzles don't you? He lines them up or pretends there's a fire in the garage or some afternoons he'll say 'Come on Mum, let's have a race.''</p> <p>'And you like counting don't you? You were counting the magazines in the post office the other day.'</p>	<p>'You're not good at sitting at the table and eating your meals, are you? He messes and fidgets.'</p> <p>'There's some things like trying to get him to write his name 'cause poor chap's got quite a long name. He tried to do a C backwards the other day.'</p> <p>'From the beginning I'd say he was a little shy.'</p> <p>'He doesn't paint much but he'll do colouring now.'</p>

Carly (girl) 1 st home visit 21.10.02	<p>'She'll mix very well, very outgoing. The main one ...is she is a lot more confident than (her sister) and mixes well.'</p> <p>'Things that have been on a video, she'll act out when she dresses up'.</p> <p>'Playdough, dressing up, lots of dressing up. Princesses, ballet shoes, tiaras, anything girly really.'</p> <p>(<i>'Making a flower [with playdough]. I like doing painting. I don't do it lots'</i>)</p> <p>[At pre-school?] (<i>'I just like painting, doing dressing up, drawing, colouring. I like going into the home corner.'</i>)</p>	<p>'I wouldn't say she's got a very long...you know... with [her sister] she'd do a puzzle and she'd sit there and do it forever. She's [Carly] more likely to get one thing out, do it for five minutes then go and get something else. She's not one to ...like, repeating anything... doesn't have a very long ...'</p> <p>[Minor concerns about] 'Speech. I did follow it through and speak to the health visitor and she said, as you say, it's one of the last sounds they get, so she suggested we play some games to get over it.'</p> <p>(<i>'Don't like doing drawing... drawing a bit borin'</i>)</p>
Lloyd (boy) 1 st home visit 24.10.02	<p>'He's quite well-balanced and athletic, I'd say. He's going to be one of those lads who's quite good at sports.'</p> <p>'I think his strengths are in his sporting activities but also in his determination. He's very determined. He just doesn't give up.'</p> <p>'He's got quite a balanced nature and he's quite intricate with his hands as well.'</p> <p>'A normal boisterous boy who likes charging round the place, climbing, running, jumping. And right from a young age he's come out on walks with me, crashing through streams and banging sticks. He does like to sit down with Lego or do some painting. Enjoys watching cartoons, Thomas the Tank Engine. He can spot a train at 500 yards.'</p>	<p>'I guess his writing could be of a higher standard. He can write his name but he can't write many other words.'</p> <p>'I can't say there's anything he doesn't like.'</p> <p>'He doesn't really like face painting or that sort of thing.'</p>
Reception children		
Tom (boy) 1 st home visit 5.11.02	<p>'He's very bright, ever so bright, very bright.'</p> <p>'He's doing ever so well, his drawing and colouring and his reading, when I read to him.'</p> <p>'Very artistic,' 'He does some beautiful paintings.' 'He's very into bright colours.'</p>	<p>'He's sometimes a bit naughty at school. He wandered off outside onto the slide.'</p> <p>'He didn't like going to the toilet [at nursery], felt it was dirty.'</p> <p>'He didn't like being sometimes being sat down for too long. He wanted to get up. I think he's still a</p>

	<p>‘Interacts well with other children.’ ‘Can be very articulate when he wants to be. He can be a chatterbox.’</p> <p>‘He loves colouring. He loves reading.’ ‘He loved screwing things, building things, doing things with his hands.’ ‘He plays with Lego, he likes building it up. He’s into planes. They made bi-planes together.’</p>	<p>bit like that. Tom doesn’t like being forced into a situation.’</p>
Paul (boy) 1 st home visit 8.11.02	<p>(‘<i>Drawing...pictures</i>’)</p> <p>‘Climbing, bikes, playing outside.’ ‘Plasticine, action man, big Lego. He’ll make things, cars. He’s got loads of toys but he still goes back to his baby toys, his soft toys.’ [Also interested in cameras, keys, the car.]</p>	<p>‘To get him to do something...he’s got a very short spasm.’ ‘Putting his shoes on, dressing himself. He’s so lazy, even though I put it all out for him. He’ll get in such a paddy. That’s mainly it, his behaviour. That’s the main thing.’</p> <p>‘Getting told off.’ ‘Getting up in the mornings. Sometimes he’ll have a tantrum and shout.’</p>
Lydia (girl) 1 st home visit 8.11.02	<p>‘She’s a fairly well-adjusted person, really, very reasonable...If something makes sense and you explain why, then she’ll go along with it...She has an ability to empathise and understand other people’s feelings. She’ll mediate in the usual family rows.’</p> <p>‘She loves books and being read to. She loves using the computer. She likes painting, drawing, making things. Oh she went to French there [At nursery] once a week. She loved that. That was her favourite thing.’</p>	<p>‘Not something you dwell on, so it doesn’t come to mind immediately. She’s always been a delight.’</p> <p>‘Can’t think of anything she didn’t like. She didn’t like conflict, when she didn’t get on with her peers.’</p>
Robert (boy) 1 st home visit 6.11.02	<p>‘He’s very interested in music and picking up songs and tunes. I think he might be more arty type of person really. I think that appeals to him more.’</p> <p>‘He likes to help to try to cook (cake mixes). He memorises, he knows, obviously he can’t read the instructions on the box, but he knows what comes next, what you should be doing.’</p> <p>‘His motor skills were quite good in,</p>	<p>(‘<i>Handwriting</i>.’)</p> <p>‘There was nothing he shied away from, really. He was happy to do it all, but some would grip him for longer than others.’</p>

	<p>you know, like bat and ball. He's got quite a good eye-hand co-ordination for returning things and hitting things.'</p> <p>(‘<i>Bikes.</i>’)</p> <p>‘He liked anything to do with music. He liked cooking, ...water and sand, very keen on those.’</p> <p>‘He likes being out in the garden, really. He likes being outside and playing with water. I’d say that was his favourite thing.’</p>	
<p>George (boy) 1st home visit 12.11.02</p>	<p>‘His play acting is really, really good.’ [Also noted long concentration span and very good fine and gross motor skills.]</p> <p>[At pre-school] ‘He enjoyed the songs...He particularly liked the outdoor play with bikes and so on...He would spend a long time with construction.’</p> <p>[At home: Lots of role play. Mother described how he liked to incorporate video scripts into his play.]</p>	<p>‘His speech.’ [She described his speech as ‘terribly lazy’ because he knew what he meant and could understand everything, but didn’t verbalise until quite late.]</p> <p>[At pre-school] ‘He wouldn’t choose time on table-top activities, but could be persuaded and was proud of things he made.’</p> <p>[At home: Couldn’t really think of anything he didn’t like.]</p> <p>‘He’s very open to having a go at anything.’</p>

4.1.3 Ways of interacting between mothers and children at home

Hasan (in Cloran et al, 1996) emphasised the ways in which everyday common-sense knowledge of a community is passed on in the everyday ways of saying and meaning (and I would add multimodal ways of communicating) in young children’s home interaction, particularly between mother and child, and how these become ‘inevitably real’ (p. 148), unquestioned and even invisible. She emphasised that looking at isolated instances of speech – at the words used – does not necessarily convey the full impact of different ways of interacting. Instead, what is pertinent is the pattern of understanding contained in the configurations. Nor do the words, I suggest, convey the full impact of the underlying relationships, the way in which similar words may have quite different meanings and intentions within different families with different relationships. With this in mind, the following inferences were drawn from the

composite view of interactions based on audio recordings (23 hours total) of two home visits per child of between 1 to 1.5 hours each (with the exceptions of Lydia, for whom only one home visit was possible, and Molly, for whom no visits were possible), brief field notes, reflective notes in the research diary following the visits, and informed by informal, regular observations of the children with their families (usually mother and siblings) during routine school and pre-school runs. I do, however, acknowledge the partial nature of this data with regard to the sum total of routine interactions in the home between mother and child and the possible impact of my presence.

I used audio rather than video recording in the homes, having judged video to be too intrusive in such an intimate setting with too little time to allow participants to become accustomed to it. A consequence of this was that only verbal interaction was available for close analysis rather than the full range of modalities used, though some comments on participants' actions were recorded in field notes. Nonetheless, a review of the data suggests very clearly the different ways, summarised in Appendix x, in which mothers and children interacted in relation to child-initiated activities or adult-initiated 'interview' or assessment tasks, some showing similarities to the categories of talk suggested by Mercer's research in primary schools (1995). These offered clues to the ways in which children developed strategies, understandings and forms of agency in the home and how these provided repertoires for use in other settings, pre-school or reception, some of which appeared to allow for greater ease of transfer than others. For reasons of space, only short illustrative examples have been used.

Offering principled, contingent strategies

To assist the child with the task in hand, some mothers offered strategies that were both principled and contingent upon the child's current skills and experiences. These were offered with direction, using minimal control, and in interactions in which issues of control and the goal itself appeared to be tacitly agreed upon. Robert, Lloyd, George, Carly, and to some extent Stuart and Henry' interactions with their mothers were characterised thus during the home visits. Such characteristics were occasionally visible in interactions between the other mother/child dyads, but appeared not to be 'habitual forms of communication' (Hasan in Cloran et al 1996: 147) in the samples.

Excerpt 4.1

Robert: Mother offering direction in a strategy to ease the task; writing words.

Mother: Start lower down the page, Robert. Don't go over what you've done already.

Excerpt 4.2

George: Mother setting up the task and directing - giving names/phonemes for list of graphemes.

Mother: Are you ready with your finger? You've got to point to them.
We'll have a D, D for dog, d, d.

George: d, d. (pointing)

Mother: That's the one!

Excerpt 4.3

Lloyd: Mother offering strategies to support Lloyd's thinking. He is trying to order number cards from 1 to 10 and has reached number 5.

Lloyd: What now?

Mother: What d'you think? Count the numbers you've got down there.

Lloyd: 1, 2, 3, 4, 5, 6? 6 is next, isn't it Mum?

Mother: Good boy.

Lloyd: 8 is next isn't it Mum?

Mother: Does 8 come after 6?

Lloyd: 7!

Mother: Good boy

Lloyd: Now that one?

Mother: Which one next?

Lloyd: I dunno.

Mother: Count through the numbers.

Lloyd: 1, 2, 3, 4, 5, 6, 7, 8...9!

Excerpt 4.4

Stuart: Mother offering strategies to order number cards from 1 to 10.

Stuart: 2, 3, 4, 5, 6

Mother: Stuart, look at that.

Stuart: 1, 2, 3, 4, 5

Mother: Yeah but look at the numbers on the paper here...*before* you put them down.

Stuart: 6

Mother: Can you find 6?

Exercising and encouraging agency

Children's agency was seen to be exercised and encouraged in several different ways, outlined below. This was apparent for the children listed above and also for Henry in some instances where the goal was uncontested. Lydia, Robert, Henry and Lloyd were later recorded using similar strategies in the settings (for Lydia and Robert, reception; for Lloyd and Henry, pre-school).

1. Child negotiating type of support most useful to self

In such instances, the child attempted to direct precisely the type of support he or she required to complete a task to the child's satisfaction, balancing independence and successful outcome. The mothers appeared alert to this and tried to ascertain precisely what support was needed, again attempting to balance the child's independent efforts against the desire for a successful outcome. In the excerpt below, Lloyd demonstrates that at times the child was prepared to apply greater effort and persistence to the task than the adult initially felt inclined to encourage.

Excerpt 4.5

Lloyd directing the type of support he needed from his mother. He was trying to name the graphemes from an alphabet list. His mother pointed to them one at a time.

Lloyd: D, E,
Mother: What's this one?
Lloyd: C
Mother: Good boy
Lloyd: E,
Mother: Good boy
Lloyd: F, R, N, J, J,
Mother: Good boy
Lloyd: K, L, M,
:
Mother: Are you sure this one is R?
Lloyd: Dunno
Mother: No? What about that one?
Lloyd: Dunno
:
Lloyd: Argh! Mum, let's start all over again. All down there and up.
Mother: Let's just try this one.
:
Lloyd: Dunno. Dunno. Let's start all over again, mum.
Mother: Alright, you want to do them over again?
Lloyd: Yeah
:
Mother: Which one's d'you want to pick out first?
Lloyd: I want to do them all, Mum
Mother: You want to do them all. Right from the beginning, do you?
Lloyd: Yes.
:
Lloyd: Dunno. You say that word.

2. Making meanings explicit and expecting to understand/be understood

In some homes, it was very evident amongst many of the mother/child dyads that children expected to be seen as and were expected to be reliable, clear meaning makers. Any lack of understanding or agreement was a signal for clarity to be sought and understanding or agreement reached, often using the type of interaction Mercer (1995:104) characterised as exploratory talk.

Excerpt 4.6

Robert: clarifying meanings with mother; expecting each other to make sense, expecting to reach understanding.

(Talking about spellings sent home from school)

Robert: We do them at school.

Mother: You bring them home. You bring your book home and we practice them at home, don't we?

Robert: Mum! We stick them in the book at

Mother: Oh sorry, yes, you're given them at school, that's right.

Excerpt 4.7

(Talking about advice given by visiting dog wardens to the school)

Robert: You keep quiet, keep your hand out of the way and stand still.

Mother: What, for strange dogs or dogs that you know?

Robert: Dogs that bark at you. Stand still

Mother: Dogs you don't know

Robert: Keep your arms by your side

Mother: Mmm, why's that then?

Robert: Because they might growl at you.

3. Valuing children's opinions and ideas

In instances of interaction, children's opinions and ideas were tacitly valued, even though they may be disagreed with. Such instances most routinely appeared to form part of the interactions in the homes of Lloyd, George, Lydia, Robert, Carly, Stuart and Henry.

Excerpt 4.8

Henry looking for 'your favourite book'. Mother offers one.

Mother: Henry, is that one of them?

Henry: Well...

Mother: Okay. No is a good answer

Henry: I do like that one but not very much

Mother: Okay.

Esoteric or outcome strategies

Sometimes, the strategies offered by the mother and taken up or suggested by the child emphasised 'correct' outcome or performance rather than principled understanding, though with seemingly different motivations. These were evident in

the interaction relating to Stuart, Henry and Tom and embodied similar characteristics to those described by Edwards and Mercer (1987) as procedural learning. The strategies appeared to be based very closely on the mother and child's shared experiences, ensuring a way of successfully completing the task, but were so esoteric as to be difficult to see how the child might transfer them to other similar tasks without the direct assistance of the mother. The excerpt below from Stuart and his mother provides a clear example. In the episode, Stuart's mother was trying to ascertain (and demonstrate to me as part of the assessment) for which graphemes from an alphabet list Stuart knew either the phoneme or name.

Excerpt 4.9

Procedural versus principled knowledge: testing phoneme knowledge from list of graphemes.

Mother: What's that one?
Stuart: Give me a clue.
Mother: No, be sensible. Er...what does 'grapes' begin with?
Stuart: g!
Mother: And what does house begin with?
Stuart: h!
Mother: And I spy with my little? Little?
Stuart: I!
Mother: And what does Mummy's name begin with? Christian name?
Stuart: Julie!
Mother: I know, but what does Julie begin with?
:
Mother: And what d'you like to fly in the sky?
Stuart: Kite!
Mother: So what does kite begin with?
:
Mother: N, what's n for? What begins with n?
Stuart: n?
Mother: What else?
Stuart: Umm.
Mother: n. What's in the cereals?
Stuart: Milk!
Mother: No, that begins with a m.

She drew so closely on their experiences of playing I Spy together and on Stuart's previously demonstrated skills of being able to isolate the onset phoneme in a spoken word that the purpose of the task became confused and shifted from onset recognition, to guessing the word for onset recognition from a clue, to a guessing game about which clue might be given for the letter N.

Contrasts

In the data, there were some quite distinct contrasts between children's experiences of interaction with their mothers. Again, all mother/child interactions contained many of the elements described, but I am interested in those elements that most strongly characterised each family's sample interactions. The contrasts were particularly noticeable in instances of *initiating joint-involvement*, in *seeking support for tasks*, and in issues relating to *control* with regard either to the goal or the means of reaching a goal.

1. Initiating joint-involvement: different approaches, different outcomes.

In both instances below, the situation was as closely matched as possible, given different participants. The episodes occurred as 'interruptions' initiated by the child in the early part of the first home visits as I talked with the mother (and attempted to involve the children in the conversation).

Excerpt 4.10

Lloyd: (*Sitting on the floor near to us with his Lego*) Mum shall we make a helicopter park?
Well how d'you make a helicopter then Mum?
I need two more of these. I need two and two.
Mum why won't this bike stand up?
Mother: Is it a bit wobbly?
Lloyd: Yeah

Excerpt 4.11

Paul: (*On the stairs leading into the sitting room throwing a large rope*)
Mummy catch this
Mother: No
Paul: Mummy catch it
Mother: No more please!
Paul: Put it up there!
Mother: No I can't put it up there
Paul: Mum get it!
Mother: Pardon!
Paul: Please!
:
Paul: Wanna play with it!
Mother: No! You're not doing as I ask so no! Paul, please!
Paul: Wanna play with it!
Mother: Please go and put it up stairs!
(Struggle)
Mother: I should have sent you to school!
(Struggle)

Mother: Paul, no! Come on, please!
Paul: Let me have it!
(Struggle)
Mother: No! No! No!

In the first, typical of its kind in the data for Lloyd, Carly, George, and to a lesser extent for Henry and Robert, the initiation was treated as legitimate and was managed by the mother alongside the conversation with me, often with both strands of conversation becoming intertwined. In the second, evident mainly in the data for Paul and to a lesser extent for Stuart and Tom, the initiation was treated as a disruption and quickly became an issue of control in Paul's case. For Stuart, control was more negotiated and for Tom, it was at times contested but then relinquished and excused, taking the conversation onto a different tack.

2. Seeking support for tasks

Again, the contrasts are most clearly illustrated by data from Lloyd and Paul.

In excerpt 4.12, Lloyd and his mother negotiated the best way to achieve the task, seeking the most effective type of support to assist optimum independent performance whilst minimising failure. This goal was uncontested; both sought to agree on the 'best' way to reach the goal. In excerpt 4.13 below, Paul and his mother also negotiated a way to achieve the task and, at the beginning of the excerpt, Paul was more specific about the type of support he required. However, the level of support required and offered were contested and seemed to become the central concern in the interaction rather than achieving the goal.

Excerpt 4.12

Lloyd using Mother as a resources and support

Lloyd: Mum let's build a helicopter first, then this. 'Cause we need lots of yellow wheels, don't we?
Mother: Mm, we do. See if you can find the instructions for the helicopter, then.
Lloyd: Ah. Here... a helicopter. Mum, can you get this off – a white thing, Mum.
:
Lloyd: I can't find any instructions for a helicopter, Mum. Mum.
Mother: You can't find it? Let's see if I can help you.

Excerpt 4.13

Writing his name: Paul's mother writes it in dots first and Paul traces over it.

Paul: Help me do this Mum!
Help me! You do it! Dot it!

(Mother dots out his name for him. Paul laughs.)

Mother: Now you do it.
 Paul: You help me.
 Mother: Yeah, you hold the pen
 Paul: (growling) You help me.
 Mother: Sit up. Sit up and do it. Right, hold the pen.
 Paul: Help me Mummy!
 Mother: Right, start at the beginning.
 Paul: Help me!
 Mother: Go on then. Go on from that line.
 Right, take your pen off. Right, start from there. Right, where you got to go?
 Paul: Help me!
 :
 Mother: No, you're not gonna learn, Paul!

3. Issues of control over goals or process

As can be seen from the previous examples, issues of control were pertinent markers of the ways in which interactions were routinely played out between the children and their mothers. The control issues usually related to matters of safety, manners, discipline or frequently to the goals of the interaction and how they were to be achieved. For the mother/child interactions in the sample, such issues fell into three categories; uncontested control, particularly relating to Lloyd, Carly, Robert, George and sometimes Henry; negotiated control, particularly for Stuart, Tom and sometimes Henry; and contested control, particularly for Paul and sometimes Tom.

Uncontested control

Excerpt 4.14

Deciding what Henry likes and is good at: an example of 'cumulative' talk (Mercer 1995:104).

Mother: Likes cricket
 Henry: Playing with the cars and playing with ...lions and animals
 Mother: You like making zoos, don't you? Loves cricket, he loves golf, he loves football
 Henry: And I like running. I like chasing round things
 Mother: He loves running. We've got a lot of sharks, haven't we, and whales.
 You like splashes, don't you?
 Henry: Yeah, I love splashes even more than cricket!
 Mother: You're very good at cricket, aren't you? Anything with a ball you're very good at, aren't you
 Henry: Very good at cricket.
 Mother: You've got your own cricket bat, haven't you? You play with Daddy.
 Henry: It is real.
 Mother: He's just beginning to draw
 :
 Mother: What are you good at doing indoors?

Henry: Indoor cricket.
(Mother laughs).

Negotiated control

Excerpt 4.15

An example of mother and child reasoning to negotiate safety and control as Stuart climbs onto a chair and intends to jump off.

Mother: Stuart! Stuart!
Stuart: I want to do it.
Mother: You can't do it. It's not safe. Look. You look at the length of your leg and at the height of this chair. And this isn't stable... You're gonna end up...
Stuart: Well, look! (Jumps off).

Contested control

Excerpt 4.16

I asked Paul if he would like to count the Lego men I had brought with me. He initially seemed to show some intention to do so, but then decided to remain silent.

Mother: No, come on. Talk! Talk!
How many is there?
Bit louder, bit louder!
No, I can't hear you babe.
Just a little bit. I can't hear you.

Excerpt 4.17: an example of 'disputational' talk (Mercer, 1995:104)

In relation to adding a dot over the 'i' in his name

Paul: You do it
Mother: No you
Paul: You
Mother: You do it, then I'll do it. You do it first.
Paul: You help me!
Mother: Sit up!
Paul: You help me!
Mother: Sit up!

What is not visible in the transcription but is clearly fixed in memory and noted in the reflective diary was the way in which Philip used his body to imply a lack of co-operation, almost inviting a physical response. He lay as a dead weight on the floor and against his mother at the same time as asking for help (and later when asking to sit on her lap.) This added to the sense of confrontation rather than co-operation between them.

Constellations

Evidence from the children's and mothers' interactions in the home support the view that the children started their year at age four with widely differing experiences and understandings of saying and meaning. As Hasan points out

What is criterial is the constellation of a set of linguistic patterns – a configuration of patterns in rapport with each other. (1996:149)

In the study sample, Lloyd, George, Robert, Carly, Lydia appeared to share very similar constellations characterised by control for tasks and joint-involvement being largely uncontested. There appeared to be more direct and concerted joint focus on the task or purpose in hand; there was more interactive space available to concentrate on problem-solving or jointly attending to a subject. Control appeared to be shared between the participants with the children both able and encouraged to exercise their own agency, whilst appearing to acknowledge that of others. During interview and observation, it became apparent that control around other issues was at times contested but, particularly for George, the children had learned that different balances of agency and control were acceptable in different situations.

For Stuart, Henry and Tom, their home interactions differed in the specifics, but the overall configuration was characterised by varying control and support with some clarity, sensitivity and jointly constructed narratives, but equally with some confusion, control clashes and goal mismatches, particularly for Tom. Paul's constellation of home interactions, though sharing elements of features with those of other children in the sample, added up to a unique set of meanings in which the issue of control was central and contested. According to the available evidence, time and energy to focus on anything beyond the struggle for control were limited at the beginning of Paul's year as a four year old.

I argue that it was not only in their verbal interactions that the children's ways of meaning differed, but in their ways of participating in relationships, in joint activities and in balancing their own interests against those of others. These were reflected in their ways of being in the home and in the mothers' and the children's own views of their strengths, interests, weaknesses and dislikes. Each child began the year in the educational settings with quite distinct understandings, routine practices, interests and dispositions.

4.2 What do the assessments tell us?

The study children were assessed in October/November 2002 and in June/July 2003.

The assessments were a streamlined version of Baseline Assessment, used at that time in schools in the county of study. The areas of assessment covered are listed in Table 4.2, showing the children's scores along a scale from 0-6 (see Appendix iii for details).

Table 4.2: Children's assessment scores

Pre-school scores

	Stuart 11/02	Stuart 6/03	Henry 11/02	Henry 6/03	Lloyd 11/02	Lloyd 6/03	Carly 11/02	Carly 6/03
Personal	3	3	4	5	4	5	4	4
Social	5	5	5	5	5	5	5	6
Speak/listen	4	4	5	5	5	5	5	5
Counting	2	4	4	5	4	4	4	5
Number	5	5	5	5	5	5	5	5
Read/vis	2	3	3	3	*3	*3	3	3
Read/letters	2	3	3	3	3	3	3	3
Writing	0	2	2	2	2	2	3	3
Handwriting	1	3	2	2	3	3	3	4
Drawing	3	3	2	2	2	2	3	3

* Lloyd was unwilling to participate in this item. The score is an estimate from mother and practitioner comments.

Reception scores

	Tom 11/02	Tom 6/03	Paul 11/02	Paul 6/03	George 11/02	George 6/03	Robert 11/02	Robert 6/03
Personal	2	2	2	2	2	5	4	6
Social	3	4	2	3	4	5	4	6
Speak/listen	2	2	2	3	2	4	4	6
Counting	1	2	1	3	2	5	5	6
Number	0	1	2	3	3	5	2	6
Read/vis	1	2	1	2	2	4	3	6
Read/letters	2	2	2	3	2	5	2	6
Writing	1	2	1	2	3	4	3	6
Handwriting	1	2	2	3	3	4	3	5
Drawing	0	0	0	1	1	4	0	5

Appendix iii shows the criteria for scoring in each of the categories listed, together with notes on aspects of the assessments. The assessments resemble those used for similar purposes by Dunlop (2003). Other assessments were also carried out in relation to phonological awareness and physical skills, but are not included in the

tables because of discrepancies in the timing of the assessments or difficulty in including some children.

From each setting, one of the five study children has been excluded from the tables as the children's personal circumstances and family difficulties made it impossible to carry out either the initial or final assessments. Although evidence relating to these children and their learning is used in other parts of the study, it was not feasible to enter it into this section. Unfortunately as both are girls, leaving only one girl and seven boys in the tabled data, it is difficult to comment here on gender issues relating to assessment scores. Again, gender related issues surface in other parts of the study.

In this section, I comment on the methods of assessment and grading, outline the results of the assessments, and consider how they reflect the sub-cultures of pedagogy. I then discuss issues arising from the assessments, noting which require further examination using other aspects of data.

4.2.1 Issues relating to assessment and grading

Assessing

There were differences in assessor and place of assessment between the pre-school and reception children which must be taken into account when considering the results. The pre-school children's scores reported here were based largely on assessment by me, carried out in the child's home with the mother, supplemented by my observations in the pre-school and those of the child's key worker. Key workers' observations were recorded in children's files, to which I had access, and were supplemented by informal conversations with staff. The pre-school sample children were therefore assessed in settings familiar to them, often as they went about their usual business. I was a relative stranger to two of the pre-school children and certainly not a regular visitor to the home of the others, but in the assessments I encouraged the mothers to initiate the tasks with their children and to support as they saw fit, although I recorded carefully what the child appeared to be able to do before the mother's intervention. The assessments were in my view as low key and non-threatening as possible. Nonetheless, I endeavoured to offer tasks beyond the level each child could

successfully manage to try to ensure the upper limits of their achievements in that situation were recorded.

The reception sample children's assessments in October/November were carried out by the class teacher or LSA mostly in the classroom. At that time to the children, it was a relatively unfamiliar place with unfamiliar people. The classroom was fairly noisy and lively. I observed some of the assessments being carried out and felt that in some instances the child's achievements were possibly underestimated because of the setting and manner of assessment. For example, field notes reveal that George's letter recognition skills were assessed one to one with the teacher, sitting on the mat, surrounded by other busy children. Letter cards were all placed on the floor in front of George, randomly arranged, some upside down to him, and he was asked to point out any he recognised. The teacher did ask specifically about one or two she thought he might know, but it was nonetheless difficult for a child to quickly pick out all familiar items from such a visually busy array. It was certainly a rush for the staff to carry out all baseline assessments on the children before October half-term, whilst trying to settle the children into the school, get to know them, and introduce new routines. The assessment results were tempered by observations and by mothers' views on their children's capabilities during the first interviews in November. However, for the purpose of the tables and graphs, I have taken the most conservative scores for *all* children at pre-school and in reception.

As the Baseline Assessment was abandoned by the school during the year and a new system adopted, the Foundation Stage Profile (FSP; DfES, 2003), to offer comparable results I assessed the reception children at home in the same way as the pre-school children in the June interviews using the original system. Again, these were supplemented by observations, discussions with staff and by results from the FSP where compatible. The impact of these differences in the assessor, timing and setting for assessment was, I suggest, one of effectively underestimating the school children's achievements in November, thereby inflating the level of apparent progress made.

Grading

There are shortcomings in applying scores based on judgements to very disparate 'behaviours' in specific situations, then aggregating the scores and treating them

mathematically. For example, ‘playing co-operatively with chosen friends’, an item from the social development assessment, requires judgement and some background knowledge of the child and friends. Are the ‘friends’ people with whom it is easy or difficult to play co-operatively? Does always acquiescing to another’s demands to avoid almost certain confrontation constitute ‘co-operative play’? Can a score for this item sensibly be added to a score for ‘Recognising five letters by shape giving name or sound’, an item from the reading (letter knowledge) assessment, which itself begs questions of the familiarity of the print font or handwriting used and the method of presentation? Such scores and any mathematical calculation based upon them need to be treated with caution.

The assessment grading system was insufficiently sensitive to register all of the changes in the children’s learning over the year. A child able to recognise and name only five letters in November, scoring level 3, but able to recognise and name ten letters by June would still score only 3, showing no progress, as the next level required names *and* sounds of letters. Similarly, the assessments missed some aspects of achievement entirely, particularly in relation to their construction work, their 3D creations and the ways in which they were able to link thought and representation (through models, drawing, painting, development of role-play scenarios). In some ways, this may have led to an underestimation of some children’s progress, particularly in pre-school where such skills were more encouraged and valued. I see the assessments and results, therefore, as a way of highlighting issues and questions for further scrutiny rather than as a solid foundation from which to draw definitive conclusions about the children’s learning outcomes. In spite of the method’s shortcomings, it provides a different perspective of the children’s experiences over the year and proved to be one which yielded surprisingly similar issues to those arising from other methods.

4.2.2 The results

As Figure 4.1 shows, although the children in the two settings started from quite different positions, the reception children had gained considerable ground by the end of the academic year, particularly in literacy skills. The pre-school children’s recorded progress was highest in handwriting, counting, writing and personal skills (Figure 4.2

and 4.3). Number, speaking and listening, social skills and drawing showed less progress, but, in the case of the first four of these, the scores were initially high. The reception children's recorded progress was highest in drawing (1000%, not shown on Figure 4.2), which started from a remarkably low position, in reading, writing, handwriting, number and counting. By June/July 2003, the reception children had

Figure 4.1

Mean scores in pre-school & reception by broad categories: Nov 02 & Jun 03

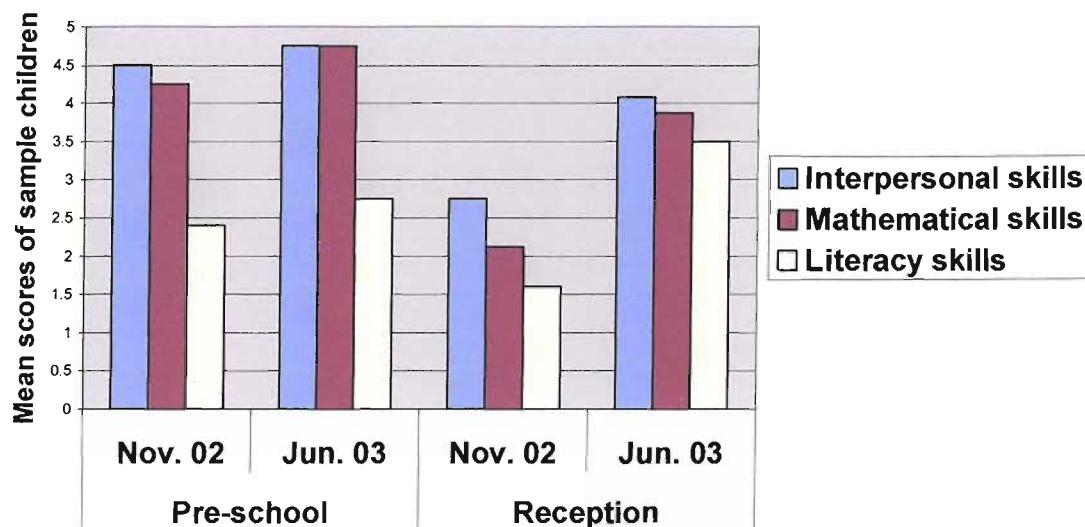


Figure 4.2

Increase (%) in sample children's scores Nov to Jun, pre-school & reception (excluding drawing)

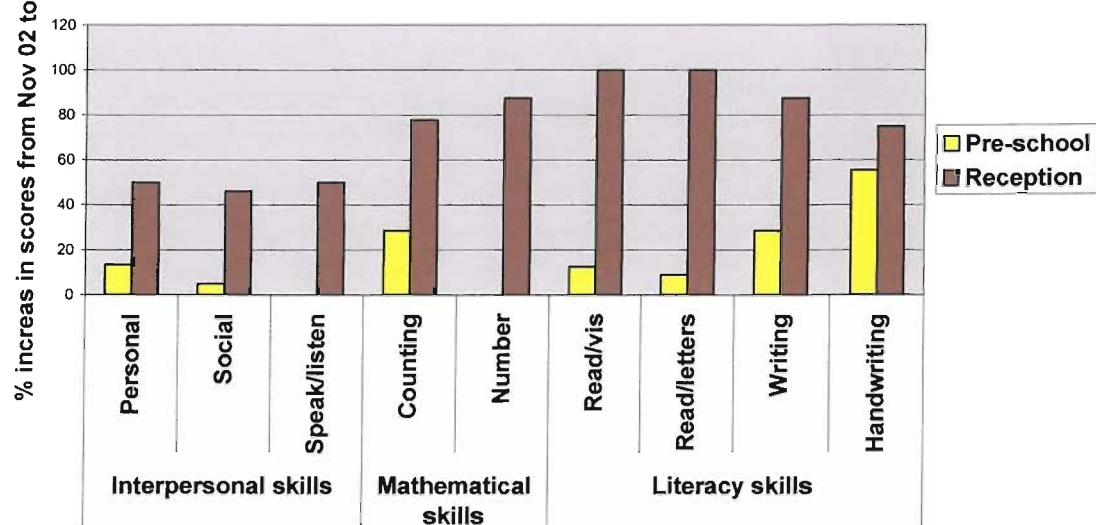
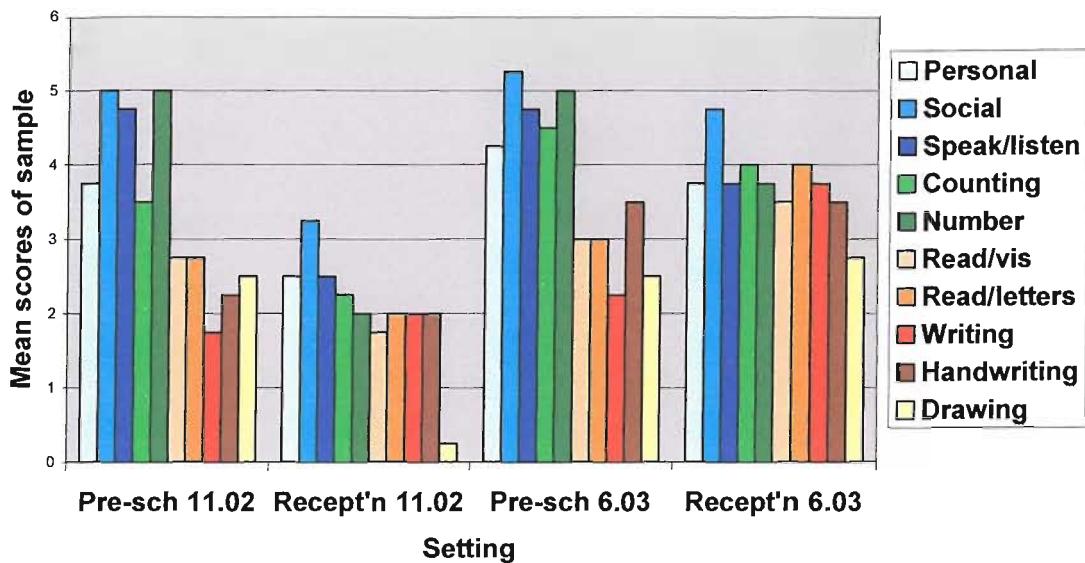


Figure 4.3
Mean scores at pre-school & reception by category



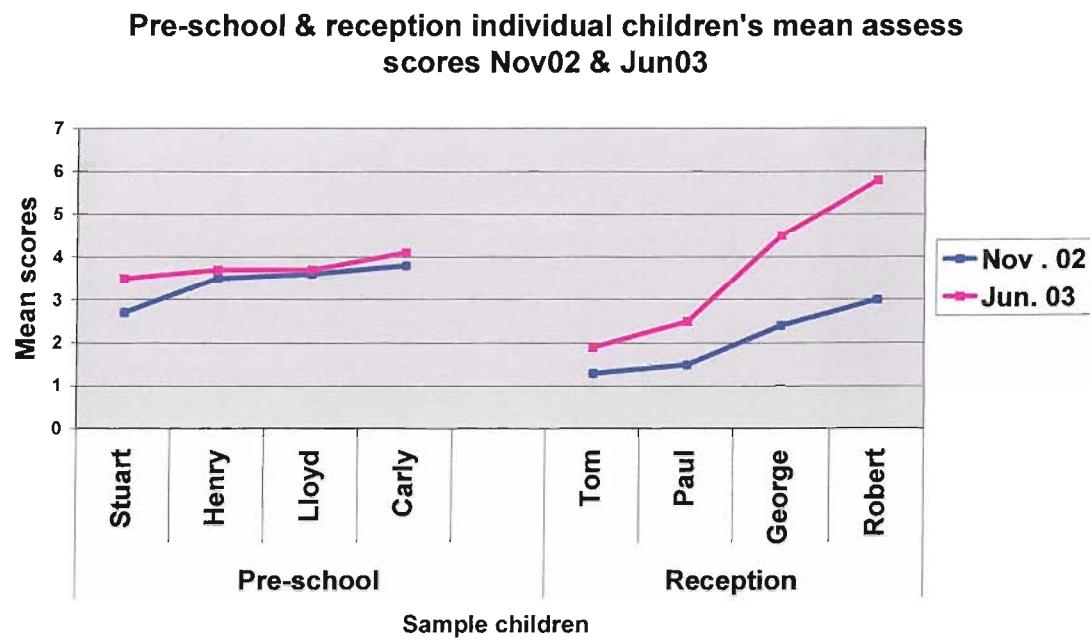
exceeded the pre-school children's scores in reading, writing and drawing. The pre-school children's scores remained ahead of the school children's in number skills, speaking and listening, personal and social skills and counting.

Individual children

Figure 4.4 shows how the total scores in each setting were comprised of quite different patterns for individual children. In pre-school, although all children made a small amount of progress, Stuart made the most from the lowest start point. By the end of the year, the range in children's mean scores had narrowed from a difference of 0.9 to 0.6. Of the pre-school children (see figures 4.5 to 4.7), Stuart's progress was largely in literacy and mathematical skills, Henry made progress in interpersonal skills and mathematics, whilst Carly's progress was more evenly spread. Lloyd's only recorded progress was in interpersonal skills. In reception, individual children's mean scores showed much greater initial variation and by the end of the year, the range had widened further from a difference of 1.7 to 3.9. Although all children in the reception sample had made progress, Robert and George made most progress from initially higher scores, leaving Tom and Paul further behind. Robert and George made considerable progress in all areas, but particularly in literacy where Robert's mean score increased by 3.4. Paul and Tom made some progress across the board, the most notable being Paul's progress in mathematical skills by an increase of 1.5 in the mean

scores. Some of the most notable (but hard-won) differences in Paul's achievements over the year were in aspects of his personal and social development in the face of situations that he found extremely challenging, yet these were not reflected in his assessment scores. In some cases in both samples of children, however, new skills had been learnt or levels of confidence increased, but were insufficient to register a higher rating on the grading system used. For example, in October, Carly could name six letters from graphemes and give the phoneme for eight. By June, she could name all graphemes in the alphabet and give the phoneme for nine, yet the level she reached based on the grading criteria remained at three.

Figure 4.4



The impression presented in the results and borne out in observation was of the pre-school children being brought up to a certain level in preparation for the transition to school. Progress beyond that level was not readily facilitated by the activities, resources and interaction offered. The results for the reception children again matched the impressions gained from observations and recordings: the school curriculum and mode of delivery highlighted and exacerbated the differences between children, inadvertently encouraging rapid development in some, whilst others' lesser achievements became more apparent.

Figure 4.5
Children's Interpersonal Skills Mean Scores: Nov 02 & Jun 03

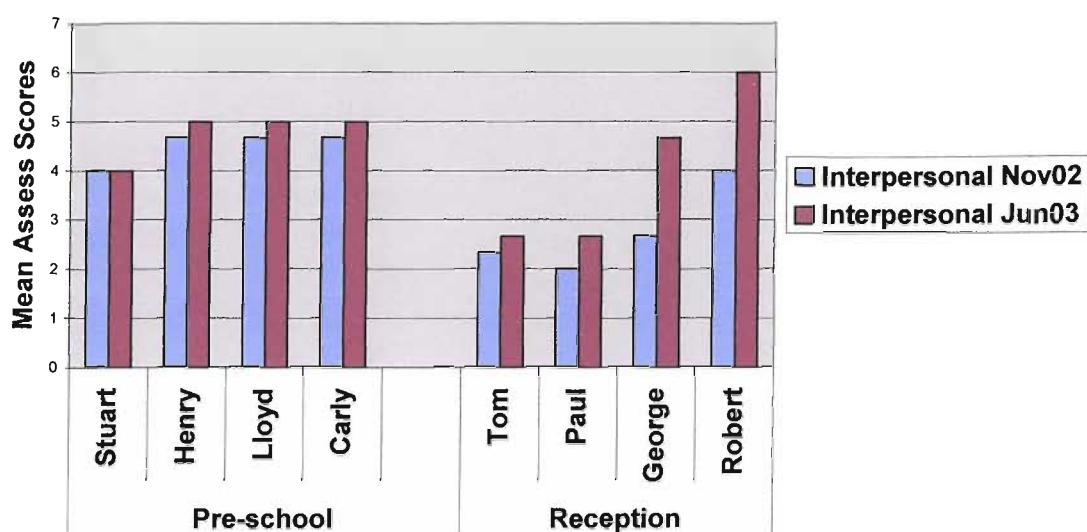


Figure 4.6
Children's Literacy Skills Mean Scores: Nov 02 & Jun 03

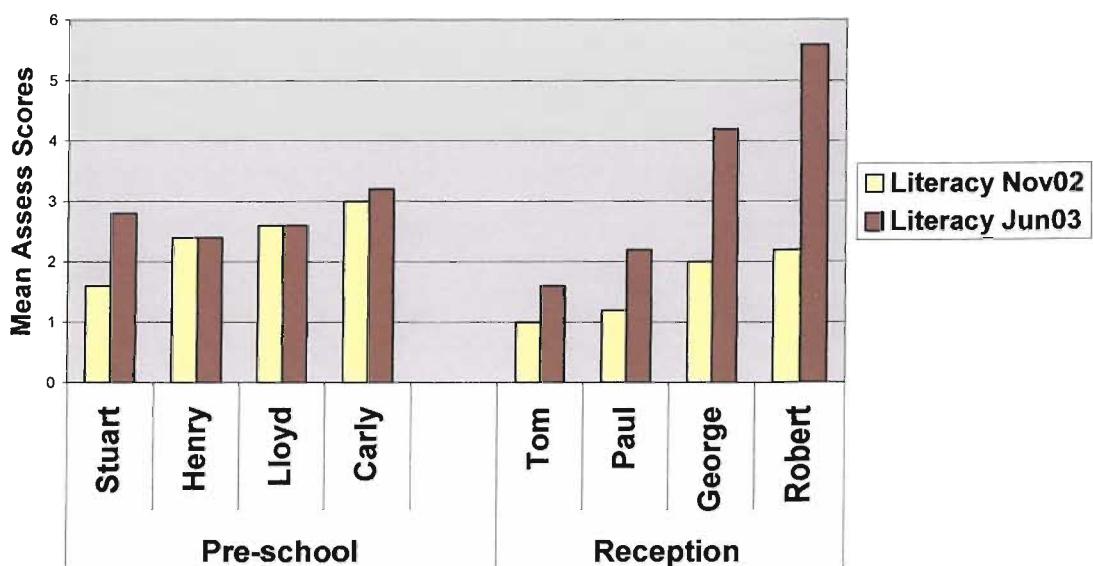
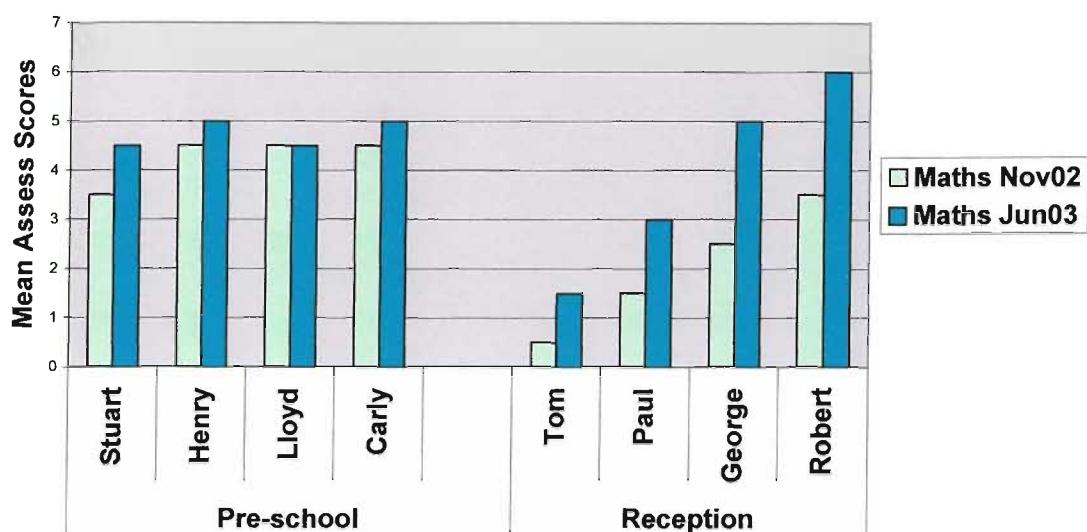


Figure 4.7
Children's Mathematical Skills Mean Scores: Nov 02 & Jun 03



4.2.3 Learning outcomes reflecting pedagogic sub-cultures

Pre-school

Pre-school's aims, from its playgroup beginnings and associations, were dominated by goals for personal and social development through a largely invisible pedagogy, weakly classified and framed (Appendix ii, summarised at beginning of Part 2). What was emphasised most was freedom of choice of play, within a limited selection of activities chosen by staff, restricted by the physical setting and resources. It was punctuated by short periods of compulsory whole group routines such as registration and snack time. It is not difficult to see how this encouraged children's personal development in which, on the assessment criteria, a score of 6 could be obtained for 'Initiating activity, selecting and using resources independently'. The first hour of each session was based around children doing just that supported by staff where necessary. Younger, less confident children coped with the openness of such sessions by staying at one or two activities with more structured spaces (for example, the playdough table), often with the help of an adult. Certainly, it was noticeable that Stuart, the least confident of the pre-school sample children, progressed from choosing to spend much of his time at either playdough or the maths activity table into a more varied pattern of movement by the end of the year.

It was also clear that maths activities relating to counting of objects and children and of number recognition featured on a daily basis in pre-school life and were emphasised regularly. The counting was often linked to real purpose and joint effort, each contributing what they could with, for example, children given apparent responsibility for counting the number in the group to tally with the register. A maths activity table was always set up in the main hall which children often chose to do. It was almost always supported by an adult, often by the supervisor, for at least part of the free play session, which in itself tended to attract children to it. Stuart in particular sought the company of the supervisor and so often seemed to be at the maths activity table.

A skill which was routinely encouraged at pre-school was the recognition and writing of the child's written name. On arrival each morning, the children, helped by the parent or carer bringing them to pre-school, were encouraged to find their own plastic baskets, placed around the edge of the floor in the quiet room, in which to put their personal belongings. The baskets were labelled by a photograph of the child with the name printed below. At snack time, each child had a similarly printed name card, without the photograph, placed at one of several tables, which the children were to find, with help if necessary. Discussions were usually heard between staff and children about initial letters and sounds as the children looked for their names. Whenever a piece of work was begun, it was labelled with the child's name. Staff offered help to the younger children, but the older children most often wrote their names themselves. Children were always given the opportunity to try to write their name or to add the bits they could, but there was no implicit message that a child 'ought to' be able to do so or 'ought to' be willing to try. Rather, it was a real task that had to be carried out promptly with whatever support was necessary or desired. Any attempts were praised matter-of-factly, often with the assurance that some things were very tricky. Almost all children could write their own names by the end of the second year at pre-school (of those who stayed for two years) and certainly the children in this sample could make recognisable attempts.

Conversely, other aspects of the literacy curriculum did not receive the same level of regular attention and clear, concerted encouragement by the staff. The book corner was always available, often with an adult to read one-to-one for a short while if

requested, but stories were not shared with large or smaller groups on a daily or weekly basis. The daily 'letter of the week' exercise with the whole group was run in a manner that was frankly more likely to be confusing to a child trying to sort out grapheme/phoneme correspondence, an issue analysed in more detail in Chapter 7. Literacy materials were visible and available, but not routinely used in a manner to really support progress, though there were exceptions. The point is that it was the most regularly promoted and supported aspects of learning offered in purposeful, non-threatening or 'non-assessing' ways which seemed to lead to the most recordable results: independent choice and use of resources; awareness of numbers; one-to-one correspondence and counting; writing and reading their own names.

