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

Volume II of II volumes

by

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Contents

Volume II Appendices Appendix i	Involvement and engagement scales	310
Appendix i	monoment and engagement scales	510
Appendix ii ii.1	Learning environments: sub-cultures of pedagogy Sub-cultures of pedagogy in a pre-school and reception class: a small case study	312 312
ii.2 ii.3	Typical days in pre-school and reception Summary and conclusion: learning environments	355 368
Appendix iii	Assessment categories and criteria for grading	371
Appendix iv	Categories of adults' interactions	374
Appendix v	Categories of children's interactions	376
Appendix vi	Further examples of children's trajectories	381
Appendix vii	Transcription of Episode 1: 'Polyhedrons' at pre- school, 5.3.03	386
Appendix viii	Transcription of Episode 2: 2D and 3D shapes in reception, 16.1.03	407
Appendix ix	Themes	424
Appendix x	Mother and child interactions in the home relating to discussions about interests and assessment tasks	431
Appendix xi	Research questions with related data collection and analysis	432
References	••••••••••••••••••••••••••••••••••••••	438

List of tables

LIST OF TADIES				
Table ii.1	Typical routine at pre-school	Page 358		
Table ii.2	Typical routine in reception	359- 360		
List of figuros				

List of figures

Figure ii.1	Pre-school – typical session	Page 357
Figure ii.2	Reception – typical day 1	362
Figure ii.3	Reception – typical day 2	362

Appendices

Appendix i Involvement and Engagement Scales

From Pascal, C. and Bertram, A. D. (1996) *Evaluating and Developing Quality in Early Childhood Settings: A Professional Development Programme*. Worcester: Amber Publications.

Child Involvement Scale

List of Signals

- Concentration
- Energy
- Complexity and Creativity