There was, however, the issue of the children reaching a plateau in terms of development at pre-school. For example, in November, Carly stood out as a competent and high-achieving child. By December 2002, she had achieved all the criteria for her key worker to complete the pre-school observation records, the pre-school's record of individual progress. Staff talked briefly about how to keep her busy and interested for the next two terms. From observation and interview data, she was clearly interested in literacy and in trying to make sense of sounds, letters and pictorial information. Nonetheless, her assessment scores show little progress in literacy related skills and there was little evidence of the interest being taken up by staff and encouraged. In the second home interview, her mother reported her concerns about Carly's possible boredom at pre-school in the spring term. My impression was that there was a reluctance and uncertainty amongst the pre-school staff in relation to encouraging literacy development generally, which linked to some expressed feelings of inadequacy with regard to not being trained teachers and possibly not doing it 'the way school wanted'. Staff also referred to the wider pre-school-movement ethos of learning through play and not 'teaching reading or writing' at too young an age. Yet the level of challenge in the pre-school activities felt inadequate for some of the children for the final two terms, and literacy was one of the areas in which interest expressed could have been more adequately encouraged.

Reception

In reception, though the stated aims (from staff interviews, detailed in Appendix ii) were for all round, active learning, the pedagogy was visible, strongly classified and

framed, and emphasised children making individual progress towards Level 1 of the National Curriculum by the end of the year, particularly in literacy and numeracy (Appendix ii). Children were grouped for literacy and numeracy into what the teacher referred to as the below average, average and above average sets. In contrast to the pre-school timetable, the main 'business' part of the day was devoted to the literacy and numeracy hours. These accounted for the morning lesson time from 9.00am to 12 noon four days each week, interspersed with whole school assembly and outdoor playtime, and usually finished with handwriting practice before lunch. The most detailed, frequent planning carried out by the staff was for the literacy and numeracy teaching, supported by the Strategy (DfEE, 1998; DfEE, 1999b) documents. The form of assessment used in reception helped to shape what was noted about children and so contributed to their forming identity. An excerpt from the reflective diary on baseline assessment in reception illustrates:

For now, interests and skills relating to, for example, constructing a model, using imagination to turn a potentially boring task (peg board) into something of interest (catching a dinosaur); problem-solving how to carry girls in a tricycle trailer and manoeuvre it in reverse into a 'parking slot'; collaborating with another child to create a very long ladder on the floor using large scale construction pieces, are all missed. Tom initiated and worked on all these today with ingenuity and involvement. In today's assessments, however, he scored nothing against all the maths items. (Reflective diary, 3.10.02)

Although the reception activities were varied, there was an emphasis on moving towards pencil and paper work and to the children recording their work. The higher achieving sets managed this, but in the lower achieving sets too, there was encouragement to record in pictures using drawing, to try to write words or letters, and to practice writing numbers. These skills, along with correctly following instructions and rules promptly and treating others with respect, were the aspects of schooling that appeared to be most valued and encouraged by the staff. Usually, each day the children could 'choose' activities from a pre-determined selection for at least part of the afternoon, but often these were also used as a means of encouraging following instructions or guidelines set by the teacher, for example, construction of a lunch box for a teddy, making an item of 'healthy food' from playdough. Self-initiated, supported, open-ended creative or investigative projects were rarely encouraged or catered for.

Those children who quickly and more readily developed (or entered reception with) the skills of counting, pencil control, phoneme/grapheme correspondence, letter formation and reading, such as Robert and George, appeared to grow in self-confidence. Robert in particular found a very secure position for himself as one of the most articulate, confident, high achieving children in the class. His success in learning snowballed into greater confidence, a developing image of himself as a successful learner and so as a child who expected to understand and be able. This encouraged him to ask for explanations, to take risks and to persevere. For those with greater difficulty in developing the required skills quickly, the reverse appeared to happen, in spite of the teacher's and Learning Support Assistant's concern. The speaking and listening skills required for successful participation in some of the most valued parts of school life (to contribute confidently, relevantly and originally in 'circle time'; to volunteer to answer questions and do so with a close match to the type of answer the teacher sought; to listen to, understand the relevance of and remember instructions so that seemingly unnecessary or 'silly' questions to the teacher were avoided) seemed to come more easily to some children than others, again contributing to the spirals of ascent or descent in the children's position in the class.

4.2.4 New or familiar?

Apart from the differences in the way in which the curriculum was delivered and the differential emphases in each setting, the assessments highlight the varied possibilities afforded from a setting *new* to the children compared to one that had become familiar. In particular, these possibilities relate to development in personal and social skills, and speaking and listening. It was clearly more difficult for some children in the early weeks or months of reception to 'Initiate interactions with familiar adults' (level 5 in social skills) when all adults, and probably many of the children, in the setting were new to the children than for children beginning their second year in pre-school amidst familiar faces. On the other hand, the level of challenge was in some respects higher in reception and, for those who were sufficiently confident, there were plentiful opportunities to 'Initiate interactions with unfamiliar adults' (level 6). The interactions in reception, however, tended to be structured and controlled by the adult to meet specific learning objectives and tended to be in large or small groups (evidenced in Chapter 5). Over the course of the year, I witnessed very few, if any,

extended conversations between an adult and one or two children. For those children who had already reached a level of competence with the style of language used in school, and could read the clues to adapt to acceptable classroom discourse (relevance, responsiveness, non-repetition, specificity, originality, conciseness), there was the opportunity to meet the challenges offered by speaking in front of the whole class, and even the whole school and invited guests, and to hone those specific skills by attention to the descriptive and carefully sequenced speech modelled by the teacher. For those who had not yet reached the same level of competence in this *type* of speaking and listening, there were very few opportunities for the type of extended, supported, child-initiated, dyadic or small group shared-experience conversations characterised by 'contingent responsiveness', which researchers such as Wells (1981) and Schaffer (1977) identified as associated with young children's language development. In some respects, the nature of discourse in the setting made it more difficult for such children to achieve this.

By contrast, in pre-school, the relatively 'safe' (less challenging, more familiar and therefore less threatening) setting allowed for more relaxed exploration of activities and resources. The routine and higher staff ratio offered more opportunities for extended conversations between adults and child/ren or between children, often based on children's interests or experiences, examples of which were captured in my recordings. But by its nature, the setting offered less opportunity for challenge with regard to coping with unfamiliar adults, presenting ideas to a group, or listening to an extended adult-led delivery and responding in the manner deemed appropriate. Carly's score for Social skills went to 6 because her mother described to me in some detail an incident in a social situation outside pre-school illustrating Carly's willingness to converse confidently with adults she had just met, an incident also recorded in the parent diary. Such situations were less frequently part of pre-school than school life. An introduction to the 'school discourse' was attempted by pre-school staff in whole-group parts of the routine, but with less well-prepared, well-resourced delivery and generally less group control, these were short and often appeared unchallenging to the older pre-school children. The higher challenges afforded by pre-school related to independent choice of activity and the negotiations necessary with other children for space, resources and friendships. There was less

opportunity for such challenges in the more structured environment of the reception classroom, though they certainly did occur.

Consolidation

What the assessment scores do not reveal is the issue of consolidation and its impact on the level or depth of children's self-confidence. In pre-school, the children did not make enormous progress in terms of assessment scores, though they did make some, but they did appear to become more secure in themselves and their achievements. There appeared to be a strengthening of their perceptions of themselves as competent children, a noticeably more relaxed, assured manner in coping with life at pre-school. This was commented on by the pre-school staff and by parents of three of the pre-school children (Stuart, Lloyd and Carly) in the diaries or second home visits. By contrast, the reception children showed much greater variation in their apparent responses. Robert's self-confidence and self-image appeared to grow and strengthen in all areas. George similarly, though to a much lesser extent, showed a more confident self by the end of the school year, referred to by his mother in the second home visit. But Paul and Tom, though initially confident with Paul showing an almost misplaced sense of confidence based on lack of awareness of others, at times through the year displayed behaviours that perhaps indicated a growing sense of themselves as not quite meeting the implicit required standards, as being less able than some of the other children. Episodes referred to in Chapters 6 and 7 illustrate (sections 6.2: 2D and 3D shapes; and 7.2.2: Tom and the number towers). Though they had progressed in some of the basic skills required to cope in school, the widening gap between them and other children of the same age did not bode well. In some ways, they were by the end of reception 'ready' to start school, though perhaps not in terms of speaking and listening skills, but instead were to be launched into Year 1 with its attached set of expectations, ostensibly a year above the confident, grounded children coming into reception from pre-school, potentially adding further to their identity as 'behind' or less able.

4.2.5 Summary of issues arising from assessment data

The assessment results have been useful in raising a number of issues: the links between the skills and dispositions the children developed over the year and the

activities available in the settings; the effect of those things which were part of the regular routine and the implicit values of the setting on children's learning; the potential outcomes of a culture of 'striving forwards' (reception) compared to that of 'consolidation' (pre-school); the possible issue of pre-requisite skills and dispositions which need to be developed to a certain level before further progress is really viable (such as confident language use, representational skills, skills of negotiation with adults and other children, self-confidence, image of self as a successful able learner); and the differential learning opportunities afforded from 'new' or 'familiar' settings. The assessment data begin to draw out not only how different settings offered different learning opportunities, but also how individual children fared within the parameters offered by those opportunities.

4.3 Children's and parents' views on learning during the year: evidence from parent diaries and final home visits.

Although each family had its own views, there was some considerable overlap between the things mothers and children emphasised with regard to children's learning from September 2002 to July 2003. In particular, social skills were emphasised, ranging from confidence in social situations, getting along with other children, growing empathy, developing relationships with family and new friends, and a growing awareness of 'world' issues such as 'children in poverty', war, health and safety, and a sense of their place in the world. Physical skills such as learning to ride a bicycle, swim independently or skipping were frequently mentioned. For the reception children, self-help skills of dressing were also noted as having improved.

Five of the eight mothers (of Henry, Stuart and Carly from pre-school; of Paul and Robert from reception) who took part in second home visits mentioned increased interest and skill relating to language and literacy, a growing interest in and competence with the spoken and written word. However, George and Robert, who showed the highest levels of recorded learning at school over the year, both reported aspects of writing as things at which they thought they were not very good. George mentioned difficulties in writing letters and Robert felt that he was poor at handwriting; both thought these were important aspects of school learning. Paul and Tom, who achieved the least recorded learning at school, drew attention to drawing

(and Tom to writing) as a significant activity which, in reception, usually formed part of literacy activities. George pinpointed the link:

'Drawing, writing words and drawing a picture. That's boring. Because it takes a long time. That's why it's boring.'

Henry, from pre-school, also reported that he was 'not so good at letters'.

Creative development emerged as an issue with varying responses. Whilst 'drawing' was seen as important in school, Robert's mother lamented his lost interest in creativity over the year.

His mother expressed some disappointment in how he had lost interest in creative things, previously a favourite activity. She attributed this to the energy required to learn to read and write, but noted that at this age, writing was a poor medium through which to express oneself as the mechanics of it were so demanding. (Audio notes, 2nd home visit to Robert).

Of the pre-school children, Stuart's mother pointed out his growing interest in painting and drawing, whilst Henry's mother emphatically made the point that he had completely lost interest in creative activities.

Three of the four reception children, Robert, George and Tom, emphasised good behaviour and not hurting other children as essential qualities for school success. Five children (Paul, Tom and George from school; Henry and Carly from pre-school) mentioned socio-dramatic or physical play as significant features of their settings.

Three of the mothers of reception children (Tom, George, Lydia) mentioned concerns about safety and supervision of the reception children in the playground over the year. The mothers of both Paul and Tom, who had made the least recorded progress over the year in reception, noted their children's tiredness. This echoes findings of the Sixth Survey of Parents of Three and Four Year Old Children (DfES, 2004a) in which parents reported the most common difficulty for children starting reception to be the length of the school day.

Table 4.3: Children's and parent's views on learning during the year from age four to five years.

Child	Mothers' views	Children's views
Pre-school		
Henry	'Bit keen to do more of a learning thing, trying to write numbers and trying to write	[Views on pre-school, 11.7.03]

	<p>letters and doing things like that.' 'Gets lots of stimulation at home' [from two sets of grandparents]</p> <p>[Pre-school is] 'a bit slow for him, bit babyish, bit repetitive' (1st home visit, 21.10.02)</p> <p>Mother discussed why Henry was not enjoying pre-school by the end of the year. They had been unable to find the exact cause, though he had been happy to go on the day she took him (usually taken by grandmother). Possible causes discussed were issues of control with grandmother, who insists on attendance, and being accidentally locked in the toilets, even though the incident had been quickly resolved.</p> <p>Changes and developments noted over the year: 'He has shown much more of a dislike of painting and making things...he loves books.' His concentration span was 'much longer than before...will stick at things longer.'</p> <p>He had become interested in phonemically segmenting words (CAT into c-a-t) orally but could not yet match phoneme to grapheme. He had also begun to ask what particular strings of letters spelt, some invented. He appeared to have gained a clear understanding that meanings could be represented in written words; words were made up of sounds that could be represented as written symbols (2nd home visit, 11.7.03).</p>	<p><i>'I think it's a bit too little for me now.'</i></p> <p>When questioned about what a new child would need to know at pre-school, Henry related the routine sequence of events, mentioning rocking seats, playdough, painting and playing with animals as main activities. The highlight for Henry was playing outside on the bikes and scooters, playing rugby, football or basketball or imaginary games such as dragons with friends outside. He demonstrated his number skills confidently and with pleasurable interest, also reciting numbers to ten in French when prompted by his mother, who said they were working on German next. With regard to literacy, he said '<i>I'm not so good at letters</i>', but mentioned that he was always writing his name, something he had recently learnt to do. (2nd home visit, 11.7.03)</p>
Stuart	<p>Parent diary entries over the year covered a wide range of noted developments and achievements including physical skills such as bike riding and swimming independently; creative development – becoming more interested in painting and colour; a sense of place – knowing the way to school and his own address; and mathematical development – writing some numbers and shape recognition. Major achievements noted by the end of the year were socialising and playing confidently with groups of children previously unknown to him or not seen for over a year, and his growing interest and skills in language and literacy. These included more interest in stories (retelling verbally accurately), in books and words (asking when he would be able to read), writing letters</p>	<p><i>'We do play but we don't learn.'</i></p> <p>[What would new child need to know about at pre-school?] '<i>Go and find the basket... and about sitting down... at song times... and sometimes we have to stand up.</i>'</p> <p>He also mentioned as significant activities painting, the see-saw, trampoline, bikes and the snack (2nd home visit, 23.6.03).</p>

	<p>especially his own name, initial phoneme recognition (playing I Spy well), and increased vocabulary.</p> <p>‘June 3rd. Bigger vocab –more interested in books. I suggested something was the same he said no its ‘similar’, that told me.’ (Parent diary)</p> <p>‘He’s definitely started to bring home paintings and things more. He’s definitely more interested in the colouring and painting now...I think he needs to channel his energy into learning now.’ (2nd home visit, 23.6.03)</p>	
Lloyd	<p>‘He rarely asks for crayons or paints, but I know he regularly does craft activities at pre-school and at the childminders, so I only do those things at home with him when he asks. He seems very good with counting and numbers. I guess he does some of this at pre-school and with his childminder.’ (Parent diary)</p> <p>‘We do, for instance, letters on cereal packets, car number plates, if we are in a queue, prices/numbers of food while shopping...I don’t sit him down and encourage him to write, I feel he has years of that ahead of him once he starts school – I just want him to have fun right now.’ (Parent diary)</p> <p>Mother emphasised Lloyd’s physical achievements and development of dispositions and social development; E.g. now able to swim, skills in gym tots, skill in riding bicycle ‘Quite skilful at that. I’ve seen him going down some quite steep hills.’ His ability to concentrate alone had developed further, as had his social skills. He was now able to get along with a wide range of children (camping holiday with 6 other families). He had learnt to offer younger children alternatives if they take his toys before reclaiming his own.(2nd home visit, 1.7.03)</p>	<p>‘I don’t know’ – wouldn’t be drawn into discussing it further.</p>
Carly	<p>Mother noted Carly had become even more socially able and confident (2nd home visit). Entries in diary gave several examples of how Carly indirectly picked up on learning that was intended more directly for her older sister and appropriated it for herself. These related to ‘spellings’, discussions about charities</p>	<p>When asked about what children do at pre-school, with prompting, Carly outlined in some detail the routine in correct sequence. In response to what pre-school was all about, the</p>

	<p>helping children in poverty (Carly gathered own items to donate unprompted four days later) and skipping. She also demonstrated understanding and memory out of context of things discussed in pre-school, e.g. applying road safety rules, commenting on life cycle of caterpillar. (Parent diary)</p>	<p>purpose, in Carly's mind, appeared synonymous with the routine tasks such as hanging up coats, doing the register and snack time. (2nd home visit, 24.6.03)</p>
Reception		
Tom	<p>'He's doing alright'. 'I think he's coped very well considering he's only four still. We've had good days and bad days. I did speak to (his teacher) 'cause I was quite concerned 'cause when (his brothers) went, they were segregated more (from older children). He does get tired.'</p> <p>'He's got ever so good...dresses himself, puts his clothes on, will pick things up. He's done really well. I know he has his moments but they all do.' (2nd home visit 15.7.03)</p>	<p>[What did you do at school?] <i>'I was a good boy. I was learning teddy bears picnic.'</i></p> <p>[What would new child need to know?]</p> <p><i>'Writing and painting and toys and going home. Not now, but their mum's not here yet.'</i></p> <p>[Important to learn at school?]</p> <p><i>'Painting, some literacy, some play on bikes, playing on the playground.'</i></p> <p>[What are you really good at?]</p> <p><i>'I was a good boy all day long. I like playing football and bats and teddy bears at my Dad's.'</i></p> <p>[What are you really good at at school?]</p> <p><i>'Tidying up the role play.'</i></p> <p>[Not so good at?]</p> <p><i>'Drawing pictures.'</i></p> <p>[Best thing about being in your class?]</p> <p><i>'Playing in the Wendy house.'</i> (10.7.03)</p>
Paul	<p>'His reading has improved. He will actually sit down now and tell me about the book. I read it first then I say 'Right, now you read it' and I point to words and he reads it fine.'</p> <p>[Enjoyed school?]</p> <p>'In the mornings, he says 'I don't want to go to school'. He'll say 'Me don't have to go to school.'</p> <p>Paul's mother mentioned that he was tired after school and, for five days out of ten,</p>	<p>[Learning at school?]</p> <p><i>'Chinese.'</i></p> <p>[What else?]</p> <p><i>'I really don't know.'</i></p> <p>[What are you really good at at school?]</p> <p><i>'Drawing.'</i></p> <p>[What are you best at drawing?]</p> <p><i>'Pictures'.</i> (10.7.03)</p>

	<p>needed to sleep as soon as he came home. His concentration was longer for things he enjoyed such as the play station or videos. His relationship with his mother had become easier:</p> <p>‘It has got easier. I mean when his Dad’s not here, it’s great.’</p> <p>At times, when both parents were there, it was more complicated. ‘He’ll say ‘Mum didn’t let me do this’ or ‘Mum didn’t let me do that’ and I think ‘Yes we have! We’ve been playing.’</p> <p>She attributed the easier relationship with Paul to being settled into one home together with just both parents (2nd home visit, 26.6.03).</p>	
George	<p>Mother commented that he had become more concerned about other people over the year. ‘He’s become more aware that it isn’t just him.’</p> <p>She felt he now showed more empathy and ‘I think he’s just got more confident himself.’ He had also become more physically able and willing to dress himself (2nd home visit, 1.7.03).</p> <p>Most of the diary entries recorded instances of George’s growing interest in people and their feelings, and in his relationships with friends and family(Parent diary).</p>	<p>[Learning at school?] <i>‘Playing in role play. Doing some work. Drawing, writing words and drawing a picture. That’s boring. Because it takes a long time. That’s why it’s boring.’</i></p> <p>[New child would need to know?] <i>‘Don’t beat people up ‘cause they might get hurt and be bleeding.’</i></p> <p>[Things he is good at in school?] <i>‘Doing my work and being in the role play and thinking about the letters.’</i></p> <p>[Not so good at in school?] <i>‘Doing some writing. I think about the letters but I don’t know how to do them. Z is hard. Letters are hard, not all of them.’</i> (10.7.03)</p>
Robert	<p>In interview, though in the context of being pleased with Robert’s happiness at school and his literacy skills progress, his mother expressed some disappointment in how he had lost interest in creative things, previously a favourite activity. She attributed this to the energy required to learn to read and write, but noted that at this age, writing was a poor medium through which to express oneself as the mechanics of it were so demanding.</p>	<p>[What do you learn about at school?] <i>‘About teddy bears.’</i></p> <p>[Most important things at school?] <i>‘Being good and be polite. Don’t hit anybody, don’t kick anybody, don’t push them over, just play with them.’</i></p> <p>[New child would need to</p>

	<p>She commented on the lack of time and child's energy available after a full day at school for socio-dramatic and outdoor play (2nd home visit, 4.7.03).</p> <p>In the diary, Robert's mother traced his transition from friendships he had had at pre-school to forming new friendships with people in his class. She noted development in his reading, number skills, and interest in the world around him, including planting in the garden and awareness of items in the news such as the SARS virus and the war with Iraq. His physical development in learning to ride a bicycle and to use the 'monkey bars' at the playground unaided were also noted. The diary expressed slightly surprised pleasure in his rate of progress (Parent diary).</p>	<p>know?]</p> <p><i>'Tell them to be good. Be polite, kind and friendly.'</i></p> <p>[Most important activity to be good at?]</p> <p><i>'Handwriting.'</i></p> <p>[Anything else?]</p> <p><i>'No.'</i></p> <p>[What are you good at at school?]</p> <p><i>'Bikes.'</i></p> <p>[Not so good at?]</p> <p><i>'Handwriting.'</i> (10.7.03)</p>
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4.4 Continuities and discontinuities in children's personal trajectories.

To explore the notion of continuity or disruption in children's trajectories further and illustrate differences or similarities, there follow details of three children from the study. The first, Paul from reception, had quickly shown less ease of transfer from home into the educational setting, with some dissonance between his ways and the ways valued and expected in school. The second, Lydia from reception, shared many ways of being with those valued in the educational setting, but equally there appeared to be some aspects which required negotiation and caused some sense of discontinuity. The third, Lloyd from pre-school, appeared to have a greater degree of continuity between home and setting and greater ease of transfer. Appendix vi includes two further illustrative examples: Tom (reception) as another example of a disrupted trajectory and George (reception), a further example of a continuous trajectory.

4.4.1 Paul

Paul lived with his mother, a postal worker, and father, a coach driver. He was trying to settle into a new pattern of home life now that his parents were living together. He had previously lived for some time with his mother and maternal grandparents in a

different part of the city. His mother explained that it had been a very unsettled period for him, during which his grandparents had been in the process of moving house with their belongings packed into boxes for an extended period. His mother felt that the insecurity had resulted in Paul refusing to eat.

I suppose in his little mind, he's been backwards and forwards, you know, don't know where to turn, 'cause when he was naughty, I would tell him off, then he would have like his granddad and it was just one horrible circle then... It was confusing for him because his father had another relationship with a woman and it didn't work out, so really when he used to take Paul over here, it was his father and another lady... and then come back. It was like fighting against another so... but our [hers and Paul's father's] relationship's been on and off for a long time. It's never been properly stable until now' (Home visit 8.11.02)

According to his mother (evidenced also by home visits, informal discussions and observations), her relationship with Paul was at times confrontational. She commented on their difficulties and was concerned about Paul's behaviour, something that had been identified as 'a problem' at nursery and quickly showed signs of being repeated in school. She thought it was in part due to his unsettled early home life and that he had to some extent been affected by her unhappiness with the previous arrangements with his father.

'Cause that's where I thought he was picking up the vibes like I was...oh, I used to get nasty... 'Oh you're going over your father's, playing happy families and when you come back here, you fight me.' But he has settled really well. It has turned out for the better, 'cause I thought I was going to have that for the rest of my life. (Home visit 8.11.02)

She had talked to his health visitor about a month before he started school about his behaviour and what she saw as 'flitting' from activity to activity. After seeing him and discussing it, the health visitor had concluded that he was 'overactive' rather than 'hyperactive'.

During my first home visit, Paul chose not to be a partial observer of my conversation with his mother, the role most other children initially adopted during the home visit, busying themselves with chosen activities close to us, joining in with the conversation at times, or taking up the mothers' or my invitations to become more involved. For some time, he was unwilling to become involved in any conversation about his home interests or to investigate the Lego or other items I had brought with me.

Understandably suspicious, he maintained a distance, but seemed intent on pursuing

activities of which he appeared to know his mother was likely to disapprove, such as throwing large items down the stairs, playing with the stereo and television controls, turning them on loudly, and finding items to bring into the room to which he knew he was usually not allowed access, such as one of his father's tools. His mother reacted with exasperation and increasing frustration.

See, this is what I've got to go through... This is where me and him do ... When he won't listen, I'll say well you will listen... With me, I tend to shout. I try to talk to him but it goes straight over his head. But his father can talk to him.

She described her feelings when he started school:

I wouldn't show it, but it hurt. Now he's not a baby. He's an infant. He shouldn't be at school because he was born a little bit early.

She hadn't considered not sending him to school at just four years because she said she hadn't known she had a choice.

His home life showed signs of order as his mother tried to establish and maintain ground rules. A box of toys was available in the front room, though most of Paul's belongings were in his room. His books were kept out of reach and packed away until his room had been decorated and a book case bought because the books were 'good ones' that his mother felt he might spoil. Instead, he had an adult close-typed hardback which his father used as a prop whilst making up stories for him at bedtime about dragons and fairies, often incorporating Paul into the stories and which Paul very much enjoyed.

His father can tell better stories... whether it's my parents didn't do it to me so I've not been able to do it a lot with him. I've never had it shown to me.

When I asked him whether he had a favourite book, Paul found and brought his Post Office Savings book to show me.

His mother commented on his interest in 'technical' items such as her camera, keys, and the car. His interests at home and at nursery had extended to construction, playdough, and particularly physical play such as riding on the bikes, sliding and climbing. According to his mother, he could count to ten at home with his parents (something he didn't demonstrate at school for some time after starting) and enjoyed asking for and watching his parents create drawings for him, though he was less keen

to try it himself. His nursery experience from the age of three had been mixed; he had been reluctant to separate from his mother initially, and then became reluctant to attend at times because he was frequently in trouble.

It got to a stage where... 'Do I have to go? It's always me getting told off.' I mean I would go up there and 'Oh, Paul's done this and Paul's done that.'

Yet it was in the way in which the relationship between Paul and his mother was embodied in interaction between them that seemed to have contributed to ways of being, doing and saying for Paul that were not translating easily into the classroom and which may have made it difficult for him to interpret the classroom ways and for others in the classroom to interpret him. His mother was clearly protective of Paul; he was always well-groomed and well-equipped for school; she held him in affection and expressed concern about him.

'He's got a heart of gold, really.'

'I wouldn't show it, but it hurt.'

'It was like yesterday morning, he didn't want to go into school. He broke his heart...he is a clingy baby.'

But their way of interacting created confusing messages from which Paul may have concluded that what was said was not necessarily what was meant and that relationships were frequently embodied in a power struggle. Her description of Paul's transition to nursery provided a clear example of mixed messages that were evident throughout the home visit, and of which the mother was aware.

I had loads of tears, yeah, [from Paul] because I think he thought to himself, where it was just, like, me, and Mum and Dad, but me mainly, and where I used to like drop him off, stay for a while, then try to get out. It's very hard. In his mind, he must have been thinking 'She's leaving me here. She's not coming back.' It's a big thing for them, you know to... But I always do let him know that I am coming for him, not going to leave him there. I mean, I know I shouldn't say, but I have said 'You're naughty boy, I'm not coming for you. I'll leave you there', so and I think that is where I've done wrong as well.

She described how he would seek out affection, attention or joint involvement with her, but then immediately and seemingly to her deliberately turn it into a situation of conflict, often leading to rejection. Paul's mother had pointed out to me the contradictions in their ways of interacting and her concern about them; they were the way they had found of dealing with the tensions in their daily lives.

Excerpts of conversation between them during the home visits (excerpts 4.11: page 103; 4.13: page 104; 4.16: page 106; 4.17: page 106) illustrate their ways of negotiating and ways in which Paul's mother directed and assisted him in carrying out the assessment task. The tone of the negotiation was frank and open and the locus of control was a contested space, as in many parent/child interactions. They were clearly used to working together to help Paul in his early writing, evidenced by their established way of the mother first writing a word in dots and then helping Paul to trace over it. The strategy was not dissimilar to the handwriting practice introduced in reception in which the children initially had to trace over pre-written letters and then try to form their own. But the tone in which the embedded struggle for control was played out, by Paul in trying to persuade his mother to guide his hand and by his mother in trying to ensure he did it on his own, and the physical aspects of the struggles were distinctly dissimilar to the usual reception class discourse, though struggles for control clearly did occur at school.

It had not been possible for the teacher and LSA to arrange a routine home visit with Paul's family. Staff and parents had had a meeting at school and the parents were keen to attend parent's evenings. However, details of Paul's early home and nursery experiences remained largely unknown to the reception staff. On starting reception, it was Paul's social behaviour at the outset of school that was his most distinctive feature. Although not fully visible in his baseline assessment, it was a prominent part of the staff's and other children's perceptions of him in school. His social behaviour, together with other people's perceptions of him, appeared to be the feature which contributed most to his emerging school identity. He quickly developed several characteristic ways of behaving in school, perhaps based on his experience and understanding of the world. He was physically aggressive, negotiated for resources through force and would deliberately inflict pain or destroy other children's work for no apparent reason other than to get a reaction. For example, I observed the children changing for PE in the classroom; Paul spent time looking out for children with bare feet, then stamping on their toes whilst he was still wearing shoes, appearing pleased with the upset caused.

10.55am: Changing for PE. Paul is angry at having 'time out' [sat on a chair for five minutes as punishment for bad behaviour] and takes every opportunity to push other children's bags, take their T-shirts to show his anger. Paul now just standing – not getting ready for PE.

11.03am: Begins to get things out of bag. Brushes his plimsoll. He deliberately stands on toes of 2 children with his shoes to hurt them. Tom says 'That's not kind.'[.....]

On the way back from PE, Paul pushes Meg several times and hurts her arm against a coat peg. She is very upset and takes some time to calm down. She wants to go home and tell her mother. Paul is told off, but spends the rest of changing time goading other children – hiding their clothes, hitting George. He does not get changed at all. (Field notes 22.11.02).

On the other hand, he sometimes noticed other children's distress when he had not caused it and, unprompted, would be gentle and sympathetic. This was noted in observation several times and commented on in the early days by the LSA, too.

Paul demanded resources, space, or attention repeatedly and, in the context of what quickly became the usual and accepted classroom interaction, inappropriately. He frequently called out 'And me' as the teacher tried to allocate activities or invite children to participate. According to the teacher and LSA, he frequently rejected adults' attempts at appropriate and respectful affection and attention towards him, becoming silent or uncooperative. He would at times destroy the products of time spent with him by an adult, for example screwing up a paper aeroplane I had made with him with his seemingly pleasurable cooperation, scribbling out work or breaking up constructions. Unsurprisingly, for staff with limited time and innumerable demands upon it, these characteristics conspired against easily forming good relationships with Paul, in spite of the fact that they probably indicated a deep need for just that.

I noticed a pattern emerging in which Paul would be reprimanded for breaking the rules of 'acceptable' school behaviour, such as sitting quietly on the floor in whole school assemblies (with over 200 children), lasting fifteen to twenty minutes. This would lead to anger or frustration on his part, in turn leading to physical aggression against other children, followed by more severe reprimands. Entries in the reflective diary from November 2002 to May 2003 note the same pattern.

Note pattern again today as Paul became very difficult and got into trouble following incident when T was displeased with his efforts at handwriting. He had concentrated very well and worked hard on the drawing and writing (small group literacy). He had drawn a passable picture, written his name and used the phonic/alphabet card, which he finds quite difficult, to write some words about his picture. He had been supported by T in doing this, but it had been right at the outer edge of his zpd for quite an extended period and had

required a lot of mental effort. This was followed immediately by handwriting practice in his book, again in a small group led by T and, for Paul who finds pencil control of the kind needed to form cursive letters quite difficult, was again demanding of mental effort and physical control. He was not overly cooperative and the teacher felt annoyed with him, saying to me he just 'couldn't be bothered'... He was made to stay behind to do a bit more handwriting practice after others were sent into lunch. He attempted to kick a child waiting to go into lunch as he sat at the handwriting table...LSA later reported that he had spent most of his lunchtime in the head teacher's office, having hurt other children. In discussion later, T said in retrospect she felt he was not really ready to start on handwriting. (Reflective diary 15.5.03).

Yet by the end of his reception year, there had been some positive changes for Paul at home. In the second home visit (26.6.03), the relationship between Paul and his mother was noticeably more relaxed. His mother commented on the improvement in their relationship and suggested that Paul was now feeling more settled about family life.

4.4.2 Lydia

Lydia lived at home with her parents, a doctor and an arts fundraiser, and a sister two years older. Her mother worked and studied part time so, prior to starting school, Lydia had attended a day nursery for three days a week. She had also spent a morning a week at the local pre-school to enable her to get to know some of the children with whom she would start school. Her mother described Lydia's interests at home as drawing, spending hours painting, 'making a mess', cooking – 'usually naked with an apron', and dressing up. Together, the sisters liked making things out of big cardboard boxes, using household furnishings and toys as props for their make believe play with the cardboard creations. Lydia also enjoyed asking for words to be written for her and attempting to copy them. Her mother said the things that Lydia didn't enjoy were to do with tidying up and personal hygiene; she related an example of the way in which Lydia had negotiated these with her parents.

Listen, I'm four. I'm not Emily (her older sister). If I don't want to wipe my bottom, someone else will have to do it for me.

At nursery, her favourite activities were being read to, using the computer, painting, drawing and craft. Her mother couldn't think of anything she hadn't enjoyed. With regard to Lydia's strengths, her mother was unhesitating:

She's a fairly well-adjusted person, really, very reasonable... If something makes sense and you explain why, then she'll go along with it... She has an ability to empathise and understand other people's feelings. She'll mediate in the usual family rows.

With regard to her weaker areas, as mentioned earlier, these were something Lydia's mother felt did not warrant attention.

Although she felt that Lydia was able to cope with school, her mother didn't 'like the fact that they start school at just turned four.' Her biggest concern was what she saw as an inadequate level of supervision for the children in the playground. She felt that this, added to the lack of adequate physical barriers to prevent anyone entering or leaving the premises, was cause for serious concern in a way that hadn't been the case at nursery or pre-school. She also felt that conflicts were likely to occur between the older and younger children in the playground. In spite of these concerns, Lydia's mother felt that Lydia was coping well with being at school full-time. Her mother was not concerned that the children would be pushed too hard or 'made to feel stressed about learning'. She said that she couldn't realistically have considered delaying Lydia's entry to school because of the danger of losing a place, of Lydia being 'held back', or feeling different to her peers.

In considering Lydia's initial baseline assessment by the teacher, Lydia was judged to be very similar to Paul and Tom in some aspects of scoring, yet she appeared to have a range of quite different skills. Her ability to become thoroughly involved in her activities and to concentrate for extended periods, persevering in her goal of achieving whatever she had set her mind to, was very noticeable as was her assertive though polite way of trying to defend her right to complete a task or to source precisely the assistance she needed. Whilst in many ways these appear to be attributes associated with maturity and successful learning, they did not necessarily fit well with the classroom ethos of time slots, tidying away at a moment's notice to be ready for the next thing, or complying unquestioningly with the teacher's requests or directions.

This dissonance contributed to Lydia's emerging identity in the classroom amongst staff of someone whose personal and social skills were not yet well developed, leading the teacher to comment in informal conversation with me that Lydia was

‘very egotistical still’. Yet her identity in the classroom was at odds with her mother’s assessment of her as someone whose main strength lay in her reasonableness and her empathetic and intuitive nature with regard to personal relationships. Her mother also referred to her creativity and immersion in fantasy worlds, in her joy in painting and describing her paintings, in creating objects and ‘worlds’ from cardboard boxes and household items. Her sense of ownership and pride in her creations in school had at times been threatened and led to displays of emotion, further contributing to her emerging identity as emotionally less mature and ‘egotistical’. This had been particularly true with non-permanent creations in school such as whiteboard drawings, carefully and painstakingly executed only to be rubbed off by another child, and constructions broken up at ‘tidy up time’. At home, Lydia had been used to an environment in which she could readily draw upon a full range of resources to fulfil or develop her goals, in which she was listened to and her opinion valued, and in which she was given the freedom to become fully immersed in her activities. She was, however, also used to participating in group education/care settings and having to follow a weekly routine.

There had been times when aspects of her earlier experiences and associated skills and interests had not transferred easily to the school classroom, though her enthusiasm and eagerness to learn had. In part, the evolution of her identity over the year and the link between it and her learning trajectory appeared to be influenced by the positive perceptions staff held of Lydia’s family, the good relationship formed between the family and school, and by the close match between her academic skills and those with high currency in school. Unfortunately, a family tragedy struck mid way through the year, causing Lydia to leave the area at fairly short notice.

4.4.3 Lloyd

Lloyd lived with his mother, who worked three days a week as an administrator. He was looked after by a childminder on those days, who took him to pre-school on two mornings. On the other two days, Lloyd and his mother had established a routine of activities, gym and swimming, shared with a small group of friends including children of the same age.

Lloyd's mother described Lloyd's strengths primarily in terms of his physical abilities, 'He's quite well-balanced and athletic, I'd say. He's going to be one of those lads who's quite good at sports.' She also, however, noted his personal and emotional characteristics.

'I think his strengths are in his sporting activities but also in his determination. He's very determined. He just doesn't give up...He's got quite a balanced nature and he's quite intricate with his hands as well.'

His interests were similarly linked to physical play, 'charging round the place, climbing, running, jumping', and to construction and an interest in trains (interview with mother, home visit 24.10.02). When asked if there was anything Lloyd wasn't particularly good at or that she had concerns about, she suggested that his writing could be of a higher standard. He could, however, write his name and she related a recent incident in which he had begun to copy words, unprompted, quite accurately.

During the first home visit, Lloyd was deeply engrossed in building with Lego, one of his favourite activities at home, and he frequently sought specific assistance from his mother. The ways in which Lloyd and his mother interacted, both in the asides relating to the Lego construction and when carrying out the assessment tasks, seemed to exemplify the style of interaction also evident between Robert, Carly, George, and to some extent Henry and their mothers. Excerpts 4.10 and 4.12 from the construction used previously illustrate the ways in which Lloyd initiated joint involvement with his mother and how he used her as a resource and support. I comment on the task related interaction below.

Solving problems together when building with Lego

Lloyd: Oh, Mum, I can't do this. I dunno why.
Mother: I don't think that piece is the right piece there, is it?
Lloyd: What piece is it, then?
Mother: I think we need um...it's a funny shape, that piece.
Lloyd: It's been run over.
Mother: Has it? Ahh...oh, I don't know. I'll have to have a look at that. I don't think it's been run over, Lloyd.
Lloyd: Yeah, look. It's going down.
Mother: Is it not meant to go down?
Lloyd: No.
Mother: It's meant to be flat, is it?
Lloyd: Yeah.

Lloyd's choice of words and the tone in which they were said suggested that he was used to carrying out activities jointly with his mother and problem solving through his interaction with her. Between them, they had strategies for tackling goals. Lloyd's initial exclamation was not just an expression of frustration, but a search for the reason and solution. Together, they thought about the likely cause of the problem. Lloyd's contributions to the exchange were treated as equally valid to his mother's. What was lost in the audio recording and simple form of transcription I am using here was the way in which the tone of the interaction and their facial expressions and actions, carefully examining the piece of Lego and looking at it closely together, indicated calm, focused, joint attention. The episode was very reminiscent of the 'exploratory talk' identified by Mercer (1995:104). It was the type of adult with child interaction that transferred well into the sub-culture of pedagogy of the pre-school where, particularly for a child willing to initiate such exchanges, an adult with the time and inclination to participate was often likely to be found, at least during the main 'free choice' part of the morning. Whether there was always something *worthy* of such exploratory talk is of course another matter, but it is important to note that the potential level of interest, involvement and challenge were factors in determining the style of interaction.

Lloyd's mother was pleased with his achievements over the year and felt that the year at pre-school had allowed for him to participate in things that interested him, to learn new skills and strengthen those already forming, some at pre-school and some in activities with her outside the setting. He had time to learn to swim. He developed increasing confidence and skill in the gym to the point of his gym teachers' commenting on his exceptional ability compared to his peers. He had developed a friendship which would help to carry him over the threshold from pre-school to school as both boys were to be in the same class. Although different in character, they shared similar interests and complemented each other's ways of interacting. Lloyd had gained a clearer understanding of number concepts and in the manipulation of physical objects in relation to connotations of number. He had developed skills of logic, ordering and sequencing. These had not yet extended into making the connection between the concept of number and number symbols over 10. However, his underlying understanding based on purposeful, 'real-world' activities would probably quickly translate into the recognition and manipulation of larger number

symbols once they were introduced, presumably at school. Lloyd had shown some increase in his confidence. He had shown further development of his construction skills, on which he spent a considerable amount of time at home and in pre-school, particularly related to problem-solving, mathematical regularity, and in his goal-oriented behaviour, none of which were really reflected in the assessments. He displayed increasing perseverance and concentration over and above that displayed by his peers, commented on by staff and his mother.

His home life, although centred on a firm, warm, solid relationship with his mother and extended into a network of long-standing, like-minded family friends, had included some emotional ups and downs to do with his mother's partner. These, according to his mother, resulted in Lloyd becoming insecure and emotionally demanding at home for a while (informal discussions with mother). However, the signs of temporary insecurity had not translated into similar behaviour at pre-school. Lloyd has throughout the year appeared settled, calm, confident, self-assured and interested in his activities. Perhaps the by then familiar and, for him, undemanding atmosphere of pre-school had provided him with an extra raft of stability.

Lloyd was an adept and confident user of language. His speech at home and at pre-school was clear, precise and descriptive. He had shown on several occasions his ability to modify his speech to take account of the listener's needs (for example, whilst deeply involved with three other boys in the playground in a very exciting fantasy about a dragon behind the pre-school building, he momentarily suspended his involvement to explain to me that there wasn't really a dragon). He spoke with confidence to familiar adults, showing he knew how to use the adults as a resource, again a skill that translated well into the pre-school pedagogy. He conversed fairly readily to unfamiliar children according to his mother, but had not yet transferred this skill to unfamiliar adults with whom he was initially shy. All of these provided a potentially good grounding for future language and literacy development. However, his grasp of the surface qualities of speech, which have been shown to ease the understanding of how speech translates into written language (Bryant and Bradley, 1985), was less well-developed. His grapheme recognition was limited to the names of the letters, which, although in itself useful, did not readily assist with understanding the translation of speech into writing. In the phonics assessment I carried out in pre-

school, his recognition of syllables in words was very good, but his ability to recognise and match spoken rhyming words was not. His reaction to his lack of success in this, in spite of my concerted attempts to conceal it, was noteworthy. He withdrew his efforts, something I had not seen him do before with other seemingly difficult problems, but which were perhaps in the more familiar territory of number and construction problems. He may have reacted to the 'tone' of assessment in the interaction, however much I tried to shield it and provide support. Assessment was not something that entered into routine pre-school interaction and Lloyd would, I feel, have been astute enough to detect the difference. This could potentially have presented a substantial challenge to him on entry to school in September 2003 where assessment appeared to be a very routine form of interaction between adults and children. Its impact on Lloyd's self-assurance and willingness to take risks, with the potential consequent impact on his identity, was quite alarming, though not entirely unexpected. For now, though, his learning trajectory between home and pre-school had appeared continuous with each building on and enhancing the other.

4.5 Summary and conclusion

Each child entered the educational settings with different strengths, interests, weaknesses and dislikes and with distinct ways of interacting in the home, of tackling tasks, of taking part in relationships with others. For some children (Lloyd, George, Robert and Carly), these beginnings matched well the discourses, ways of tackling tasks and the ways of managing relationships that they found in the educational settings. For others (Stuart, Henry and Lydia), there were some areas of clear match, but also some areas of dissonance, requiring a level of adjustment and re-reading of situations. For yet others (Paul and Tom), the educational settings presented more of a dissonance, experienced as disruptors in the children's learning trajectories and requiring considerable adjustment and effort to make sense of and participate in the educational setting.

In pre-school, the children whose beginnings matched less well with the setting's ethos still fared reasonably well in terms of learning outcomes, Stuart making the most progress of all the pre-school children. The learning outcomes, as measured by the assessments, reduced in range amongst the pre-school sample by the end of the

year. The pre-school children had collectively developed an identity of being 'ready for school' and were reported as such by the practitioners and mothers. For two children, Carly and Henry, this was also associated by the mothers with the children having been insufficiently challenged in pre-school by the end of the year. However, clearly the degrees of 'mismatch' or dissonance for the pre-school children were less extreme compared to those experienced by some of the reception sample children.

In reception, those who experienced the greatest mismatch, Paul and Tom, made considerably less progress than the other reception children. George and particularly Robert made considerable progress and seemed to experience reception as more of a continuation. The children's learning outcomes were reflected in their growing identities in reception as school learners: the teacher said of Paul and Tom, in conversation to me on 21.1.03 when they were just 4 years 5 months old, that they 'will always be behind now' (nonetheless, prompting concerted efforts by the staff to attempt to ensure their progress, reported in more detail in Chapters 6 and 7), whilst George and Robert grew in self confidence. In Robert's case, with a developing positive identity as a successful learner, we will see in Chapter 7 how he was able to employ agency and negotiate some aspects of his place in reception.

Dreier (2002) points out the importance of viewing leaning as wider than participation in education, a more encompassing view of learning as participation in different activities: 'learning trajectories reach far beyond the trajectories arranged within the institution' (page 5). The parent diaries and conversations with mothers about their views on their children's learning over the year echoed this. They emphasised social and physical skills gained in relationships and activities with families and friends, one or two lamenting the lack of children's time and energy for wider interests once in full-time education. This raises the question of the value of local or national government associating young children's early years education with full-time 'schooling'. I now turn to look at the detail of how the learning opportunities in the settings were enacted in the interactions entered into by the children and adults. How was the learning played out day by day?

Chapter 5

Patterns of interaction

The purpose of this chapter is to map out the landscape of routine interactions between children, and adults and children, in the two settings. In Chapters 6 and 7, I then move on to examine the detail of episodes of teaching and learning more closely. This chapter provides the opportunity to locate those selected episodes in the landscape.

To examine the interactions between staff and children in the two settings, recordings over several unremarkable days, targeting either staff or individual children, were selected for analysis from winter and spring of 2002/2003. The data selected for staff interactions, where the aim was to record members of staff rather than target children, included 300 minutes of video recording, supplemented by audio recording, excluding outdoor playtime. The data selected for individual children's interactions were from two days' recording per child, giving 1700 minutes of recorded, analysed interaction with a mean of 165 minutes per child. Using detailed notes and by frequently revisiting the recordings, the interactions were categorised according to taxonomies developed from the data during Stage 1 and early in Stage 2 of the study, influenced by previous research as outlined in Chapter 3, section 3.4.2. The taxonomies for staff to children interactions and for children's interactions are shown in Appendices iv and v. Categories were ascribed to an interaction according to its function every minute or every time the function changed, whichever was the shortest interval. Interactions, many of which were non-verbal, were often multi-faceted with the precise function differing for different members of the 'audience'. I have attempted to represent them by allocating two or more categories to an interaction wherever necessary. The categories are not mutually exclusive, but can coexist. For example, a child involved in parallel activity alongside another child might also be selecting and using resources to achieve own goals. The coding undoubtedly does not truly reflect all of the nuances and complexities of interactions; they are addressed more fully in Chapters 6 and 7. With regard to validity, the 'typical' nature of the selected days was confirmed by staff and the taxonomies of categories were presented to the staff for comments during their development. For reliability, the coding of recordings was tested

independently by two experienced researchers against a video excerpt and transcription. A high level of agreement was reached (around 70% and 90%) and ensuing discussion led to the refinement of one or two categories. In Appendix vii, the coding of the beginning of the transcription has been included to demonstrate the method.

I begin in section 1 by examining how staff usually interacted with children in the two settings and what can be concluded from the evident patterns. In reception, with only two members of staff and much of the time spent in teacher to whole class interaction, my sample recordings probably gave a fairly accurate reflection of the adult (teacher and LSA) to child interactions happening in a usual day, though missing any simultaneous interactions. In pre-school, however, with five members of staff and most of the time spent in small groups, whilst I included four different members of staff in the recordings, I was clearly missing numerous simultaneous interactions going on in other small groups around the room. Nonetheless, having spent over a year in the settings, I feel confident that whilst the data presented here may underplay the *quantity* of interactions, they do accurately represent the style and pattern of interactions. In section 2, I then turn to look at what the children made of the differing interactive experiences and opportunities in each setting, beginning with collective experiences in each setting and moving on to explore how individual children's patterns differed.

5.1 Staff interactions with children

The data presented here are comprised of 120 minutes of video/audio recording in pre-school with 280 categories ascribed to the recordings, and 155 minutes in reception with 340 categories ascribed. The recordings were taken from two days in each setting, both in January and May 2003. The analysis moves from the focus of interactions into categories based on the domain of the interactions, and then into narrower, specific types or functions of interactions within the domains. Table 5.1 illustrates the categories, each of which is described in more detail in Appendix iv.

5.1.1 Description of the data

Differences between the two settings are immediately clear (Figures 5.1 and 5.2), echoing differences found in the typical daily timetables of each (see Appendix ii, section ii.2). The vast majority of pre-school staff interactions with children (61%) took place in small groups, with only 26% occurring in the large group. The majority of interactions in reception took place in the whole group (49%), with only 32% occurring in small groups. Interactions between an adult and only one child were rarer in both: 13% for pre-school and 19% for school in the samples analysed.

Figure 5.1
Pre-school staff interactions with children
15.1.03; 14.5.03

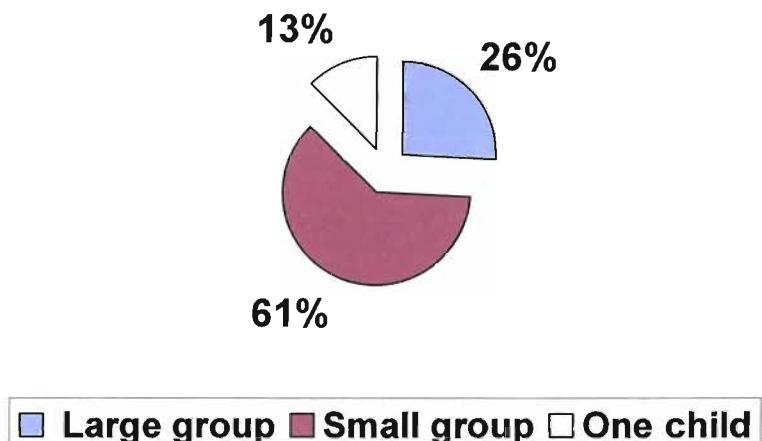


Table 5.1
Staff interactions with children: outline of taxonomy

<u>Focus</u>	<u>Domain</u>	<u>Specific type/function</u>
Adult to large group	Cognitive/monitoring & maintenance	<ul style="list-style-type: none"> Instructs/ explains/ disciplines Maintains routines Assesses (Re)focuses child/ren's attention
	Cognitive	<ul style="list-style-type: none"> Stimulates - extends Stimulates - enriches/ informs Stimulates - explores Stimulates - reinforces/ reflects Stimulates – practises
	Cognitive/social	<ul style="list-style-type: none"> Models desired actions or speech Initiates joint-involvement Absorbed in joint activity with child Enables (offers or responds to request)
	Social cognitive	<ul style="list-style-type: none"> Encourages Concern for child/ren's well-being Initiates conversation Responds to child initiated conversation.
Adult to small group	Cognitive/monitoring & maintenance	<ul style="list-style-type: none"> Instructs/ explains/ disciplines Maintains routines Assesses (Re)focuses child/ren's attention
	Cognitive	<ul style="list-style-type: none"> Stimulates - extends Stimulates - enriches/ informs Stimulates - explores Stimulates - reinforces/ reflects Stimulates – practises
	Cognitive/social	<ul style="list-style-type: none"> Models desired actions or speech Initiates joint-involvement Absorbed in joint activity with child Enables (offers or responds to request)
	Social cognitive	<ul style="list-style-type: none"> Encourages Concern for child/ren's well-being Initiates conversation Responds to child initiated conversation.
Adult to one child	Cognitive/monitoring & maintenance	<ul style="list-style-type: none"> Instructs/ explains/ disciplines Maintains routines Assesses (Re)focuses child/ren's attention
	Cognitive	<ul style="list-style-type: none"> Stimulates - extends Stimulates - enriches/ informs Stimulates - explores Stimulates - reinforces/ reflects Stimulates – practises
	Cognitive/social	<ul style="list-style-type: none"> Models desired actions or speech Initiates joint-involvement Absorbed in joint activity with child Enables (offers or responds to request)
	Social cognitive	<ul style="list-style-type: none"> Encourages Concern for child/ren's well-being Initiates conversation Responds to child initiated conversation.

Figure 5.2
**Reception staff interactions with children 23.1.03;
8.5.03**

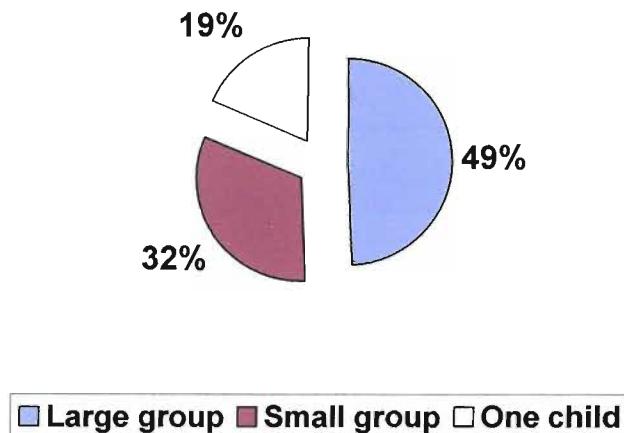


Figure 5.3 illustrates the contrast between the two settings with regard to staff to child interactions by sub-dividing the focus of interactions into the domains of cognitive/monitoring/maintenance, cognitive, cognitive/social, and social/cognitive. The composition of each of these domains is shown in Table 5.1 and Figure 5.4, where they are sub-divided further into specific types of interactions.

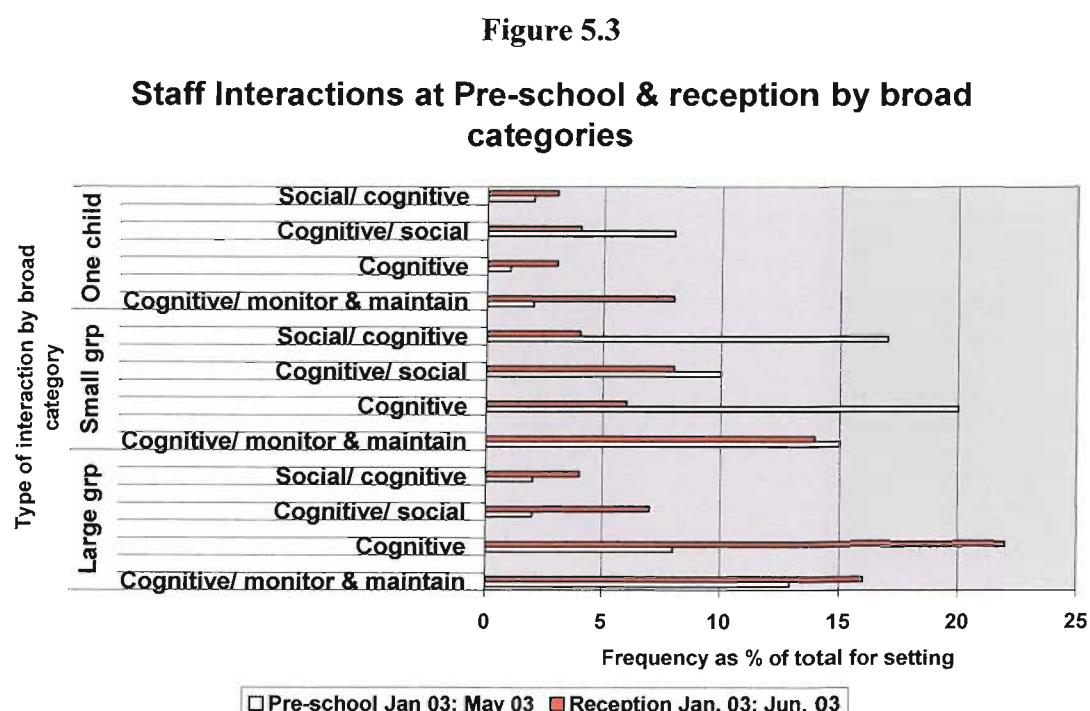
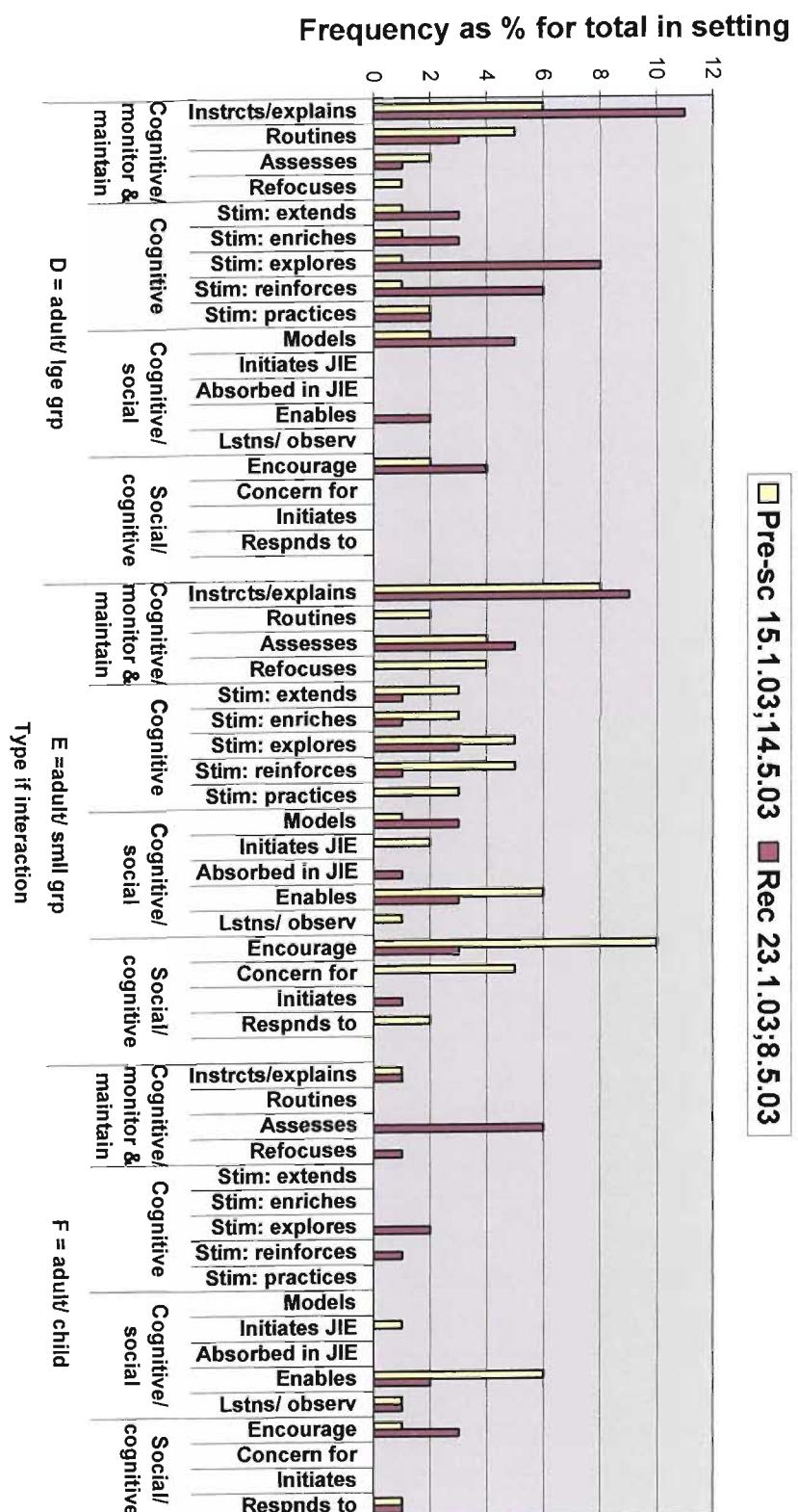


Figure 5.4

Staff interactions with children at pre-school (15.0.03; 14.5.03) and reception (23.1.03; 8.5.03)

□ Pre-sc 15.1.03;14.5.03 ■ Rec 23.1.03;8.5.03



In Figure 5.4, we see that pre-school staff interactions were dominated by those in the cognitive domain, which were fairly evenly spread across the range of types of stimulation, led slightly by exploring and reinforcing, and the social/cognitive domain, especially encouraging, followed by concern for well-being. These were closely followed by cognitive/monitoring/maintenance, especially instructing, and a sizeable proportion of cognitive/social interactions, especially enabling, all with small groups. Pre-school staff interactions in large groups were dominated by those in the cognitive/monitoring/maintenance domain, especially instructing/explaining and routine maintenance, with some cognitive interactions. Pre-school staff interactions with children alone were characterised by cognitive/social interactions, mainly enabling.

Reception staff interactions with children were dominated by cognitive interactions, particularly exploring and reinforcing, and those in the cognitive/monitoring/maintenance domain, particularly instructing and explaining, both in large groups. Modelling in large groups, part of the cognitive/social domain, was also a prominent feature of reception staff interactions.

Cognitive/monitoring/maintenance interactions in small groups were comprised mainly of instructing/explaining and assessing. With interactions between staff and a child alone, those of the reception staff were dominated by cognitive/monitoring/maintenance, comprised almost entirely of assessing. In reception, the one to one time with an adult was a time for focused assessment and adult directed learning based on the performance of tasks. How well a child felt he or she did in the tasks could therefore be a very prominent feature of the child's one to one time with staff, influential in building the child's relationships with the staff, and could contribute to identity in the classroom. In addition to the adult's assessment, children are known to form evaluations of their own skills in relation to those of their peers (for example, Hartley, 1986) Adult-led, explicitly assessment-orientated interactions are therefore likely to highlight and potentially exacerbate the perceived gradation of pupils' abilities in relation to school work. Figure 5.4 shows there were also instances of encouragement, exploration and enabling in one to one interactions.

Table 5.2 shows the most frequent types of specific interaction from staff to children occurring in each setting and serves as a useful summary of the data presented. It shows how, from a range of 54 possible specific types of staff to child interactions in the taxonomy, only 7 or 8 in each setting comprised half of all adult interactions with children in the sample days, thus characterising the realisation of this part of the pedagogy. In pre-school, note how these types of interactions allowed 'space' for the children's own agendas. They tended to be supportive of the children's attempts and initiatives, allowing for the children's empowerment and self-control rather than adult-located power and control. By contrast, there was less space in the interactions typical of reception for the child to exercise power, control or initiative.

Table 5.2
Most frequently occurring specific types of staff to child interactions
(in descending order)

Pre-school		Reception	
Encourage	small grp	Instruct / explain	large grp
Instruct / explain	small grp	Instruct / explain	small grp
Enable	small grp	Explore	large grp
Enable	1:1	Reinforce	large grp
Instruct / explain	large grp	Assess	1:1
<i>Explore</i>	<i>small</i>	<i>Model</i>	<i>large</i>
<i>Reinforce</i>	<i>small</i>	<i>Assess</i>	<i>small</i>
<i>Concern for well-being</i>	<i>small</i>		
= 51% of interactions		= 50% of interactions	

5.1.2 What can be concluded from the evident patterns of staff interactions with children?

Pre-school

In pre-school, the interactive space involved a more balanced division of control with the adults adopting a supportive, enabling and exploratory role in interactions with the children, the most frequently occurring types of specific interaction being encouraging, enabling, concern for well-being, practicing, refocusing and routine maintenance (Table 5.2). Most were in small groups with control shared between adult and child and showed cyclical sequences: encourage, explain, enable, explore, reinforce, encourage. There were instances of conversations, one to one and in small groups, extending across time as staff became involved with small parts of the

children's individual personal histories. They became links between the children's home lives and their relationships with staff in pre-school, providing platforms for exploratory and enriching conversations (see Episode 1 in Chapter 6, section 6.1 as an example).

Yet at pre-school, where the control was more frequently shared with the children than in reception, came the possibility of children either escaping such conversations at all, or going only as far as they were able or willing to do as they shared in steering the agenda. Jones (2003) describes how in school-based education, shown in policy changes in the late 1980s, 1990s and taken forward in the 2000s, a way of attempting to address such issues (though with arguably differing motivations) was to have an explicit curriculum delivered to all children at once: whole class teaching of specific, prescribed learning objectives. Certainly in pre-school, there was much less evidence of this approach having had any influence; whole group interactions tended to be a necessary routine rather than a rich ground for exploration, extension, enriching, modelling and explaining. The realisation of such an approach in pre-school was made more difficult by the inclusion of children as young as barely three years, perhaps requiring an even higher level of dramatic interactive performance and 'capturing' (Woods 1986:202) of interest to maintain a whole group input. Or perhaps whole group inputs were simply inappropriate, requiring instead some grouping of children according to age or willingness to participate in larger groups.

Reception

In reception, the interactive space was dominated and led by the adults, leaving little space for children to initiate or share control. Instructing/explaining, assessing, exploring and modelling were the most frequently occurring types of interaction (Table 5.2). Children contributed to this, but the vast majority of the days' interactions in class were framed by the adults, many in teacher to whole group situations, and to a lesser extent in small groups, as found in previous research (for example Willes, 1983; Wood, 1986; Orchard, 1996). As Woods neatly summarised in 1986, applying equally well to evidence in this study, '*The role played by children in teaching-learning encounters is fundamentally constrained by the way in which teachers manipulate control*' (1986:202). Nias (1993) points to the occupational importance of being in control in teaching: good teaching means good classroom control.

The cognitive domain interactions in large groups in reception were very rich in terms of explanation, exploration (led by the teacher), reinforcing and modelling. There were undoubtedly some excellent examples of performance (and they really were delightful performances at times) by the staff in these episodes. But where should the teacher pitch such interactive performances? Differentiation was planned for and practiced as far as was possible in a group of two adults to 24 children, as specified in the National Literacy Strategy (DEE, 1998) and National Numeracy Strategy (DEE, 1999a) and evidenced in the daily planning sheets, written information between teacher and LSA and referred to in interview (20.2.03), as well as being clear from the observations. But if the language and style of interaction were themselves very different to some children's experiences, as seemed to have been the case, then such differentiation offered little opportunity for inter-subjectivity. The teacher appeared to recognise this and attempted to compensate for it, as is the case in many Key Stage 1 classrooms, by using the LSA to support those children with difficulties during the whole class input. At times, this appeared to be helpful. At others, especially early on, it appeared to be confusing to the child and increased difficulty in understanding the concepts, language and train of explanation to which the child was supposed to be attending. For example, during one numeracy session whilst sitting on the mat amongst the other children, Tom appeared to struggle to listen to the teacher's lively interactive delivery of counting from 10 to 0, using a rocket outline and 'countdown' format, while at the same time trying to comply with the LSA's one-to-one directions and persuasions (as the LSA had been instructed by the teacher) to engage him in a counting exercise from 1 to 5 using number cards and multilink. Removing such children from the whole group session to be taught separately by the LSA was recognised by the teacher as a poor option, too, because of its divisive nature and the fact that it reduced further the 'weaker' children's time with the teacher, although this option was taken at times as being the best in the circumstances.

Perhaps it serves to illustrate the limitations of the whole class input method. This was not simply an individual teacher choice, but a feature of the current ethos of educational policy and directives in school, referred to by Jones (2003), a feature which is perhaps less than appropriate for the education of all four year olds.

The interactive space available for one to one working, undeniably limited in a class of two adults to 24 children, was largely used for assessment and monitoring of one kind or another; these were not necessarily explicit assessments, but certainly had assessment as the driving force of the interaction. Again, the need to carry out such assessments was part of the school ethos. The successful identity of the teacher depended on having detailed up-to-date-records, knowing the ‘level’ of each of her pupils in relation to national attainment targets, knowing the amount of progress they had made, and on being able to target-set for individuals or groups to ensure their attainment (interview 20.2.03 and other informal conversations recorded in field notes and reflective diary). All these crowd out time for more open-ended conversation and child-initiated discussion, in small groups or one to one. Instead, the development of conversation and shared ideas over time tended to occur in and be based on whole class episodes. They involved the development of a shared class identity, a shared history based on the school agenda (evidenced in more detail in Chapter 7, section 7.2.1). They did not focus on links with children’s individual or home lives, though these were at times brought into the collective forum in so far as they fitted with the current learning objective (for example, where the children went on holiday, what they did at Christmas). Whilst this may be an effective means of driving on achievements according to the set criteria for older children or children more attuned to school ways, I argue that evidence in this study suggests it is far from effective in helping all young children to develop the skills and attributes necessary for induction into successful learning careers in school, unless they already have a good grounding in them.

What would children make of such differing interactive experiences and opportunities afforded by the two settings? It is possible to see how a child who was confident, articulate, shared a high level of match between the school and home language, interaction and relationship patterns, and between the school organisation and learning agenda and those of home, could make use of the experiences and inputs offered at school. Such a child may be more likely to understand and be familiar with the style of instruction and explanation, thereby making it easier to concentrate and respond appropriately. Such a child may have less need to talk at an individual level about topics of significance from home experiences to create links to school experiences, enabling understanding to grow, because the school experiences and

examples would be sufficiently close to home to allow recognition. Such a child would recognise familiarity in the relationships between adults and children at school and in the acceptable ways of addressing each other, making compliance easier. For a child at the opposite end of the spectrum, there was very little opportunity in reception for negotiating entry or finding support in the routine school day interactions to make sense of the ‘new’ world by beginning with interactions based in the child’s world.

At pre-school, a confident articulate child might be able to draw on the interactive resources offered by the staff to support his or her own learning, but may find less in the way of explanation, instruction and modelling to shed light on *new* possibilities and agendas. The child who was less confident, less articulate or had a lower level of match between educational and home cultures may find more interactive space for negotiated entry, more opportunities for interactions based closer to their individual experiences and so a potentially easier route into the culture of the setting. It begins to be possible to explain how the pre-school pedagogy created a levelling effect in terms of children’s learning outcomes, and how the reception pedagogy appeared to exacerbate the initial differences between children, crystallising them into learning trajectories with widely differing arcs and rates of progress. I turn now to look at what the sample children made of such differing interactive experiences and opportunities afforded in each setting.

5.2 Patterns of children’s interactions

The data presented here, comprised of two selected recordings per child, are detailed in Table 5.3. Again, the analysis begins with the focus of interactions, which are then sub-divided into broad categories and further sub-divided into specific types or functions. These are illustrated in Table 5.4 and described in more detail in Appendix v.

Table 5.3
Children’s interactions: data set

	Name	Date of recording	Video/audio recording analysed (in minutes)	Categories ascribed (no.)
Pre-school	Stuart	8.1.03	54	68
		30.4.03	90	143
	Henry	11.12.02	89	180
		9.4.03	85	160

	Molly	5.12.02	98	135
		13.2.03	65	91
	Lloyd	5.2.03	53	126
		21.5.03	70	123
	Carly	22.1.03	67	102
		7.5.03	69	136
Pre-sch total			740	1264
Reception	Tom	14.11.02	103	239
		9.1.03	84	132
	Paul	16.1.03	76	88
		1.5.03	103	190
	George	7.11.02	94	137
		20.2.03	109	113
	Lydia	6.2.03	60	92
		15.5.03	94	146
	Robert	12.12.02	79	187
		14.2.03	95	133
Rec total			897	1457
Pre-sch. & rec. combined			1637	2721

5.2.1 Children's collective experiences in the settings

Evidence on children's collective experiences in the settings echoed the findings presented earlier on staff interactions (section 5.1) and typical timetables (Appendix ii, section ii.2). For children in pre-school, 41% of their interactions were focused on an adult, 38% on another child or children, and 21% of their interactions were focused on the resources provided (Fig. 5.5), as might be expected in a setting where the majority of time was spent in non-compulsory small group activities with a relatively high adult to child ratio. In Reception (Figure 5.6), 59% of the child's interactions were focused on an adult and only 21% on other children, reflecting a setting with a high proportion of time spent in adult-led large group activities. A similar proportion of interactions were characterised by a child focused on resources as at pre-school (20%).

Table 5.4
Child interactions: outline of taxonomy

<u>Focus</u>	<u>Broad category</u>	<u>Specific type/function</u>
Child to adult	<ul style="list-style-type: none"> Support seeking Support offering Responsive/ Collaborative In adult-led group activity 	<ul style="list-style-type: none"> To achieve own goal. To achieve adult set goal. To aid understanding. Seeks adult feedback. Seeks joint inv. from adult. Seeks or gives affection. <ul style="list-style-type: none"> Offers information, suggestion or conversation to adult. Offers assistance to adult. <ul style="list-style-type: none"> Accepts information or support to achieve goal. Resp.s (pos) to adult feedback. Resp.s (neg) to adult feedback. Resp.s to adult direct/request (pos) Resp.s to adult direct/request (neg) Absorbed in joint inv. with adult. <ul style="list-style-type: none"> Listens to /participates in large group activity - (routine). - (non-routine). Volunteers to contribute alone in the large group activity. Requested by adult to contribute alone in the large group activity. Participates in unison with rest of large group. Listens to /participates in small group activity. Volunteers to contribute alone in small group activity. Requested by adult to contribute alone in the small group activity. Participates in unison with rest of small group.
Child to child/ren	<ul style="list-style-type: none"> Collaborative Evaluative Companionable 	<ul style="list-style-type: none"> Seeks joint inv.- by suggestion <ul style="list-style-type: none"> - by making a request - by following lead or joining in - by initiating conversation or nvc Responds (pos) to attempts to initiate joint inv. Responds (neg) to attempts to initiate joint inv. Absorbed in joint inv. with others. Negotiates for space /resources /status /friends (pos). Negotiates for space /resources /status /friends (neg). <ul style="list-style-type: none"> Corrects or supports other children. Seeks peer feedback or support. Responds to peer feedback or support. <ul style="list-style-type: none"> Absorbed in parallel activity. Listens to /observes others. Resp.s (pos) to conversation or nvc Resp.s (neg) to conversation or nvc Initiates conversation or nvc
Child alone	<ul style="list-style-type: none"> Epistemic Ludic Horizon scanning 	<ul style="list-style-type: none"> Selects/ uses resources: own goals Problem-solving Selects/ uses res.: closed goals Evaluates own performance <ul style="list-style-type: none"> Explores possibilities <ul style="list-style-type: none"> Drifts Listens to /observes others

Figure 5.5
Pre-school children: focus of interactions

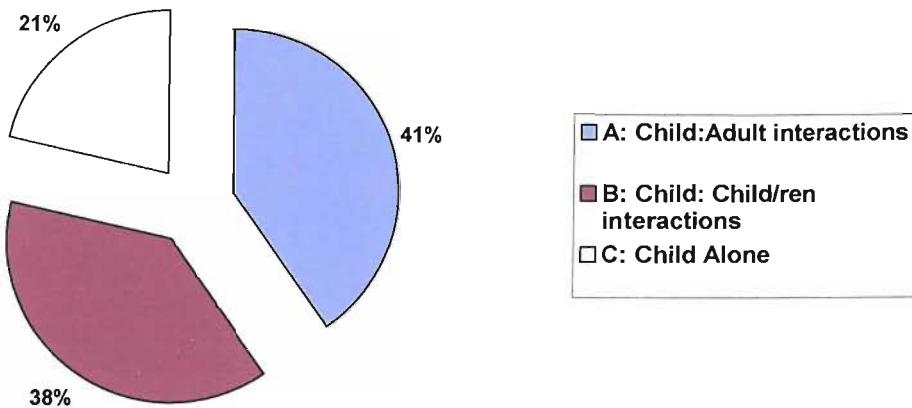


Figure 5.6
Reception children: focus of interactions

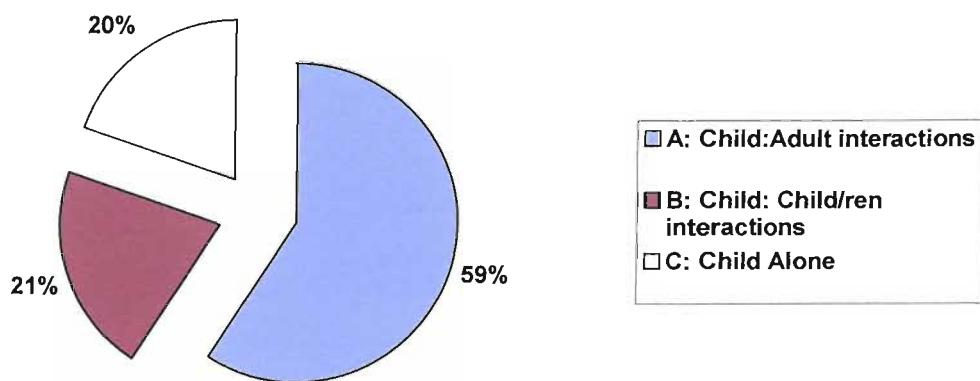


Figure 5.7 shows how children's interactions in pre-school and reception differed when viewed as broad categories: pre-school children's were characterised by more child to child companionable, collaborative, adult-led group and epistemic interactions. Reception children's were characterised by more adult-led group interactions, responsive/collaborative and epistemic interactions.

Figure 5.7
Pre-school & reception children's interaction as % of total for setting (broad categories) Jan 03, Jun 03

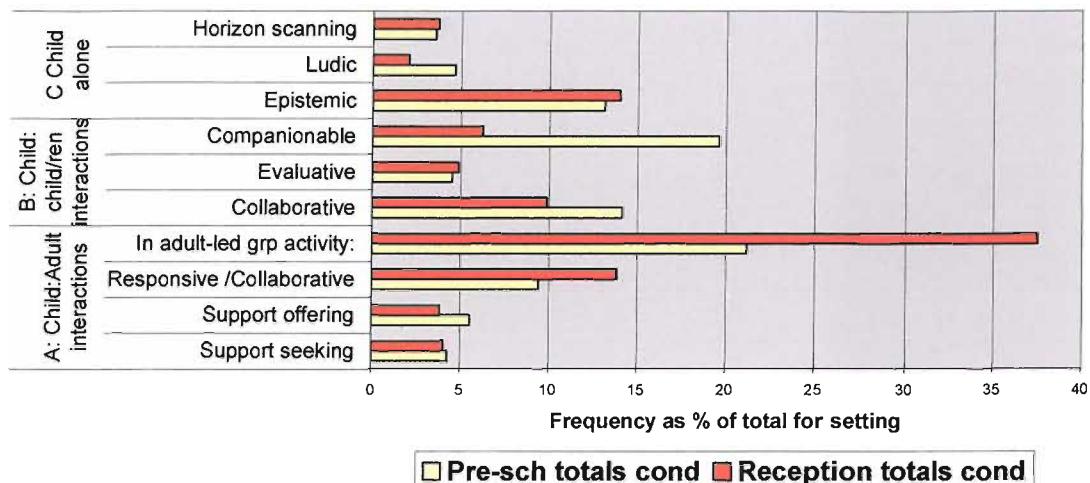


Table 5.5 contrasts the most frequent specific types of child interactions in the two settings once the broad categories are further sub-divided. From a possible 47 categories in the taxonomy, only 7 categories in each setting accounted for half of all children's interactions in the sample, thus characterising this part of the pedagogy. It shows how the pre-school children had more space for an active role in interactions, with more opportunity to draw upon their interests and experiences, illustrated in more detail in Chapters 6 and 7. The reception children's interactions were more responsive to adult control, with less space for children's own initiations, interests and experiences, again illustrated in more detail in Chapters 6 and 7.

Table 5.5
Most frequently occurring specific types of children's interactions (in descending order)

Pre-school	School
Parallel activity	child to child
Selecting & using resources for own goals	alone
Taking part in small group activities	with adult
Offering information to adults Exploring possibilities Responding to adult requests Large grp routine = 50% of all children's sample interactions	Selecting & using resources to achieve adult-set or closed goals
	Contributing in unison in large groups Contributing alone as requested in small groups Small group activity Parallel activity = 52% of all children's sample interactions

Conclusions from children's collective patterns in the two settings

The patterns in the two settings illustrate the powerful impact of differences in pedagogic style on the interactive opportunities available to children during their time in a setting. In spite of the reception class having only two adults to 24 children as opposed to 5 to 24 in pre-school, the impact of organisation and structure in school was such that the majority of children's interactions were firmly under adult control.

In pre-school, there was a more balanced division between adult-controlled interactions and child to child interactions. Interestingly, the amount of time the child spent interacting alone with resources was very similar in the two settings, though these similarities concealed quite different emphases as referred to above.

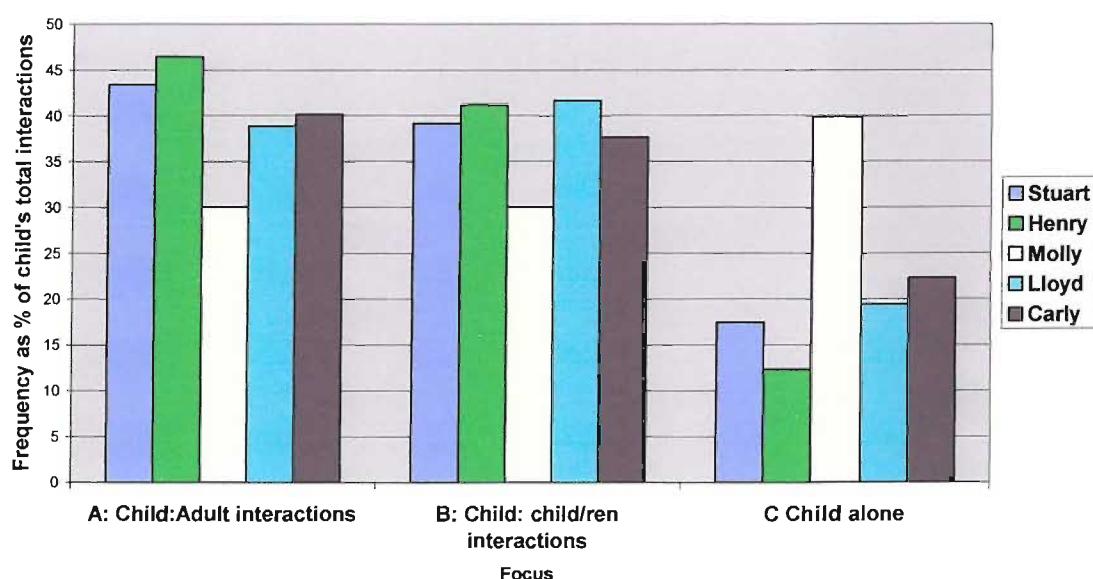
An invisible or implicit pedagogy in which the regulative and instructional discourses are weakly framed and the curriculum weakly classified such as that in pre-school (Appendix ii) gave rise to opportunities for children to be more equal partners in initiating and shaping their interactions. More scope was available for pursuing own goals, for exploration, for volunteering information, for seeking and maintaining joint-involvement with peers or adults. A visible or explicit pedagogy, strongly framed and classified as found in the reception class most of the time, gave children exposure to a plentiful supply of 'scientific concepts' (Vygotsky, 1986), of adult-modelled examples of 'school discourse' and of school knowledge, skills and acceptable behaviours. But exposure to something is not the same as having real access; it was evident that some reception children found the school model more accessible than others. Friendship, interest and identity issues in pre-school could also shape the use a child might make of such opportunities.

The likelihood of the patterns described emerging from the data was noted on the basis of evidence from the section on Typical Timetables (Appendix ii, section ii.2) and from the Patterns of Staff Interactions with Children (section 5.1). The reality of children's interactive patterns is presented in the evidence here. But how did these differ for individual children?

5.2.2 Individual children's interactive patterns

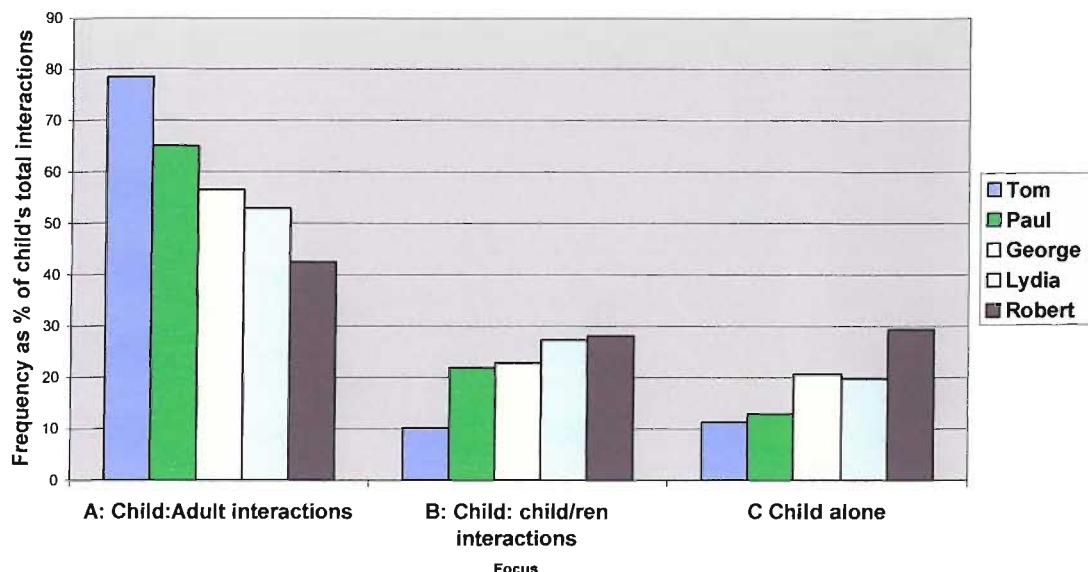
Figures 5.8 and 5.9 illustrate quite clear differences in the focus of interactions between the two settings once individual children's patterns are examined. The pre-school children (Figure 5.8) showed varied patterns reflecting their friendships, preferences and choices with regard to activities in the setting, restricted by the opportunities available. Molly spent more time alone, often in the role play area, or on the periphery of other children's play; Henry and Stuart often sought adult company but equally spent much time in collaborative and companionable interactions with other children; Henry and Lloyd spent much of their 'child to child' time together; Carly moved purposefully between adults and other children, seeking out interactions, but was equally content to become involved in activities alone.

Figure 5.8
Individual pre-school children's focus of interactions



The reception children (Figure 5.9) showed clear gradients in interactive patterns according to their level of recorded achievement in school. Those who made the least progress over the year, Tom and Paul, had spent most of their time in interactions with adults. Those who had achieved the most progress (Robert, George and Lydia) had had more opportunity to collaborate with other children or to work alone. This reflected the deployment of adult support in the classroom. Whenever the children moved into 'independent' or small group tasks, the LSA or teacher would usually

Figure 5.9
Individual reception children's focus of interactions



work with the 'below average' group, with the rationale that they were unlikely to be able to complete the tasks and meet the learning objectives alone (Interview with teacher, 20.2.03, and interview with LSA, 16.5.03). The support from the LSA was particularly focused on Tom and, to a lesser extent, on Paul. It extended to their participation in whole class teacher-led activities, too, when the LSA would sit next to Tom and aim to echo the teacher's input. In contrast, the more 'able' the children were seen to be, the more freedom they had to carry out tasks alone, alongside others or in small groups. They had more time and space to collaborate by seeking and sustaining joint involvement with other children and to work alone to achieve a goal, usually a closed or adult-set goal. Robert in particular (alongside one or two others in the 'above average' group) had negotiated, over time, the right to continue with a piece of work or a task until it had been completed to his satisfaction, even though the rest of the class were called to tidy up and return to the mat for a plenary session. He showed a skill at times in being able to attend to both the plenary, chipping in where he felt necessary, and to his task in hand at the table. He appeared to derive a sense of satisfaction from the tasks and their completion, displaying a sense of ownership and involvement, even though they were set by the teacher. This was in sharp contrast to many of Paul and Tom's reactions to the tasks, which appeared to be less meaningful to them, less involving and engendering a sense of relief when they were over instead of ownership and a desire to continue. Being given the autonomy to carry out a whole task to a satisfactory conclusion appeared to be important to children's understanding

and involvement, as opposed to carrying out a series of half-understood mini-tasks, closely directed by the adult, but without the awareness of the tasks adding up to a satisfactory ‘whole’. Along with a degree of autonomy came a child’s freedom to make decisions about pace, resources used, order of work, collaboration with others, although all were in a framework of restrictions. The ‘below average’ children appeared to miss out on these positive aspects as their work was more closely controlled and monitored, evidenced in more detail in Chapters 6 and 7. This was evident in the interactive patterns.

I now consider each child’s interactive experiences in turn, making reference to Figures 5.10 to 5.17, which are included at the end of the section to avoid disrupting the text.

Comments on individual children’s interactive patterns

Pre-school children

Stuart

- In terms of the focus of his interactions, Stuart had a similar pattern to the other pre-school children, except Molly, as shown in Figure 5.8.
- Figure 5.9 shows Stuart took part in notably more adult-led group activity interactions and more ludic interactions when alone. He took part in fewer epistemic interactions alone, the fewest support offering to adults and few evaluative interactions with other children compared to the pre-school sample.
- Looking at precise function (Figure 5.11), we see that most of Stuart’s adult-led group interactions were comprised of listening to or participating in small group activity. In the sample recordings, he rarely sought support from adults to achieve his own or adult-set goals, he didn’t seek clarification or affection, and didn’t offer assistance to adults.
- Figure 5.13 shows his child to child interactions to have been mainly characterised by parallel activity and joint involvement. He initiated joint involvement by following the lead of others and sometimes by making suggestions, striking up conversation or by the use of non-verbal communication. He rarely negotiated with others for resources, friendships or

position, or sought feedback from others. He did occasionally offer correction or support to others, often a friend who was younger and new to pre-school.

- When alone, as shown in Figure 5.15, (though these may also have been parallel activities) most of Stuart's interactions were involved in exploring possibilities, often physically, achieving closed goals or listening to and observing others.

Summary:

Stuart had a tendency to be shy and reserved in pre-school. He made inroads by being alongside others, both adults and children, using 'joining in' and non-verbal mirroring to initiate joint involvement or parallel play. He negotiated a path into the hubbub of pre-school life by spending his time in small group adult-led activities, particularly if led by the supervisor of whom he was quite fond, by shadowing the activities of the more 'boisterous' boys at times, and eventually by forming a closer friendship with a younger boy, whom he sometimes helped and supported, but generally treated as equal. He enjoyed physical exploration. He tended *not* to place himself in interactions which might be associated with public confidence: evaluating others, making suggestions, offering support, or seeking clarification or justification from adults.

Henry

- Of the pre-school sample children, Henry took part in most child to adult interactions (Figure 5.8) and was involved in the fewest child alone interactions.
- As Figure 5.10 shows, in the adult focused interactions, Henry was mostly involved in interactions which fell into the broad category of adult-led group activities or of responsive/collaborative interactions. Figure 5.12 shows relatively high levels of accepting support from adults and joint involvement with adults compared to other pre-school children. He took part in most adult support offering interactions, but sought the least support for himself. Figure 5.12 shows most of his support offering to adults was in the form of giving information.
- Figure 5.10 also shows that his child to child interactions fell mostly into the broad categories of collaborative and companionable interactions. As Figure 5.14 shows, these were comprised of seeking joint-involvement with children

through conversation or non-verbal communication, or making suggestions, by responding positively to other children's attempts to initiate joint-involvement and by sustained joint-involvement with other children. The companionable interactions with other children were mainly parallel activity and listening to or observing others

- Henry's interactions alone were fewer than other children's in the pre-school sample. However, of these, Figure 5.16 shows that Henry tended to be involved in more interactions than other pre-school children with the function of selecting and using resources to achieve a closed goal, either because of the nature of the activity, such as a jigsaw puzzle, or an adult-set goal.

Summary:

Henry used the interactive opportunities at pre-school to initiate interactions with adults and other children. His ways of initiating, by offering information to adults and seeking joint involvement with the children by striking up conversation or making suggestions, appeared to lead to a relatively high level of collaborative and joint-involved activities with adults and children. He was accepted as a part-time member of the group of boys who played most physically (see section 5.3 and Figure 5.18), seamlessly and tactfully opting in and out of their play when he chose. More than any other child, Henry also sought opportunities to strike up conversations with adults relating to his home life, interests and experiences, rather than simply relating to the incidents or activities at pre-school. The deputy supervisor used these opportunities to develop enriching conversations, far removed from the limiting question and answer sessions that sometimes characterise conversations with young children in educational settings.

Molly

- Molly stood out as having far fewer interactions focused on adults or other children and more alone than the pre-school sample children, as shown in Fig 5.8.
- Figure 5.10 shows that most of Molly's interactions were companionable, epistemic or horizon scanning. The percentages of epistemic and horizon scanning interactions were higher for Molly than for any other child in the pre-school sample. Her profile is distinct from the other children's, with very few

evaluative (child to child) interactions and relatively few responsive/collaborative interactions with adults or collaborative interactions with other children. She was the most support-seeking of the pre-school children. Figure 5.12 shows most of the support-seeking interactions to have been in the form of seeking affection.

- Similar to Lloyd, Molly became involved in little joint activity with other children (see Figure 5.14). She infrequently sought joint involvement with other children, but when she did, it was by initiating conversation or non-verbal means of communication. She rarely corrected or supported other children. She responded positively to conversation by other children, but rarely initiated it.
- Most of her interactions when alone were comprised of selecting and using resources to meet her own goals. Figure 5.16 shows that over 19% of her interactions fell into this category, far higher than for any other child in the samples for pre-school or school. She also took part in a higher proportion of listening to and observing others compared to the sample. Along with Lloyd and Carly, her interactions alone included problem-solving, but she did not appear to be self-evaluative.

Summary:

Molly used the opportunities at pre-school to follow her own agenda of using resources for her own goals, often alongside other children, but frequently uninvolved with them except to watch and listen to their interactions. However, video recordings referred to in Chapter 7, page 282 show how she incorporated ideas gleaned from observing others into her own activities. She sought support from adults to assist her in her goals. Her collaborative opportunities with other children appeared to be limited by friendship issues, as were her evaluative interactions. Towards the end of the autumn term, into the spring term and until the beginning of the summer term, friendships appeared to be an important issue for Molly. Her previous alliance with Lloyd became unsettled as Lloyd and Henry formed a new and apparently quite strong friendship. She was marginalised at times by some of the older girls, particularly Carly, who was quite a dominant character amongst the girls, but finally found a role for herself as part carer/part friend to a younger child who shared the same childminder. In a setting where the groupings were not compulsory and there

was freedom of movement and choice of tasks and companions, collaborative interactions were less often available to Molly because of her friendship issues.

Lloyd

- Figure 5.8 shows most of Lloyd's interactions to have been focused on other children, the highest of the pre-school sample, followed by interactions with adults.
- Of his child to child interactions, Figure 5.10 shows the majority to have been companionable, with very few collaborative interactions relative to the other children in the pre-school sample. Figure 5.14 shows these to have been comprised of parallel activity and listening to or observing others. Second to Carly, he had a relatively high level of evaluative interactions with other children (Figure 5.10) which, on closer examination using Figure 5.14, were comprised of the highest levels of seeking and responding to feedback from other children.
- Of his interactions with adults, Figure 5.10 shows Lloyd to have had a high percentage of responsive/collaborative interactions compared to his peers in the sample, but relatively few based on adult-led group activities. The responsive/collaborative interactions were characterised by a relatively high percentage of responding to requests and by joint involvement with adults as seen in Figure 5.12. Along with Henry, he offered information to adults in more interactions than the other pre-school children.
- When alone, Figure 5.16 shows he had a similar profile to Carly, both of whom were the only pre-school children in the sampled recordings to be seen self-evaluating.

Summary:

Lloyd took part in interactions which allowed him to pursue his own goals alongside other children. The activities and their outcomes were of great interest to Lloyd and he used the opportunities arising in pre-school to enhance his goal-orientated behaviour; he sought and responded to support and involvement from adults and made use of opportunities for evaluation and feedback by adults, by other children and of himself. He seemed skilled in tailoring adults' assistance or interest to his exact needs. His relationship with the adults was, for a child of four years, remarkably equal with

reciprocated respect. He also watched and listened to other children as they engaged in parallel activity. He acted with a calm confidence, the focus of his attention being the activity and its outcome.

Carly

- Figures 5.7 and 5.11 show Carly had few distinctive features in the focus of her interactions or in the categories of her interactions with adults compared to the other pre-school children. Along with Henry, she was most likely to be requested to contribute alone in small group activity, which most likely reflected the adults' perceptions of their likely ability to contribute successfully or confidently.
- In her child to child interactions, shown in Figure 5.13, compared to the other pre-school children Carly had fewer interactions consisting of parallel activity, but the most of negotiating for resources or friendship, correcting or supporting others, initiating conversation or non-verbal communication and seeking joint involvement by making suggestions.
- When alone, Figure 5.15 shows Carly tended to select and use resources to achieve own goals, or explored possibilities. Along with Lloyd, she was most likely to be self-evaluative.

Summary:

Carly's pattern of interactions is consistent with impressions gained of her in pre-school from observations, discussions with staff and her mother, and from listening to and watching the audio and video recordings. She put forward her own ideas. She was confident in negotiating for friendships, position and resources. She offered ideas, suggestions and conversation. She was self-evaluative. Tudge et al (2003) found that children who initiated and had conversations with adults were later seen by teachers as 'competent'. Carly was certainly seen as a very competent child, largely due to her linguistic and social competence and confidence. Carly was one of the children for whom the pre-school activities appeared less challenging in the final two terms. My observations and informal discussions with staff showed that she channelled her energy and attention into the social relations available in pre-school with frequent friendship changes, negotiations with regard to who was 'in' or 'out' of her social

circle, and to some extent providing support to younger children. All of these were reflected in the pattern of her interactions.

Reception children

Tom

- Figure 5.9 shows Tom to have had the highest proportion of child to adult interactions, accounting for over 78% of the categories ascribed to his interactions, and the lowest proportion of child to child (just over 10%) and child alone (11%) interactions of the sample of school children.
- Of his child to adult interactions, Figure 5.11 shows they were mostly in the broad categories of adult-led group activity and responsive/collaborative interactions. Figure 5.13 shows these were comprised mainly of requests by the adult for contributions in small group work, contributions in unison with others in small groups, and responding to requests or feedback in responsive/collaborative interactions. He also registered a relatively high proportion of information offering interactions.
- Figure 5.11 shows Tom's child to child interactions to have been mainly evaluative. Of these, Figure 5.15 shows most were in the form of correcting or supporting others. He had few interactions categorised as companionable, although, of these, more were listening to and observing others than for any other school child in the sample, or initiating conversation. He had even fewer interactions categorised as collaborative. He didn't appear to become involved in joint involvement with others, though he occasionally sought it through conversation.
- Of his child alone interactions, Figure 5.17 shows them to have been comprised mainly of selecting and using resources to achieve closed goals, although these accounted for a lower percentage of his interactions than for other school children. He was involved in very few apparently self-evaluating or exploratory interactions.

Summary:

Tom's interactive pattern shows his close working relationship with staff, particularly the LSA who guided and monitored his talk and actions. This left little space for interactions alone or with other children. He showed few signs of seeking support or

evaluative feedback from adults, children or himself in ways which might enhance his learning. He did offer information to adults and corrected/supported other children, though in the samples used, it was clear that both related to Tom making comments on Paul's behaviour. However, he did silently watch and listen to other children.

Paul

- Like Tom, most of Paul's interactions were focused on an adult (65%) with 21% focused on other children and 12% alone as shown in Figure 5.9.
- Paul's interactions with adults can be seen in Figure 5.11 to have had the highest proportion in the school sample of interactions falling into the broad category of support seeking. Figure 5.13 shows these to have been comprised of seeking adult feedback and seeking support to achieve adult-set goals. Frequently, Paul said 'You do it for me' or 'Can you help me?' He had the second highest proportion of interactions categorised as responding to adult requests within the broad category of responsive/collaborative interactions (Figure 5.13), though notably fewer than Tom.
- Of his interactions with other children, Figure 5.11 shows most to have been companionable with relatively few evaluative or collaborative interactions. Figure 5.15 shows most of his companionable interactions to have been in parallel activity. Most of his collaborative interactions were negotiations over resources, position or friendships, or seeking joint involvement by conversation or non-verbal communication. Like Tom, Paul did not appear to become involved in any sustained joint involvement with other children.
- Of his interactions alone, Figure 5.17 shows that Paul's were mainly comprised of achieving closed goals or using resources to achieve own goals, but similar to Tom, these were generally fewer than for other children in the sample.
- Paul did find some opportunities to explore possibilities, the second highest proportion of such categories for children in the school sample. He was more self-evaluative than Tom.

Summary:

Paul's interactions were framed within the same set of constraints and opportunities as Tom, but Paul impacted upon these constraints and opportunities

in a different way. At times, he opted out of the small group activities in which the adult directed each child's actions and requested responses, or he partially challenged the rules of this discourse (both of which were seen as uncooperative behaviour and contributed to his school identity). Instead, he created opportunities to explore, negotiate his position and to seek support in the required activities. This testing of boundaries set by staff was more evident (from observations and discussions with staff) in his interactions with the LSA than with the teacher; in interactions with the LSA, Paul was less likely to accept control and confrontation. However, though not evident in the data presented in this section, it is worth noting that the LSA adapted her strategies to become less controlling and more avoiding of confrontation at times with Paul (see Chapter 7, pages 236-241). In such instances, the learning process for Paul appeared to be more engaging and genuine and less of a power struggle.

Paul's voluntary contributions in large and small group adult-led activities were no more frequent than those of other children and less frequent than some children. But this raises the point that the *frequency* of a type of interaction does not necessarily reveal its impact. Paul's voluntary contributions were viewed as frequent and, often, bothersome by the staff for two reasons. First, he rarely remembered to put up his hand before speaking, particularly in the first term, and so his contributions were sometimes seen as interruptions. Second, his contributions often fell outside the criteria for accepted school responses in that they were not directly relevant to the teaching or learning objective (though they may have been linked in Paul's mind). They were also often attempts by Paul to clarify whether or not instructions addressed to the whole class were also addressed to him. Did the teacher mean him? Did she mean what she said? Were the words to be linked to actions or were they rhetoric? The discourse and relationships in Paul's home, some examples of which were given in Chapter 4 (section 4.4.1) gave some insight into why such questions might arise for Paul.

George

- Similar to the other school children, George's pattern of interactions appeared to be broadly linked to his 'place' in the class in terms of the teacher's

perception of his abilities, evident in Figure 5.9, which was as a high achieving member of the 'average' group.

- Figure 5.15 shows he had similarly high levels of joint involvement interactions with other children as Lydia and Robert.
- When alone, Figure 5.17 shows he was most likely to be involved in selecting and using resources to achieve a closed goal or in listening to and observing others. Of the sample of school children, he was the most likely to be self-evaluative.

Summary:

George's pattern reflected a level of autonomy in that he was given tasks to complete without direct adult supervision or support and he appeared to apply himself to these tasks, as shown in Figure 5.17. He initiated and sustained joint involvement with other children by suggestion, requests and conversation and was responsive to children's initiations of joint involvement.

Lydia

- Lydia's pattern of interactions was similar to those of Robert and George.
- The most notable features of Lydia's interactive pattern were in her child alone interactions with a relatively high level of ludic interactions compared to other children in the school sample and fewer epistemic interactions than George and Robert.
- The distinctive feature of Lydia's child to child interactions, shown in Figure 5.15, was in responding to other children's evaluative feedback. This was linked to her child alone interactions (Figure 5.17) in which she frequently explored possibilities, often when she was meant to be carrying out a task in small group work. Other children's feedback to her was usually in response to her explorations.

Summary:

Lydia was placed in the 'above average' ability group. The group members were expected to be able to carry out small group tasks independently, though they were monitored by the teacher. Lydia created interactive opportunities for herself within this framework by, at times, becoming involved in her own activities with the

resources. For example, when carrying out a task for which she needed a small whiteboard and pen, she focused on the properties of the pen, the marks it could make and how they could be erased or altered by using the pen in a different way, rather than the ‘shopping’ maths task the group had been instructed to do. Such explorations were more restricted for the more closely monitored ‘below average’ children.

Robert

- Again, Robert’s pattern reflected his position in the class and as the highest achieving child in the sample in terms of the teacher’s perceptions of ability and in terms of assessed learning outcomes (Chapter 4). In Figure 5.9, Robert had the lowest proportion of child to adult focused interactions and the highest of child to child and child alone interactions.
- When looking at broad categories of interaction, Figure 5.11 shows Robert’s most frequently occurring category of interaction to have been epistemic interactions when alone (or parallel to others) for which he had a higher percentage of occurrence than other children in the pre-school sample.
- Of note also in Figure 5.11 was Robert’s relatively low level of interactions categorised as adult-led group activities (these two features are linked), and his relatively high levels of responsive/collaborative and collaborative interactions. He also had the highest level in this sample of support offering to adults, which included both offering information and assistance (Figure 5.13).
- His child to child interactions were characterised, as shown in Figure 5.15, by high levels of parallel activity, high levels of negotiating for resources, friendships or position and relatively high levels of sustained joint involvement, similar to Lydia and George.
- The child alone interactions (Figure 5.17) for Robert were comprised mainly of using resources to achieve closed goals and to achieve own goals. He was relatively self-evaluating and spent time in listening to and observing others. He appeared to take part in very few problem-solving or exploratory interactions

Summary:

The impression created by Robert's pattern of interactions, and supported by the observations and recordings, was of a child working collaboratively and companionably with other children or working alone to achieve the tasks given. His pattern also revealed a child confident enough and with sufficient opportunities to offer support or advice to adults and other children.

What can be concluded from children's individual patterns of interaction?

Pre-school children's patterns of interaction were largely influenced by individual children's identities, interests and friendships in the setting, tempered by the availability of interactive 'spaces', resources, and social patterns of interaction. The availability of spaces and resources were in turn influenced by the sub-culture of pedagogy of pre-school. Reception children's patterns of interaction were largely influenced by the teacher's perception of children's abilities in the setting and how these should best be catered for within the routines and structures. These, too, were linked to the pedagogic sub-culture of the reception class and to individual children's identities and dispositions in the setting. How children were seen was affected by the underpinning perceptions of teaching and learning; how children were seen was also affected by and affected children's developing identities in the setting. Both shaped interactive opportunities, which in turn influenced identities.

Links between staff patterns and children's patterns of interaction

The pre-school children with higher proportions of interactions between child and adults in small group activities, Stuart and Henry, were most likely to participate in cognitive interactions (from the staff taxonomy), such as types of stimulation including exploring, reinforcing, enriching and extending, or social/cognitive interactions such as encouragement. The pre-school children with many child to adult interactions which were not in a group, mainly Lloyd, were subject to cognitive/social interactions from adults, particularly enabling. Molly, by spending more time alone, clearly experienced fewer stimulating or enabling interactions with adults.

The reception children whose interactions were mainly in the adult-led group category, Paul and Tom, were subject to cognitive/monitoring/maintenance interactions such as instructing/explaining and assessing, or cognitive/social interactions such as modelling and enabling, all in small groups. In large groups, they

experienced cognitive interactions such as exploring and reinforcing, or cognitive/monitoring/maintenance interactions such as instructing/explaining.

Modelling and encouragement also featured quite prominently. Children with fewer child to adult interactions, such as Robert and Lydia, were generally subject to fewer of these types of interaction, particularly in small groups. These tended to be the children with the highest recorded achievements by the end of the year. Those who experienced the higher levels of child to adult interactions not in a group situation, Tom, Robert and Paul, were likely to be experiencing cognitive/monitoring/maintenance interactions, particularly assessing.

Figures 5.10 to 5.17 now follow on pages 175-178, showing individual children's interactions as broad categories, with adults, with other children and alone in each setting.

Broad categories

Figure 5.10

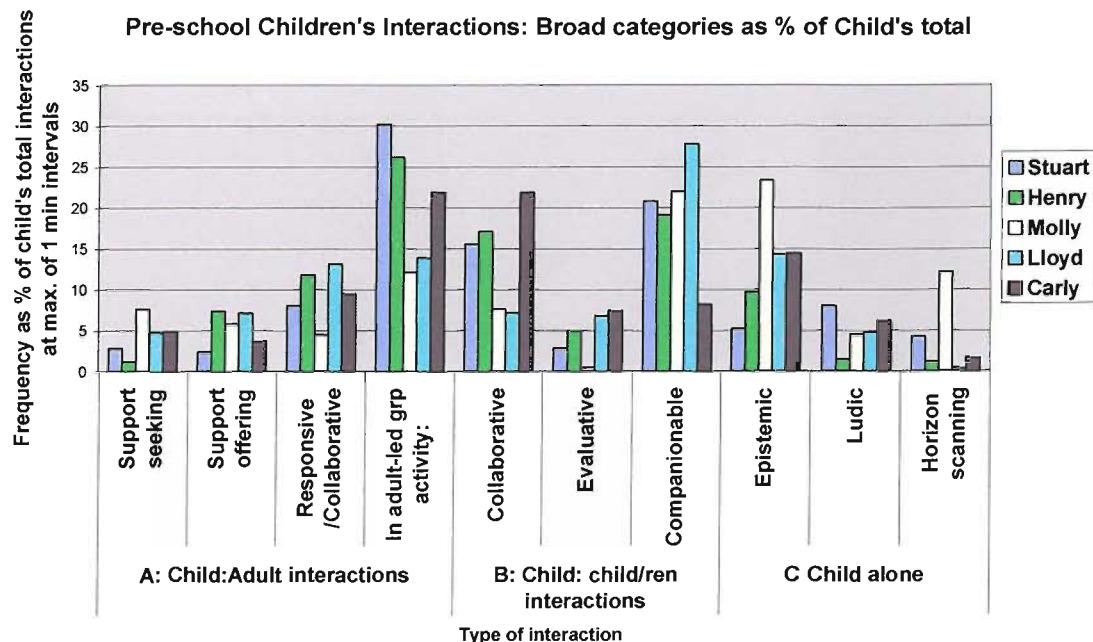
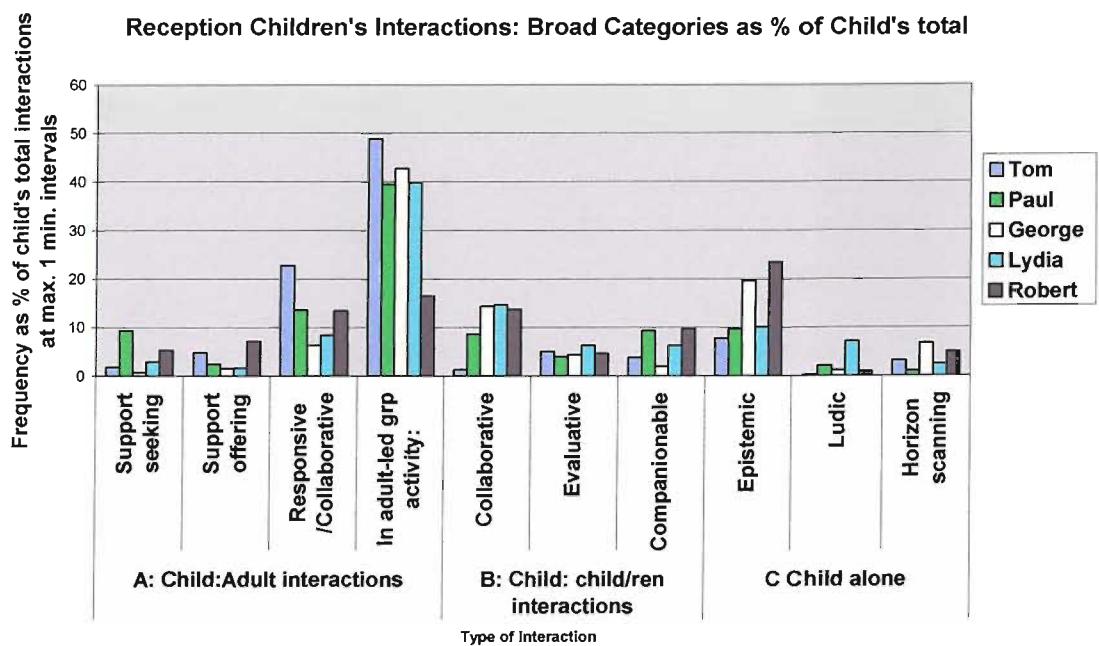


Figure 5.11



Specific types of interaction

Figure 5.12

Pre-school Children's Child to Adult Interactions as % of Child's total

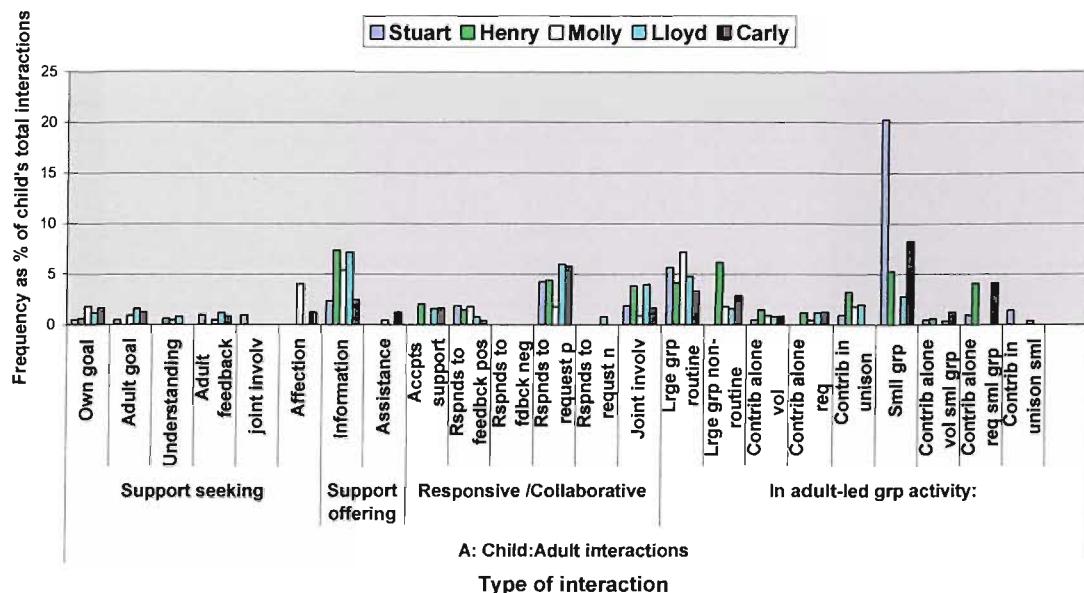


Figure 5.13

Reception Children Child to Adult Interactions as % of Child's Total

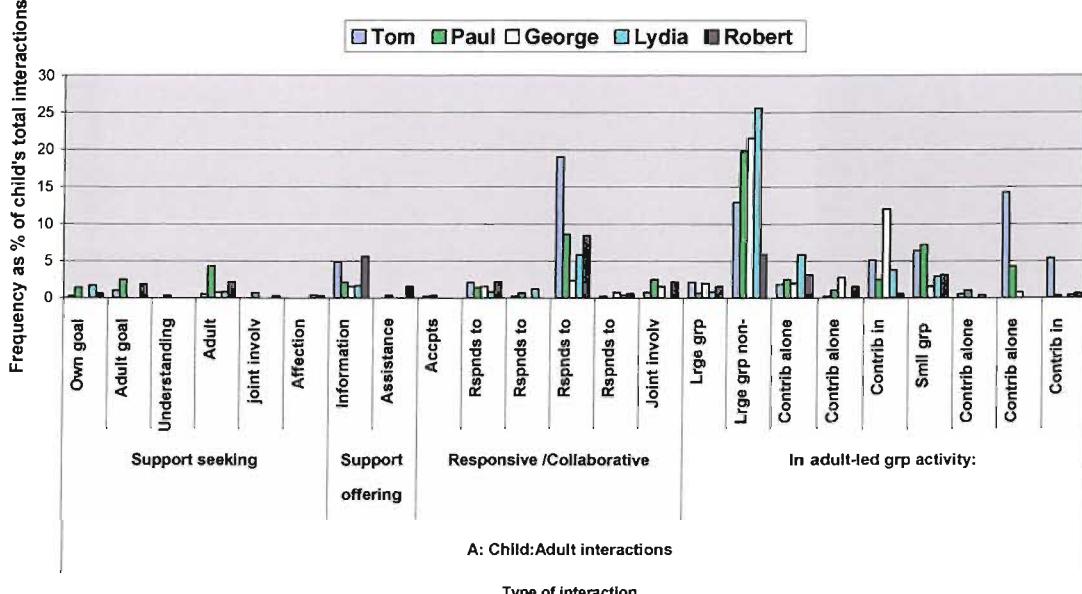


Figure 5.14

Pre-school Children's Child to Child Interactions as % of Child's total

■ Stuart ■ Henry □ Molly □ Lloyd ■ Carly

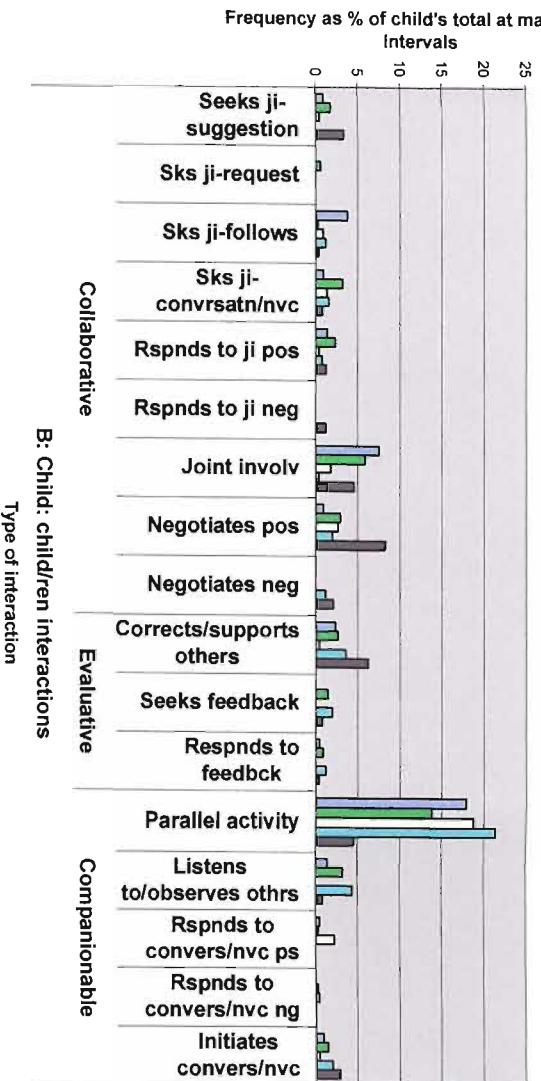


Figure 5.15

Reception Children's Child to Child Interactions as % of Child's total

■ Tom ■ Paul □ George □ Lydia ■ Robert

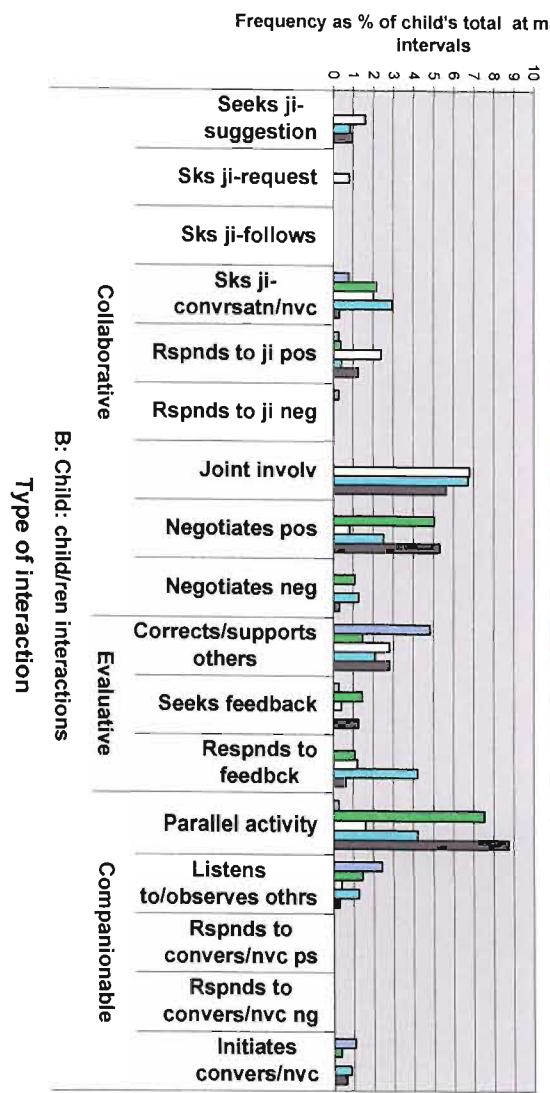


Figure 5.16
Pre-school Children's Child-alone Interactions as % of Child's total

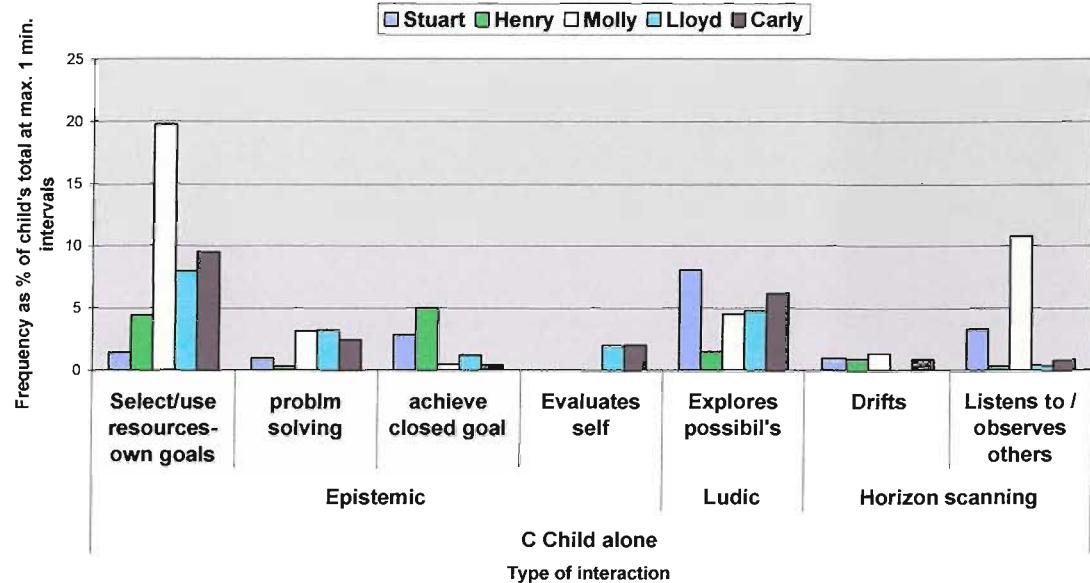
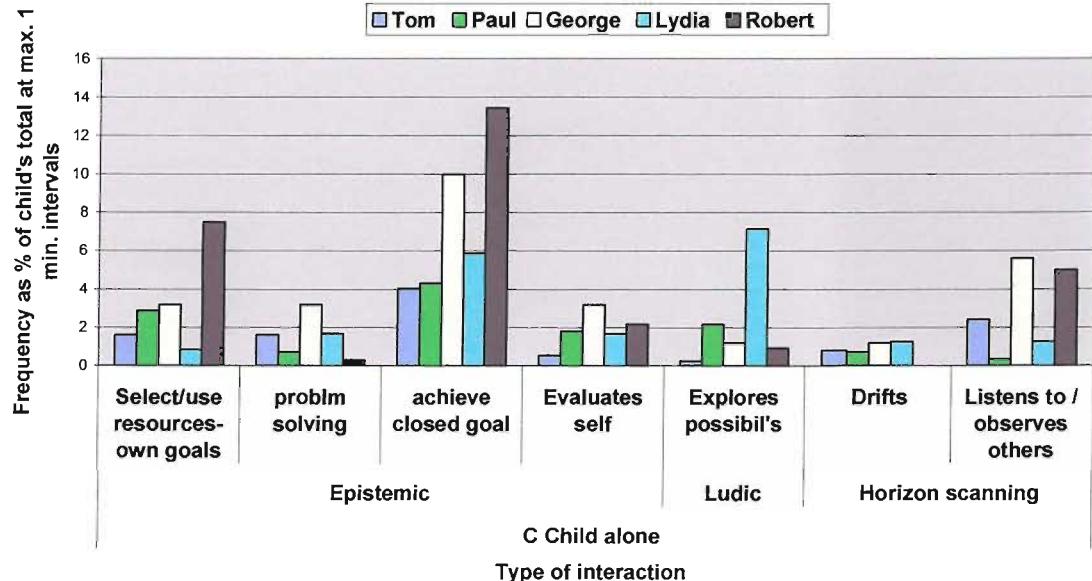


Figure 5.17
Reception Children's Child-alone Interactions as % of Child's total



5.3 Summary and conclusion

The pattern of staff interactions with children showed how the structures identified in Typical Days (Appendix ii, section ii.2, summarised at beginning of Part 2) were enacted in the minute by minute actions and talk of the staff to the children. It suggested how different types of interactive spaces were created, closed or open, and how children from different starting points might experience them, with pre-school allowing more ‘open’, negotiable space and reception offering more modelled, directed, ‘closed’ space.

Bernstein uses the term ‘space’ to identify opportunities for change when areas of control shift, for example when classification weakened in school in the 1960s and 70s, and a ‘space’, which was no longer subject to direct government control, became available to the Pedagogic Recontextualising Field (Bernstein, 1996: 57). Shotter uses the term ‘space’ to identify the point at which dialogue opens up possibilities for new, jointly influenced meanings, but also acknowledging that they do not ‘just simply ‘call out’ certain responses from us, but seem[s] to confront us with certain ‘requirements’’ (Shotter, 1997:350). I use ‘interactive space’ to identify the point at which control is relinquished sufficiently by the powerful participants (adults, in this case) to allow for children’s understandings and meanings to enter into the dialogue. In dialogue, I include multimodal forms of communication. As will be seen in Chapters 6 and 7, opening, closing and entering into interactive spaces by the adults and children were all communicated multimodally. Shotter points out how by entering into the dialogic spaces, we learn how to respond to others and learn how they respond to us; we learn how to participate and how to ‘find our way about’ in relation to others.

In practice, however, the living, responsive ‘landscapes’ or ‘spaces’ created between people might take on any one of a whole indeterminable range of possible ‘shapes’ or ‘characters’, each one inviting or motivating further responses of many, uniquely different kinds. Thus, as we body forth our wordings into this space, the kind of understanding that others have of our actions is not of an individualistic, cognitive kind, to do with having an inner, mental picture, but of a practical, dialogically responsive kind, to do with us knowing how to respond to others, with how to ‘go on’ with them in practice. And we not only have a sense of how ‘we stand’ with them, we also have a sense of how to ‘find our way about’ in relation to others around us (Shotter, 1997:353).

Each setting offered children (and adults) different interactive spaces. Children learnt from their participation in them how they stood in relation to others.

Staff interactions with children at pre-school, mainly in small groups, were characterised by supportive, enabling interactions with some explanation and exploration, allowing for a more shared control. Individual children's access to and use of these opportunities varied according to their interests, identities and friendships in the setting. Staff interactions with children in reception, mainly in large groups, were characterised by instructing/explaining, exploring, reinforcing, assessing and modelling, in which the adults directed and controlled the interactive space. Individual children's access to and use of those opportunities, and the space available for them to pursue their own negotiated interactions with other children, varied according to the teacher's perceptions of ability, and with the children's identities and dispositions in the setting. These factors were interrelated.

The patterns of individual children's interactions showed clearly how the structure, culture and staff interactions impacted upon the interactive opportunities available to children and how these were taken up or moulded in each setting by different children. Also pertinent were the patterns of influence created by the linked issues of friendship, already discussed, and by gender, affected by and affecting individual children. Siraj-Blatchford and Sylva (2004), in their study of early years pedagogy, REPEY, linked to the EPPE project, found that the 'excellent' settings in terms of children's learning/developmental outcomes were the ones in which 'a substantial proportion of interactions were child-initiated' (2004:722). The findings reported in this chapter show that not only did settings vary in how much 'space' they created for children's initiations, but also how, within a setting, different types of children had differential access to space to make such initiations.

Gender

Although differences in the patterns of boys' and girls' interactions in the sample of children from the two settings were not clearly discernible, the influence of gender on their interactions appeared to be in how the children related to the most dominant gender groupings within the settings. In each setting, there were notable gender identities with distinct characteristics, which reflected particular masculinities and

femininities amongst the children. The names I adopt for the groups, ‘boisterous boys’ and ‘sociable girls’, reflect my impression of how the groups were viewed by the adults and children in the settings and the language used to refer to them. The ‘boisterous’ group emphasised interests in physical play, superheroes and weapon play. The ‘sociable’ group emphasised interest in who was friends with whom, birthday party invitation lists, ‘good’ behaviour, choosing and supporting ‘best friends’. Although these identities were influential in the children’s interactions and relationships, there are several points that should be taken into account in considering the limits to this influence.

First, the identities did not represent the only ways in which boys or girls expressed masculinity or femininity, nor was membership of either group restricted to children of the same biological sex. As Connolly points out in his research into gender and early years education:

There are many forms of masculinity and femininity and...these are constantly evolving and changing as boys and girls renegotiate their identities within specific social contexts (Connolly, 2004:57).

Second, the identities were not entirely deterministic. Children acted with agency in moving in or out of the groups and in introducing their own ideas and characteristics to the group identities. Third, membership of the groups was rather fluid, although there were one or two core members whose temporary absences were noted for their effect on group dynamics. Similarly, the levels of boisterousness and sociability ebbed and flowed throughout the year. Nonetheless, the groups were a striking feature of the young children’s learning contexts and characterised the most prominent forms of gendered identities in the settings.

The children in the sample from each setting held various positions in relation to these groups and I have already referred in some cases to how these positions affected the children’s interactions. In Figure 5.18, I have modelled their positions based on my observations and recordings, informal conversations with staff, interviews with parents and, to some extent, on the children’s expressed views. The groups were viewed differently in the two settings. In pre-school, the ‘boisterous’ group was sometimes viewed as vaguely troublesome and a level of containment deemed necessary in terms of trying to entice the children into more sedate activities, or

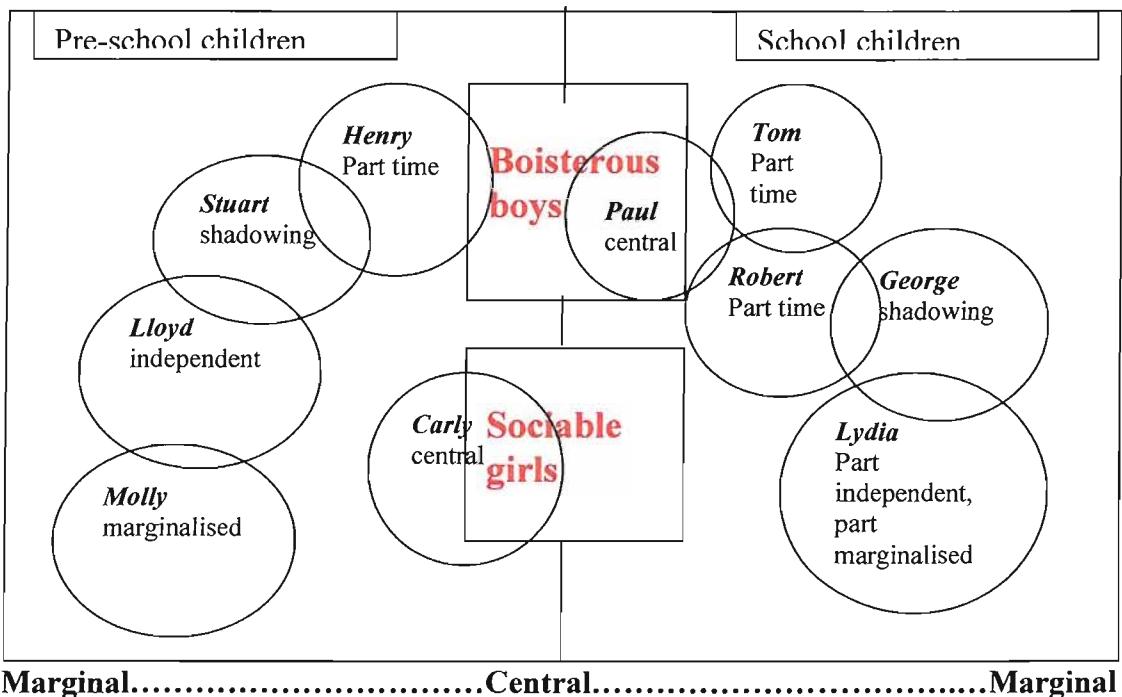
having an adult join in with their play to offer covert supervision, channelling the play into more ‘constructive’ and restrained activity. Often, though, the group was accommodated by the routine provision of climbing, bouncing and ‘masculine’ role-play equipment indoors (police and fire-fighter outfits, construction site helmets and tools). An uneasy truce was maintained as staff hovered on the boundary between allowing the play and trying to keep the noise and safety levels to the point at which staff and other children were comfortable. Though children were not allowed to bring toy weapons into pre-school, the interest in superhero and weapons play was partly tolerated and partly distracted, depending on the level of aggression depicted, part of a history of early years practitioners’ responses to such play as outlined in Holland, 2000. During outdoor play, such interests were generally tolerated and more scope was offered for ‘boisterous’ but supervised play with a wide selection of ride-on vehicles and balls available. The ‘sociable’ group, though quieter and less visibly obvious in the setting, was equally viewed as vaguely troublesome, at times, in relation to periodic ‘falling out’ and upsets, occasionally causing further difficulties in whole group activities as children argued about who to sit next to or a cross, upset child refused to participate. There was, however, less of a perceived need to contain, distract and supervise.

In school, ‘boisterous’ behaviour was viewed as something to be saved for the playground, with its relatively low levels of supervision as referred to in Typical Days (Appendix ii, section ii.2). There was no place for superheroes in the classroom (except, for some reason, pirates who seem to have been given a moral pardon in schools) and there was zero tolerance of toy or child-made weapons (Holland, 2000). Physical play other than at playtime was restricted to the tricycles and large scale building blocks in the small outdoor play area when a small group was allocated a turn, or individuals might opt and be chosen by the teacher to spend some time there. Other physical play involving climbing, running, jumping, or ball play were only catered for in Physical Education sessions which were strongly framed, as discussed on page 367 in section ii.2. The ‘boisterous’ group in school was, therefore, contained and restricted, with overtly boisterous behaviour seen as inappropriate to classroom life. The ‘sociable’ group was seen as less troublesome. The potential squabbles over position and friendship were, in many respects, contained by the compulsory groupings for activities and the expectations of reasonable behaviour when in whole

group activities on the mat. Where they did spill over, the teacher seemed to have been able to emphasise the supporting ‘best friends’ aspects of the group identity, particularly during the third term when the class aims and motto became to be ‘polite’, ‘friendly’ and ‘helpful’. Three large cut out bears, each carrying one of the three aims, were prominently displayed and points and stickers were awarded to children for behaviour linked to the aims when noticed by staff.

It is possible to see how being closely identified with either group in pre-school was not necessarily an advantage or disadvantage for a child in terms of how they were viewed by staff, though independence from and the ability to move in and out of the groups both carried advantages (Lloyd, Henry and Stuart). The groups did hold a certain amount of kudos amongst the pre-school children and so marginalisation from a group impacted upon a child’s identity and interactive opportunities (for example, Molly), whereas membership offered more opportunities for access to activities and companions (Carly and Henry). At school, close membership of the boisterous group appeared to be a distinct disadvantage in the classroom, where the associated interests were devalued by staff. Overtly boisterous behaviour was subject to containment and control (especially for Paul, and sometimes for Robert and Tom). Membership of the ‘sociable’ group, however, appeared to carry no overtly negative connotations in school. Again, membership of both groups carried some kudos amongst peers, but was less important to gaining access to activities and companions in the classroom, both of which were controlled largely by staff.

Figure 5.18
Children's positions in relation to dominant gender groups



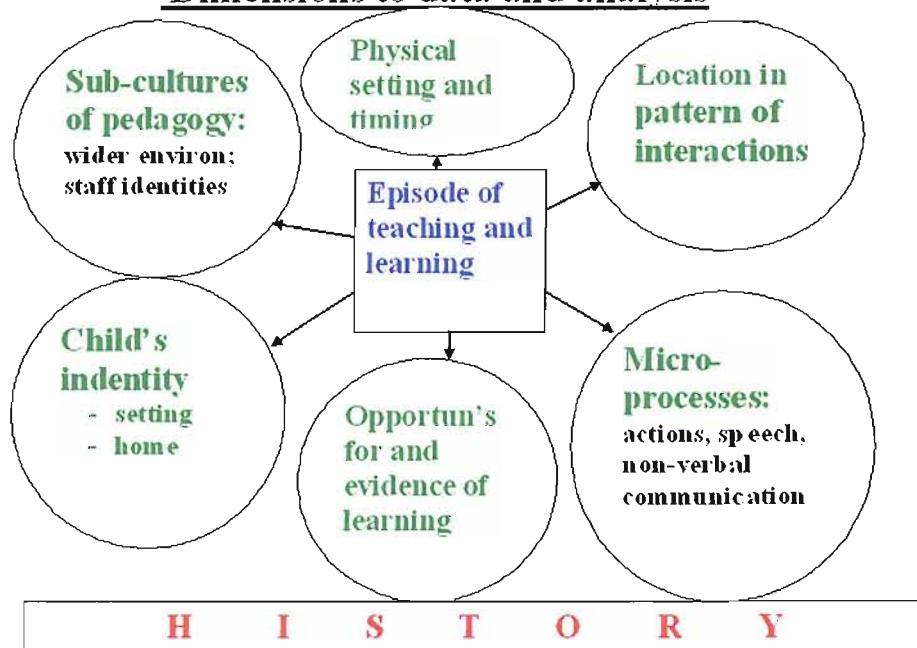
The landscapes of routine interactions in the pre-school and reception class have been examined. Each setting offered different and distinctive interactive opportunities, which were accessed and used differently by individual children. But what were the mechanisms and processes operating during those interactive episodes? The next chapter addresses this question through a close examination of two typical teaching and learning episodes.

Chapter 6

Beneath the surface: analysing the detail of teaching and learning episodes

It is in the minute by minute interactions, the flow of communication of adults with children, children with children, and children alone using the cultural resources made available to them, that the knowledge, skills, values and ways of acting of a (sub) culture are passed on to and taken up, differentially, by young children. As Rogoff (2003) points out, in sociocultural research, the unit of analysis is 'the whole activity' (p.254). It involves looking at the purposes people are pursuing when thinking and looking at how their experience in one activity relates to how they participate in the next. 'The focus is on people's active transformation of understanding and engagement in dynamic activities.' (Rogoff, 2003: 254). This chapter examines the detailed flow of interaction in pre-school and reception by close scrutiny of people's engagement in teaching and learning, drawing on details of their verbal and non-verbal behaviour for clues about meaning and understanding.

Figure 6.1
Dimensions to data and analysis



It draws out from the minutiae of the lived experiences the mechanisms through which the teaching and learning operate, and the relationships within which they are embedded and to which they contribute. This chapter gives detailed analyses of two

episodes of teaching and learning, one each for pre-school and reception, typical of their kind. Both took place in the spring term of 2003, were part of a mathematics activity involving shapes and included one adult working at a table with a small group of children (two in pre-school, five in reception). The episodes demonstrate the methods used for transcription and analysis, the dimensions of which are illustrated in Figure 6.1, and for generating ideas about the mechanisms employed in the teaching and learning throughout the year, grounded in the data. For each episode, the teaching and learning are considered in context by reference to the physical setting and timing of the episode and the meanings attached to those; the sub-culture of pedagogy in which it took place; the identity of the participants and their relationships; and the location of the episode in the routine patterns of interaction for that setting. The microprocesses involved in the teaching and learning are then examined and the distinctive features described. Finally, opportunities for and evidence of learning during each episode are reviewed.

6.1 Episode 1: ‘Polyhedrons’ at pre-school, 5.3.03

Jill, the deputy supervisor, had joined Henry as he approached the maths activity table, set up with shaped construction pieces. Henry was the target child for that day’s recording and observation. They sat down together and began constructing and talking. Jill left the table for a short while to help another child, but soon returned. They were then joined at the table by Lloyd. The episode, the full transcript of which is in Appendix vii, traces the boys’ involvement in construction and conversation, supported and, at times, prompted by Jill.

6.1.1 Episode 1 in context

Physical setting and timing

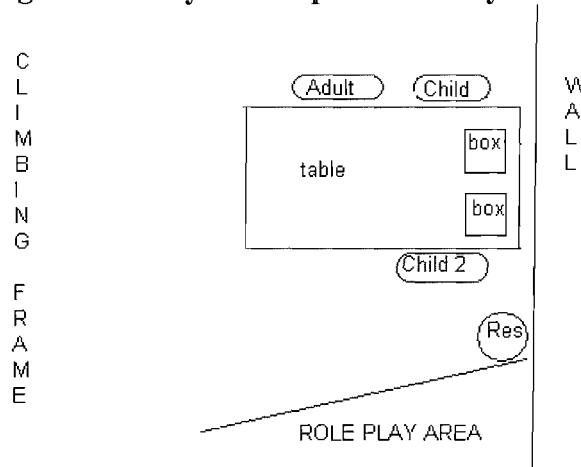
The episode took place in the main hall of the pre-school on a Wednesday morning at 10.27am. This was part of the recognised indoor ‘free choice’ play session in which children selected activities from those on offer and moved around freely with their choice of companions, supported by staff. The room was noisy and lively. Other activities on offer at the same time were:

- craft table (making ‘musical instrument’ shakers from plastic pots)
- playdough table

- drawing table (stencils, crayons, paper)
- painting easels and chalk boards
- role play area themed as a 'café'
- climbing frame and slide.

The episode took place at a table laid with plastic polyhedron and 'flower' construction shapes. Henry had previously been playing in the role play area with a large group of children and the deputy supervisor, who had been 'served' in the 'café' by several children including Henry. The position of the participants at the table is illustrated in Figure 6.2. My position as researcher is indicated: I was leaning with my back against the wall next to the role play area, facing the climbing frame, with my camera turned to face the table.

Figure 6.2: Layout of Episode 1 'Polyhedrons'



Participants

Adult: Jill

Child: Henry

Child 2: Lloyd

Res: Position of researcher with video camera. Audio recorder on table.

Sub-culture of pedagogy

As described in detail in Appendix ii and summarised at the beginning of Part 2, the sub-culture of the pre-school was characterised by an invisible pedagogy, weakly classified and framed. The interests of individual children and social and emotional development were emphasised. However, the pre-school planning also aimed to show coverage of all Foundation Stage curriculum areas, including mathematical development. Over time, it had become established that the pre-school offered a

maths activity almost every day in which children could choose to participate, usually supported by a member of staff. In reality, their choice was often influenced by the adults and friends present at the table and how appealing the activity appeared to be. This episode occurred at the maths activity table. In many ways, it exemplified the sub-culture of pedagogy of the pre-school in that the maths/construction activity formed the backdrop for individual and joint exploration of social worlds and meaning-making.

Identity of participants

The deputy supervisor was a long standing, experienced and qualified member of staff who identified with aims for children's social and emotional learning, in particular to engender self-confidence, self-esteem and successful learner identities in the children. 'Whatever they do, it's brilliant!' (Staff group interview, 13.5.02). In informal conversation, she had alluded to feeling that her own learning as a child had been hampered by a judgemental approach, which had undermined her self-confidence.

Henry was the second child in his family; he had an older sister. At home, he was seen by his mother as a 'sportsman', a capable and sociable child, very interested in outdoor ball sports and animals. His mother recognised a reluctance to attend pre-school and interpreted it as boredom, with the activities on offer too young for Henry and insufficiently sports-orientated. She felt that he was, however, 'resigned to it' (2nd home visit, 11.7.03; see Chapter 4, section 4.3, Table 4.3). At pre-school, Henry was seen by staff as a pleasant, friendly child who had strong supportive relationships with his family and grandparents. He was seen as sociable and well-behaved, 'keen to interact with staff and children' (key worker file entry, 25.9.02); 'confident and able to play independently' (key worker file entry, 25.11.02). He was seen as very capable in his gross motor skills, but with less confident use of his fine motor skills (informal conversation with key worker, 5.3.03). His tearful entry to pre-school on some mornings was interpreted as reluctance to separate from grandparents because he enjoyed being at home with them so much: 'He's a very lucky little boy' (informal conversation with key worker, 5.2.03).

An only child, at home Lloyd was seen as physically capable but cautious and careful, matching his perception of his abilities to what he was willing to attempt. He was seen

as having 'good focus and concentration skills' (parent interview, 24.10.02), being a logical thinker and willing to persevere. He was also seen as sociable and reasonable, his mother describing him in the parent diary as 'well-balanced' and with a 'caring attitude' (Chapter 4, sections 4.1.2 and 4.3). At pre-school, Lloyd was seen by staff as co-operative, well-behaved and enjoying a strong supportive relationship with his mother. He was viewed as being very settled in pre-school and with his regular childminder of whom he also appeared to be very fond. He was seen as sociable and capable with good fine motor skills, a high level of concentration and good communicative skills (informal discussions with key worker and with deputy supervisor, 5.3.03).

Relationships between the participants: There was a growing friendship between the two boys which had begun to develop in late autumn. It had been noticed by staff and both mothers, who were keen to nurture the friendship as the boys were to start the same school together.

The deputy supervisor was Henry's key worker. She had worked at developing a very good relationship with him and had supported him through upset times by involving him closely in her activities (for example, by inviting him to help her to mix the paints for the group) and becoming involved in his, often through conversations that spanned across long periods of time. Though not Lloyd's key worker, Jill had also formed a good relationship with him, though not as close as with Henry.

Location of episode 1 in pattern of interactions

This was a small group adult-supported activity within the context of 'free choice' from a limited selection and as such is the most commonly occurring type of interaction at pre-school. In the pattern of staff interactions (Chapter 5, section 5.1), it falls within the most frequently occurring interaction types: cognitive (stimulation) and social cognitive domain interactions, particularly in the form of encouraging, enabling, exploring, reinforcing and concern for well-being.

In the pattern of child interactions, (section 5.2) Henry typically took part most often in child with adult interactions, particularly in group activities or in responsive/collaborative interactions. These most frequently included accepting

support from adults and joint involvement with adults. Lloyd's pattern of interactions with adults, though fewer than for Henry, showed a high proportion of responsive/collaborative interactions characterised by responding to requests and by joint-involvement with adults. In his interactions with resources (alone or alongside others), he was seen to be problem-solving and self-evaluative as he used resources to meet his own goals.

In broad terms, the episode (although not included in the data set for the patterns of interactions analysis) can therefore be seen as a typical, frequently occurring example of the interactions of the staff and these two children in pre-school.

6.1.2 Microprocesses: Distinctive features of Episode 1

Affirmation and congruence

Throughout the episode, the adult's responses to the children were both affirming and congruent. By affirmation, I mean that the responses of the adult validated the children's contributions, though not necessarily always agreeing with them. The adult may have validated the child's way of acting, the results of the child's actions, the child's viewpoint, the child's experiences, the child's interpretations or intentions, the child's 'right' to be included or choice not to be, implying a valid position. By congruence, I mean that the response from the adult was accordant in all modes of communication. In other words, the verbal message was congruent with the messages conveyed through tone of voice, gaze, posture, bodily position, facial expression and speed of response, and with the placing of the response in its context (setting, timing, history, relationships, identities and roles). Congruence conveyed a deep sense of sincerity. My use of the term is influenced by Carl Rogers' use of the terms congruence and incongruence to describe feelings of integration or mismatch between 'self and ideal self, between what we experience and what we communicate' (Glassman, 2000: 258). In Rogers' theory, the terms are used to describe the feelings within a person. I use them to describe the potential values conveyed in messages. Nonetheless, my use also implies potentially consequent feelings induced in the person receiving the message.

In the 'Polyhedrons' episode, Jill's affirmative messages were conveyed in several different ways: the use of the body, use of timing, use of echoing or completing utterances in unison, and the use of words:

Use of the body

Jill used devices to affirm throughout the episode which were conveyed by her upper body position, the direction and length of her gaze, her hand position and gesture, and the tilt and proximity of her head. Such devices were apparent in rows 15, 16, 27, 31, 34, 35, 36, 37, 38, 41, 43, 44, 46, 49, 60, 71, 72, 73, 74, 78, 87, 93 of the transcript (see Appendix vii for full transcript of episode), illustrated by Excerpt 6.1: Rows 35-38 and Figure 6.3: Rows 73 and 74. (Note that the excerpt omits the final column, Lloyd's actions and speech; see Appendix vii for full details).

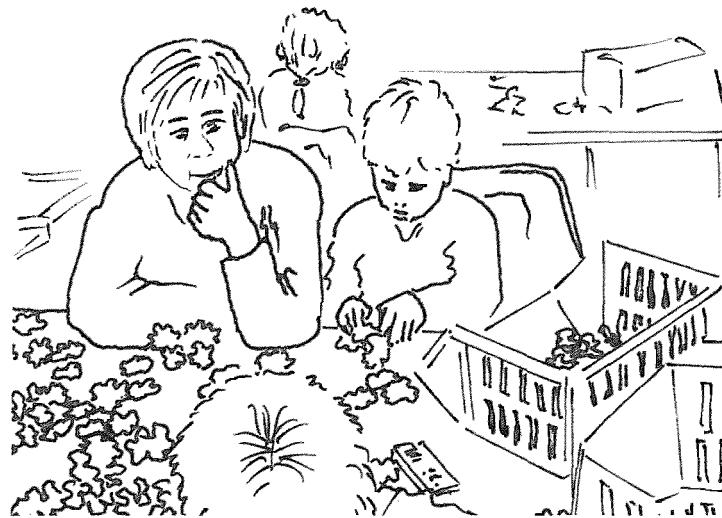
Excerpt 6.1: Rows 35-38, ep.1

Row	Time	Jill actions	Jill's speech	Henry's actions	Henry's speech
35	10.34.38	Face turned towards H, chin in hand. Points at H's model in line with her description. Pointing and looking intently at model.	I'll tell you what it looks like to me It looks like an aeroplane to me There's its wings There's the fuselage There's the front where the - hang on - pilot sits	Gaze to model as J explains.	No that's the wrong way
36	10.34.55	Leans head right over H's model to look at other side in line with H's explanation. Head close to model	Puts hands back up to table to point out his interpretation of the model. Indicates gap by putting flat hands close together, fingertips touching. Leans forwards over model to see and indicate more clearly. Indicates platform shape with hands close together, just touching, palms up.	That's the wing That's the gap way That's the gap where you walk	That's the - that's the thingy and that's the wheel that goes back like // that
37	10.35.09	Gaze to L, hand on chin. Points finger at L in emphasis. Very slightly shakes head as if in slight wonder, gaze to L still.	J>L Is it a flower Oh that's a good one A windmill yes	Demonstrates his construction going up. Begins to take his construction apart. Gaze to L's construction and back to own.	
38	10.35.23	Elbow on table, hand to mouth. Head turns to H briefly.	Have you ever been in a windmill - Lloyd - Have you ever been in a windmill		There's a windmill in the tellytubbies

		<p>Points at H with finger to emphasise agreement. Gaze back to L, head resting in hand.</p>	<p>J>H Is there Yes there is you're right And there's a windmill in - Um let me see - Trumpton too But I don't suppose you watch Trumpton It's not on telly anymore</p>	<p>Begins a new construction, fixing pieces with greater ease now.</p>	
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Figure 6.3: Rows 73 and 74

Use of body position and gaze to include both boys in conversation and give credence to their contributions



Use of timing

Jill affirmed Henry's right to attempt something he was finding difficult and affirmed it as a genuine and legitimate difficulty by the use of timing in her response to him between rows 24 and 28. She began by acknowledging the difficulty (row 24), locating the source of the problem in the nature of the activity and resources, not the child. She then tried modelling a method of overcoming the difficulty (row 24). She waited until row 28 before verbally offering assistance and in row 29, having watched Henry struggle and fail several times, used a combination of physical and verbal assistance, immediately withdrawing them once one successful attempt had been carried out. At the end of row 29 and into row 30, she checked on the success of the strategy. The timing, tailored to a close monitoring of Henry's needs and reactions, had the effect of validating his efforts, whilst ensuring a level of successful outcome, thus avoiding failure and frustration.

Echoing or completing utterances

At times during the episode, Jill echoed what was said or done by the other participants. In row 46, she echoed Henry's demonstration of his spinning construction and his words by making a similar movement with her hands and repeating and elaborating slightly on his words. In row 80, she again picked up and used the phrase Henry had used to describe the aeroplane's landing, thereby indicating understanding of his meaning and validating his choice of words. Throughout the episode, but referred to explicitly in the transcription in row 79, Jill echoed the children's activity of constructing with the shapes on offer. In row 16, she jointly stated the colour of one of the shapes with Henry, having first asked him to name them. By doing so, and by adding a comment about another colour, she turned it from an assessing question -something that children are simply requested to do by adults - into a joint activity. She later validated his explanation about leaving a car at the airport by completing the explanation for him, with the effect of jointly constructing the utterance and emphasising understanding of his meaning (row 69).

Use of words

This was initially the most obvious form of affirmation when viewing the video and listening to the audio recordings. It occurred frequently and is visible in the transcript in rows 24, 27, 31, 34, 35, 37, 38, 41, 46, 49, 71, 72, 87, 91, 93. It often took the form

of praise: 'Fantastic', 'Wonderful', 'That's brilliant', 'That's a good idea', but took other forms too. It sometimes acknowledged effort, process or thought rather than simply praising outcome or experience. This can be seen in row 27 'an interesting way of putting it together', and row 85 'Ah that's interesting'. Sometimes the words indirectly provided affirmation of a child's contributions. Near the beginning of the episode in rows 22 and 23, Jill accepted Henry's involvement in his own agenda with the shapes rather than imposing her own. In row 87, Jill used words to affirm Henry's assertion that although he felt he could not make the model she suggested, he was capable of making something else and it might have been reasonable to do that instead. Later in rows 90 and 91 (Excerpt 6.2: Rows 90- 91), she verbally affirmed his response to a direct question as valid even though its relevance was not immediately apparent.

Excerpt 6.2: Rows 90-91, ep.1

90	10.44.37	Taking apart own pieces. Gaze to H.	So are you going on holiday this year d'you know	Still constructing. Gaze to construction, head close to it to see better.	Well I'm going- I'm going um - Er for my swimming lessons - t t sometime	
91	10.47.48	Still manipulating own construction.	J>H Oh that's a good idea It's nice to be able to swim when you're on holiday - So where d'you go for swimming lessons	He adds an extra piece on the edge of the 'wheel' shape.	-// II	??? //I'm going to ???

She asked about holiday plans and Henry offered information about swimming lessons. She accepted his response and made the possible connection between the two, holidays and swimming lessons, explicit. In each of these examples, and there are others in the episode, Jill's verbal affirmation was of Henry's agency, which I consider in more detail below.

The congruence of Jill's responses was conveyed through the match between her messages expressed in different modes. This is evident in the amount of overlap and continuity between the transcription rows in which affirmation is noted in each of the means of expressing it examined above, but particularly between the use of body and

use of words. The consistency between the messages conveyed through body position, gaze, facial expression, gesture and the *timing* of these and the messages conveyed verbally was a distinctive feature of the interaction in this episode. Indeed, it was a distinctive feature of many of the interactions between these participants at preschool. Rows 22 to 23 (Excerpt 6.3) illustrate the congruence clearly.

Excerpt 6.3: Rows 21-23, ep.1

21	10.32.22	Touches H's arm to attract his attention, body close to his. Taps own pieces of polyhedron with finger in emphasis	Henry Henry I'm gonna find some of these these little flowers See if you can make the same pattern as me can you Look I've got -	Holds construction pieces. Gaze alternates to J's pattern and his pieces.	
22		Places shapes carefully, gaze down. Gaze to Henry		Turns body to right slightly away from J and begins to manipulate shapes attempting to fix them together.	Actually I'm doing this
23	10.32.39	Gaze to H. Turns body towards him and leans closer to him, giving his actions her full attention.	What are you making then Something different	Fixes two pieces together.	Yep

Jill's words suggested it was valid for Henry to have his own ideas of what to do with the construction shapes. Her actions, turning her body towards him, leaning closer, gazing towards him and then watching his actions intently, all conveyed the same message and an interest in what his ideas might be. Considering possible alternative actions helps to clarify the strength of the congruent message. Consider instead the potential for a mixed message if her words had remained the same, but her actions instead were comprised of turning her body slightly away from Henry, and gazing and leaning closer to another child, perhaps one who was willing to follow her suggestion. The excerpt from row 33 to 35 is another good example of how the actions were congruent with and therefore strengthened the verbal message. It became apparent throughout the episode that Lloyd was more adept than Henry at quickly producing regular and quite complex constructions with the polyhedrons and that Henry became aware of this. In row 33, Henry had implicitly asked for an evaluation of his model, following Jill's praise for Lloyd's model. She verbally offered praise, but the words were echoed and strengthened by the way in which she removed extraneous pieces of polyhedron to show the model off clearly, and the way in which she used her body to convey attention to and appreciation of his model, emphasising her interpretation of it.

This, then, was congruence which offered clarity and sincerity in the messages conveyed.

Power and control

In the setting, as the Deputy Supervisor and a long-standing, trained staff member, Jill clearly had a level of power far in excess of that of the children. In the pre-school, though, at the time of day at which the episode took place, it was customary for power to be temporarily shelved and for a degree of control to be located in the children. This was linked to the sub-culture of pedagogy of the setting (see Appendix ii, summarised at the beginning of Part 2) in which children's freedom of choice of activities, how to carry them out and with whom, were given high priority for at least part of the session.

In the 'Polyhedrons' episode, such shifts of power and control were evident, though by no means fixed. Suggestions were made by the adult, but were not enforced (rows 22 to 24), interpretations other than those of the adult were accepted as valid (as in row 43), and the children perceived and exploited a freedom to reject offers or suggestions (row 86), offer alternatives (rows 35 and 36) and steer interaction to include their own agenda and experiences (row 66). Throughout the episode (from row 27 onwards), Jill attempted to include both boys equally in the conversation, using a combination of gaze, posture, proximity, direct questions and comments. Henry, however, frequently attempted to enter the conversation when Jill's attention rested on Lloyd (rows 33, 38, 54, 55, 62, 82, 84, 94, 96). Lloyd generally accepted the situation because he appeared (from the limited view of Lloyd) to be engrossed in construction and, at times, slightly reluctant to participate in the conversation. However, the control was only on loan to Henry from the adult: in view of his persistent interruptions and her efforts to engage Lloyd in the conversation, she took back control in row 82 and effectively asked Henry to give Lloyd chance to answer. His actions indicated his recognition of her regain of control. In so doing, she had demonstrated the convention of turn-taking and sharing 'the floor' in conversation. However, she quickly asserted Henry's turn to speak once Lloyd had effectively declined the invitation to participate at that point.

There was a further element of sharing of power and control towards the end of the episode when Jill asked the children for suggested interpretations and evaluation of her own construction (rows 97 to 100). Although the power and so control ultimately rested with the adult, the Polyhedrons episode showed a more balanced sharing of control, however temporarily, which I would argue did much to maintain the children's, particularly Henry's, involvement in the activity. By 'the activity', I mean the conversation as well as the construction.

Individual agency

Influenced by Bruner (1996: 35, 87 and 93), I define agency as an ability to act upon things, one's own ideas, and to influence other people, to an extent, to allow for one's agency. In this episode, agency was demonstrated by Henry and Lloyd in several different forms: asserting and valuing their own interpretation of the activity's purpose; asserting and valuing their own interpretations of their actions or skills; asserting and valuing their contributions to the interaction as equally relevant and steering the interaction to include them.

Asserting and valuing their own interpretation of the activity's purpose

From the limited information available in the recordings, from Lloyd's completed models and from the field notes of that morning, Lloyd appeared to be thoroughly engrossed in using the shapes to construct. On several occasions during the episode (rows 32, 58, 80, 81, 82, 89, 90), he exercised his agency to focus on the construction and not to be distracted from it by becoming overly involved in conversation.

Although Jill made a concerted effort to include him in the conversation and to relate to his experiences, he resisted the attempts whilst maintaining a polite level of response. Henry demonstrated a similar form of agency in rows 22 and 86 in which he politely, but effectively, asserted his intentions in the activity after appearing to consider Jill's suggestions.

Asserting and valuing their own interpretations of their actions or skills

In rows 35 and 36, and again in row 43, Henry could be seen exercising his agency in making clear to Jill his own interpretation of his constructions. Interestingly, although he refuted Jill's offered interpretations, they seemed to prompt him to clarify his own interpretations, clearly building on the interaction with Jill or between Jill and Lloyd.

Asserting and valuing their contributions to the interaction as equally relevant

Henry frequently steered the interaction to include his own contributions and experiences even where they did not relate specifically to a question posed (rows 66, 72, 82, 88, 90, 94). Jill, in turn, responded in a manner that made tenuous links explicit, as in Excerpt 6.2: Rows 90-91, or accepted the contribution as having equal status. In rows 33 and 96, Henry's attempts to assert his contributions appeared to be motivated by competition with Lloyd for Jill's attention. Jill again moderated his feelings by carefully offering equal amounts of praise and attention.

Quiet collaboration

During the episode, there was an underlying sense of quiet collaboration in the construction and conversation. Jill commented on the boys' constructions, prompting their own interpretations. Henry drew on Jill's interpretation of his model, adapted it, then drew on Lloyd's construction as a source for ideas, but applied his own interpretation to it. The children, particularly Henry, appeared to be evaluative of their own and each other's constructions and contributions. The conversation, though initiated by the adult and with the adult's concerted attempts to maintain momentum and inclusion, was jointly constructed with the children. Each participant contributed, weaving in their own ideas and links, building on each others' contributions. The adult was an almost equal partner in the activity and conversation, drawing on the children's ideas as they drew on hers, rarely interacting in a manner suggesting instruction or assessment. The actions and speech of the participants were woven together in the interaction, as shown in Excerpt 6.3: the constructions prompted verbal interpretations; these prompted associated ideas in the conversation; the conversation added to the meanings attached to the constructions. The 'weaving together' involved shifting between contextualised and decontextualised interaction.

Excerpt 6.3: Rows 43-47, ep.1

43	10.36.30	Turns to left in response to other children coming to table. Gaze back to H. Head resting in hand, elbows on table, body half turned to H. Appears attentive.	So you're making one now too That's brilliant! Oh aren't you Sorry I thought you were making a water mill - What are you making then	H has now made a copy of L's model. Gaze to own model.	#No I'm not
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44		Nods in agreement or understanding.	Umm	Indicates direction of rotating movement with two hands and makes noise. Gaze still to construction.	I'm making something water goes round and it goes (sound effect)
45	10.36.46	Turns to child visiting table.	J>C3 Hello J>H That's brilliant	Gaze to C3. Attempts to spin his construction	It spins round It goes
46	10.37.00	Indicating turning motion with both hands and fingers.	It does It goes round and round	Gaze up to J.	????
47	10.37.02	Head and gaze towards H, chin resting in hand.	Your Grandma ought to take you to Winchester There's a fantastic water mill there Oh my goodness You'll have to tell her about that when you go on one of those exciting excursions you like to go on	Breaks up his construction. One piece flies across the table. Turns head left to follow noise. Takes some extra pieces and lays them out. Gaze still to construction.	

Contextualised and decontextualised interaction

The interaction took the meanings beyond the here and now to include past events (going on an aeroplane, a past holiday), possible future events (holiday plans, swimming lessons) and cause, effect and consequence (what type of clothing is needed for certain climates, how to plan a trip, relative speeds of aircraft), whilst remaining linked to the here and now of the constructing. Jill eased the flow from contextualised interaction, relating to the model-making, into decontextualised discourse as in rows 37-38, 46-47, 54-55. In rows 57 to 58 (Excerpt 6.4), she shifted to a more general, abstract level of discourse about what a person might need to take on a long journey.

Excerpt 6.4: Rows 57-59, ep.1

57	10.39.03	Smiling. Wide eyes, smile, look of surprised pleasure.	Are you in your dreams or really and truly Fantastic // Have you packed all your bits	Gaze to L. Hands off table, sitting back slightly. Turns head and face to J to be almost diagonally in front of her face.	// ???	I'm really am	
58	10.39.12	Gaze directly to L. Elbows on table, chin resting in hand.	What do you need to take for a long journey like that	Sitting still, hands down under table, gaze to L. Sits back.		I can't remember now	

		leaning forwards.					
59	10.39.15	Gaze to H.	D'you need your toothbrush Anything else Toothpaste	Face turned to J. gaze to J. Smiles.	You'd need to take some clothes 'cause otherwise you'd be // naked	Yeah Hmm // Sandals	

In rows 86 to 88 (Excerpt 6.5), we see how she maintained the flow of conversation between these different levels, easing the shifts by appealing to the children's own likely experiences.

Excerpt 6.5: Rows 86-88, ep.1

86	10.43.46	Gaze to L's construction, head tilted to side towards H. Leans across in front of H to push box along, giving him a clearer table space.	J>H Fantastic isn't it Why don't you try to make one like that Move // that that way Oh you can if you try #	Furrowed brow in concentration, gaze to L's construction, head slightly down, hands under table. Raises eyebrows. Takes some pieces	H>L What's that Lloyd // I can't do that # But I'll tell you what I can make	?????
87	10.43.58	Places own construction down, turns towards H.	What can you make You show me I'm sure you can make something	Begins to join pieces together.		
88	10.44.05	Picks up own construction again, gaze to H. Head turned to H then back to own construction, elbows on table.	So when you went to this foreign country did you buy anything Did you spend some pocket money You must have spent some pocket money A mini # That's really nice wow What colour was your mini Oh	Gaze to own construction. Head tilted to side briefly. Brief gaze to J. Creating a 'wheel' shape again.	Hmm Well – Well my cousins went and they buyed me a mini #Yep Umm green	(L's next construction is visible. He examines it and continues to manipulate it.)

It was noteworthy how, in Jill's two temporary absences from the table, the children's interaction was based much more on their current context, a combination of speech, sound effect and action used to convey meaning. I suggest that Jill's encouragement and support to shift from contextualised to decontextualised discourse and back, whilst continuing with the construction, produced an episode in which the cognitive challenge was high. It was, however, the *combination* of challenge, affirmation and congruence that I suggest made this episode a potentially powerful learning experience for the children.

Blending support and challenge

When viewing the recordings, it was evident that at times Henry inadvertently flouted the rules of conversation with regard to relevance, considered under Agency above, and turn-taking that might be considered usual amongst more experienced or adult language users in this group. He took additional turns when it had been assumed by Jill that his turn had finished and she had indicated an intention for herself or Lloyd to speak. This was particularly evident in row 79, in which he added detail about sucking a lollipop and in 84 where he added information about his night flight. It was by being flexible about the rules for turn taking, holding the floor and relevance that Jill provided space and support for Henry to contribute and so created a jointly constructed conversation. For children of this age, ideas can take longer to form and translate into words, and 'relevance' may take a broader, more associative form than direct response. Strict adherence to turn taking or relevance rules may stifle children's expressions of meaning, thereby reducing the possibility of constructions of joint conversation and knowledge.

In row 36 (Excerpt 6.6), it is apparent that the form of support offered by Jill (giving an opening for Henry to interpret his model; no interpretation forthcoming; Jill offering her interpretation), while respecting his agency, led to a rise in the level of challenge. In row 36, Henry combined actions, using hand gestures to amplify his representation, to supplement his verbal description of his model, closely aligned to his knowledge and experience of aeroplanes, the aisle, the retractable wheels for landing, all prompted by Jill's (in Henry's view, inadequate) interpretation of his construction.

Excerpt 6.6: Rows 35-36, ep.1

35	10.34.38	Face turned towards H, chin in hand. Points at H's model in line with her description. Pointing and looking intently at model.	I'll tell you what it looks like to me It looks like an aeroplane to me There's its wings There's the fuselage There's the front where the - hang on - pilot sits	Gaze to model as J explains.	No that's the wrong way
36	10.34.55	Leans head right over H's model to look at other side in line with H's explanation. Head close to model		Puts hands back up to table to point out his interpretation of the model. Indicates gap by putting flat hands close together, fingertips touching. Leans forwards over model to see and indicate more clearly. Indicates platform shape with hands close together, just touching, palms up.	That's the wing That's the gap way That's the gap where you walk That's the - that's the thingy and that's the wheel that goes back like // that

Engagement and involvement

Throughout the episode, Jill used a variety of devices to engage Henry and Lloyd in the activity. She provided stimulation in the form of enriching comments, suggestions and exploratory conversation, which raised the cognitive challenge of the episode.

The stimulation was closely matched by sensitivity to each child's contributions, using actions, gaze and body position to convey interest in and affirmation of the children's part in the activity. This was also balanced by offering autonomy, giving space for the children's choices and interpretations. It was in some of these spaces that cognitive challenge and involvement rose as Henry strove to explain more fully his interpretation of the models or to participate in the conversation.

Henry was deeply involved in the activity on several levels. He was involved in the physical act of constructing, persevering in trying to connect the pieces to form meaningful shapes. He was involved in interpreting the shapes to Jill. He was involved in observing Lloyd's constructions and in taking ideas from them to incorporate into his own work. He was also involved in the conversation, contributing ideas and information. His level of involvement dropped considerably when Jill was temporarily absent from the table as he waited attentively for her return.

6.1.3 Potential learning outcomes: spiral and spread

My reflective diary entry for the 5.3.03 includes the following comments on this episode of teaching and learning:

Very good example of Jill using a combination of support, sensitivity, stimulation, and autonomy to maintain and extend quality involvement in the activity. Could perhaps have talked more about mathematical shapes, number of sides, linking to shapes in real world. Very good use of conversation to enrich, explore and engage. Note Jill's insight into Henry's strengths and weaknesses and how she tries to support his fine motor skills. Note Henry's lower level of involvement when Jill first leaves table and children's different type of play when she leaves second time. (Reflective diary, 5.3.03).

A close examination of the recordings and transcription reveal the potential value of this type of episode in developing children's self-esteem and self-confidence in interacting successfully with adults, of developing a sense of mastery, and of expecting to be understood and valued. It contributes to an image of themselves as able participants in interactions alongside adults, sharing knowledge and meanings, and as agentive beings. The interaction has the potential to build confidence in their skill of drawing on all modes available to them, bodily, semiotic and verbally, to formulate and communicate representations and interpretations. The combination of heuristic construction in which the physical properties of the materials are explored and the representations discussed, linking context and construction to the wider world of their experiences – past, present and future – has the potential to alert them to the connection of ideas, experiences and events to symbolic representation.

Henry linked his physical construction, apparently made without a specific plan or purpose, to Jill's interpretation. He linked this to his knowledge and ideas about aircraft. This was linked to wider experiences of aeroplanes and travel, future planning and past events. These were linked to relational facts and sources of knowledge. All were opportunities for practice in formulating, representing and communicating – jointly, semiotically and multi-modally.

The episode does not however simply illustrate the way in which children can be encouraged to become involved with and have confidence in their own ideas. It also illustrates how the adult's interactive choices encourage attention to other's ideas and

to connecting thoughts, and how these can be of use in developing one's own and joint thinking. Henry clearly spent some time during this episode deeply involved in the physical construction of making two dimensional shapes into three dimensional models, practising the manipulative and representational skills demanded of such a task. To do so, he drew on Lloyd's model-making, Jill's attention to it and on the conversation of which he was part for inspiration and motivation. In the audio recorded discussion with pre-school staff about the videoed episodes (14.7.03), Jill commented on the value of construction being in the thought processes involved as the children's ideas were stimulated and developed, rather than in the end product. She also pointed out how motivating Henry had found observing Lloyd's construction, which had shown him that it was a possible achievement for a child and so encouraged him to take a risk and try it. Jill did not just enable and encourage, but combined these with affirmation, challenge, prompts for the children's contributions and space for their initiations in a way which resulted in *spiral and spread*, bringing greater challenge and breadth to the episode in collaboration with the children. Jordan (2004) refers to the adult's role in such an episode as 'co-constructing' and sees it as a way of empowering children as learners.

The learning potential of the episode, if built on the foundation of the jointly constructed, meaningful interaction, may have been increased by:

- Offering verbal labels for the shapes and their properties in terms of dimensions ('flat', 'solid'), sides.
- Offering links between shape and the use of numbers to describe and differentiate shape, e.g. number of slits in polyhedrons, number of additional pieces each polyhedron would support.
- Offering verbal links between shapes in construction and shapes in the children's wider experience, e.g. rocket, body of plane – cylinder; water wheel – circular.

Providing the first steps in offering 'scientific' labels to the children's spontaneous concepts might offer the possibility of learning becoming transferable, with the language re-usable in different contexts, and so provide the first steps (when arrived at in the context of purposeful activity and involving conversation, as in this episode) towards principled knowledge as opposed to heuristic or incidental knowledge, which is perhaps less clearly transferable.

6.2 Episode 2: 2D and 3D shapes in reception, 16.1.03

The reception teacher, Clare, led a shape recognition activity seated at a table with five children, one of whom was Paul, the target child for that day's recordings and observations. The episode, the full transcript of which is in Appendix viii, tracks the teacher directing an activity in which children were to identify whether a shape had two or three dimensions and to name the shapes, if possible. During part of the episode, the activity was turned into a type of game. The transcript also tracks the children's, especially Paul's, involvement in and reactions to the activity. For the final part of the episode, the other children had been allowed to leave the table and Paul received a short period of one to one tuition following a similar format.

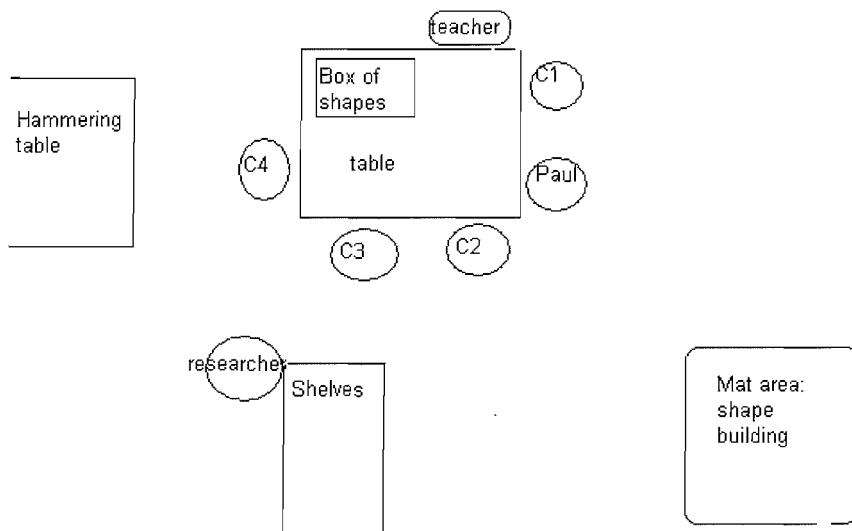
6.2.1 Episode 2 in context

Physical setting and timing

The episode took place on a Thursday morning during the small group part of the Numeracy Hour. The teacher's weekly plan showed 'shape' to be the main topic for numeracy for that week, with the aim of drawing attention to the number of 'sides and edges' in shapes. Emphasis was placed on recognising shapes in everyday objects and in sorting the shapes. Small group tasks had included making shapes from playdough, making pictures and models from 2D and 3D shapes, and naming and sorting shapes. The task in this episode was planned as 'sorting through objects from a feely bag', although in practice, the teacher used a box and selected the objects herself. The children grouped for this episode were the 'circles' and semi-circles', the teacher's names for the groups of children she categorised as the 'below averages'.

Immediately prior to this episode, the class had taken part in a ten minute whole class session on the mat, focused on 2D and 3D shapes, led by Clare. Shapes had been selected and presented to the children with a brief discussion of each shape's properties (number of points or corners, number of faces, comparative length of sides and faces) and similar shaped everyday items (cube: 'Looks like a box, a dice'; cone: 'Like an ice-cream cone or a party hat.'). A few individual children had been invited to select a similar shape from the collection. The teacher had sorted the shapes into two sets of 2 and 3D shapes, eliciting or providing the names of each as necessary.

Figure 6.4: Layout of Episode 2, '2D 3D shapes'



Key:

Teacher: Clare, the reception teacher
 Paul: Target child for this observation
 C1 to C4: Other children in 'below average' groups, all boys.
 Researcher: Position of researcher with video camera. Audio recorder on table.

This episode took place around a table in the main classroom as shown in Figure 6.4. The location, timing, and the teacher leading the activity were indicators of 'work' for this reception class. It was likely that the children were expecting to carry out an adult-directed task. The room was noisy because of the nature of other groups' activities, particularly the hammering, which made it quite difficult for the children and teacher to hear each other.

Sub-culture of pedagogy

The ethos of the reception classroom and the perceptions of teaching and learning held by the staff were outlined in some detail in Appendix ii and summarised at the beginning of Part 2. Equally pertinent was the way in which the reception class sub-culture fitted into the school ethos and the route laid out for children as they moved at the end of the reception year into Year 1. The sub-culture can be best summarised as one of learning by meeting specific objectives delivered and structured by the teacher, closely tied to the government teaching strategies. 'Play' or 'active learning' were cited by the teacher and LSA as pertinent to children's learning, as was learning to use

their bodies in physical activity. However, inherent in the values conveyed and explicitly expressed was the idea that these too needed to be adult-initiated and structured if they were to count as 'learning'.

Also inherent in the sub-culture of pedagogy was the belief that children's abilities were largely fixed, although receptive to enhancement with correct support and challenge. Whilst acknowledged as being influenced by environmental factors (such as home background), the source of a child's abilities in the classroom were located primarily *in the child*, rather than in the relationship between the child and the classroom ethos.

Identity of Participants

Paul was the target child for this observation. His identity at home and at school was as a child who was 'difficult', but at times vulnerable. His relationship with his mother had been difficult at times (Chapter 4, section 4.4.1). His relationships with other children had generally not been easy, but in this small group, he was beginning to form tentative friendships with C1 and C2, though he still clashed regularly with C4. Clare at times found his behaviour challenging, but attempted to balance control and a positive guise towards him, thus ensuring structure to guide his learning and to make his behaviour fit better into the acceptable school pattern, not least to protect other children. In the field notes for that particular morning, I had noted the display board showing that Paul had been awarded the 'WOW' ('worker of the week' certificate presented in Friday's assembly to one child in each class, chosen by the teacher) and how this might be a sign of a more positive identity of him forming in the class.

Clare's identity was as a newly qualified, young teacher forging a place in a school new to her and had quickly developed into that of a teacher who was in control, competent, lively and fun. Paul was perceived by Clare, and by many others in school, as having challenging behaviour. Throughout the year in informal conversations with me and with colleagues, Clare sought to understand his motives, how to best to handle him and whether her approach was relieving or contributing to the problems he presented at school. At times, her concerns, approach, and at some points her weariness with the problems oscillated between despair, understanding and dismissal,

all legitimate positions when viewed through the eyes of a person trying to meet the goals set before her.

The identities of the other children in the episode were of children whose attention needed to be ‘captured’ and monitored, who often needed support in meeting the learning objectives, but who were generally co-operative. The comments in relation to ability and the status of this group as being below average were also relevant to their identity.

Location of episode 2 in the pattern of interactions.

As outlined in Chapter 5, section 5.1, although adult to whole class interactions were the most frequently occurring of the interactive types in reception, around a third of all staff interactions were with small groups of children. The most frequent interactions in small groups in reception were instructing/explaining/discipline; assessing; enabling; modelling and encouraging (see Chapter 5, Figure 5.4 and Table 5.2). Of adult to one child interactions, the majority in school were assessment interactions, followed by instruction/explanation/discipline and some encouraging and enabling. As pointed out in Chapter 5, these interactions were adult-controlled and focused on the performance of tasks, offering little space for the child to exercise control or initiative.

For Paul, most of his interactions were focused on an adult (see Chapter 5, section 5.2.2). Of these, most were requests for feedback or support to achieve adult-set goals and responses to adult direction or requests. In this episode, Paul made few requests for feedback or support, except to try to obtain permission to do something he found more appealing than the set task. Many of his interactions were responses to directions or requests by the teacher, whilst his own initiations were at times curtailed by the teacher as being outside the remit of the task. This episode shifts from an adult working with a small group to an adult working with one child. Both of these were typical of their kind observed in reception over the year.

6.2.2 Microprocesses: Distinctive features of Episode 2

Tight focus on clearly defined learning objectives

One of the most distinctive features of the teaching in reception, in contrast to pre-school, was the focus on specific learning objectives. The teacher planned, initiated, steered and assessed the children's learning against the objectives, keeping the activity tightly focused, with a model of learning as the transmission and acquisition of knowledge and the development of skills. This episode is a good example of just that approach, emphasising knowledge acquisition, and clearly illustrates the devices the teacher used to drive it forwards, as well as the children's responses to it.

Some of the devices used were:

- *Repetition*: the teacher repeated the same question or task using different shapes to ensure that a level of general understanding was reached about the criteria to be used and applied in categorising shapes (for example, in rows 3 to 5). The question in row 1 gave the lead-in to identify the characteristic (flatness) that the children were to apply to decide on the number of dimensions a shape had.
- *Reframing of responses*: children's responses, which were correct in some form but did not strictly meet the criteria for 'correct' in relation to the point the teacher was trying to emphasise at that time (rows 8, 16, 22, 27 and 45), were reframed to provide a better match.
- *Refocusing attention*: the teacher dealt promptly with children whose attention wandered beyond the remit of the task and kept her own responses to children's contributions from dwelling or elaborating on more loosely related details (rows 6, 18, 21, 23, 19, 16).
- *Recapping*: only the learning points deemed salient by the teacher for the objectives were recapped (rows 25, 43-46).

Some of these devices are illustrated in Excerpt 6.7.

Excerpt 6.7: Rows 21-25, ep.2

Row No.	Time	Adult actions	Adult speech	Target child actions	Target child speech	Other child(ren) actions /speech
21	9.38.26	Places in centre of	A>TC & Cs	Puts face up,		C2>A

		table, quickly. Half smile. (No gaze or verbal response to TC)	Have a look at the shape. A>C3 No, you're telling me the <i>name</i> of the shape now.	eyes closed tightly, smiling.	#Triangle! (joining onto word said by others)	[Triangle!#] C3>A #3D shape!
22	9.38.37	Gaze to C, nodding, but tone of voice indicates this is not the answer A was looking for. Gaze down. Gaze to C, eyes wide, questioning expression, half smile. Take shape into hands.	A>C3 It is a 3D shape, well-done. What's the name of that shape? A>C2 Pardon? Cube! (high, surprised voice). Well-done!	Picks nose. Looks at C6 coming back from toilets. Turns right towards Cs on mat.	TC>C7 C7!	C2>A Cube Cube
23	9.38.43	Gaze to TC. Eyes open wide, but brow raised. Face unsmiling, mouth slightly open. Silent gaze to TC extended for a second.	A>TC Paul! Look at me.	Turns back to A, arms resting on desk, gaze to A.		
24	9.38.46	Turns head away from TC, holding shape in palm on table. Holds shape in fingers to emphasise. Gaze to C, left.	A>Cs It's a cube, C3, a cube.	Stretches arms out in front on table.		
25	9.38.50	Gaze to Kate approaching table. Pushes shapes across to left of table one at a time, emphasising words, gaze to C on left.	A>C6 Yes, C7 can go to the toilet now. A>Cs Right, so we've got a triangular prism and a cube	Gaze to C6. Begins finger play back and forth across table, gaze to hands.		C6 asks if C7 can go to toilet now. C2>? ? when someone's being naughty?

Combined use of words, gesture and objects to teach

It becomes clear from the detailed transcription, incorporating actions as well as voices, that Clare drew on several different modes of communication to try to convey

to the children the learning objectives. For example in row 1, she emphasised the main criteria she has chosen for categorising a shape as two dimensional, its flatness, by patting the shape between two flat palms. She placed the shapes on the table in groups of 2D and 3D shapes, illustrating their similarities by their positioning. It is worth noting here that the 'flat' shapes were in fact quite thick and partly raised and could have been convincingly described as being 3D rather than 2D, opening the possibility for confusion. Flatness was therefore a property that needed emphasis, if not exaggeration, to make the dimensions clear to young learners.

In row 8 (Excerpt 6.8), she used a combination of hand gesture and objects to show the difference between a circle and a sphere. This was followed in row 9 with a patting gesture and an instruction to Paul to put the shape in the correct group, reinforcing the point made.

Excerpt 6.8: Rows 8-9, ep.2

8	9.36.15	Holds circle up in 2 hands, gaze to L. Raised brows, nods. Raises fingers in cup shape over top of circle. Reaches down to take orange. Holds orange up next to circle, gaze to Cs.	A>L It is a circle, L, you're right. A>Cs If it's 3D...it's gonna be...like this darling. It would look like a sphere... Okay? 2D means it's a flat shape.	Gaze to camera, finger in mouth, elbows on table. Head turned away from A, gaze down to Cs on carpet.	(C2 leans body right over onto table)
9	9.36.28	Gaze briefly to TC. Puts orange back down in box on floor. Pats circle in emphasis, gaze to TC. Hands circle to TC.	A>TC Paul, it's a <i>flat</i> shape. Put it with the 2D shapes.	Turns head back to A in response to A's speech, hand touching chin, facial expression still. Takes circle from A as directed and puts it on table with other 2D shapes, gaze down.	C>A 2D

In rows 16 and 17, she positioned the triangular prism so as to emphasise the end-shape, triangle, as she said its name, 'triangle' being both the shape and name the children were most likely to have met before. She also used an unusual 'slicing' gesture with her hand which seems to emphasise that the triangle ran throughout the length of the prism (Figure 6.5).

Figure 6.5: Row 17
Using resource positioning and gesture to emphasise the shape of a triangular prism



It was also clear, however, that the combined use of gesture, touch, positioning, objects and words were to remain within the teacher's domain. They were not things in which the learners were allowed take part unless specifically requested to place something. Here, the multimodality was a strategy employed by the teacher for teaching and was not a strategy made available to the learners except in a passive, receptive way.

Use of 'game' genre

In the episode from row 13, the teacher turned the task into a 'game' in which the children had to cover their eyes whilst she chose a shape, then open their eyes and guess the name of the shape. It seems that Paul's contribution at row 13 may have influenced this decision; the teacher took up the suggestion implicit in his question to liven up the rather staid task of recognition and recall. This fits with the more recent proposals in early years education to employ a 'playful pedagogy' (for example, Howard et al, 2002) as an alternative to the choice between instruction and 'learning through play'. However, in this episode, and frequently in reception, the 'game' stayed firmly within the parameters of school discourse and adult control. Many games have rules, but this game did not involve the often associated aspects of fun, choice, freedom to participate (or not), and participants often being on an equal

footing, even if taking different roles at times. The children had to recognise and adhere to these largely unspoken parameters, some doing so more successfully than others. In rows 20, 22, and 26, for example, Paul seemed to be under the impression that he could choose *not* to play, a misapprehension that further added to his learner identity as a child unable or unwilling to concentrate in school. Nonetheless, the use of the device did appear to serve the purpose of raising attention levels, if only for a short while, and of engendering an at least superficial level of co-operation and some pleasure in the children.

Children's motivation to reach understanding and to please the teacher

In spite of the fact that the episode shows a very controlled teacher-initiated, teacher-led activity, the children were nonetheless active partners. Throughout, they showed a high level of compliance with the teacher's instructions, something I discuss under *Agency*, below. But for some of the children, it was more than simply going through the motions as directed; some of the children tried to make sense of the activity by broadening the focus and talking *around* it in a more exploratory way or by trying to link it to previously formed ideas or knowledge. In row 7, for example, in response to the teacher's clear focus at that point on categorising according to '2D or 3D', C2 commented on the fact that it had both a label relating to dimension *and* a name. Similarly, in rows 16 and 18 (Excerpt 6.8), C1 tried to make sense of an unfamiliar shape with a new name by connecting it to familiar words and ideas.

Excerpt 6.8: Rows 16-18, ep.2

16	9.37.40	Folds lips in briefly, half smiling. Tone indicates 'correct' but not what A was looking for. Gaze to TC.	A>C3 It is a 3D shape, you're right. It's got a tricky name, this one. Not sure you've met this one before.	Picks nose. Gaze fixed on A, head resting in chin.	C1>A Umm
		Points at/touches top of shape.	What shape is this here?	Turns from A to right, hand & gaze down to leg. Gaze to camera.	
		Picks up shape and holds end towards Cs.	Yes...		

			Like a tent, yes (high tone)		
17	9.37.56	Places shape on flat palms held up. Gaze shifts around Cs. Half smile. Indicates 'slice' through shape using 1 hand.	A>Cs It's called a triangular...Can you say that word? Triangular prism.	Smiles to me, shrugging shoulders to ears.	C2 & C1 nodding ?>A Triangular C2 leaning forward onto table
18	9.38.07	Gaze to TC, nodding in emphasis. Smiles.	It's a very big word isn't it? Wow! Triangular prism. Triangular prism	Gaze to A. Nods. Smiles. Exaggerated laugh, open mouth, head thrown back.	C2>A Like when someone's in jail?

In row 33, C2 used gesture to try to capture the sense of the new shape, pointing out that it was the same as the smaller triangular prism already on the table. He also drew on a more familiar object with a similar sounding name, a gel pen, in his attempt to recall the name of the new shape.

Paul used fewer verbal articulations in his attempts to make sense of the activity, but when analysed closely, his actions reveal such attempts conveyed in facial expression and gesture. In row 14, for example, as the teacher outlined the rules of the game, Paul picked up on her explanation about raising a hand and raised his own in immediate, though at this point inappropriate, response. In row 18, he responded to the teacher's mock awe and excitement at the 'very big word', triangular prism, by echoing and exaggerating her amusement.

Throughout the game, visible in row 26 (Figure 6.6), Paul exaggerated and dramatised the actions of hiding and revealing his eyes to 'guess' the shape. I suggest that this was more than just following instructions, but was also an attempt to make sense of the task by connecting to and demonstrating the things he knew how to do. Perhaps his concern to try to determine the actions required and to carry them out were understandable given his identity in school as a child whose actions were frequently

‘wrong’. It may be that *doing* school, rather than understanding the meanings behind the actions, had come to be of primary importance to Paul.

**Figure 6.6: Row 26
Paul hiding his eyes**



Control

This was undoubtedly an episode in which Clare controlled the choice of activity and the way in which it was carried out. Control was conveyed through words, through actions, and through selective combinations in employing the means of communication.

Use of the body; conveying congruence and incongruence.

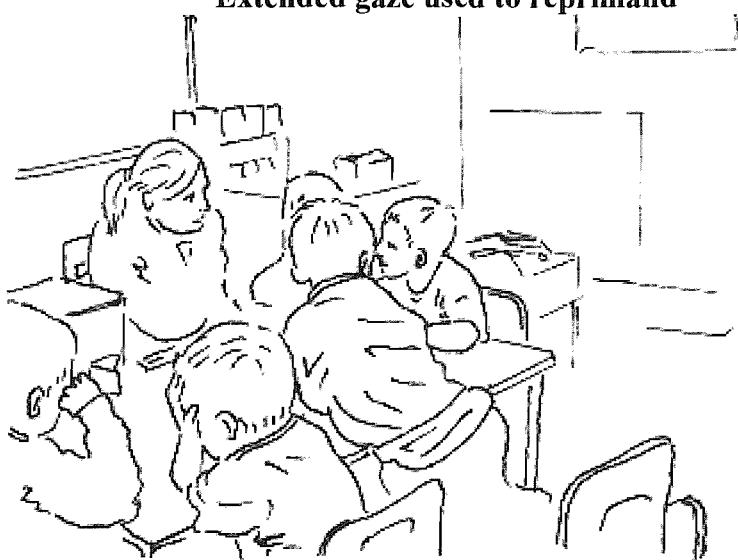
In rows 2 and 4, she used a frown to indicate the seriousness of her intent and the thought required for the task. She used a gesture with hands shielding the shapes in row 6 (Figure 6.7) to emphasise her instruction to the children not to touch the shapes and to point to the children she was praising for inadvertently complying with rule. The way in which the box of shapes was positioned for the teacher’s use, and in which only the teacher was allowed to touch the shapes (except where she directed a child to do so) ensured a tight control over the children’s actions with regard to the task.

Figure 6.7: Row 6
Children told not to touch the shapes.



In row 23 (Figure 6.8), she added weight to her instruction to Paul to look at her by extending the length of her gaze to him for an extra second after she had finished speaking to him, congruent with the verbal message that this was non-negotiable.

Figure 6.8: Row 23
Extended gaze used to reprimand



Conversely, in row 20 (Excerpt 6.9), she used a shift of gaze and withdrawal of a smile in *contradiction* to the gentle words and high pitched voice. This had the effect of adding a slight reprimand, and certainly no opening for choice, to what might otherwise have sounded like a gentle invitation to participate.

Use of words

Coupled with this, she used direct instructions (rows 9, 14, 15 for example) and closed questions (rows 1, 3, 5, 7) which had the impact of restricting and controlling children's possible responses, unless they were prepared to disobey the tacit rules. She used praise selectively (row 6) to emphasise desired behaviours

Excerpt 6.9: Rows 20-23, ep.2

20	9.38.20	Gaze to TC, lips together. Gaze flicks away as speaking to him, smile receding. Takes shape from box.	A>TC & Cs Okay! Ready A>TC Good (short). C'mon sweetie (high pitch) A>TC & Cs Ready, eyes closed everybody.	Gaze to A, smiling. Face down to table.	TC>A I don't wanna play ? mine	Cs heads on desk, or faces covered with hands, eyes closed.
21	9.38.26	Places shape in centre of table, quickly. Half smile. (No gaze or verbal response to TC)	A>TC & Cs Have a look at the shape. A>C3 No, you're telling me the <i>name</i> of the shape now.	Puts face up, eyes closed tightly, smiling.	#Triangle! (joining onto word said by others)	C2>A [Triangle!#] C3>A #3D shape!
22	9.38.37	Gaze to C3, nodding, but tone of voice indicates this is not the answer A was looking for. Gaze down. Gaze to C, eyes wide, questioning expression, half smile. Take shape into hands.	A>C3 It is a 3D shape, well-done. What's the name of that shape? A>C2 Pardon? Cube! (high, surprised voice). Well-done!	Picks nose. Looks at C6 coming back from toilets. Turns right towards Cs on mat.	TC>C7 C7!	C2>A Cube Cube
23	9.38.43	Gaze to TC. Eyes open wide, but brow raised. Face unsmiling, mouth	A>TC Paul!	Turns back to A, arms resting on desk, gaze		

		slightly open. Voice serious. Silent gaze extended for a second.	Look at me.	to A.		
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Use of affirmation – selective and partial

Although she praised correct answers and, at times, praised good attempts at answers, her selective use of the combinations of words and actions added to the control. In row 6, she praises the children who are not touching the shapes as a way of encouraging the other two to comply. At rows 8, 16, 22, 27, and 45, she gave credit for answers that were ‘correct’, but made it clear with the words chosen and tone of voice that they did not meet the criteria to which she was currently working.

With regard to Paul, Clare seemed to be less affirming. In row 20 (Excerpt 6.9), she attempted to carry him along in the flow of the task; her response did not appear to acknowledge his position as valid, to seek understanding of his state, or to try to change it. Similarly, in row 23, the way of refocusing his attention was to call for obedience rather than to appeal to his motivation and interest. His *lack* of attention and interest were instead implied to be inappropriate and invalid. In rows 21, 28 and 30, she appeared to ignore his initiations. Although it may be that they went unheard, it seems likely that she chose to ignore them as a way of managing and controlling them. Indeed, Clare explained to me in informal discussions how she sometimes handled Paul’s frequent ‘off-task’ interruptions by choosing not to hear them. Such an approach was a way of maintaining focus, of ensuring that attention was not unfairly concentrated on the most ‘demanding’ children, and was a less negative way of handling interruptions than constantly correcting them. In the final section, the teacher tried to reinforce and assess Paul’s learning by working with him one-to-one (Figure 6.9). Although kindly phrased and intended to give him the opportunity to benefit from one-to-one tuition, the questioning with the search for ‘correct’ answers and Paul’s inability to give them served to emphasise the remoteness of the activity from Paul.

**Figure 6.9: Row 40
Teacher and Paul**



Excerpt 6.10: Rows

39	9.41.30	<p>Puts cube on table, folds arms. Ear close to TC, face turned to side. Mouths beginning of 'three' as clue before saying it. Takes large almost flat square from box and puts it on table. Points at cube, tapping from table to top of cube with fingertips of both hands to indicate height</p>	<p>Right ?? What was that again? Not a 2D shape, it's a... 3D Not flat... This is a 2D shape... This is a 3D cause it's...</p>	<p>Opens eyes, moves hands. Smiles at shape Nods</p>	<p>(Whispers to adult) (Whispers again)</p>
40	9.41.47	<p>Indicates flattish square, then picks up cube. Touches faces and edges to indicate. Picks up flattish square and puts it back in box. Points at cube.</p>	<p>This is a flat shape...and this has got corners, faces.</p>		
41	9.41.51	<p>Elbows on table, resting</p>	<p>D'you know its name?</p>	<p>Shakes head, hand to mouth.</p>	
			<p>It's called a cube.</p>	<p>Gaze to cube.</p>	

		head in hand.	All the sides are the same size. Alright? Okay? Okay	Nods briefly.	
42	9.42.05	Takes cylinder from box and places it on table, still holding it.	D'you know what name this is? A>C5 You've got to share it, C5. There's not enough for everyone.	Shakes head Gaze to C5, hands over mouth	
43	9.42.13	Holding cylinder and pointing to it. Head tilted to side, gaze to TC	A>TC D'you know what this one is? Yes? It's a cylinder, a cylinder. Okay. Cylinder.	Gaze alternating to adult and to table at left. Shakes head.	

In the busy, noisy classroom with limited time, staff and numerous interruptions, it is difficult to determine how far slight differences in patterns of affirmation were intentional, even unconsciously, or simply missed opportunities as the most reasonable course within the limitations. It seems clear, however, that there was coherence in the use of control, interactive patterns and affirmation, which was based on the underlying pedagogical beliefs, circumstances (including the ethos of the school and government directives) and perceptions of individual children. That is not to say that *this* teacher's beliefs might not surface differently in different settings with different children.

Agency

The way in which the episode was structured and controlled by the teacher gave little opportunity for children's individual agency to be exercised. Nevertheless, there were instances of the children attempting to exercise some agency during the episode, particularly from Paul.

In rows 5 and 22, Paul attempted to direct or modify the actions of another child, but was reprimanded by the teacher. In row 6, he explained and justified his actions, showing agency in trying to validate them. In rows 20 and 26, he stated that he did not

want to participate. By row 28, perhaps in response to his growing awareness that he had no choice, he changed it to a request for permission to move to something else ‘in a minute’, followed in row 35 by another request related to doing something outside. He took up the theme again in row 46 once he had been dismissed from the 2D/3D task and told he could go to the building blocks. This time, permission was granted. By row 39, his responses to the teacher’s questions were whispered, giving the impression of uncertainty and not of a person able to exercise his own agency at that point.

Agency in this episode was closely related to control. Where Paul did act with agency, it appears to have been interpreted by the teacher as something requiring containment, as something that needed to be brought back under the control of the teacher. There are links between the patterns of agency and control and the relationships described by the analysis of adult engagement and child involvement during the episode. A pattern emerges in which control or lack of autonomy reduces agency and increases physical compliance, but reduces genuine involvement.

Involvement and engagement during the episode

The teacher used high levels of stimulation throughout the episode, characterised by assessing and reinforcing. She also extended and enriched, both of which were forms of stimulation, but used them to a limited degree. She used very low levels of allowing or promoting autonomy, remaining in control of the children’s actions throughout (though not necessarily of their attentive involvement). She used some sensitivity, noting children’s attention lapses and offering encouragement and praise, though not in a constant stream. She tended to respond to attention lapses with direction rather than by increasing the amount of stimulation or altering the type of stimulation used. She responded not by offering more autonomy, but rather by reducing it. Exploration, another form of stimulation, was not used at all verbally or by the use of touch, and only in a very limited way visually as the teacher demonstrated with her hands that 2D shapes were flat and 3D shapes were raised. The children, particularly Paul and John, were prevented from freely touching the shapes, being allowed to do so only when specific instruction permitted it.

Paul demonstrated moderate levels of physical involvement. He went through the motions, behaving largely as directed and expected by Clare, though she commented when reviewing the video recording afterwards (10.6.03) on his lack of ‘on task’ behaviour. Paul did not, however, demonstrate any deep cognitive involvement in the task, but rather a ‘going through the motions’ in line with the teacher’s requests. He was involved physically in the ‘closing eyes’ part of the game, less so in ‘guessing’ the identity of the chosen shape. His level of attention and animation rose noticeably with talk of the next activity.

It is clear from this episode that looking closely at the flow, extent and types of engagement and involvement, evident in the words and actions of the participants, provides clues as to the links between specific adult input and children’s deep involvement. The teacher engaged the children by using instruction and closed questions, tightly controlled, set within the format of a game. By doing so, she was able to regulate the children’s actions. For some of the children in the small group, the type of stimulation promoted a level of involvement in recognising and recalling the names of (some) shapes and categorising them according to their dimensions. For Paul, the stimulation ensured *physical* compliance, but not involvement in the main purposes of the task – to recognise, name and categorise shapes. Restricting autonomy with regard to touching the shapes did little to enhance his involvement. His one attempt to offer an answer (row 21), echoing another child’s response, appeared to go unheard.

For such specific learning objectives to be met, do they have to be delivered through high levels of control? Or might they be more successfully *arrived at*, perhaps by encouraging exploration and purposeful activity alongside the teacher and amongst peers, with the teacher using strategies of exploration, modelling and labelling of the children’s endeavours to make the learning explicit? Perhaps the learning objective as a destination could be kept firmly in mind, but with the vehicles and route for the journey negotiated through the children’s interests and motivations. Paul appeared to be only minimally interested in or motivated by the task. Clare noted his lack of involvement and responded by following-up the task with more of the same type of task, but one-to-one with Paul, thereby ensuring even greater control over his attention and actions.

On initial viewing, the episode appeared to be an example of 'legitimate peripheral participation' for Paul (Lave and Wenger, 1991) alongside the teacher and his peers, who seemed to be more fully participant members of the task group. However, there are problems with this. Lave and Wenger note that to be able to participate in a legitimately peripheral way, the 'newcomer' should have access to mature practice; should have fewer demands on time and effort with shorter, simpler tasks; and that the participation should provide 'ground for self-evaluation' (p. 111). For Paul in this episode, he had access only to the practice offered by his peers, which he did appear to try to emulate at one point (row 21), some of which could not be considered 'mature' practice as they themselves were not yet fully competent in this task. The teacher did not provide a model of mature practice alongside the children because she was not a joint participant in the task; rather, she had styled the interaction as a game/test of the children's knowledge and skill in naming and categorising shapes, though she did confirm correct answers and provided some explanation of the categorisation. The children's tasks cannot be described as shorter, simpler, or less demanding of time and effort than 'mature' practice because the tasks were not presented as part of a whole, more complex endeavour. Nor could it be convincingly argued that Paul's participation offered opportunities for self-evaluation in the sense intended by Lave and Wenger, who explain that

The sparsity of tests, praise, or blame typical of apprenticeship follows from the apprentice's legitimacy as a participant.' (1991:111)

Clearly, in school, tests (in the form of regular, assessment-focused interactions), praise, and at times a form of 'blame' (with regard to lack of effort, lack of attention or lack of compliance) were dominant features of the pedagogy. In this episode, the task itself appeared to be framed as a combination of skill rehearsal and low-key assessment. Lack of attention was swiftly dealt with in the form of a verbal direction with an attached non-verbal reprimand in the facial expression and momentarily extended use of gaze (row 23). The teacher's decision to work one-to-one with Paul after the others had been allowed to move on to another activity implied either Paul's attention, understanding or performance to have been in some way lacking or at least requiring extra practice. This left little room for self-evaluation. Any self-evaluation by Paul was likely to be coloured by the teacher's reactions and decision.

6.2.3 Potential learning outcomes: ritualised versus principled knowledge?

It must be acknowledged that this episode was but part of a week's numeracy hour work on shape, during which children were to learn something of the properties of shapes, recognising and labelling shapes, and shapes in everyday life. The 'assessment and practice' focus of this episode needs to be seen in the context of it occurring on the last day of a week's work on shapes. The teacher was using the session to emphasise and test the essential knowledge items the children were supposed to have acquired over the week's work, namely categorising according to dimension and labelling specific shapes such as a cube, cylinder and sphere. Some of the children in this group did appear to have acquired at least some of this knowledge (rows 2, 3, 5, 15, 22, 27, 36) or to be drawing on previous knowledge and experience. At row 22, the teacher seemed slightly surprised that one child had remembered the name of the cube.

Paul did not appear to have been able to recognise and recall either the correct names or the dimensional categories for the shapes, as rows 38 to 46 show. He drew instead on his labelling knowledge, asserting that the apple was just that, but unable in this situation to isolate the idea of 'shape' as a property of the object or to recall its correct shape-name. He had been party to the other children's correct answers to the teacher's questions, perhaps reinforcing his learning about dimension and shape names, and he had been witness to the teacher's categorising of the shapes and explanations of the categories. However, he did not appear to have grasped what the categorisation was all about. He had learnt that he was unable to meet the criteria sought by the teacher; he could not correctly answer the questions posed to him. In spite of her gentle tone and praise to him in row 46, used more as a verbal marker of a shift to the end of the task than as genuine praise, his quietness perhaps indicated his awareness of inability to meet the requirements. He had also learnt a little more about the social and discourse conventions of this classroom: a 'game' did not necessarily mean 'playing' and was not necessarily entered into voluntarily; the teacher's word was the final authority; the correct behaviour, and possibly 'learning', was commensurate with

doing what the teacher said (and no more than that) and maintaining a narrow focus; a lack of interest or understanding meant more time on task.

In rows 8, 40, and 41, Clare attempted to draw out, in words and actions as described earlier, some of the principles of knowledge about shapes and their properties that might be useful in guiding the young learners. In much of the rest of the episode, the teaching and learning appeared to be more ritualistic: choosing a correct label, recalling a name, placing an object in the correct place and, subject to the most rigorous control by the teacher, carrying out the correct actions, alluding to participation and compliance according to the rules. Yet the tone of the more exploratory, enriching ‘principled’ teaching (Edwards and Mercer, 1987) appeared incompatible with the general tone of ritualised, controlled assessing and practicing interactions of the episode. If the children were to fully grasp and become involved in understanding the principles, then some deeper involvement on their part in perhaps handling, exploring and talking about the shapes might have provided the opportunities. Again, it may be that the teacher had provided such opportunities during the week and was simply recapping briefly on some salient points. Nonetheless, for these children and particularly for Paul, the principles did not appear to have been (yet) appropriated in a useable way. Perhaps principled knowledge cannot be unilaterally provided or delivered, but simultaneously needs to be reached via involvement and exploration, less easily compatible with ‘assessment’. Hall et al (2004) described the ways in which SATs have come to dominate the curriculum and pedagogy for year 6 children, such that the practices are exclusionary for children who do not fit the SATs’ narrow frame of ‘successful’ learning. My analysis of Episode 2 shows just how early in children’s educational careers this process begins and how it is conveyed through a powerful combination of communicative modes. The following quote from Hall et al would apply equally well to the children in this group.

Pupils are relegated to the role of question-answerers. The instantiated pedagogy is teacher-directed to the point that attempts by some pupils to link the text to some aspect of their own lives are ignored or rejected. The latter, together with the time constrictions, mean that there are no opportunities here for pupils to construct meanings (Hall et al, 2004:806).

The activity had been planned in response to the teacher's understanding that by Level 1 of the National Curriculum, children should be able to distinguish between 2D and 3D shapes and be able to name and recognise a cube, cylinder and sphere (informal discussion with teacher, 16.1.03, following episode). In discussion, the teacher pointed out how important it was to get the children to the end of the Baseline Assessment attainment targets and working in Level 1 of the National Literacy and Numeracy Strategies by the end of the reception year, though she felt that such a goal was likely to be difficult for this group of children to reach (see Appendix ii). When reviewing the video recording of the episode (10.6.03), Clare commented on the amount of 'off-task' behaviour by the children, especially Paul, implying some evaluation of the teaching, the underlying objectives or the children's attention. I suggest that the episode raises issues which call into question the appropriateness to the foundations of learning for these children of the structures, ethos and target-tied National Strategies, giving rise to such ways of teaching.

Reflection

The close analysis of this reception episode, typical of the small group work during literacy and numeracy when led by the teacher or, sometimes, the LSA, has revealed some of the mechanisms through which the teacher attempted to ensure that learning took place and those which seemed to make such learning difficult for Paul. The teacher was clearly scaffolding with a specific end in mind: the meeting of specific learning outcomes (Jordan, 2004). After completing the detailed transcription and notes for analysis, I watched the video clip yet again, checking for accuracy and final impressions. Below, I reproduce the subsequent entry into my reflective diary:

On reviewing this episode on tape (yet again), I am struck by a feeling of sadness that my analysis of it may read as having been a negative experience, especially for Paul, and that the teacher had in some way been unsuccessful. Yet this does not do justice to the complex reality. In reality, this teacher exerted a tremendous amount of energy, enthusiasm and planning into her teaching and really wanted the children to learn. She worked hard to balance 'fun', learning and classroom control and tried to use her time efficiently. She kept in the forefront of her mind the learning objectives as prescribed by the government [from the NLS and NNS], the school ethos and the ways in which she felt both she and her class of children would be judged – by the rest of the school, the head teacher and by parents. It was a tremendous balancing act, an exhausting act of trying to deliver objectives and ensure they were met by all the children. But the organisation, objectives, ethos, her training and the

expectations all influenced the day to day organisation and the minute by minute interactions the children experienced.

The way in which these influences played out meant that Paul and Tom were failing compared to other children. Too much was expected in too narrow a format. Too little of the effort and skill they had to employ to cope with the dissonance in their trajectories was recognised and valued. Too little space was given to their interests and experiences as vehicles for further learning. And this series of 'too much' and 'too little', largely implicit, invisible and unrecognised, exerted a tremendous pressure on the staff too, creating at times a sense of weariness and frustration with the effort required of them and with the apparent lack of progress made with such children. The fact that the majority of the children coped reasonably well and made progress in the valued areas of schooling, and that some children such as Robert made terrific progress, and were largely co-operative and happy, simply served to locate the 'problem' in Paul and Tom themselves or their families (notes from reflective diary, 6.5.04).

For me, this entry encapsulates the paradox of observing a good teacher doing well the things for which she has been trained, and some children struggling to make sense of what was required of them and to meet the expectations. With both parties making tremendous efforts to deliver, understand and meet expectations, it raises questions about the appropriateness of the expectations and/or the structures (by which I mean the resources, time scales, ethos, and environment) within which they were to be achieved.

6.3 Summary and conclusions

By locating the episodes in context, taking into the account the history of the contextual features, it is possible to see how vital those features are in understanding the pedagogy and learning taking place. In the first episode, in pre-school, we saw the role of affirmation, congruence, shared control and collaboration, all conveyed multimodally, in providing children with the interactive space to participate fully in the activity and conversation and with the confidence to take risks in making contributions. We also saw the ways in which agency was encouraged and fully employed by the children. The level of challenge in the activity was raised by the adult maintaining a balance between stimulating prompts and allowing space for and credence to children's contributions, which encouraged collaboration and fostered shifts between contextualised and decontextualised interaction and exploratory conversation. The episode did not, however, offer evidence of preparatory routes into

the ‘scientific concepts’ (Vygotsky, 1986) or vertical discourse the children would meet at school.

In the second episode, in reception, it was evident how the teacher used a combination of communicative modes to maintain a clear focus on the defined learning objectives, to emphasise the vertical discourse and to maintain control over the agenda and children’s actions. She used partial affirmation and differing levels of congruence to amplify the messages. The interactive spaces available to the children, conveyed multimodally, were restricted, allowing only those seen as directly relevant to the objective. In this way, the children’s verbal and active contributions were limited. In spite of this, the children sought to become active participants in the episode. However, in the one-to-one tuition at the end of the episode, it appears that Paul had largely withdrawn any involvement he had previously displayed. The potential learning outcomes were centred on induction into a vertical discourse relating to the properties and labels of shapes. However, the level of control, preventing any use of horizontal discourse or more exploratory talk or actions which might have eased children’s entry into understanding the vertical discourse, meant that the episode shared more similarities with induction into procedural learning as opposed to principled learning (Edwards and Mercer, 1987).

When considered closely, the microprocesses evident in these two episodes, comprised of tiny actions, shifts of gaze and short utterances, made a powerful contribution to shaping the pedagogy and learning potential of the interactions. So, what role did these microprocesses play in the teaching and learning throughout the year? It is to this question that I turn in the following chapter.

Part 3

Processes, issues and conclusions

Part 3 of the thesis looks at processes, issues and conclusions. In Chapter 7, I highlight the processes that were most evident in the teaching and learning episodes over the year, the associated issues, and the ways in which they shaped the learning that took place. Here, I also highlight the different ways in which individual children contributed to shaping their learning. The final chapter draws together the strands of evidence from the thesis relating to sociocultural influences on the learning of the four year olds in the two settings. It considers how the evidence can be understood using the theoretical framework and what the evidence contributes to the theory. Finally, I consider the implications of the evidence for policy and practice, making suggestions for a way forward.

Chapter 7

Processes and issues of teaching and learning over the year

Drawing on the mechanisms isolated in Chapter 6 and on others emerging from the thematic data analysis (see Appendix ix), this chapter scans across their existence in other episodes in the recorded data, describing and summarising them. The chapter draws out the relationships between issues, their place in the context of the pedagogies of pre-school and reception, and participants' subsequent understandings or actions. The issues raised relate primarily to power relations and the nature of pedagogic communication. Power relations were realised along a continuum of control/agency and are discussed in section 7.1. Pedagogic communication, discussed in section 7.2, was realised along a continuum of delivering/guiding/discovering. Interwoven with these and discussed in section 7.3 were the nature of pedagogic activities and affective relations. The nature of pedagogic activities varied with regard to whether they were abstract or purposeful/ embedded. Affective relations, realised in the *ways* of interacting, were embodied and conveyed in part in the levels of affirmation and degrees of congruence, contributing to the relationships formed between adults and children.

These phenomena, the power relations, nature of pedagogic communication, nature of pedagogic activities and affective relations, were all inter-related. Settings, staff and children shifted and oscillated in their positions along the continuums according to the specific contexts, activities and individuals involved. Nonetheless, tendencies were discernible. In the following sections, these tendencies are explored and exemplified with the aim of drawing out their particular (and potential) contributions to children's learning.

7.1 Power relations

Evident in the interactions at pre-school and in reception were the different ways in which control and agency were construed and recreated. In *reception*, control was central to good teaching and considered essential if the environment was to be conducive to learning. Individual agency had a time and place (particularly playtime

and ‘choosing’), but was allowed selectively and within defined parameters. Independence, for example, was encouraged where it meant the ability to carry out the teacher’s instructions alone or through accessing other ‘legitimate’ support such as alphabet cards or asking a friend to tie up a craft apron. In *pre-school*, control was considered to be largely a matter for negotiation. The exceptions to this were in matters of safety and in certain, short ‘school preparation’ sessions such as registration and snack time. Agency was generally to be encouraged and, to some extent, was treated as inevitable, although in pre-school there were also parameters within which it had to remain. For reception, then, control was construed not only as creating a safe, conducive environment and socialisation into the values of the school community, but also as controlling what was to be learnt and how. For pre-school, control related more to safety and socialisation into the pre-school community, some preparation for the school community, but less explicitly to what was to be learnt and how. The learning in pre-school was construed as something open to negotiation and individual agency, although limited by what was possible with the resources and tools provided and within the ethos. Decisions about when and to what extent control should be exercised were related to decisions about whether learning objectives were pre-determined by the adult or jointly generated with the children through the episode.

7.1.1 Control

Control in reception : Classroom control, learner identity and pedagogic control

It was evident in several parts of the study that control was a distinctive feature of the reception class pedagogy. Appendix ii, summarised at the beginning of Part 2, showed that the reception pedagogy was strongly framed and visible, evident in the organisation of the timetable into distinctive subject slots. In the detailed analysis of Episode 2 in Chapter 6, section 6.2, control was evident in the way in which activities were set up to meet specific learning objectives and in the way in which the teacher managed interactions during the activity (using control over objects, a narrow focus maintained with words, gesture and gaze, and in her responses to the children’s initiations). It was also evident in Chapter 5, section 5.2.2, in which it was seen that the reception children’s interactions, particularly for Paul and Tom, were largely responsive to adults’ leads, whilst the adult interactions showed patterns of instruction/ explanation/ discipline, modelling, assessing, enabling and praising, all of

which were clearly led and limited by the adult. The decisions about locus of control in reception extended to the nature of the task, how to tackle the task, with whom to work, resources available, how success was to be judged, and the product of the task. My thoughts recorded in the reflective diary regularly commented on instances in which control was an influential factor in shaping interactions, learning activities and children's outcomes, particularly with regard to their identities.

In reception, classroom control was more the responsibility of the teacher than the LSA and it appeared that Paul ('below average' group) very quickly detected the differences in power and status. With the teacher, he was largely compliant when within her direct attention, but was less accepting of the LSA's attempts to control his actions, often refusing to cooperate fully in small group activities led by her. Partly in response to this, the teacher introduced a reward system for Paul, largely administered by the LSA. A chart graphically detailing his activities for the day was presented to him in the morning, the LSA discussing with him what was planned. For each time/activity slot, there was space for the staff to give a visible reward (stamp) for his effort and cooperation. Whilst the scheme seemed to achieve some degree of success in terms of Paul's cooperation, the time slots between action and reward were sometimes too long. On one occasion, a stamp earned for a time slot, which the LSA had reported he would be awarded, was 'taken away' by the teacher before it had actually been given because of a misdemeanour during the plenary session.

The LSA began to adopt other means to ensure his participation in activities. These, which involved withdrawing some of the control, appeared to be more unconscious, based on minute by minute responses to Paul's reactions. When reviewing recordings of such episodes, the LSA recalled feeling she needed to be very firm with Paul. In fact, the video data shows an increased use of calming and giving back of autonomy which appeared to have quite positive influences on Paul's involvement, albeit often short-lived. One episode in particular provides an excellent example, worthy of closer examination. The reasons for this are threefold: first, it provides a clear example of the ways in which expectations, actions, levels of control and learning related behaviour were inter-related (Paul was one of the children who found the school agenda difficult and for whom greater control was seen as necessary to ensure co-operation); second, the episode marked a turning point in the LSA's approach to Paul,

showing her attempts to control and her subsequent shift to a less controlling manner, resulting in different responses from Paul; third, the control and relinquishing of control were conveyed unconsciously (according to the LSA on viewing it 10.6.03) through body positioning as well as through words and tone. The episode took place on 6.3.03. I relate the incident in narrative form, using outline video stills and excerpts of transcription to elucidate.

The episode occurred during the morning literacy hour small group work session. Preceding it, the teacher had been leading whole class work on two nursery rhymes, Humpty Dumpty and Jack and Jill, talking about rhyming words. The children in Paul and Tom's small group were directed to go into the role play room, a small room shared between two classrooms, in the process of being set up as a 'doctor's surgery'. The children's task, supported by the LSA, was to draw pictures and attempt to write initial sounds of words to go in the 'surgery', though it was not emphasised that the task did not relate to the work on nursery rhymes.

The room was usually used specifically for role play. At this time, it contained tables and chairs around the edge of the room, a computer, and toy versions of medical kits. On the wall were various signs, many made by other children. Paul was excited to be in the small room. At 11.15am, he sat at a the computer, which was switched off, alternately making marks on a sheet of paper with a pencil and 'typing' on the keyboard. Other boys joined him at the computer and Paul incorporated them into his play briefly, but became agitated, partly, it seemed, in response to his perceived need to compete for resources. His actions became more frantic, his voice rising. He left the table to claim some blue-tack from the LSA, 'Leave some blue-tack for me! What about me?', then returned to the table. A boy was on the chair previously used by Paul. Paul thumped him to reclaim the chair, dragging the chair away angrily. He used the blue-tack to affix his drawing/writing to the wall near to me and, on being asked, told me that he had written his name. He had written a 'p'; 'I'm not doing nuffink else!'

Paul asked the LSA if he could use the toy medical kit and she calmly explained that they were 'doing labels' at the moment, but that he would be able to play with it in the afternoon. He became more agitated, his facial expression, voice and actions all

revealing his feelings. He forcibly took scissors from a boy's hand, attempted to hit another at 'his' desk, took away a sheet of paper that a boy had been snipping. He expressed frustration at the computer being switched off. The LSA attempted to refocus his attention, telling him 'We're not going on the computer now. We're doing some pictures.' Several more scuffles with other children followed as Paul found it difficult to work or play constructively. It seemed that the things of interest had been denied him and that his frustration became focused on fighting with others to secure the 'best' resources: the blue-tack, the computer keyboard, the medical kit, and the scissors. The LSA attempted to regain control. She stood behind Paul as he sat playing with the computer keyboard, leaning over him to remove the keyboard (Figure 7.1; Excerpt 7.1). It was a very dominant bodily position, her action of removing the keyboard further adding to the impression of taking control. Paul's response was to rest his head on his arms on the table. He looked defeated, though he soon recovered a little.

Figure 7.1
Reception: Adult trying to maintain control



Excerpt 7.1: Adult trying to maintain control; reception, 6.3.03

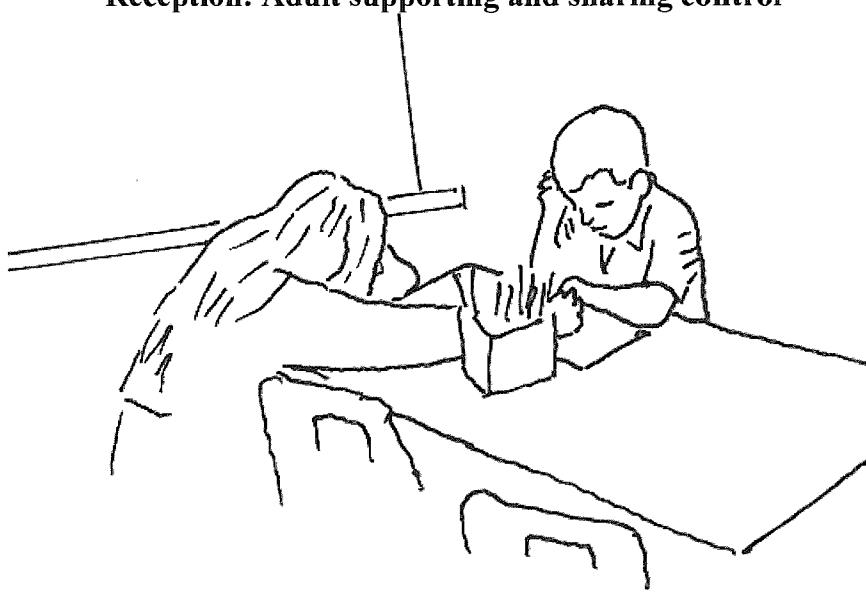
Time	Adult actions	Adult speech	Target child actions	Target child speech	Other children's speech and (actions)
11.31.11	Stands behind Paul, bending forwards over	Please be careful with this. It's very	Gaze behind to another child approaching.		C1 stands behind Paul

	him, holding onto keyboard. Taps edge of keyboard with fingers in emphasis.	expensive darling Okay? Very expensive	Gaze to table and computer.		
11.31.14	Moves mouse to side		Gaze to mouse. Reaches for mouse to try to retrieve it.	Hey!	
11.31.19	Moves keyboard away to other side.	We're not using it. We'll use it this afternoon when the computer will be switched on.			
11.31.23			Reaches to left to keyboard. Puts it back in front of himself.		
11.31.28	Bends down to be at same head height as Paul, turns face in towards him, gaze to Paul.	Listen! Listen! It'll be switched on this afternoon!	Hold on to keyboard, gaze to keyboard.		
11.31.31	Takes keyboard, with C2, and moves it away again.	Please be careful. I'm going to put it there.			C2 reaches for keyboard and moves it back to where LSA wants it to be
11.31.38	Gaze to Paul, face turned towards him, head tilted to try to face him.	You going to do a picture for me?	Places face and head down onto folded arms resting on table.		

He looked for a pencil, tried to take the keyboard back, then finally settled to cutting paper at 11.34am. At 11.35, the teacher announced across the classroom that it was tidy-up-time. In the general scurry to tidy up, several children tried to clear away Paul's paper cuttings, resulting in anger, frustration and hitting out from Paul. The LSA soothed the situation, explaining to one of the boys why Paul was feeling so cross; 'It was his work.'

The rest of the children left the role-play room to join the class for the plenary. The LSA spoke to the teacher (unheard) and then rejoined Paul, who was still in the role play room at the table. He looked weary and cross, but indicated a desire to finish his work, a picture for his parents and grandmother. In response to his request for help, the LSA took an alphabet card from another table to support Paul. At this point, her posture was strongly indicative of being non-controlling, offering time and attention. She knelt, her elbow resting on the table with her head resting on her hand, leaning in attentively towards Paul (Figure 7.2; Excerpt 7.2). She then knelt further down and rested her arms and head on the table, below the height of Paul's, as she helped him to find 'N' on the alphabet card and write it. Paul was attentive and involved, making initiations related to his understanding of what they were now doing together. At 11.38, after scanning his face carefully and watching his actions, she suggested that he should now go back into the main classroom with the other children. He responded positively and, looking more relaxed, went to place his work on the window ledge, then joined the other children. His final comment, 'Where's the blue tack?' indicated that his interest and motivation relating to particular resources was still prominent in his mind.

Figure 7.2
Reception: Adult supporting and sharing control



Excerpt 7.2: Adult supporting and sharing control in reception

Time	Adult actions	Adult speech	Target child actions	Target child speech
11.36.50			Pats sheet of paper on table, takes pencil from pot. Gaze to table.	I gonna do 'nother one for my daddy and my mummy and my nanny
11.36.56	Kneeling down at table diagonally from Paul. Elbows on table, head in hands, gaze to Paul.		Puts pencil on table near to LSA. Elbow on table, head resting on hand, fingers to mouth. Gaze to LSA, smiling.	(?) know my nanny's (???) [unclear but appeared to be asking if LSA knew how to spell his nanny's name]
11.37.00	Gets up from table and collects alphabet sound card. Brings it back to the table.		Chews fingers, gaze to LSA.	(??) her name (??)
11.37.10	Kneeling up at table diagonally from Paul. Elbows on table, head in hands, leaning forwards.	What's the first sound you hear in nnnnanny? nnn		
		That's it! Looking at it from my way (??) Looks like (??)	Points at alphabet card.	
11.37.17	Arms out to sides, indicating Jolly Phonics action for N	nnn We've been looking at it in the week	Gaze to card, frowns. Points at n on card.	Can you do that one? You do that one
11.37.26	Leans upper body down onto table, head resting on arms.	It's the letter N nn. We've been doing it at school darling haven't we	Brief frown, gaze to card then to left.	(?) that one
11.37.36	Gaze to Paul, then to paper. Nods	You can (?) try it (?) Yeah?	Nods. Pencil in hand, begins to try to write n.	
11.37.41	Nods		Gaze to LSA for reassurance	Down, up. Up?
11.37.45		You can	Frowns. Puts pencil down near to LSA	I can't do it
11.37.53	Picks pencil up and moves it to paper. Demonstrates writing n	Come on darling Up, down		

		You watching? Up and over		
		That's the beginning letter the first letter Of nanny		(?) my nanny?
11.38.10	Still resting head and upper body on arms, arms tucked in.	You know how to spell that, don't you?		(??) name (??)
11.38.25	Gaze to paper	And an H Oh you can't fit it in	Takes pencil and begins to make marks on paper	
11.38.33	Extended silent gaze to Paul.		Pauses in mark- making. Gaze left, away from LSA and table, looks weary.	
11.38.40	Gaze to Paul Nods ['Handwriting' refers to the next whole class activity in the day's programme.]	Okay darling, we gonna finish off? You gonna do some handwriting today, see if you can get a stamp? Yeah. Shall we go and sit down?	Gaze to LSA Nods Points left to main classroom	Out there?
11.38.46			Looks right to window ledge.	Where's the blue tack?

An entry in the reflective diary further illustrates the nature of the episode from 11.15am onwards as I outline my feelings as an observer:

At the time in the small room, I felt the atmosphere becoming increasingly charged and personally felt very wary, tense and watchful of Paul's actions, anticipating outbursts and attacks on other children. I felt driven to intervene on two occasions as scissors were fought over and to protect a child from a thump, and felt concerned about Paul's violence towards other children.

(Reflective diary, 6.3.03)

I also note in the diary how the level of tension and seemingly frantically paced action perceived at the time was less evident when viewing the episode on screen.

Paul's reactions may have been a response to disappointment at not being allowed to become involved in the aspects of the role play room he found attractive and that he associated with that physical space. The LSA's controlling attention towards him, although gentle, did not tackle his underlying frustration and apparent lack of understanding as to why the role play room, in this instance, did not mean role play. At the end of the session, her calm, full, responsive attention, communicated in posture indicating a more submissive 'following' rather than 'leading' or controlling role, helped to finally engage him fully in some constructive attempts at writing and drawing. The fact that he no longer had to compete with other children for resources and that he seemed to be feeling rather defeated also contributed to the final outcome. On reviewing the video recording, the LSA reported feeling as if she was 'tearing my hair out' during the episode as everything seemed to be happening at once, although in fact she managed to appear and sound quite calm. She had been unaware of her body positioning.

In another episode on 1.5.03, again involving the LSA working with the small literacy group including Paul and Tom, the LSA demonstrated how 'contingent responsiveness' involves fine-grained judgements and a *choice* of alternative actions, each with potentially different responses from participants. The small group task, led by the LSA, was for the children to select an object from the 'feely bag', recognise the name of the object and, with support, give the initial phoneme of the word, placing the object into one of three set rings on the floor, each appropriately labelled with a letter. Paul was interested in selecting and exploring the objects, using them in a playful, socio-dramatic way. For example, he picked up a set ring and reshaped it into a star, then used it to frame his face, peering out playfully. He selected a toy frying pan from the feely bag and put it on his head as a hat. Later, selecting a plate from the bag, he combined the two objects to pretend-play washing up. Continuing the theme, he picked up the Marmite jar, pretending to eat: 'I'm having some Marmite.' The LSA supported his recognition of the initial phoneme, asking what sound 'pan' began with, which he answered correctly (Excerpt 7.3). She asked which ring it should go into. He continued to play instead of answering, so she pointed to the ring labelled with 'L' and asked if it was that one. He playfully responded 'Yes', at which point she decided to follow his lead rather than confront, saying 'Put it in that one then'. (It should be noted that Paul's real name began with 'P'. The LSA was fairly confident that he

recognised the grapheme and knew the name and phoneme.) The LSA waited motionlessly, indicating no intention to correct him. Paul decided to place the pan in the *correct* set ring.

Excerpt 7.3: Offering choice; reception, 1.5.03

Time	Adult actions	Adult speech	Target child actions	Target child speech
8.40.24	Leans upper body over to Paul, gaze to Paul.	Which one does it go in?	Puts finger briefly into P set ring, which LSA appears not to notice.	
	Points to L set ring.	Is it that one?	Gaze to LSA, smiling. Nods.	
		That's P?		Yeah
	Sits back and upright. Arms down, feely bag tucked in to body with hands resting on it. Gaze to Paul. Waits, motionless.	Okay put it in that one then (voice indicating quiet acceptance)		
	Smiles. Picks up feely bag to continue game	Good boy well-done	Still smiling, places pan into P set ring. Takes it out again and places it on head.	

A similar pattern was repeated a little later. Paul chose a peg and indicated an intention to put it into the ring labelled 'M' to which the LSA responded 'Put it in there, then, if you think that's the right one.' He did as intended, but then quietly chose to place it in the correct set ring. Again, the locus of control was conveyed not only in words but in the use of gaze and body positioning. When she offered Paul the choice to follow his stated intentions, the LSA sat motionless, arms and face in repose. When Paul made a movement to carry out his intention and seemed to be placing the peg in the 'M' ring, she picked up the feely bag and offered it to another child for the next turn, showing in her actions her intention to accept his decision and move purposefully on. It was at that point that Paul decided to put it in the 'P' ring.

However, the complexity and decision making involved in the situation should not be lost in the simplification necessary for the purposes of reporting. Issues of control pertaining to classroom management blurred decisions about when to encourage children's autonomy to achieve more cooperation and greater involvement in the learning. Whilst the LSA was offering Paul the opportunity to take control of his actions and decisions with regard to categorising initial phonemes, she was also aware of needing to keep the group 'on-task'. Paul's need or desire to play with and explore the objects destined for the set rings (looking through the Marmite jar, putting the small mirror into his mouth and using it to look around the room) appeared to be perceived as threatening the on-task behaviour of Paul, if not the whole group. She therefore referred to his play as 'not concentrating' and 'being a bit silly', attempting to bring him back into line by using the threat of missing a turn and extending greater warmth in her voice to Tom, who was more compliant. At one point, Tom intervened to suggest a correct answer to a question the LSA had posed to Paul. She emphasised this to Paul, saying 'Tom's helping you. He just showed you which one.' Paul became angry with Tom. The end result was that Paul did not earn his reward sticker for the session. In a brief interview with me after this episode, Paul's responses indicated that he had associated the task with a theme of food/cooking/eating (Excerpt 7.4).

Excerpt 7.4: Transcription of audio recording 1.5.03:

Jane: What have you been doing this morning Paul?

Paul: *I done numbers*

:

Jane: What about that thing with the circles and the bits in the feely bag? What was that about?

Paul: *I had umm...I had a f(??)*

Jane: Umm?

Paul: *Fork*

Jane: A fork? Did you?

Paul: *Fork and a knife*

Jane: Did you? Why were you picking things out of the feely bag? D'you know what you were doing?... What was it for?

Paul: *Um... don't know...*

Jane: Did you have to find the sounds they began with?

Paul: *(No sound, but shook head)*

Jane: No? You were finding the sounds, weren't you?... and putting them in the circles for the right sounds?... Did you know what they began with?

Paul: *Umm...j, j, j.*

In response to my prompting his memory by referring to Tom having helped him with the task, he replied with a vehement 'No!' I suggest the extra warmth and praise given to Tom for compliance had not gone unnoticed by Paul.

Control at pre-school: conflicting instructional and regulative discourses

There was little clarity between issues of classroom control and pedagogic control, which were essentially difficult to tease apart. In pre-school, where classroom control was less of an issue given the use of persuasion rather than compulsion to encourage participation in activities (though it came to the fore during registration, see page 248), at times staff members appeared unsure or had differing views about where boundaries lay between autonomy, persuasion and compulsion. An example illustrates the point.

The pre-school deputy supervisor worked in the quiet room with a small group of children (14.5.03) for whom she was the key worker. She was attempting to carry out some observations and enter records of their achievements in their key worker files, whilst supporting them in pencil and paper activities. They sat around a table. In the background, a small group of boys played noisily with toy cars, scooting them along the hard floor at great speed, shouting 'Goal!' as the cars reached their target. The deputy glanced at them frequently, checking on their actions. At one point, she stopped them from kicking the cars, making it clear that their other actions were acceptable. 'Excuse me! I saw some lovely playing then, but you mustn't kick the cars.' One of the girls at the table complained about the noise. The deputy agreed that they were noisy, but that they were doing no harm. The play continued for some time, the boys excitedly but deeply involved in racing cars to an end point. The deputy continued to supervise from a distance, largely silently, at one point asking for noise reduction. The supervisor came into the room later on and it transpired that she was less happy for the boys to be playing so boisterously. She cleared away the cars and gave the box to the deputy for safe-keeping as it was almost 'tidy-up time'. The deputy, challenged by the boys' actions in trying to take a few of the cars back out of the box to continue their play, allowed them to continue. The supervisor returned and again, through her actions, made it clear that she wanted the play to stop. The deputy said as an aside to the boys 'I don't think Jan liked you doing that, boys.' The

supervisor replied ostensibly to the boys, but partly to the deputy, ‘Yes, this is meant to be a quiet room.’

The deputy had found the car play disturbing, but had judged it to be involving, constructive play and so acceptable if kept within the bounds of safety, acceptable behaviour (not kicking cars) and a fairly generous noise limit. These she monitored through frequent glances. She became aware of the supervisor’s differing views on the boys’ play, but still chose not to intervene, though her slight discomfort was evident. Her own identity was potentially, if slightly, at stake here; one of the criteria of being a good pre-school practitioner was to be ‘all seeing’, able to keep a supervisory eye on the whole room or group whilst working closely with individuals. The two practitioners had seen the incident in different ways, the deputy as an issue relating to autonomy in learning through activity (an instructional discourse issue) and the supervisor as an issue of ‘classroom’ or behavioural control (a regulative discourse issue).

At pre-school, one of the key times that staff aimed for a stronger regulative discourse was during whole group registration. This routinely involved calling a register, choosing two children to count all those present to be sure the register and number of people attending tallied, deciding on the day’s name and weather, and highlighting the ‘letter of the week’, at which time the children could show and, if they wished, talk about objects brought from home. It also routinely involved a struggle for classroom control which both threatened and, to some extent, was threatened by the instructional discourse of those particular events. I examine the instructional discourse used on these occasions in more detail in section 7.2.1, Delivering: multimodal interactive performance. I want to comment here on the way in which the regulative and instructional discourses impacted upon each other and how these related to control issues.

In a typical registration session, such as 8.1.03, the children’s attention was captured at the beginning by the adult leading a short game. Once attention had been gained, with the help of other staff members sitting amongst the children to maintain attention, the adult responsible for the session led the children in the routine activities of such a session. Several children found it difficult to sit quietly in the circle.

Attempts from the adult leading the session to deal with such individuals, necessary though they may have seemed, appeared to reduce the impact and flow of the instructional discourse, making it more difficult for the attention of the youngest or least cooperative children to be held (Figures 7.3 and 7.4). The nature of the instructional discourse, emphasising valuing children's individual contributions and links with their home lives, meant that all children bringing items in to show were to be listened to and conversed with about their objects, regardless of whether or not they related to the 'letter of the week', which provided the frame for the activity. The letter was introduced and each child in the circle given a chance to show and talk about any objects brought from home beginning with that letter. Some objects began with the letter, some didn't. All were treated equally. The time involved, the lack of a clear link to the framing purpose and the dyadic nature of the talk about the objects exacerbated the difficulties some children had in attending to the session; the instructional discourse threatened the regulative discourse. It wasn't unusual for the session to be brought prematurely to a close by the adult leading it because of children's inattention. Yet many of the older pre-school children did show a willingness to participate and listen to such sessions. In some respects, the difficulties with control meant opportunities for learning in this way were restricted.

**Figures 7.3
Letter of the week; pre-school, 8.1.03 (a)**



Figures 7.4
Letter of the week; pre-school, 8.1.03 (b)



Control was therefore an issue with a complex relationship with children's learning in reception and pre-school. Sharing or partly relinquishing control in smaller groups or dyads could lead to greater child autonomy, greater child involvement and subjectivity, and learning which was based on making connections to previous learning. Sharing or partly relinquishing control in larger groups could lead to involvement and subjectivity of only a few children at a time, with a consequent loss of involvement for others not immediately and directly involved. In the study data, pre-school demonstrated a better model of successfully sharing control in small groups; reception a better model of successfully maintaining control in large groups. Control always, however, appeared to run the risk of masking different levels of individual involvement and understanding.

7.1.2 Agency

Links between control and agency were examined in some detail in the analysis of the two episodes in Chapter 6. In those episodes, the delicate task of navigating a path between exerting control and encouraging agency, based on numerous decisions in tiny lapses of time, was brought under close scrutiny and links with children's apparent involvement in the learning explicated. Such ways of navigating control and agency were repeated countless times over the year with a general trend of less control and more agency being the norm in pre-school and more control and less

agency usually the norm the reception. There were, however, variations within these general trends, some of which were examined in the section on control above.

Nonetheless, it became evident over the year that both between and within settings, agency was differently construed, differently exercised by individual children and responded to in different ways. Where agency ended and disruptive behaviour began was a grey area; the boundaries for each child were as much a function of (and constitutive of) the child's identity in the setting as they were of the values attached to certain behaviours in the setting. The specific contexts of behaviours (timing, location, adults and children involved) also played an important part in determining the exercise, interpretation and degree of encouragement of agency. Further examples illustrate.

Agency and identity in reception: nurturing agency or containing disruption?

In reception, very early on in the school year, Lydia demonstrated an ability to be fully involved in her own learning with a clear idea of what she needed to achieve the level of performance or understanding required for a task. Often the tasks had been set by the adults in class, but had been taken up and adapted by Lydia as she focused on aspects that appealed to her. She plunged herself enthusiastically into those aspects, drawing on the resources available and on the support of other children and adults where possible to assist her in becoming fully immersed in her goal. A series of video clips taken from one morning's recordings (17.10.02) show the ways in which Lydia's agency could be encouraged or over-ruled, and the devices Lydia employed to ensure the outcomes she sought.

In the first clip, between 9.23 and 9.42am she was practising writing her name on a small white board with a dry-wipe marker at a table along with all other children in the class, as directed by the teacher. She sought another child's help in finding a wiper, then became immersed in writing and wiping on the board and, accidentally, on the table and on her dress. She carefully and accurately managed to copy the beginning of her name, *Lydia*, in cursive writing from her name card, exclaiming proudly to herself 'I did it! I did it!' She then turned her attention to trying to help another child by offering to draw a line on the child's white board for guidance. One of the LSAs stood behind her chair and refocused her attention on her own work with

the use of posture, kind words and concern for her sore arm (following an injection). The LSA lent over Lydia's work, placing her hands on the table from behind Lydia, both arms in effect 'containing' her, providing 'blinkers' for her attention. The LSA wiped Lydia's attempts at writing off the white board, took Lydia's hand and guided it to form the letters of her name on the board, saying afterwards, 'You did that well.' As the LSA moved on to another child, Lydia sat still for a while, then wiped the writing off her board and sat watching others until tidy-up-time as if there was nothing of the task left for her to do.

In the second episode, (11.17 to 11.29am), she worked at a table with a different LSA and three other children. Each child had a large sheet of coloured paper. Paint pots were in the centre of the table and the adult set-task was to try to paint numerals between 0 and 5, freehand. Lydia became engrossed in enjoying the colours and brush strokes, painting dots and shapes. The LSA directed her to attempt the numbers and she successfully did a zero and one. She struggled with the three, clearly knowing what it was supposed to look like, but struggling to form the hand/arm movement required. She managed to paint a reversed three, but was unhappy with it, saying to the LSA 'Cross it out! I made a t. I can't do it! Now it's a f!' She tried to become absorbed in the painting, negotiating over colours, but the LSA attempted to refocus her interest in the painting of numerals again. The LSA had attempted to keep Lydia 'on task'. But as the LSA's attention had had to be divided between several children, she had missed the cues Lydia gave with regard to the specific difficulties she was having forming number three, and therefore the possible support or guidance Lydia might find most useful. The teacher announced 'tidy-up-time' and Lydia expressed dismay and frustration at having had neither sufficient time to become immersed in the pleasure of painting nor to master the painting of a difficult numeral, three. She became upset, refused to remove her apron and, whilst the other children joined the teacher on the mat for the plenary, sat slumped with head down at a table, in spite of the LSA's attempts to persuade her to take part. For Lydia at that time, such a display of uncooperative, upset behaviour was unusual. She had generally been seen as cooperative and helpful, though this identity did change over time.

At the end of the plenary, the teacher went to find out what was bothering Lydia and Lydia reported that she had wanted to paint a number three. In the final episode, the

teacher offered her the opportunity to write the number on a white board, to which Lydia agreed. With demonstration and support from the teacher, Lydia managed to write number three, followed by number four. She tried number five, but struggled with the change in direction involved in moving from the straight vertical to the curve at the bottom, repeatedly doing the curve in the reverse direction resulting in a full circle at the bottom, which she referred to as a ‘double five’, recognising her own mistake but struggling to correct it. She persevered, asking the teacher to demonstrate again and turning down a suggestion that she should trace over the teacher’s model. She tried again, evaluated her own performance, repeated the effort and finally succeeded.

Lydia’s desire to persevere with a difficult task until it was mastered, the way in which she subtly directed the type of support most useful to her (most successfully in the final episode) and her agency in seeing her learning goals as something worth pursuing contributed to the successful outcome of the morning. At each step, however, the way in which her agency was responded to helped to dictate the learning outcomes. As the year progressed and Lydia continued to find it difficult to suddenly stop her engrossing activities to fit in with the timetable, often showing similar signs of frustration and upset, her identity in class shifted to that of a child who was ‘egotistical’, though a capable learner. My field notes for 6.2.03 record part of the gradual shift:

Lydia was upset about not having a chance to be Little Red Riding Hood because of running out of time. Teacher reported this was becoming more frequent behaviour. LSA noted it happened at least twice a day, especially at tidy-up time. The pressure to stick to the timetable and not be allowed to complete engaging activities is clearly becoming more frustrating for her. LSA expressed her exasperation with Lydia’s behaviour to me, saying she felt like saying ‘Just get over it!’ (Field notes 6.2.03)

Paul frequently tried to employ agency in reception. As his behaviour was often threatening to the social rules of the classroom, this was regularly construed as an issue of control, of an unwillingness to abide by the rules, even when his attempts at agency appeared *not* to relate directly to such issues. In Chapter 6, section 6.2.2 for example, it appeared to be an issue relating to intellectual involvement. In another example (4.6.03), Paul worked at a table with a small group of children supervised by the teacher. Each child had a board with playdough and had been instructed to make a

model of an item of 'healthy food' they had seen during the morning class visit to the local supermarket. Paul launched enthusiastically into trying to make a model of a shopping trolley, which fitted with his more general interest in mechanical and technical objects. The teacher redirected him several times to make an item of healthy food, trying to discuss with him suggestions for such items, but to no avail. The field notes reveal that towards the end of the session, he had not made anything. During a later discussion with the teacher (10.6.03), she referred to the incident in the context of children's 'on-task' behaviour, how far they were willing to carry out tasks asked of them, and commented on Paul not wanting 'to make anything'. On being reminded that he had wanted to make a trolley, she reiterated her concern that he should have carried out the task as set.

Robert, in reception, developed a strong and highly visible identity in class of being able, reliable, articulate, willing to become involved in the learning objectives set by the teacher and rule-abiding. He was also strongly agentive, but quickly became aware of the social rules and conventions in the classroom. He usually knew which things required careful negotiation and adult permission to earn the opportunity to do as he wished and which were unlikely to gain permission and so needed to be kept from the teacher's view. In one episode quite early in the school year (22.10.02), the video recordings reveal how Robert very carefully followed his own agenda, unnoticed by the teacher who was sitting next to him, whilst simultaneously maintaining sufficient compliance with the task and feedback to the teacher to be able to continue uninterrupted with his own interest. This was a numeracy task, an individual activity in a small group led by the teacher (in this case, a supply teacher who regularly covered the teacher's non-contact teaching time) to make five or more currant buns each from playdough and pretend to sell them to the teacher, who had a few coins. Robert's interest was in eating the playdough. Unchallenged by the mathematical part of the task (he was able to count, manage one-to-one correspondence and recognise numerals well beyond five before starting school), Robert made numerous 'currant buns', held a conversation with the teacher, responded appropriately to her questions and prompts requiring him to demonstrate his knowledge of the number of buns he had made and his ability to count them, invited her to buy his buns, and ducked his head under the table on countless occasions, undetected, to enable him to pop bits of playdough into his mouth. He also

monitored my interest in and response to his actions, which were in part disguised by the fact that I was watching him through the side screen of the camera. His subtle use of gaze, body posture, facial expression, verbal interaction *and* the reading of these in the teacher to pick opportune moments and to provide sufficient feedback, so maintaining the façade, were very impressive.

In a later episode (12.12.02), Robert demonstrated clearly his ability to exercise his agency through negotiation with the adult, keeping within the adult's goals, too. The task was to paint 'The Three Kings' for part of a Christmas display. Previous freehand paintings by the children had been privately rejected by the teacher as unsuitable for the wall display, so a greater degree of adult control was to be maintained over these paintings to ensure they were recognisable kings. Robert was working with another child and the supply teacher. A faint, rough outline of the kings had been drawn by the teacher onto the paper and the boys were to paint the figures more fully. Towards the end of the painting time, the teacher told the boys that they needed to give the king a red mouth. She took the black paint brush off Robert and gave him red. He continued to write his name in pencil first; he then carried on painting the king's body in red. The teacher said 'We need to give him some hair. What colour shall we give him?' She simultaneously stopped Robert's hand from moving as he was poised towards the king's face. Robert volunteered 'Red!' The teacher said she didn't think so and stopped Robert's hand again as he showed some intention to do just that. He suggested yellow instead, which the teacher accepted. Robert began to paint the king's hair yellow. The teacher held his hand at times to direct where the paint should be put. Robert continued to paint after she had removed her hand and the teacher told him to be careful not to paint the hair too long. Robert continued, defending his decision by telling her it was a mummy. The teacher asked 'A mummy king? Are you sure about that?' Robert replied clearly 'No. This is the wife of the king.' He was allowed to complete the painting.

By December, Robert had also earned the right to be allowed to continue with his work if he chose to after tidy-up-time had been announced. He had shown his willingness to meet the adult-set objectives and his work was generally considered to be of a high standard. He also demonstrated an ability to listen to and participate in the plenary sessions from a table whilst still continuing with his individual work.

However, he clearly showed his awareness that this was a practice requiring explicit permission (in the early days at least), that took place in a context of other children being told off for not coming quickly to the mat for a plenary session, and necessitated him explaining to any other adult who might be likely to intervene, such as the LSA, that permission had been granted. As the LSA entered the classroom to find Robert still sitting at a table whilst most of the rest of the children were on the mat in the plenary (12.12.02), Robert immediately called to her 'Miss May, if you haven't finished, you can keep on going', thereby pre-empting any likely interference. Robert also voiced his understanding of how children's desires in reception needed to fit into the adult framework of rules. A friend of Robert's, Geoff, exclaimed in alarm as another child was about to label Geoff's work with his name, something he couldn't yet do himself. His alarm was based on his understanding that only adults were allowed to label work unless the child could label his or her own. Robert intervened to explain to Geoff 'Yes, if an adult can't and they're too busy, then a child can.' He addressed the explanation partly to me as a way of giving it added adult authority.

Agency and identity at pre-school: boundary negotiation

At pre-school, differing levels of agency amongst the sample children and responses to them by staff were less marked, partly because opportunities were more often available for children to be agentive in their learning in pre-school. However, subtle differences were discernible. Both Henry and Lloyd were considered to be mature, well-behaved and rule-abiding members of the pre-school. As was demonstrated in the close analysis of Episode 1, Chapter 6, section 6.1, Henry and Lloyd were encouraged to be fully involved in the learning process and to exercise their agency with regard to steering, interpreting and evaluating their actions. These were regular features of the interactions they took part in at pre-school.

In the earlier part of the academic year, Stuart was less agentive at pre-school, though he had a different identity at home, where he used strategies of negotiation and at times disagreement to pursue his own interests. At pre-school, he at first adopted more of a peripheral role, at times watching what was going on rather than becoming fully involved. His liking of the supervisor led him to seek out opportunities to spend time at the activities she was supporting. The interactions he shared in her company

(often in maths activities in which he was quite confident, an example of which is referred to in more detail below, section 7.2.2, page 267, *Prolepsis or modelling and assessment? Subtle differences in ways of guiding*), and a growing friendship with a younger child for whom he could act as the more knowledgeable peer, contributed to his increasing confidence and use of agency. Much of this appeared to be based on his growing self-confidence in the setting in the later part of the year and on his developing identity as one of the older, more competent pre-school members.

Carly was very confident in pre-school and on many occasions showed her ability to employ her agency in pursuing her own learning agendas, seeking items and activities of interest to her and becoming immersed in them. She was video recorded becoming absorbed, alone, in a book showing the life cycle of frogs after looking at and asking questions about a tank of frogspawn brought in by the supervisor; exploring a toy blood pressure monitor and then taking it to an adult to ask questions about its purpose; persevering in putting on dressing up clothes which were difficult to manage; becoming immersed, alone, in a set of cogs and gears provided on the maths activity table and spending a considerable time exploring their properties and problem-solving ways of combining them; securing involvement in small group activities with adult supervision, designed for a key worker group of which she was not a member. She also drew others into her activities, showing subtle awareness of the social order: she chose younger children on which to practice her adult-style ‘teaching’, potential female competitors to her central role in the ‘sociable girls’ group to edge out of her social circle and, at times, encouraged children less aware of the social rules to take activities just beyond what was acceptable to the setting in ways that she desired, but felt bound by the social rules not to do. She was seen as a very capable four-year-old, who had easily met the all the criteria of successful learning in pre-school by December 2002 with two full terms still to attend (key worker file and informal conversation with key worker, 5.12.). However, her agentive behaviour appeared at times to have been judged as very slightly overstepping the acceptable boundaries in pre-school, in spite of Carly being viewed and treated generally as a rule-abiding member of the group. When this occurred, Carly again demonstrated her awareness of where the boundaries lay and how to find strategies to reconcile her desires with the setting’s boundaries in a similar way to Robert.

On one occasion (7.5.03), Carly had been involved in an adult-led group activity of making cakes. Unlike most pre-school activities, this was highly structured and controlled by the adult, Jill, with the children having only restricted parts to play, one at a time, within the slots created for them in the sequence by the adult. It therefore entailed much waiting and watching. Carly was very interested and enthusiastic about the activity. It became apparent from Jill's responses that Carly was considered to be taking a little too long over her parts of the activity. She was reminded to allow others sufficient time, too. Later that morning, Carly was in the playground where she and several other children were playing with a set of large, toy road signs. The staff had previously had to prevent children from removing the signs from their posts and using the posts to wave around rather dangerously. One of the signs, the 'lollipop', had a slightly different post. Carly noticed that the lollipop had been attached to the wrong post and that Jill was holding the correct 'lollipop' post. Keen to put the situation right, she went to ask Jill for the post with the intention of replacing it. Jill would not allow her to have it. Jill had had to retrieve the post from someone who had been using it to hit another child, so safety was uppermost in her mind. Carly decided not to pursue the matter directly with Jill, but instead explained the situation to another child, an articulate and persuasive child who had also been part of the cake-making activity and had been responded to slightly more favourably by Jill during the activity. This child retrieved the post from Jill and attached it to the correct sign.

7.1.3 Summary

In both reception and pre-school, agency was something that could be allowed and control relinquished only within certain boundaries, though where those boundaries lay differed in each. Agency was acceptable where it was unlikely to threaten the adults' control of other children or of the group as a whole, whether directly or indirectly. It was acceptable where a child had demonstrated (or was assumed to have) an ability or willingness to be generally rule-abiding and so could be relied upon to be drawn back within the control of the adults should it be deemed necessary or desirable. It was acceptable where the goals of the child were broadly in line with the goals of the adult and of the sub-culture of pedagogy of the setting. It was acceptable where the exercising of agency and the actions entailed did not threaten the identity of the adults as good practitioners or the well-being of other children. The boundaries of

group and individual control and rule-abiding behaviour were more negotiated and loosely framed in the pre-school, but more explicitly defined and tightly framed in reception. For both, there were specific times and places when agency was more allowable: in reception, rarely during literacy, numeracy, PE, or the whole-class teaching of other subjects, but to some extent during ‘choosing’, and to a greater extent during ‘golden time’ and playtime; in pre-school, rarely during registration or snack time, but to a much greater extent during ‘free-play’ and outdoor play (all defined in Appendix ii, section ii.2.2).

Children’s strategies, experiences and identities

Nonetheless, in children from both settings, there appeared to be a link between individual children’s experiences of relationships in which they had jointly formed general ways of behaving in relation to agency (Chapter 4, sections 4.1.3 and 4.4), the ways in which the children employed their agency in the settings, and the ways in which this was construed by the adults, tempered by and contributing to the child’s identity in the setting. Children’s *strategies* for employing agency contributed to adults’ decisions about the type of control to enforce and the type of agency to allow or encourage. Such decisions had consequences for the child’s involvement in and subjectivity with regard to the activities and interactions. In short, the decisions about agency affected learning. From the evidence, I suggest that adults’ decisions about maintaining control and allowing agency might fruitfully involve consideration of the *purpose* of the control, the *possibilities* in sharing control or allowing agency, and particularly the *type of learning* aimed for in the pedagogy:

- higher levels of adult control suited performance and the delivery of learning objectives with transmission as the model of learning
- shared control suited shared thinking with inter-contextuality as the model of learning
- higher levels of child agency suited a model of learning which is subjective, linked to the child’s current knowledge, interests and ways of being, and was more individually tailored.

Decisions might also fruitfully involve close monitoring of children’s genuine and often subtly conveyed responses, whilst bearing in mind the strategies available to each child historically and within the specific situation.

7.2 Pedagogic communication: delivering, guiding, discovering

In Chapter 6, it was apparent that small aspects of delivering, guiding and discovering came to the fore in different moments of teaching and learning, though some aspects were more dominant in each episode. In this section, I examine the key points involved in delivering, guiding and discovering raised initially in Chapter 6 and drawing on examples from the rest of the data. The aim is to shed light on aspects which appeared to be associated with children's responses related to learning. For clarity, I examine each as a separate point, using telling examples from the settings, though inter-relations become apparent.

7.2.1 Delivering: multimodal interactive performance

A dominant feature of pedagogy in the reception class was the use of whole class teaching (see Chapter 5, section 5.1). It formed a routine part of literacy, numeracy and handwriting, all of which were daily sessions, and introductory and plenary parts of other subjects such as geography and science. This reflects findings of research by Smith et al (2004) on 72 primary lessons across England, a third of which were in reception. Smith et al found that whole class parts of the lessons lasted on average for 60% of the time. Of this, 74% of the teaching was comprised of teacher talk, primarily explaining, directing, asking closed questions and evaluating. In Chapter 5, data were presented showing staff interactions to large groups in reception to be comprised mainly of cognitive or cognitive/monitoring and maintenance interactions, particularly exploring and reinforcing, instructing/explaining/discipline. Modelling and encouraging also featured prominently in the teacher to whole class interactions in school. Children's interactions in reception were dominated by those with adults in adult-led large group activities (Figures 5.6 and 5.7). These were most likely to entail listening to or participating in non-routine activities (with new content), making contributions voluntarily to the whole group alone, in unison with the rest of the group or, less often, alone in response to a request by the adult. Although, therefore, I refer to this aspect of the pedagogy as delivery, it did of course entail the active participation of children, though the extent and nature of this varied between episodes and between individuals.

The whole class teaching in reception was characterised by the way in which the teacher drew on a range of semiotic modalities: action, facial expression, speech, body positioning, props including costume, pictures and objects, texts or diagrams (pre-written or formed as part of the delivery). For example, whilst reading The Three Bears, the teacher dressed up as Baby Bear, using bowls and chairs for props as well as the illustrated written text; for Little Red Riding Hood, she used a mask, cape and basket; a numeracy session involved a large drawing of a rocket as the visual aid to counting down from ten to zero; concepts of addition and subtraction were demonstrated through the use of numbered carpet tiles on the floor, a giant dice, and a demonstration of physically jumping backwards and forwards from one tile to the next, with individual children invited to participate (Figure 7.5).

Figure 7.5
Addition and subtraction using number mats, reception



The following more detailed example from 23.1.03 illustrates (Excerpt 7.5). The children were assembled on the mat for what the teacher had introduced as geography. It was to involve talking about the weather and dressing 'Mr. Weather Bear'. The teacher opened the session by reading a poem about Weather Bear. She followed this with a discussion about what might be used to keep us dry in the rain. She questioned the children about the effectiveness of an umbrella for keeping dry and turned her back to the children, showing how the umbrella would shelter her back. To extend

their thinking, she took an umbrella and demonstrated walking along with it whilst describing the rain pouring down. She demonstrated her legs moving out from under the umbrella's shelter.

Excerpt 7.5: Geography as multimodal delivery 1; reception, 23.1.03

	Time	Adult actions	Adult speech	Children's actions and speech
1	13.38.25	Sitting on a low chair, facing the children. Frown. Mimes putting up an umbrella with her hands. Gaze to children. Serious face.	What happens if Miss Green has an umbrella up? Okay... I have an umbrella ... And I don't have a raincoat. Will I stay dry?	All sitting on the mat, loosely grouped, facing the teacher. No. No.
2	13.38.31	Jumps hands towards self as if startled by response. Puts finger to mouth, head tilted slightly as if thinking. Eyes wide, head turned slightly to side, but gaze to front, slight frown, as if questioning their response.	Have a think about it. Miss M, could you pass me an umbrella?	Yes! Yes! Yes!
3	13.38.37	Stands up, places book on chair. Faces children.	Okay, imagine it's raining, it's pouring down with rain.	
4	13.38.46	Looks down at own clothes. Pulls edge of jumper down and straightens it.	Miss Green's just wearing what she's wearing now. It's starting to rain. Oh dear, what am I going to do? I haven't got my raincoat.	
5	13.38.51	Leans forward to take umbrella offered by LSA.	But I have got my umbrella, so I'm going to put my umbrella up.	Sing a song.
6	13.38.59	Puts umbrella up and holds it over her head.	Watch the umbrella. Is it going to keep me dry?	
7	13.39.03	Nods, lips pressed together, eyes wide, brows raised.	No, I don't need to sing a song at the moment.	Yes! Yes. Are you going to sing a song?
8	13.39.06	Tucks both arms in close to body, both hands holding umbrella handle, emphasising arms under umbrella.	What else might it keep dry? Will it keep my ... arms dry?	
9	13.39.12	Nods. Raises alternate shoulders, one at a time.	Yeah 'cause it's under the umbrella. What else might it keep dry? Lauren.	Yeah
10		Sways hips from side to side, indicating body, presses lips together.	Shoulders. What else will it keep dry? Lauren?	Shoulders
11	13.39.23		My back, yeah. Have a look at	Back

		Turns with back to children to show them.	my back under the umbrella.	
12	13.39.25	Turns back to face children	What else might it keep dry? Hannah?	Arms
13	13.39.27	Pats stomach. Rubs stomach. Indicates body with hand gesture.	Yep, my arms. Robert? Yep, my body. My tummy, well, not just my tummy, but my body.	??
14	13.39.35	Gaze down to legs. Gaze to children. Puzzled face	D'you think it will keep my legs dry, though?	No
15	13.39.41	Walks to side, putting legs out straight in exaggerated way with each stride, still holding umbrella over head.	What happens if I go walking? I'm gonna put my legs out in the rain, aren't I?	
16	13.39.49	Walks with exaggerated tiny steps, keeping legs under umbrella.	Unless I walk like this, my legs might get a little wet. D'you think that might be why people might wear Wellington boots, 'cause their feet poke out from under the umbrella, their feet will get wet?	No. Yeah. Yes.

In the Excerpt 7.5, rows 2, 8, 9, 10, 13, 15 and 16 all provide examples of the way in which actions and facial expressions were used to guide the children's thinking, with words forming just part of the total communication.

The teacher then shifted the activity to focus on a flip chart (Excerpt 7.6). On it, she had a pre-drawn sheet: two bears divided by a line, one bear in sunny surroundings, one in the snow. She invited the children's suggestions for items of clothing appropriate for each bear, drawing the clothing onto the picture as she talked about their suggestions.

Excerpt 7.6: Geography as multimodal delivery 2; reception, 23.1.03

	Time	Adult actions	Adult speech	Children's speech and actions
1	13.45.10	Stands next to flip chart facing children, one arm resting on flip chart. Holds felt pen.	Mr. Weather Bear in the summer, what's he going to wear? Hannah? Laura?	<i>All sitting on mat, loosely grouped, facing teacher.</i>
2	13.45.12	Gestures with hand, palm upwards, moving hand to side.	A dress. Okay, Mr. Weather Bear is a Mrs. Weather Bear. That's fine.	A dress
3	13.45.17	Turns to flip chart and draws	She's gonna wear a	

		onto first outline of bear	red dress. Short little sleeves. It's the summer, we've only got short sleeves on.	
4	13.45.23	Continues to draw dress, turned in towards chart. Colours drawing of dress.	She's got a nice red dress. Now... I've got...	Miss Green, look! There's two! <i>Pointing to something to left of screen, out of view.</i>
5	13.45.40	Continues colouring.		She looks like she's playing football! Miss Green, I see it! I see it, Miss Green. I see it.
6	13.45.56	Gaze to Paul, stops colouring. Gaze to floor.	See what, Paul, darling? See what, sorry?	<i>Indicates something at floor level.</i>
7	13.45.57	Taps flip chart picture, gaze to Paul, head down. Serious facial expression. Slightly extended silent gaze to Paul.	It doesn't matter. That's not what you should be concentrating on. You should be concentrating on this, Paul.	But I see it...
8	13.46.13	Gaze back to rest of group. Bends down to select different pen. Touches front of own clothes to indicate buttons. Continues to draw.	Right, this is my red dress for Mr. Weather Bear. Mrs. Weather Bear, sorry! I'm gonna have some buttons down my dress. It's a button dress, got buttons down it. There you go, buttons down her dress.	Mrs. Weather Bear!
9	13.46.35	Gaze to children, gesture with hand holding pen. Draws flowers on dress, turning in to chart. Continues to draw.	You might decide your dress has purple flowers on, like this. There we go, there's the purple flowers on her dress. Yes, this is Mrs. Weather Bear. Maybe that will be Mr. Weather Bear. There we go. Yep.	Mrs. Weather Bear.
10	13.46.41	Stops drawing. Gaze to children.	What else might she wear?	

		Strokes both hands down front of body. Slow, drawn out words, hands folded together in front – churchlike. Strokes both hands over her head.	She's got a lovely flowery dress on. What else might she wear... on her head? Emma?	
11	13.47.10	Takes different pen. Turns to chart. Begins to draw hat.	A hat. A nice straw summer hat. This is a hat, but Miss Green's not very good at drawing...as you know.	A hat <i>Laughter</i> You don't know how to draw.
12	:			
13	13.47.49	Hands over eyes, face screwed up in exaggerated mock response to 'bright sunshine'. Puts hands together in front, interlocking fingers in and out.	Right, there we go. Now. Oh, oh, oh, it's a bit bright! What shall I put on my eyes? Oh, my eyes! The sun, oh my eyes! Bit bright. What shall I wear? James? Sunglasses!	Sunglasses

The teacher modelled the task the children were to do alone after the whole class teaching, demonstrating and talking about ideas for adding detail, as in rows 8 and 9. She used dramatic devices to guide the children's responses (rows 10 and 13) and action, gaze and facial expression (row 7) as well as words to maintain a tight focus on the objective. It is clear from the excerpts that the children's part in the interaction was limited to short responses, tightly controlled by the teacher's search for the 'required answer' and so clearly matched the type of whole class interaction identified by Smith et al. They concluded from their research that such episodes were insufficiently interactive, reflecting a continuation of traditional patterns of classroom interaction with little evidence of 'quality dialogue and discussion' (p. 396).

Far from encouraging and extending pupil contributions to promote higher levels of interaction and cognitive engagement, most of the questions asked were of a low cognitive level designed to funnel pupils' response towards a required answer' (Smith et al, 2004: 408).

Yet, when looking at the full range of communicative strategies rather than just the words, it seems that this teacher was guiding the children into cognitive engagement with *her* world with a view to it becoming *their* world.

In whole class delivery, by drawing on the range of modalities as shown in the examples above, she not only captured and maintained attention, entertained, allowed for some differentiation in terms of different learning styles (visual, aural, kinaesthetic) and in terms of requesting differentiated responses from children with various levels of knowledge or skill, but also created a rich and inviting context for the curriculum delivery. In effect, she shaped and created micro worlds related to the learning objectives in which the class could share. In reception, the world of the ‘bears’ was extended and enriched throughout the spring and summer terms. Mr. Weather Bear’s global travels were described by the teacher, displayed on a wall around a map of the world and represented by postcards sent to the class from different parts of the world, with the help of the teacher’s friends and relatives abroad. Children took turns daily to dress a toy bear in clothes suitable for the day’s weather. Teddy bears more generally became part of the theme, with a class visit to a teddy bear factory and a teddy bears picnic. It is perhaps not surprising that two of the four reception children when asked at the end of the year what they had been learning in school mentioned ‘teddy bears’ (Chapter 4, section 4.3). These micro worlds became the common ground, the context, in which the reception class learning took place. The model of learning used was characterised by instruction/ modelling/ explanation, followed by individual engagement in activities to practice and use the new learning, incorporating assessment.

In contrast, many of the pre-school whole group sessions, whilst they accounted for a smaller proportion of the interactions than in reception, made less effective use of a range of modalities to create a context for whole group joint thinking in which the means of communication emphasised the learning objectives. During registration at pre-school, referred to earlier, one of the objectives was to introduce and focus on a letter of the alphabet each week to help children to recognise the grapheme and phoneme, particularly the use of the phoneme in word onset. Yet the objective was regularly unclear, sometimes as a result of the words used, but also because of the way in which voice, body positioning, gesture, gaze and the use of visual aids and

prompts conspired *against* the objectives occupying the central ground. The grapheme used to represent the letter of the week, for example, was printed or written on A5 sized card without use of colour or other graphical means of conveying the shape (such as Letterland or Jolly Phonics characters). Sometimes the letter card was held up by the adult; at others, it was on the wall away from the group's central view. Sometimes, it wasn't used at all. The use of such modes of communication gave a weaker representation of the objectives. The model of learning was one characterised by seeking children's subjective, meaningful involvement in the activities, supporting and encouraging their contributions. But with such young children, maintaining group attention during another child's meaningful, individual involvement was very challenging.

I have already referred to the way in which the regulative and instructional discourses were interwoven to either maintain or diffuse the instructional messages. Equally important was the extent to which the discourses were multimodal. Where effort was used in reception to harness an effective range of means of communicating and creating the learning context with the whole group, the performance it entailed was repaid by children's attention levels and *group* context for understanding. There was potential for using such means of delivery with greater effect in pre-school where the mean age of the whole group (though not the sample group) was considerably younger than that in reception, thus requiring even more 'capturing' of attention.

At pre-school, the common ground and contexts were more individually generated from the children's own interests and experiences, woven into common meanings between home and setting. In reception, the common ground was created by the teacher, though children were invited to participate in it. In a setting such as reception where prescribed learning objectives had to be met and in which there were few staff to many children, it was more difficult to generate common ground more individually based on children's interests and home experiences. However, a key issue in considering the success of such an approach is to what extent *all* children find the common ground created through delivery accessible and to what extent it can be supplemented by a more subjective, negotiated approach in other parts of the pedagogy. In reception, there appeared to be few other openings for creating inter-subjectivity. At pre-school, the openings for more individual inter-subjectivity were

created and used, but the much weaker creation of a shared context for whole group delivery, leading to unsatisfactory episodes for staff and children, meant little opportunity for the development of more explicit common knowledge in pre-school, which would perhaps ease the transition to school.

I am not arguing for more whole class teaching in pre-school. Rather, I am arguing for more effective use of the whole group time that is currently part of the routine and for a clearer understanding of its potential. Similarly in reception, I do not argue necessarily for more inter-subjectivity in *whole* class teaching or less of the teacher-devised rich contexts, but rather for more interweaving of children's subjectivity in *other* parts of the timetable or pedagogy. These might then become part of the staff and children's shared understandings, giving greater access to those who find the whole class contexts difficult to access. The line of argument challenges Smith et al's discussion of their research findings, which seem to assume greater dialogue and discussion with more extended individual pupil contributions in whole class teaching to be necessarily a good and desirable thing. I argue firstly that whole class teaching, particularly with young children, may not be the best place for such extended individual dialogue. Secondly, I argue that the examination of what is going on in whole class teaching should extend beyond words to a consideration of the range of communicative strategies used by the teacher to guide, elicit, enrich and extend. Thirdly, it is also pertinent to consider how the strategies used in whole class teaching fit into the rest of the pedagogic repertoire and into children's learning experiences beyond the whole class part of their time in the setting. Clearly, the *proportion* of time spent in whole class teaching also has a bearing on this final point.

7.2.2 Guiding

The two episodes analysed in detail in Chapter 6 show quite different patterns of guiding, which in many ways exemplify the main differences between pre-school and reception in guiding children's learning. The first episode, from pre-school, shows guiding to be characterised by careful use of timing to provide assistance when needed, based on close observation of the child's actions and 'reading' of intentions, to avoid 'failure'. It was characterised by a high degree of affirmation and by the sharing of control of the activity. There was collaboration both in the model construction and in the construction of the conversation. Part of the guidance involved

making suggestions and modelling to a limited degree. The second episode, from reception, was characterised by a strong focus on specific learning objectives. The guidance involved close control of actions and attention, using repetition, reframing of responses and recapping of selected points to maintain focus. A combination of words, gaze, gesture and objects were used to channel and steer concentration, with a strong use of ‘assessing’ interactions to continuously evaluate pupil learning and so adjust the control and focus accordingly.

It became clear from the episodes and other numerous examples throughout the data that the guidance strategies used depended on the adult’s reading of the purpose or intended outcome for the episode, on the adult’s reading of the child’s responses to this, and on the ways in which the child contributed to the episode. The two episodes typify two distinct ways of providing guidance to meet two different purposes: the first, guidance for process-orientated activities and the second, for pre-set goal-orientated tasks. Jordan (2004:42) refers to these two types as co-constructing understandings with children and scaffolding learning for children. In process-orientated activities, the goal was not pre-set. Part of the adult’s role, therefore, consisted of ascertaining, suggesting or jointly creating a goal with the child. Ways of so doing included making suggestions, building on the child’s leads, or modelling purposive play by showing involved, interesting activity alongside the child. There was more possibility in this way of guiding for incorporating the child’s own ideas, but it was still a *shared* space in which the adult and the child both had a role to play.

In the second way of providing guidance, modelling/assessment, exemplified in Chapter 6, section 6.2, the activity was assumed by the adult to have a pre-set goal. The role of the adult was to guide the child towards that goal by ascertaining the child’s current level of knowledge or skill to reach the goal (assessment), diagnose the support required (watching, listening to responses), and to support, respond to and refocus the child until the goal was achieved. In reality, with limited time and resources, the guidance did not always continue along the same path until the goal was achieved. Instead, the goal was sometimes adjusted to meet the adult’s perception of the child’s ability to reach the goal, or guidance suspended when time ran out, perhaps leaving a perception of the child as having failed to meet the objective. The child’s grasp of what the goal *was* (rather than how to achieve it) and his or her

commitment to the goal were often taken as assumed and left implicit. In several episodes in reception, a lack of a shared conception of and commitment to a goal led to frustrations, to children being ‘busy’ though not necessarily working towards the intended objective, or to less than ideal learning experiences. Examples used in the thesis include Paul in the role play room, section 7.1.1, page 232; Episode 2 in section 6.2; and Tom and the number towers on page 269. There were other examples. In contrast, in pre-school, on several occasions I noted children trying to ascertain the nature of the goal in activities by asking questions about purpose (see Themes Analysis, Appendix ix). In a craft activity with pre-cut paper shapes, Molly (13.2.03) persistently asked about the purpose of the scissors and was dissatisfied with the adult’s answer that they were for cutting up paper. The response didn’t answer her underlying question about how they related to the activity’s purpose. In an activity in which cooked spaghetti, scissors and scales were provided, Lloyd (5.2.03) asked the adult ‘What are you supposed to make with this?’ to which the adult answered that it was just to play with, explore, touch or weigh. Lloyd then spent a considerable time trying to invent games and introduce clearer purpose into the activity with the adult. The contrast I refer to was the way in which the pre-school children appeared to have the opportunity to raise questions about and to contribute the goals, with the possibility that there was greater shared understanding and commitment to them. Tom’s question, towards the end of the making and counting multilink towers with the teacher (reception, 9.1.03), addressed to me in the background rather than to the teacher sitting next him, was about where he should put a particular piece of multilink. He was trying to work out which actions would allow him to meet the teacher’s goal, although to him at the time, the goal appeared incomprehensible and beyond question (see *Prolepsis or modelling and assessment*, page 267 below for more details of this episode).

Guidance in both episodes, as examples along a continuum, involved forms of contingent responsiveness, but within very different frames. The contingent responsiveness in the two settings varied along the following dimensions:

- *Contingent upon what?* Contingency depended upon the children’s contributions and reactions to the activity. These varied with their understanding, or previous experiences of such tasks, or of working with adults on similar activities. Contingency depended upon the adult’s reading

and understanding of what the child brought to the situation, how far the child's part in the process was brought to the fore or treated as a background factor and the interactive space made available for it.

- *What constituted responsiveness?* Responsiveness depended upon how the adult *interpreted* the child's contributions and reactions, how these impacted upon the adult's perceived role, identity and aims, and the repertoire of responses available given the constraints of resources, setting, and ethos.
- *Time available.* Contingent responsiveness varied according to whether the goals were tied to a particular time scale (for example, 'should be able to by the end of the lesson', 'should be able to by the end of the Foundation Stage'), or more open-ended (may achieve different things in different orders at different rates) and the associated pressure of pace. Each had potentially different relationships to 'failure' as a possible outcome. Contingent responsiveness also varied with the time adults had available to work with children in such ways, which was affected by adult to child ratios, organisation and deployment of adults in the setting and the pedagogic sub-culture.
- *Ownership.* Adult's ownership of the goal or purpose and degree of professional freedom affected contingent responsiveness. Contingent responsiveness requires flexibility. The degree of authority and autonomy the adult held with regard to the goal or activity affected the level of flexibility available to respond to the child. Where the activity relating to the goal was delegated, but autonomy to change it was not, flexibility was potentially restricted. In reception, goals were delegated from government to school, but not the authority to change those goals. The teacher had some professional freedom, but this was also limited in reality by the school ethos and the teacher's place in the setting. Goals were delegated from the teacher to the LSA, who had even less authority to be flexible about those goals. In pre-school, the curriculum was delegated by the government, but not the detailed, time-tied targets and prescriptive teaching strategies within which schools had to work. The pre-school practitioners had more professional freedom to interpret the curriculum and were part of an ethos which emphasised

flexibility to respond to individual children's needs, although as pointed out in Appendix ii, section ii.1.1, they did have to demonstrate that they were providing activities to cover the curriculum range. On the other hand, the pre-school ethos inhibited direct teaching as a possible strategy in pre-school. Children's ownership of the goal or purpose of the activities in turn affected their motivation and their contributions and responses.

- *Relationships.* I consider relationships in more detail below, but point out here the ways in which they appeared to impact upon contingent responsiveness. Where children's social and emotional needs were addressed and met, and the relationship handled with warmth, sensitivity and a non-judgemental manner, the ensuing trust between the participants allowed for openness, risk-taking by the child in trying out ways to achieve the goal or in making contributions, and more accurate diagnoses by the adult of the support most useful to the child. The relationships therefore affected both what the adult was trying to base their contingency upon (the child's contributions) and the adult's ensuing responsiveness, followed again by to what extent the child felt able to redirect the responsiveness in a way that he or she would find most helpful.

I suggest that the evidence in this thesis spells out just how these differences impacted on the minute by minute interaction in the settings, on children's learning experiences (and the experiences of staff) and on the outcomes in terms of children's achievements and identity formation.

Prolepsis or modelling and assessment? Subtle differences in ways of guiding

Where there was a clear goal for an activity, there remained distinct though subtle differences in ways of guiding with attendant consequences for children's positioning in the learning and so for their identity, particularly if a child found the activity challenging. Some of the differences were attributable to or influenced by the dimensions mentioned above. Yet other differences were attributable to the manner of communicating about the task with the child. There were two distinct types discernible. The first was the modelling/assessing type of guiding outlined above, visible in Episode 2, 2D/3D Shapes, which was most often a characteristic of the guiding in reception. The second, most often seen at pre-school, was similar to that

described by Addison Stone (1993) as proleptic instruction. This is characterised by communication in which the adult, or more capable peer, implicitly provides guidance or information or directs attention by stating something in a manner that appears to assume previous knowledge (though not yet held in reality). The child, or less capable peer, through resultant questioning, deduction, observation or partial participation makes the links and ultimately ends up sharing the knowledge or skill. Addison Stone argues that its strength lies in the way in which it highlights 'the creative or transformative effect of such discourse turns via the communicative tension introduced by the speaker' (1993:174). In prolepsis, at the point at which the shared context is introduced, there is insufficient information for it to be yet understood. More is required and so 'the listener is motivated to seek it' (page 174). The process can result in a redefining of the situation for the child to become more consistent with that of the adult. Indeed, Stone suggests that the way in which a shared knowledge perspective is assumed is conducive to mutual trust and intimacy and to the child adopting the adult's position as his or her own (Addison Stone 1993:174). But is this entirely verbal?

Stone acknowledges that there are other communicative mechanisms at work in successful guidance such as the semiotic devices of gesture, gaze, and pauses.

How can we move beyond the assumption that the 'dialogue' constituting scaffolding is verbal to develop an integrative framework capable of incorporating a broader notion of semiotic interactions in scaffolding situations? (Addison Stone 1993:176)

The close analysis of action, gaze, gesture, body positioning and use of objects as well as speech in this thesis sets out some of the ways in which guidance is transmitted and co-created with the child. It also begins to unravel how variations in these can be more or less conducive to reaching a shared understanding by drawing out two aspects of the interpersonal relationship involved in guidance, as identified by Stone, those of the immediate qualities of an interaction and the more enduring, developing dimension over repeated interactions as the relationship forms and colours (and is coloured by) each new interaction.

Two brief examples of each type of guidance where a pre-existing goal was assumed (at least by the adult) are outlined below. The first, from school, is another example of

the modelling/assessing type of guidance. As it repeats the point made by the detailed transcription of Episode 2 2D/3D Shapes, I give only a brief outline here. It does reinforce, however, the limitations of this type of guidance for some children and how, inadvertently, it can have a negative impact on their learner identity. The second, from pre-school, is an example of a more proleptic means of guidance. Both examples involved a maths counting activity. They took place within a day of each other in January 2003 and involved contingent responsiveness by the adults guiding the activity and by the children attempting to 'succeed' in the activity.

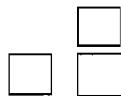
In reception, the teacher was working with Paul, Tom and Lawrence on the mat during the numeracy hour small group work session (9.1.03). This was a group of children who, in school, were finding it difficult to fully grasp the connection between written numerals and quantity, and to count objects reliably up to five (Tom) and up to ten (Paul and Lawrence). This became a priority for maths work with the group. The teacher instructed the group in a clear firm voice and with a serious face. This was to be work that required attention. She set the scene for the task as an individual activity in which each child independently was to follow the teacher's instructions. 'Now you get out for me two multilink and put them together. No, you're not listening. You've got your one. I want you to get two multilink and put them together...1, 2,' she counted out two multilink in her own hand, 'and put them together in a tower. Go on, you do the same.'

Figure 7.6
Teacher counting out two bricks to Tom; reception, 9.1.03



Tom took a brick and looked hesitant. He gazed at the teacher and at the other children, clearly unsure. The teacher noticed and took two of his multilink bricks, one in each of her hands and showed them to him, saying firmly 'One, two' (Figure 7.6). She put them both on one of her hands, palm flat, and held them out to Tom. 'You count them.' Tom pointed one at a time to each brick, mumbling the words, clearly unsure. He said 'Three'. The teacher repeated firmly to him 'One, two. Put them together,' at which point she demonstrated joining the two bricks, 'and make a tower. Tom gazed to the bricks placed in front of him on the floor, positioned as illustrated in Figure 7.7.

Figure 7.7
Tom's two towers.



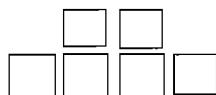
The teacher at that point became aware of Paul's apparent lack of compliance. She took both of his hands in hers and, putting her face directly in front of his with her gaze to his, said firmly 'Look at me. Listen to what Miss Green is asking you to do, okay?' (Figure 7.8).

Figure 7.8
Refocusing Paul's attention



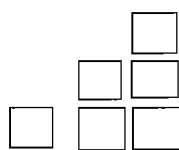
The atmosphere created was one of rather tense work. She then directed the group to 'Take out three multilink. Count them out.' She demonstrated again by putting three bricks one by one in her hand, 'One, two, three.' She looked at Tom and said 'You should have three in your hand, three in your hand, one, two, three. Put them together in a tower.' Tom again looked hesitant, glancing frequently to the teacher and to her tower, whilst handling two bricks uncertainly. The teacher noticed his uncertainty and took his two bricks from him, held them out in her hand in front of him and asked 'How many are there?' in a firm voice. Tom tried to count them. His voice was unclear, but he did say 'Three'. The teacher shook her head slightly to indicate that he had made a mistake, but then turned her attention to Paul who was not making the correct tower, either. She turned back to Tom and said 'One, two..?' She took another brick and added it, saying emphatically, 'Three. Put them together in a tower.' Tom took them and hesitantly put two of them together, forming the pattern illustrated in Figure 7.9.

Figure 7.9
Tom's four towers



This was different to the teacher's model, illustrated in Figure 7.10.

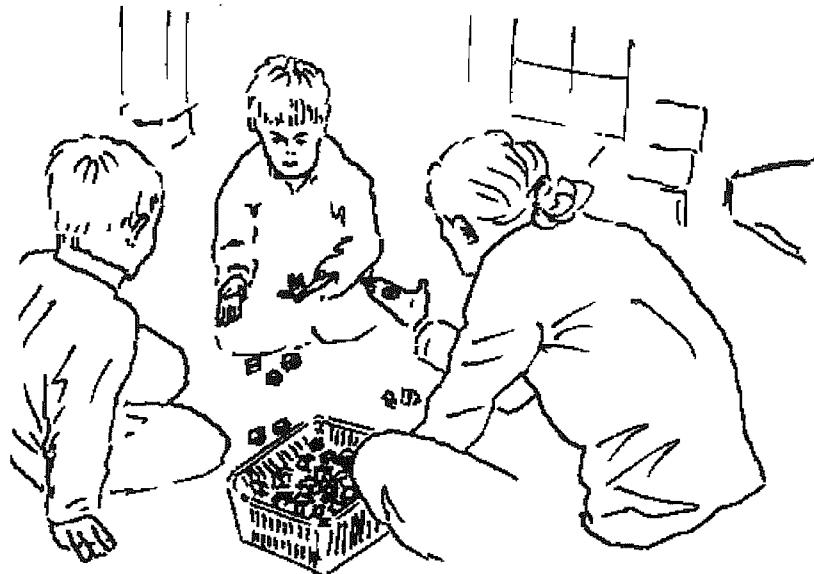
Figure 7.10
Teacher's model of towers



Tom then gazed from his model to the teacher's model and towards the other children's efforts. He looked unsure, shifting his gaze and wringing his hands and fingers silently until the teacher noticed his mistake and asked 'Where are the three I gave you a few minutes ago, Tom? The three I just gave you, what have you done with them?' Tom gazed uncertainly at the teacher and at his bricks (Figure 7.11). She reformed his towers to match her own, counting aloud again in demonstration. The activity continued in the same manner to a five brick tower. Tom remained confused and unquestioning, but attempted to follow the teacher's instructions. The teacher continued to demonstrate and correct Tom's efforts, supporting his actions almost to

the extent of completing the task for him, something the teacher commented on when reviewing the video tape.

Figure 7.11
Tom's uncertainty



Finally, Tom appealed first to me, calling to me over the teacher's head as her attention was focused on someone else (Figure 7.12), and then to the LSA who was working with another group, holding up a brick and asking 'What shall I do with this?'

Figure 7.12
Tom asking for advice



He did not question the teacher or try to explain or defend his decisions about where to place the bricks. He looked relieved when it was tidy up time.

Tom clearly found the task very challenging and undoubtedly had difficulty in counting reliably. However, I suggest that there was something in the tone of the interaction relating to the activity, the non-verbal communicative strategies used and the words the teacher chose which made it more difficult for Tom to communicate where his difficulty lay, and for the teacher to support him in a way that would help to circumvent his difficulties, so that the outcome contributed to Tom's self-image as a successful, rather than unsuccessful, learner. What is also of interest here is how the detail of this episode had become part of a usual way of interacting, part of the relationship between Tom, Paul and the teacher in school, further contributing to Tom's reluctance to speak out. From the evidence in the observations and recordings, I suggest it is likely that a child such as Robert, who had formed a positive self-image as a learner and some confidence in negotiating with the teacher, would have reacted quite differently to such a situation, possibly questioning his confusion or trying to justify his decisions to the teacher. This in turn would have been likely to lead to guidance more tailored to his needs.

At pre-school, in the second example on 8.1.03, the supervisor was working with Stuart, Ann, and Emma at a table on which maths resources were laid out. The resources comprised A4 cards, each with a numeral to ten and a picture of a dog in a particular colour, sets of plastic 'puppies' in three sizes and several colours to match the card colours, and several round, shallow plastic containers in the same colours. The activity began at 9.51am as the supervisor invited the small group to help her. 'Who's going to come and sort out these puppies for me?' She set the scene for the activity to be a collaborative task to which each person could contribute. 'We're sorting out all the colours. Do you want to do the red ones, Ann? You choose all the grey ones, yeah?' The activity, at the supervisor's suggestion, shifted to a counting activity. 'What about doing some numbers? Shall we start at...?' She picked out the card with number one on it and showed it to Ann. 'Do you know what number that is, Ann?... Shall we put one green puppy on there, shall we? You find one green puppy then and put it there.'

Figure 7.13
Counting puppies; pre-school, 8.1.03



Her tone of voice was light and friendly and her expression smiling. They continued in a similar manner, with the supervisor supporting the children's efforts and sharing the task between them (Figure 7.13). For example, by 9.55am they had reached number six. The supervisor showed the card to Ann and smiled. 'What number's that then, Ann?' Ann just smiled. 'D'you know that one?' As she gazed at Ann, the supervisor screwed up one eye whilst smiling, as if indicating that she could see that it was difficult for Ann. Ann gave a slight shake of her head, so the supervisor immediately turned to Stuart, still half smiling, and asked 'Stuart know that one?'

The supervisor's facial expression, warm tone of voice, timing and her choice of words, such as 'we', framed the activity as a joint task in which each child contributed as much as she or he was able without tacit criticism or judgement for being unable to perform a specific part of the task. It avoided individual assessment or pressure to perform. Indeed, Emma, who was a year younger than Stuart and Ann, remained a largely silent though attentive observer of the counting part of the activity, becoming involved only when the supervisor included her in the colour sorting at the beginning and the size sorting task at the end. The guidance was nonetheless challenging and at times included elements of instruction. When Ann and Stuart jointly placed puppies on card four, accidentally placing five puppies, the supervisor urged them to check.

‘Count them up, count them up.’ They both counted them and Stuart put his hand to his mouth in mock horror as Ann gazed to the supervisor, making an unheard comment to which the supervisor replied ‘Yeah, you’ve got too many, haven’t you? What d’you need to do? Yeah, that’s right, take one away.’ She noticed Stuart’s mistake in attempting to count a set of puppies. His finger moved faster than his words as he touched each one and so ended with the wrong figure: ‘As you’re counting, Stuart, keep your finger on it as you count it. Shall we just check? Shall we count them up?’ This was followed by the supervisor counting with Stuart (Figure 7.14), demonstrating and guiding his finger to match the pace of his words.

Later, as the children reached card nine, Stuart placed six puppies on it. The supervisor urged them to check. ‘We need nine, don’t we? We’ve got six. How many more? We need nine, so we need...?’ Stuart placed another puppy on the card, and the supervisor and Stuart counted them together, the supervisor again correcting and supporting Stuart’s counting technique. ‘Seven. Is that it? No? What do we need?’ This challenging and supporting continued until the correct amount was placed on each card. The success of the task was attributed to the whole of the small group. ‘Well done! So we’ve done them all, haven’t we?’

Figure 7.14
Supporting counting; pre-school, 8.1.03



The EPPE project defines and reports on the importance of 'sustained shared thinking' in the context of adult-child *verbal* interactions.

'Sustained shared thinking' is where two or more individuals 'work together' in an intellectual way to solve a problem, clarify a concept, evaluate an activity, extend a narrative etc. Both parties must contribute to the thinking and it must develop and extend the understanding. It was found that the most effective settings encourage 'sustained shared thinking' which was most likely to occur when children were interacting 1:1 with an adult or with a single peer partner. It would appear that periods of 'sustained shared thinking' are a necessary pre-requisite for the most effective early years practice. (EPPE, 2004: 5)

I argue that evidence in this thesis, supported by the findings of Flewitt (2003), shows sustained shared thinking to involve far more than just verbal interaction. I suggest that the prolepsis Stone describes was present in many of the exchanges at pre-school, but that it was conveyed not just through the choice of words, which implied that 'we' could do things together, but particularly through the tone of voice, facial expressions, pacing, gaze and the relationships implicit in those, which suggested a moving towards something *alongside* the adult, rather than the adult assessing individual competence and compliance.

Proleptic instruction also suggests instruction that takes place in anticipation of competence. Thus, a learner may be encouraged to participate in an activity which as yet they cannot perform alone. This assumption or anticipation of competence in a social context supports the individual's efforts and encourages the learner to make sense of the situation in a powerful way... Thus the child is lead to infer a new perspective, one that is the joint product of the child's own initial perspective and that of the adult (Daniels 2001:113-114).

Such an approach to guiding allows for partial or full participation by the child *and* challenge from the adult, but with the opportunity for the child's identity and self image as a learner to develop in a more positive light. I comment further on the impact of relationships on guiding below (see section 7.3.2, page 279).

7.2.3 Discovering

There were instances in which children became absorbed alone with the cultural tools (activities, resources) provided in the settings or did so alongside or with other children. In both types of instance, the children were frequently active in adapting tools to their purposes, in exploring and making sense of the tools and in

incorporating ideas from other children into their own activities. Several factors were salient in the contribution of ‘discovering’ to children’s learning:

- i. Sufficient time, opportunity and freedom of movement to become engaged in such activities. It was noticeable, particularly with regard to children becoming involved in more open-ended activities together, without direct adult mediation, that there was a settling in period (often up to 10 minutes) of flitting, shifting between activities and partners, negotiating for space, rules, collaborators and goals before the activity moved to a more deeply involved level. Where such opportunities were restricted to shorter time periods, which was more often the case in reception, deeper levels of involvement were less often reached, unless the activity and collaborators were really continuing from earlier episodes.
- ii. The provision of sufficiently interesting tools or activities which could be complex, novel, challenging or sufficiently varied and open-ended for adaptation to the children’s evolving purposes. For example, one morning in January at pre-school, Carly spent a considerable time, ten minutes of it video recorded, at a table without an adult present, deeply involved in exploring a set of equipment comprising base boards, different sized cogs, handles and fixing pins. She experimented with different layouts and sizes of cogs in an apparent attempt to make the maximum number of cogs on the board move by turning one handle.
- iii. The relationship, differences and similarities between the child and others they observed or with whom they collaborated. For example, in Episode 1 Polyhedrons (section 6.1), Henry admired Lloyd and his construction abilities and was also sensitive to the adult’s praise for Lloyd’s construction, so consequently incorporated the design into his own. Molly, also at pre-school, was at times socially marginalised by Carly, who held a more central position in the dominant girls’ group. One morning at the craft table, whilst quietly continuing with her own craft activity and being verbally ostracised (Carly to Sara: ‘You can come to my party, but Molly, no’), Molly observed Carly cutting small pieces of paper into ‘tickets’ for a role-play show. Once Carly and Sara had left the table, Molly began to replicate the ticket cutting activity and initiated the involvement of an adult. In reception during ‘choosing’ time,

George constructed with bricks alongside several other boys before settling to more complex, involved activity with Holly, incorporating zoo animals, vehicles and bricks with both children using a range of action, gesture, verbalisations, as well as words, to create, communicate and sustain a complex construction and role-play activity.

There was generally less time and opportunity for open-ended discovery with self-chosen partners in reception than in pre-school.

7.2.4 Summary

In section 7.2, we saw the potential in multimodal delivery for creating new whole group common ground as a context for learning and how this was expertly carried out in reception. It also, however, raised the issue of some children's difficulty in accessing that common ground in a whole group context, and the importance of making other opportunities for creating inter-subjectivity. Pre-school created more such opportunities. With regard to guiding, we saw that the type of guidance was partly determined by the nature of the goal: pre-set or more jointly created and process-orientated. Even where a clear goal existed, there were discernible differences in the manner of communicating about a task. Two striking types were visible in the data: prolepsis (more common at pre-school) or modelling/assessing (more common in reception). Each had different potential impacts on learner identity, with prolepsis supporting the formation of more positive identities. Choices about the manner of communication, linked to pedagogic sub-cultures and external influences, were visible in gaze, tone of voice, body positioning, actions and words, all of which contributed to positioning the learner. For children's discovery to contribute to learning, it required sufficient time and opportunity, interesting resources, some choice of collaborators or careful grouping.

7.3 The nature of pedagogic activities and affective relations

7.3.1 Abstract activity/purposeful activity

By referring back to examples already used, I now want to draw attention to how meaningful, purposeful activities (those which related to serving a particular need or reaching a particular goal in terms meaningful to the child's life experiences) seemed

to make learning more accessible than more abstract activities (those which didn't have such connections, but were meaningful from the adult's point of view as a step on the vertical discourse ladder). Tom and Paul in reception, as shown in the number towers episode from page 269 above and Episode 2: 2D and 3D shapes, Chapter 6, section 6.2, frequently seemed to find such abstract activities difficult to access. Yet, paradoxically, they spent more time in carrying out such activities as the adults focused all efforts on such children achieving initial skills that other children had achieved before or soon after school entry. Reception children who had already achieved these early skills (Robert, Lydia, George) had access to more 'whole' tasks and were more often self-regulated as described in Chapter 5, section 5.2.2, page 160. In pre-school, the more meaningful, purposeful tasks such as name writing and counting children in registration to tally with the register were the ones which showed results in the recorded learning outcomes (Chapter 4, sections 4.2.2 and 4.2.3). However, moving towards a more abstract level is clearly a desirable skill for school success. Again, a negotiated entry into it built on meaningful, purposeful activities and on children's current skills and interests seemed to offer the most fruitful way forward. Unfortunately, the pedagogic sub-cultures that had developed in reception and pre-school made such a path difficult to take, reception's pedagogy leading to a focus on trying to establish abstract skills with less negotiated entry, and pre-school's pedagogy offering less in the way of clear links from the meaningful activity to the more abstract level.

7.3.2 Relationships

Issues relating to the impact of relationships on children's learning in the two settings have been raised throughout this chapter. I summarise and clarify them here.

- Relationships, though built up over time and in constant states of being created and responsively recreated, were based on the small details of interaction and were conveyed through the use of tone of voice, body positioning, gaze, facial expression and gesture, as well as words.
- Tensions related to power and control issues between adult and child had the potential to obscure misunderstandings and the search for genuine understanding on the part of the child, making learning more difficult. Sharing control, with joint construction of the goal and process in a learning activity,

allowed for greater inter-subjectivity and for misunderstandings to surface and be tackled, enhancing learning.

- How children saw themselves in relation to their peers (ability, confidence, knowledge, adult relationships with them) impacted upon the children's actions, interactions and therefore learning.

Evidenced in the study and supported by the literature, it is clear that the success of guiding and of contingent responsiveness was in part dependent upon the relationship between the participants. Berk and Winsler (1995) state that during scaffolding, a success outcome is most likely when the relationship is 'pleasant, warm and responsive...gives verbal praise and attributes competence to the child' (p.29). They assert that the 'emotional tone' of the interaction is vital, as is a striving for inter-subjectivity by negotiation, explanation and checking to achieve a shared view. Stone (1993:178) suggests that during scaffolding, as inference and trust are both important aspects of success, the relationship between the people is vital both in terms of the immediate qualities of the interaction and in the history of the relationship. The findings of the EPPE project, based on research with over 3,000 children support this view.

The quality of the interactions between children and staff were particularly important; where staff showed warmth and were responsive to the individual needs of children, children showed better social behavioural outcomes. Several features of the quality rating scale were also related to increased intellectual progress and attainment at entry to school. (EPPE, 2004a:4)

Chaiklin (2003) points out, though, that Vygotsky 'never assumed that learning related to the zone of proximal development is always enjoyable' (page 43). Based on evidence in the study, this thesis claims that a degree of mutual respect, warmth and sense of affirmation do, however, enhance learning, particularly with children as young as four years. In the study, it became evident that the sub-culture of pedagogy of each setting, the material conditions of the settings (staffing ratios, training of staff, time and resources available) and the influence of and relationships to external bodies (relating to funding, managing and monitoring) all impacted on the way in which such relationships developed. They impacted upon how relationships were construed, the priorities for their enactment, and the time and interactive space available to shape them.

How the relationships were played out in the day to day interaction between adults and children in the settings has been discussed in part under *Control*, section 7.1.1, page 231, *Agency*, section 7.1.2, page 245 and *Guiding*, section 7.2.2, page 263. Here, I want to draw attention to two further points raised in the microanalysis of the episodes, ‘Polyhedrons’ and ‘2D/3D Shapes.’ These are, first, the way in which the relationships were conveyed through a mixture of verbal and non-verbal means and, second, how these were combined, transmitting or ‘leaking’ degrees of congruence/incongruence and affirmation. (Congruence and affirmation are defined and exemplified in the microanalyses, Chapter 6). I suggest that it is through these subtle and slight differences that the nuances of relationships are formed and communicated, and through which the children’s identities as learners (and the adults’ identities as practitioners) develop.

7.4 Summary and conclusion

Power relations had complex influences on children’s learning in reception and pre-school. Pre-school demonstrated a good model of successfully *sharing* control in small groups and in encouraging agency, leading to greater child autonomy, involvement and inter-subjectivity. However, this was not so successful in large groups. Reception provided a model of successfully *maintaining* control in small and large groups. In large groups, this successfully avoided the risk of loss of involvement and attention of the majority. In small groups, high levels of control appeared to lead to physical compliance rather than involvement in the learning for some children. Control always appeared to run the risk of masking different levels of individual involvement and understanding.

In both reception and pre-school, agency was allowed and control relinquished only within certain boundaries; where those boundaries lay differed in each. The boundaries of control and rule-abiding behaviour were more negotiated and loosely framed in the pre-school, but more explicitly defined and tightly framed in reception. For both, there were specific times and places when more agency was allowed. In reception during such times, staff were less involved in children’s self-directed activities. At pre-school, staff used such times to act as supports, guides and collaborators, thus defining them as the main pedagogic opportunities.

The nature of pedagogic communications created contexts for learning. In reception, expert whole group multimodal delivery created new common ground for the class to share. At pre-school, inter-subjectivity was created on a more individual basis in small groups, drawing on children's home experiences. The two approaches had different implications for children's access. Whole group communication could mask individuals' difficulties with access. At pre-school, though there was more emphasis on more individual inter-subjectivity, there was less access to whole group shared contexts. Reception's pedagogy led to a focus on trying to establish abstract skills. For some individuals, there was less negotiated entry through meaningful activity based on their experiences. Pre-school's pedagogy offered less in the way of *clear links* from activity based on children's meaning and experiences to the more abstract level.

In small group work, two distinct ways of guiding activities were discernible: prolepsis, frequently seen at pre-school, which involved a more collaborative approach and supported more positive learner identities; and modelling/assessing, frequently seen in reception, which involved a strong focus on individual learners meeting specific objectives, which contributed to more negative learner identities for children who found the tasks difficult. Choices about the nature of pedagogic communications were linked to pedagogic sub-cultures and external influences. The choices were visible in the subtle detail of the many modes of communication, clearly evidenced in the data, all of which contributed to positioning learners. These subtle and slight differences were the building blocks of relationships and influenced learner identities.

Rarely did one aspect of a situation appear to influence a particular outcome, but rather a multitude of contributing factors and responses played a part. It is with this firmly in mind that the thesis has attempted to tease out the flow of contributory factors, highlighting those that seemed to be frequently influential. It is also for this reason that the thesis finally emphasises the careful reading of children's cues in their actions and reactions to guide practitioners in their search for appropriately contingent responses to the children's learning, and in recruiting and supporting the genuine

involvement of the children in the process. This also necessarily involves practitioners in an audit of their *own* communicative cues.

Chapter 8

Conclusion

Young children have very different experiences of the Foundation Stage depending on whether they are the youngest or oldest in a cohort. As this study highlights, at the most basic level of amount of time spent in the Foundation Stage, the differences are very marked. Yet, the fundamental issue raised in this study is what the differential time in the Foundation Stage *means* in terms of children's learning experiences: who experiences more or less of what types of pedagogy and what the implications are of those differences for the children. The issue has been addressed in this detailed analysis of the pedagogic processes in each setting, the children's participation in them and the impact on the children's learning.

8.1 Contributions of the study

The study began by addressing six research questions (Section 1.1.1, page 15). Here, I revisit those questions. I consider the extent to which the study has answered them, new questions that emerged during the study and the key findings and contributions to knowledge arising from the thesis.

Questions 1 asked what the adults were trying to ensure children learnt in each setting, their explicit aims and intentions. Though both settings were working to the same Foundation Stage Curriculum, it was differently construed and emphasised in each. Pre-school's explicit intentions were to offer opportunities for children to experience all elements of the Foundation Stage Curriculum, but with an emphasis on personal and social development as a means of easing the transition from home to school. In addition to the Foundation Stage Curriculum, reception was working to the National Literacy Strategy and the National Numeracy Strategy. Although reception's explicit aims were to encourage all-round active learning, the pedagogy emphasised children making individual progress towards Level 1 of the National Curriculum, particularly in numeracy and literacy.

Question 2 asked what the implicit messages of teaching and learning were in each setting. Implicit in the pre-school pedagogy was an emphasis on children's initiation

and development of activities, drawing on available resources - including the adults. It emphasised encouraging and valuing children's meaning-making and the co-construction of meanings with others. The reception pedagogy, however, implicitly emphasised individuals meeting learning objectives as specified in the Strategy documents, following directions and working within parameters of time and space, all set by the teacher. Implicit in the teaching was the message that individual effort on tasks in accordance with the teacher's instructions would ensure successful learning.

Whilst it may seem self-apparent that the pre-school was closer to a 'play' pedagogy and reception closer to 'school' pedagogy, there are two other important points at issue here. First, the Foundation Stage Curriculum was introduced in 2000, building on the Early learning Goals of 1999, specifically to address the disjuncture between play and school and to extend the 'best' of early years education up to the end of reception. As Adams et al point out, the Foundation Stage Curriculum was introduced with the aim of 'establishing a whole new phase of education, which is distinct from Key Stage 1 and is grounded in the principles of early childhood education' (2004:2). Several years on from its introduction, it can be seen from this study that the divide between pre-school and reception is still strong. Second, in spite of the shift which occurred a little earlier to a single annual entry date for children into reception and the attendant consequences of children with birthdates close to but either side of the 'cut off' date having very different experiences throughout their fourth year, this is not clearly acknowledged or addressed in either the pre-school or reception pedagogies. Findings from this thesis suggest that it should be if the needs of all four year olds are to be adequately met.

Question 3 asked by what means the adults ensured and facilitated learning. The findings relating to this were found to be closely linked to the implicit messages of teaching and learning. Again, clear differences between the two settings were evident. In pre-school, when there was no pre-determined specific learning goal, learning was facilitated by co-construction in which the adult and children jointly contributed to the activity and meaning-making. When a clearer goal did exist, the adults used a form of proleptic instruction which provided challenge and a lead, but emphasised joint endeavour. It assumed eventual competence and allowed for partial participation. In pre-school, ensuring children's genuine close involvement appeared synonymous with

ensuring learning. In reception, learning was facilitated by delivery in the form of interactive performance, thus creating new whole-class contexts for learning, and by adults using modelling and assessment to assist children in meeting specific learning objectives and to monitor their progress. However, in reception, the degree of adult control *increased* and the space for children's initiations and co-constructions *decreased* for children who were seen as of 'below average ability'. This sometimes led to learning appearing to be synonymous with physical compliance for those children.

Question 4 asked what the different types and frequencies of interaction between adults and children were in each setting. Using taxonomies devised specifically for the study, the analysis revealed not only differences between the settings, but also between children within settings. The results showed that in pre-school, adults' ways of interacting with the children meant that there was a balanced division of control. Adults most often adopted a supportive, enabling, explanatory role. Children had more space for an active role in interactions. Pre-school children's individual interactive patterns varied, however, according to their interests and friendship patterns. In reception, the interactive space was dominated and led by the adults. They most often instructed, explained, explored, assessed and modelled. The reception children's interactions were more responsive to adult control with less space for their own initiations and experiences. Individual reception children's interactive patterns varied according to their position in class as below average, average or above average ability. The less 'able' a child was seen to be, the less space they were allowed for initiations. The concept of 'interactive space' was linked with the analyses in Chapters 6 and 7. It became clear, using close attention to gaze, body positioning, gesture and voice, that the spaces were opened or closed using a powerful combination of communicative strategies. The innovative means of representation using diagram, contextual features, transcription and outlines from video stills rendered the spaces available for analysis and interpretation, showing how different children were positioned by the interaction in each setting.

Questions 5 and 6 asked what evidence there was for children's learning and for the sources of that learning. In Chapter 4, these were addressed by showing children's starting points and what they brought with them from home to setting in terms of

expectations, ways of interacting, participating and relating. Children in reception who began the year with the highest assessment scores and who had the closest home/setting match made rapid progress in ‘school’ learning outcomes according to the assessment scores by the end of the year and in terms of their developing school identities as successful learners. Those with the lowest entry points and weakest match made less progress and were quickly perceived of as ‘behind’. In pre-school, the situation was somewhat different. The children with lowest entry points were brought up to a certain level until all were ‘ready for school’. Further evidence for sources of these patterns of learning was given in Chapters 6 and 7: the style of adults’ interactions, the amount of co-construction allowed or control exercised by the adults, and the way in which children’s contributions were built upon all had an impact on learning. In pre-school learning was supported by *‘spiral and spread’*: encouraging children’s initiations, linking to children’s previous experiences and building upon them by increasing the challenge over a period of time. Sometimes, however, the spirals were rather more ‘circular’ and involved insufficient challenge. In reception, the approach adopted with the ‘below average’ children seemed to result in ritualised rather than principled knowledge, restricting the children’s ‘appropriation’ - understanding of the kind that allows the information or skill to be used meaningfully by the child. How and how far individual children used agency to actively engage in the learning process also had an impact on learning. Sometimes, agency was seen as potential disruption, particularly in reception. There, the children with the most successful/able learner identities were more likely to be allowed and able to use agency, tailoring the support and activities to meet their needs and further enhance their learning. These factors in reception contributed to differences between children’s achievements and learner identities becoming exacerbated.

Two other research questions emerged during the course of the study, addressed by the many strands throughout the thesis. These were:

- How do the differences in experience impact on individual children and their learning trajectories?
- What can we learn from the best of each setting’s pedagogy to inform a more equitable approach to the education of four year olds?

These were answered by drawing upon all analyses in the thesis. In pulling these together, I now summarise the key findings and contributions to knowledge made by this thesis.

Key findings and contributions to knowledge

1. The thesis deconstructed the pedagogies of pre-school and reception using an innovative methodology, showing how they were translated into minute by minute interactive choices in the settings and how they shaped children's possible participation.
2. It showed the consequences of these pedagogic choices and interactions on children with different birth date positions in cohorts and different backgrounds. These were as follows:
 - The *oldest* in a cohort, the pre-school children in the study, had
 - the longest time in the Foundation Stage (three years)
 - greatest opportunity for co-construction
 - greatest opportunity to exercise agency, influencing support and activities
 - greatest opportunity for their home and out of setting experiences to be valued and used as a point of entry into the setting's pedagogy
 - positive learner identities by the end of the year
 - *less* in the way of clear links from activities and interaction based on the children's meanings to a more abstract level.
- The *youngest* children in their cohort, the reception children in the study, had the least time in the Foundation Stage (two years). Of these children, the ones with the strongest home/school match and with highest entry scores shared some of the characteristics noted above. They had:
 - some opportunity to exercise agency, influencing support and activities
 - some opportunity for their home and out of setting experiences to be valued and used as a point of entry into the setting's pedagogy
 - positive learner identities by the end of the year.

However, they also had:

- *more* access to induction into abstract skills and knowledge from the age of four to five years.
- The reception children with weakest home/school match and lowest entry scores, also the youngest in their cohort, were in the most vulnerable position. They also had only two years in the Foundation Stage. They had opportunities for induction into abstract skills and knowledge, but *access* was more difficult for them. They had:
 - least opportunity for agency to tailor the pedagogy to meet their own needs
 - least opportunity for co-construction
 - least opportunity for engagement in ‘whole’, meaningful tasks
 - less opportunity for their home or out of school experiences to be valued and used as a point of entry
 - most negative learner identities and were positioned as irretrievably ‘behind’.

The findings therefore contribute to our understanding of how, from their earliest days in education, children from marginalised or less powerful social groups and the youngest in cohorts generally achieve less educational success, a pattern repeated throughout the education system and on to university entry rates.

3. The thesis highlighted three key pedagogic elements from the analysis of classroom interaction which have implications for the learning of four year olds. These were:

- The value of using multimodal interactive delivery to create new whole-class contexts for understanding, exemplified in reception (Chapter 7, section 7.2.1).
- The importance of co-construction in accessing children’s experiences and current understandings and in building upon them, exemplified in pre-school (Chapter 6, section 6.1).
- The value of scaffolding using guided, proleptic instruction and joint endeavour, also exemplified in pre-school (Chapter 7, pages 279-281). This had the potential to enhance learner identity and allow risk-taking and peripheral participation. It was subtly though essentially different to scaffolding of the instructing/modelling/assessing type exemplified in reception (Chapter 6, section 6.2 and Chapter 7, pages 274-278), which risked leading to ritualised learning and a positioning of some children as failing.

The combination of these three strands of pedagogy would provide a way of ensuring genuine '*spiral and spread*' for all children. The data analysis suggests this to be a powerful way to address the difficulties in the current enactment of the Foundation Stage Curriculum for four year olds in which the oldest in a cohort 'plateau' (at pre-school) or the youngest are divided by differences (in reception), as illustrated in Figure 4.4. This thesis provides detailed examples and analyses of each, giving practitioners and policy makers clear evidence from which to examine current arrangements.

4. An innovative, multi-layered methodology was developed for use in this study. The tools devised have potential for use in other research. The taxonomies derived from the data for categorising adults' and children's interactions provided new ways of auditing interactive patterns in early years settings. The detailed means of transcribing and representing the data in Chapters 6 and 7 meant that a full range of communicative modes could be rendered visible for analysis and interpretation. Combining these with ethnographic case study offered a means of analysing the socially situated and constructed-during-interaction nature of the influences on children's learning processes.

5. The thesis makes a theoretical contribution to our understanding of young children's learning processes, explained more fully in section 8.3. To summarise, the analysis shows how Bernstein's concepts of visible and invisible pedagogy are insufficient alone to offer explanations about children's differential learning outcomes within such pedagogies, highlighting instead my concept of *interactive space* and Bernstein's concepts of horizontal and vertical discourse. However, the horizontal discourse of some children was more acceptable and carried greater currency in educational settings than that of others. Evidence in the thesis suggests, therefore, that for horizontal and vertical discourse to be of use, a more graduated understanding of horizontal discourse is required, linking it to power and control and to children's learner identities.

I now summarise the evidence presented in each part of the study and how it has contributed to the findings of this research. This is followed by a consideration of how theory has added to understanding the evidence and of how the data analysis has shed

new light on theory. Finally, I suggest a way forward and reflect on how the study was conducted.

8.2 Evidence from the data

The issue of effects of children's pre-school experiences on their future learning is addressed at the broad level by the EPPE project (EPPE, 2004). This thesis resonates with the findings of EPPE, adding depth and raising new issues relating to EPPE's findings. The results of EPPE (2004; Melhuish et al, 2001) point to children's intellectual and social gains, for each month spent in pre-school, still visible at the end of Key Stage 1. The thesis highlights the way in which school entry policy can inadvertently cause some children to experience *less* time in pre-school and in the Foundation Stage, and the differential effects of this. The EPPE project and linked REPEY (Siraj-Blatchford et al, 2002) emphasise 'sustained shared thinking', a balance between adult-initiated and child-initiated activities, and the importance of extending children's interactions (EPPE, 2004:5) as some of the most important factors in effective early years pedagogy. This thesis offers a more detailed exploration of what is involved in effective, sustained shared thinking, extending its examination beyond words to non-verbal factors. It reveals types of interaction that create space for balancing adult and child initiated activities; the sub-cultural features influencing whether and how such spaces are created; and factors influencing the subtle, multi-modal ways in which adults can effectively extend or restrict children's interactions.

In the county of study, as Chapter 1 explains, the council responded to the government's call for free provision of nursery education for all four year olds not with the provision of nursery schools or nursery classes, but by changing the admissions policy to schools and taking all children into reception classes in the September after their fourth birthdays. For the four year olds whose birthdays fell after September, money was offered to the Pre-school Learning Alliance to fund support for and in-service training of pre-school practitioners, who were mainly in community run charitable status part-time playgroups. Parents were therefore ostensibly offered choice in provision for their four year olds, though in reality choice was limited by the proximity of services, the cost of private services, and the pressure

felt by parents that their child may be held back or might lose access to a place at the chosen (usually local) primary school if they did not start on the date set by the county.

The pre-school and reception class in this study had very different sub-cultures of pedagogy. The evidence from Appendix ii, summarised at the beginning of Part 2, shows how the two settings had quite different aims influenced by staff training, the history of the setting, the wider environment within which the setting was located, funded and monitored, and its immediate 'neighbourhood' – playgroup run by a committee of parents from the local community amidst other similar playgroups; or reception, part of a primary school for children aged up to eleven years. The pre-school operated within an 'early years' ethos of supporting individual interests and development, with an emphasis on social and emotional skills in preparation for school, but without direct 'teaching'. This resulted in a largely invisible pedagogy, weakly classified and framed. The reception class operated within an ethos of meeting year-of-schooling (rather than age-) related targets for achievement, particularly in literacy and numeracy, and within a sub-culture emphasising individual effort, effective classroom control, and whole class delivery as a model for teaching, based on the Strategy documents. This resulted in a visible pedagogy, strongly classified and framed.

In Chapter 4, it was evident that the degree of disruption or continuity in children's trajectories between home and educational setting appeared to be more influential to children's progress in reception than in pre-school, though clearly some of the sample children in reception had more noticeable 'disruptions' between home and educational settings than the pre-school sample children. Nonetheless, it appeared to be the sub-culture of pedagogy of the setting and the ensuing interactions which influenced how far the degree of match was a pertinent issue in children's progress. The range in pre-school sample children's scores decreased over the year, whilst the range for reception children's scores increased, leaving those with the lowest entry scores furthest behind. In pre-school, it was the most regularly promoted and supported aspects of learning offered in purposeful, non-threatening and non-assessing ways which seemed to lead to the most recordable results: independent choice and use of resources, awareness of numbers, one-to-one correspondence and counting, writing

and reading own names. However, there was less scope for moving beyond a certain level in those areas of learning for children who had achieved early success in pre-school. In school, the skills of counting, pencil control (particularly for letter and numeral formation and representational drawing), phoneme/grapheme correspondence and speaking and listening skills required for successful participation in the most valued parts of school life were the ones in which the successful children, Robert and George, made the most progress. Paul and Tom's efforts in making sense of the setting's ways and exploring how to participate successfully in them remained largely invisible in terms of recorded, assessed achievements. Instead, their *inabilities* in the valued ways of the setting were what came to characterise their school identities.

The ways in which the ethos of each setting was translated into patterns of interaction were revealed in Chapter 5. In pre-school, the staff interactions with children involved a more balanced division of control with the adults adopting a more supportive, enabling role, thereby creating more 'interactive space' for children's contributions. The most frequently occurring types of interaction in pre-school were encouraging, instructing/explaining, enabling, exploring, reinforcing and concern for well-being, mainly in small groups. In reception, the interactions were dominated and led by the adults, often in large groups, the most frequently occurring types being instructing/explaining, exploring, reinforcing, assessing and modelling, thereby reducing the interactive space for children's initiations and contributions, but driving the agenda forwards. The children's interactions reflected the opportunities available to them in each setting. Although the reception class had fewer adults to children, the organisation and routines meant that children were three times more likely to be party to interactions with adults, mainly in whole class sessions, than with other children or alone. Pre-school children's interactions were more evenly divided between those focused on adults and those with other children. The patterns for individual children revealed how, in reception, the highest achieving children in the sample, seen as more capable of working without adult support, were more likely to have more interactive space than the lowest achieving children, who were more closely led by the adults. In pre-school, with its less structured organisation, children's patterns reflected their friendships and interests in the setting, with the possibility that some could spend much of their time alone or on the periphery of others' interactions.

With regard to the dominant gender groupings, the dominant male group was seen as requiring a certain amount of containment in reception, though in pre-school, the group was also seen as requiring careful supervision. Thus, core membership of this group was unlikely to enhance a child's identity in the reception class, whereas in pre-school, an ability to move in and out of the male group could open up interactive possibilities, given the importance of friendships and interests in shaping the children's patterns of interaction. In general, Paul (a boy in reception) seemed to occupy the most negative position of all the sample children in this respect.

In the microanalysis of pedagogic episodes in Chapters 6 and 7, it became apparent just how much multimodal analysis could reveal about the communication involved in teaching and learning. Different patterns of maintaining control, allowing agency and of children's uses of agency were influential factors in how teaching and learning episodes were played out in each setting and how children participated. Differing emphases on styles of delivering, guiding and discovering were also influential in children's outcomes. The affective relations, embodied and conveyed in the *ways* of interacting, were revealed in the data by levels of affirmation and the degrees of congruence in teaching and learning episodes, and in the relationships formed over time between the children and adults. The style and content of pedagogic activities in the two settings varied between abstract (more often in reception) and embedded, purposeful or meaningful activities (more often in pre-school). These factors all contributed to children's different experiences and outcomes.

The power relations, nature, style and content of pedagogy and the affective relations in the two settings were interrelated. Affirmation and congruence were closely linked to agency and control. They characterised pedagogic processes and influenced learning outcomes. Affirmation by adults and communication in a manner in which all modes conveyed a congruent message contributed to a sense of adults and children sharing activities and, more importantly, conveyed a sense of a relationship in which it was 'safe' for the child to take risks, have opinions, make mistakes and try things out. The evidence suggests this led to more openness, allowing more precise diagnosis by the adult of any difficulties or alternative perceptions the child may have had, and allowed links to be made between a child's previous experiences, interests, skills and knowledge and the task in hand. When affirmation, congruence and individual agency

were combined with adult support and challenge, perhaps by moving back and forth from contextualised to decontextualised conversation as in Episode 1: Polyhedrons in pre-school (section 6.1.2), there was evidence not only of high levels of children's involvement and an extension of the children's knowledge or skills, but also the formation of more positive learner dispositions and identities. By contrast, less or selective affirmation, incongruence in the messages conveyed through different modes and tighter adult control with less room for child agency, even when combined with adult support and challenge, seemed to make it more difficult for some children to be fully involved and to form positive learner identities, as seen in reception. Claxton and Carr (2004) describe the ways in which learning environments can prohibit, afford, invite or potentiate learning dispositions. Pre-school and reception occupied different places along the 'prohibit-potentiate' continuum. The developing learner identities of some children in reception were not conducive to the development of broad, robust learner dispositions as described by Claxton and Carr.

In reception, the ethos led to an organisation and structure, embodied and conveyed in interactions, in which such things as encouraging agency, sharing pedagogic control and incorporating children's experiences and interests were more difficult to achieve and so occurred rarely. Jones (2003) points out how managerialism in education in recent years has strengthened 'the link between the micro-world of classroom interactions and macro-level objectives of standards and achievement' (Jones, 2003: 161).

This is what could be called a driven system, whose functioning is subordinated to limited and overriding objectives, and whose actors are exposed to the intense demands of testing, inspection and performance management... Insistent on the necessity of social inclusion on responsibilized terms, it is less tolerant of cultural difference than some of the systems that have preceded it (Jones, 2003:170-171).

The influences of such a system were visible in the reception class pedagogy, even though it was not directly part of testing for published performance tables. Pre-school, on the other hand, whilst working ostensibly to the same curriculum, was not caught in the same loop of expectations for teaching to time-tied objectives and assessing achievement. Here, the micro level of interactions reflected a different macro level history of and support for parental 'choice', community run, play-based, child-centred pedagogy.

In reception, with two adults to twenty four children, the influence of being part of a primary school and the imperatives of attempting to meet specific time-tied learning objectives meant that classroom control was an essential feature of the successful classroom. With regard to children whose previous experiences did not translate easily into the classroom ethos, it was not difficult to see how classroom control became blurred with pedagogic control. For some children, whose home and earlier educational/care experiences matched more closely with the values of the setting and who had developed ways of employing agency acceptable to the setting, their paths were clearer and more easily negotiated. For others, whose earlier and home experiences were less well matched to the school ways of being, doing and saying, and who had not developed ways of employing agency with currency in school, their way into the curriculum and into the school ways were effectively impeded by the dissonance between their previous experience and the very routines and structures, embodied and conveyed in the school interactions, which were intended to provide them with the clear control, guidance and support to ensure their rapid entry into the school system. As Hall et al point out:

The prescribed pedagogy of, for example, the literacy and numeracy hours and the pedagogy more indirectly prescribed by the emphasis on summative assessment outcomes serve to render invisible the diversity of pupils' home and community lives (Hall et al, 2004:814).

Though the research by Hall et al was referring to year 6 children (aged eleven years), it is alarming how pertinent the comments are to the reception children.

There is no guarantee, of course, that children such as Paul and Tom would have fared better in pre-school. Yet for the children in their second pre-school year, the pre-school setting seemed to offer more in the way of openings for home and previous experiences to come into the educational curriculum. Pre-school did not, however, always provide clear and distinctive routes from the child's experiences to the educational discourse. Although this was an issue, it seemed less urgent, given that the children would then go on to a reception year at school. But for the children already in reception, they were quickly to become year 1 children with all the attendant expectations, and to enter into even more structured systems of interaction, often with even less space for inter-subjectivity.

8.3 Sheding theoretical light on the evidence

Brooker (2002) has shown convincingly how an invisible pedagogy with weak classification and framing can disadvantage young children who have less cultural and social capital in the field of education. Bourne (2000) pointed out that a more visible pedagogy, such as that exemplified in the National Literacy Strategy, might be a way of offering more equal opportunity to children, particularly those from more marginalised backgrounds.

Thus, the strategy involves clear shared goals with the potential to empower learners in their own assessment of progress and setting of learning targets – a radical change in the culture of English primary school (Bourne, 2000: 34).

Yet this study shows just how a visible pedagogy, strongly framed and classified, can reduce some children's opportunities for successful participation. It has become clear from this study that the concepts of visible and invisible pedagogy alone do not offer sufficient clarity in addressing the question of children's differential rates of progress and the different patterns of participation that contribute to their progress. If neither invisible nor visible pedagogies provide the best opportunities for all children, what else needs to be considered? What appears to be pertinent, alongside the levels of classification and framing, is the amount of interactive space afforded by a setting, conveyed in gaze, gesture, body posture and timing as well as in words, in which children's own experiences and current understandings and interests can be explored and valued and used as routes into the educational discourse. In other words, we need to consider how much 'space' is made available by the adults for children's horizontal discourse. We also, crucially, need to consider how that is valued and built upon by adults to create links and induction into vertical discourse.

Bourne (2000) also points out that in the Literacy Strategy, part of a wider set of government strategies aimed at welfare reform and at addressing underachievement and social exclusion, there is a potential site of failure. This is the tenacious and hegemonic concept in English schools of natural, fixed ability. This thesis shows some of the processes, many tiny and subtle, physical and verbal, in two different styles of pedagogy, which have the effect of either foregrounding ability and learner identities as individual and intrapersonal, but nonetheless driving forward

achievement (reception), or foregrounding learning as joint or collective to which each person has something to contribute, but in which learning is more diffuse and less measurable in terms of specific outcomes (pre-school). The findings echo those of Hart et al who, through a collaborative research project, make comparisons between 'two very different kinds of learning' (2004:3). Hart et al summarise the two different types, 'ability' and 'transformability', and the effects on practice, concepts of learning capacity, classroom diversity and effects on teachers (Hart et al, 2004: 247). The 'ability' mindset strongly resembles that found in the reception class; the 'transformability' mindset reflects the pre-school approach. Hart et al advocate transformability as an alternative 'template' through which to view teaching and learning, with the potential to enhance 'the learning capacity of everybody' (2004: 247). The impact of setting by ability on children's identity is also noted. Hallam et al (2004) report from their research on the effects of ability grouping on pupils' awareness of their 'place in the pecking order' (p. 515) and the nature of teasing.

Bourne (2003) similarly notes the need for something more than an explicit, visible pedagogy, pointing instead to the possibilities in and power of a visible radical pedagogy in which learning is foregrounded 'as a collective endeavour rather than a neutral and individual attainment' (Bourne, 2003: 6) and suggesting that, although horizontal discourse has its limits, negotiating the introduction of local forms of discourse into the classroom 'impacts on and can transform outcomes for otherwise socially disadvantaged students'.

Bernstein (1999) outlines how horizontal discourse has been increasingly used as a way of making vertical discourse more accessible to young people and possibly as a way of empowering or giving voice to groups traditionally marginalised in access to vertical discourse (Bernstein 1999:169). Yet Bernstein does not offer much hope for the success of such moves, stating:

A segmental competence, or segmental literacy, acquired through horizontal discourse, may not be activated in its official re-contextualising as part of a vertical discourse, for space, time, disposition, social relation and relevance have all changed (p.169).

Daniels (2001) echoes Bernstein's concerns:

We should be wary of providing learners with experiences which lead to their positioning within what he [Bernstein] terms a segmented horizontal discourse, whereby participants are unlikely to access the analytical power or certainly the 'cultural capital' of scientific concepts.

He suggests that:

The radically situated account of knowledge and learning must be placed within a political analysis of power and control. (Daniels 2001: 116).

However, I suggest that, for very young children, horizontal discourse might in fact offer a way of successfully negotiating access into the curriculum by making links to events and information *meaningful* to the children. Dyson (2001) makes a similar point with regard to young children's literacy learning, claiming that the drawing on and interweaving of children's own lives and cultures, including popular cultures of childhood, were key to children's literacy learning.

In applying the terms to this study, it is evident pre-school offered access to and valuing of both horizontal and vertical discourses, though pre-school pedagogy was grounded mainly in horizontal discourse. For example, its discourse relating to literacy was largely horizontal in that literacy in pre-school was offered in context-specific, local, practical ways (sharing a story book, 'writing' food orders in the role play restaurant). These did not involve clear induction into the vertical discourse of literacy, except in the practice of children writing their own names (successfully) and in the attempts to introduce phoneme/grapheme correspondence with 'letter of the week' (unsuccessfully). With regard to mathematics, whilst many pre-school episodes treated maths more as a horizontal discourse in that the 'maths' was an embedded, practical activity in which children participated (constructing with mathematical shapes as in Episode 1, section 6.1, the practice of counting children in registration to tally with the register, matching the number of toy plates to set places in the role play area), others introduced the vertical discourse (using toy puppies as a vehicle to introduce sets, one-to-one correspondence and links between quantity and numerical symbols). The association between the use of these different discourses and children's assessed learning outcomes is interesting (Chapter 4, section 4.2.3): a link can be seen between items of recorded learning such as counting and writing and the successful combination of vertical and horizontal discourses. An alternative explanation, though,

is that as the assessments recorded learning in the vertical discourse, they were therefore very likely to match aspects of vertical discourse in the pedagogy.

In school, a clear vertical discourse dominated literacy and numeracy and was introduced for other subjects such as science and geography. Some aspects of horizontal discourse were introduced as part of the vertical discourse, particularly for literacy. For example, children were encouraged to draw on their experiences of usual daily and weekly routines and activities or on family membership for literacy tasks. However, there were clear expectations about how such experiences were to be represented (for example, writing and drawing them onto a 'diary') to fit in with the vertical discourse; the vertical discourse was more accessible to some children than to others.

In addition, it became clear that the insertion of some children's horizontal discourse was more *acceptable* than that of others, depending on whether the specifics challenged or supported the school's values with regard to interpersonal relations, types of play and types of leisure activities. For example, Hayley's information relating to visiting a castle with her family, discussions from other girls regarding party invitations and activities, and Timothy's contribution about going to church with his family were all valued and shared with the class; the rare event of Paul bringing in a drawing from home produced with his parents, though rewarded with a smile and a 'very nice' comment, was not validated by being shared with the class, possibly because of the evidence of much 'adult' work in the drawing and because of Paul's narrative surrounding it relating to physical aggression. Those children for whom aspects of horizontal discourse drawn from home life seemed less acceptable in school made less recorded progress in the assessments.

This study suggests that horizontal discourse can be used to assist children in entering into vertical discourse with understanding, seeing it as relevant and meaningful. But if the approach is to be of use to practitioners, then the concept needs to be refined. It needs to account for *differences* in horizontal discourse and how the differences echo the social positions of the people using them. It needs to address how adults representing and enacting the setting's values might view these differences in children's horizontal discourse when such differences clash with the settings' values.

It also needs to address how such horizontal discourses might still be used to assist young children in making sense of what is being introduced to them and asked of them; in other words, how it can still assist entry into vertical discourse. I suggest that a more graduated concept of horizontal discourse is required, which reflects where the specifics sit with regard to the discourses associated with power and control.

From the evidence in the study, it seems that making links between horizontal and vertical discourses as an access strategy may have had some strength where the links provided also involved:

- Adequate interactive space for and valuing of children's individual aspects of horizontal discourse as meaningful, even where they do not accord with the values of the setting.
- Purposeful, meaningful activities based on the child's interests and strengths, which were then built upon to shift towards more abstract representation, linking them to the vertical discourse.
- Mediation by people with whom relationships were affirmative and congruent.
- Mediation through a judicious combination of joint collaboration, proleptic instruction and multimodal delivery.

As a way forward, I suggest that careful, multimodal, interactive delivery is used as an introduction to and modelling of vertical discourse, that it is expertly combined with plentiful opportunities for supported activity and interaction based on the children's horizontal discourses, and that links between the two are provided via sensitive, collaborative, proleptic instruction. Delivery would provide a way of setting out the stall of vertical discourse and creating new, shared contexts for learning. Supported interaction and sensitive collaboration would provide a way of negotiating access to the curriculum. Only by providing sufficient interactive space to learn about, build upon and value children's current states of knowledge, ways of being, doing and saying, and by taking them meaningfully forward into new learning can children's personal learning trajectories be foregrounded and enhanced. In section 6.1.3, I referred to these methods as 'spiral and spread', inadvertently echoing Bernstein's terms of horizontal and vertical discourse.

8.4 Challenges for policy and practice: making spaces.

Possible ways forward for a more equitable early years education for all four year olds require consideration not only of curriculum, but also careful attention to *where* the curriculum sits (the history, ethos, resources of the settings), *who* is ‘delivering’ the curriculum (the identity, pedagogical understandings and positioning of the adults and how the curriculum might impact and be impacted upon by these), and *to whom* it is being ‘delivered’ (addressing the potential for inadvertent marginalisation of some children by making space for negotiated entry, making visible and valuing the efforts and learning required of some children to ‘read’ the educational ways of being).

For pupils whose ways of communicating and acting in a setting do not match well with those required for full and successful participation in the setting, it is even more vital that careful attention is paid to the full range of the child’s communicative strategies (Flewitt, 2003). It is vital, as argued in this thesis, that space is made available in the routines and in the pedagogy for staff to pay attention to all modes of children’s meaning making and to read from their multimodal communications the ways in which children are trying to make sense of and participate in their new worlds by drawing on their previous experiences and ways of participating. In so doing, adults might pay fuller attention to their *own* range of communicative strategies, noting which open up interactive spaces and which close them; they might note which combinations of bodily posture, gaze, tone, timing, use of resources and words encourage children to initiate, contribute and take risks in expressing their perceptions of what is going on around them, and which combinations close down those opportunities. Thus, the thesis emphasises the need for greater attention to the full range of ways in which pedagogy and learning are communicated, calling for greater awareness of and sensitivity to silent as well as verbal messages. It argues for practitioners to adopt strategies of examining closely their own and children’s interactions to ensure a sensitive, responsive reading of cues, adjusting to individual children’s messages, and being alert to the subtlety of the children’s and their own messages, communicated or leaked through the various modes. Several staff members of the pre-school provided excellent examples of how interactive spaces for inter-subjectivity could be opened up and sustained.

Similarly, the full range of modes of communication requires attention in the creation of worlds for joint or group understanding, the use of the adult's body in relation to the children, the nature and use of visual, tactile and auditory resources – the full orchestration of communicative ensemble – and ways of inviting and easing children's attention to and participation into these worlds without losing 'group' attention. The reception class teacher provided many excellent examples of these.

This thesis argues that young children just embarking on the journey through the educational system require both interactive space for support in drawing on their own experiences and ways of participating in the world *and* induction into new joint worlds if all are to have a chance to participate in the curriculum with positive learner identities. This negotiated entry into the curriculum requires time and sensitive, responsive adults to support it. Too little time in a Foundation Stage setting with interactive space for inter-subjectivity, such as that offered by the pre-school, can contribute to negative learner identities in some children. The doors have closed and the National Curriculum vehicle is speeding off, leaving behind those who have yet to find a way in. The results of EPPE (2004; and Melhuish et al, 2001) point to intellectual and some social gains, increasing with the duration of time (number of months) spent in pre-school, for children on entry to school and still visible at the end of Key Stage 1. This thesis highlights the way in which school entry policy inadvertently causes some children to experience *less* time in pre-school and in the Foundation Stage.

The EPPE project and linked REPEY (Siraj-Blatchford et al, 2002) emphasise 'sustained shared thinking' (EPPE, 2004a:5), as well as 'teaching' and instructive environments, as one of the most important factors in providing an effective early years pedagogy with results visible to the end of Key Stage 1. This thesis offers a more detailed exploration of what is involved in effective, sustained shared thinking, extending its examination beyond words to non-verbal factors which help to involve and maintain children's involvement in sustained shared thinking. EPPE also emphasises the importance of a balance between adult-initiated and child-initiated activities and the importance of 'staff members extending children's interactions' (EPPE, 2004a:5). The findings of this thesis are in accordance with EPPE's findings, but the highly detailed nature of the small-scale study on which this thesis is based,

with its innovative methodology, goes deeper to reveal the types of interactions which create space for such a balance of adult/child initiated activities. It reveals the sub-cultural features influencing whether and how such spaces are created and it reveals factors influencing the subtle multi-modal ways in which adults can effectively extend or restrict children's interactions.

The pre-school practitioners and reception staff in this study all had much expertise. Chapters 6 and 7 highlighted these, pointing out pre-school practitioners' strengths in creating interactive space, in building on horizontal discourse and using proleptic instruction, and the reception teacher's strengths in expert multimodal delivery and in modelling, built on the vertical discourse. They could learn from each other's strengths. There is the potential for more fluid, shared arrangements in the planning and operation of education for four year olds, redressing the inequity in the duration of time different children currently have in the Foundation Stage, perhaps with the funding attached to a child being shared between institutions. With recent emphasis on multi-agency working in providing services to families and young children, perhaps the time is ripe to consider a more genuinely collaborative approach between pre-school and school, not simply in the relay of information, but in planning and delivery of the pedagogy and curriculum. Commenting that the early years 'workforce is very diverse, working in many different areas, with different cultures and practices, and varying levels of qualification', the Five Year Strategy for Children and Learners (DfES, 2004b: 27) states: 'We are committed to encouraging more multiagency working across the sector'. Such an approach might, I suggest, entail children being educated in pre-school from age three to four years, entering a second year of the Foundation Stage at age four until five years, during which time the curriculum and pedagogy would be jointly planned and delivered by pre-school and reception staff, with children's time divided between the two. (This might entail children spending part of their week in pre-school and part in reception, or might entail staff planning jointly and perhaps moving between settings.) A third year in the Foundation Stage could follow from ages five to just before the children are six years old, providing a more gradual shift of pedagogy and curriculum focus and so easing the transition into Year 1 of Key Stage 1 at around six years of age. Clearly, as children's birthdays fall throughout the year, one annual date of transition to the next stage would be inappropriate. The potential of shared arrangements outlined for the second of the

Foundation Stage years would allow flexibility to adjust to individual children's needs.

Yet the policy of collaboration at present encourages a top down influence of schooling into pre-school, of school teachers influencing rather than being influenced (see Appendix ii, section ii.3). The tacit knowledge and operational expertise of many pre-school practitioners, part of the expertise of pre-school/nursery pedagogy built up over years of experience and sedimented in the routine activities and ways of interacting, the 'nursery treasure chest' (Georgeson, 2004), must also be afforded due recognition and their potential for influence realised if collaboration is to work effectively.

The considerable challenge for practitioners is to be clear about what can best be delivered (and what cannot); to be confident in how to deliver it successfully (bearing in mind group size, age, underlying principles to be delivered); to be sufficiently skilled to recognise the value and limitations of control and when best to employ it, and to allow shared control, blending leading from the front and supporting from behind, whilst 'reading' children's communicative clues about their understandings and interests and staff monitoring their own clues as to whether or not there is space for children's reactions and initiations; to be affirming and congruent without having to concede the validity of their own position; and to see the way for keeping the curriculum and learning objectives clearly in view as goals, whilst seeing the route and pace to achieving them as negotiable. These challenges have implications for the structure and management of the settings, for policy relating to the governance of the settings, and for the education and professional development of staff. Yet at the most local level of interactive episodes of teaching and learning, there is also the possibility of subtle, small shifts in adult ways of communicating, of making space for and reading from children's ways of communicating which might help *all* children to make sense of and successfully participate in their early education. But such changes can only occur if, by so doing, adults' identities are not threatened in their settings.

The aim of this thesis has not been to draw attention to a single template for successful teaching and learning interactions with four year olds, but to draw attention to processes and their (sometimes unintended) effects, highlighting the influences *on*

those processes and the influences *of* the processes on children's learning. It has also emphasised the powerful yet delicate and vulnerable contribution children make to their own learning processes. It thus invites policy makers and practitioners to use this expanded knowledge of processes to inform the planning and delivery of high quality Foundation Stage experiences for all children.

Reflections on conducting the study

The methodological tools used in this study were extremely labour intensive and demanding of time, consistency and attention to detail. A vast quantity of data was generated in the data collection. In the analysis, categorising interactions according to the developed taxonomies was particularly demanding and it may be that similarly useful results could have been obtained from much more streamlined taxonomies. In practice, it tended to be the case that for an episode of interaction, I was coding from one small part of the taxonomies at a time. Although time consuming, the method did serve as a means of data reduction. Other methods, however, such as the transcriptions used for Chapters 6 and 7, served to expand and enlarge the view of the data. This made management of the study very challenging. Whilst I then drew selectively on this vast body of analysed data in the reporting, it has still resulted in a large and complex load. It may be that more selective reporting could have clarified the line of argument in the thesis. Nonetheless, I believe that the combination of methods used has provided clear triangulation and new, detailed insights into influences on children's learning processes. The methods used in Chapters 6 and 7 were particularly illuminating, although it is in the way in which the details were embedded in the rest of the data analysis that gives them their greatest weight, offering clear links between macro and micro level influences.

Using the methods employed in Chapters 6 and 7 in the home settings would have refined the analysis of the impact of children's home experiences on how they participated in the settings. Over the course of the analysis, I came to regret not having access to video recordings of the children at home. It would, however, have meant spending much longer in the homes to off-set the effect of video recording on the 'natural' situation. Such an approach would make a very good focus for future research, particularly in linking home participation with a study of the ways in which children's horizontal discourses are differently drawn upon and used in early years

settings. This could further contribute to the more nuanced understanding of horizontal discourse proposed in this thesis.

Finally, the strong ethical stance I have adopted throughout the study, particularly with regard to maintaining confidentiality to protect participants, has meant that some of the most telling data has been omitted and clarity of argument compromised. I stand by those decisions. A more fully collaborative approach to research between researcher and participants might be a way to address such an issue in future studies.

Epilogue: September 2004

I continue to meet informally and hear about many of the children and staff from this study. The school is developing a new outdoor play area to be shared between the reception class and the mixed reception/year 1 class to help broaden the range of activities available to the children. The pre-school has gained LEA planning approval and school permission to embark on the project of funding and building a purpose-built, permanent pre-school in the grounds of the school in this study, which could have the potential to open up new opportunities for a more flexible and collaborative approach to the education of four year olds.

Of the pre-school children, Lloyd and Henry remained friends and settled well into school life, after some initial insecurity for Lloyd as he struggled to become accustomed to new child care arrangements as well as starting school. Both (although the information came from Lloyd's mother) were having successful beginnings to school, Lloyd's mother commenting on how pleased she was with his progress and his teacher's reports. Carly settled easily and happily into school and continued to present herself as a confident and competent person. Stuart experienced some insecurity at the beginning of his first school year, which was focused on separating from his mother, although he had been used to doing so for pre-school. This passed after the first term or so and he became very enthusiastic about school life, proud of his part in Christmas plays and class assemblies.

Of the reception children, Lydia, who had left for another country with her family, was reported through a friend as having gone 'back to nursery', school entry in the

new country being delayed compared to the system in England, and was thoroughly enjoying it, apparently ‘ruling the roost’! George made a good start in year 1, settled happily, by his mother’s account, into his new class. Surprisingly, Robert’s mother reported that Robert had found the new class in year 1 rather more challenging. He was with a teacher who worked in a very structured and rather authoritarian manner. The agency that Robert had been able to negotiate and develop very successfully in reception was less valued in this year 1 class. His teacher complained to his parents of Robert’s ‘attitude problem’. Nonetheless, he coped well with the work and his mother reported that it had not dented his confidence; he had had to find a new way of operating in the new class. A student teacher known to me had a teaching practice in the class into which Paul and Tom had moved, now as year 1 pupils. Although she knew very little of my research and certainly nothing of the identities of the children in the study, when talking about her experiences, she commented on two year 1 children in the class who stood out: Paul who was demanding of attention and Tom who appeared dazed and confused, both noticeably ‘less able,’ considering they were year 1 children. They were inadvertently compared unfavourably with the new reception children who were also in that class, two of whom were Carly and Stuart from pre-school. This was another stage in Paul and Tom’s trajectories which did not bode well for a successful school career, but which I suggest had not been inevitable. Yet, by the end of the year of study, Paul also had a more settled and relaxed relationship with his mother.

Dreier (2002) explains how learning in trajectories of personal participation involves not simply a transfer from what was learned in one setting to the next, but rather trying to find ways of operating with each new constellation of other participants and the individual’s shifting position in relation to each setting to ‘create and routinize sequences of activities in order to be able to accomplish what needs doing’ (page 3). This has certainly been clear for the learners (and adults) in this study. We need to ensure that the routine sequences of activities children develop to cope with the necessary activities and interactions in early years settings will provide them *all* with a good chance of educational success.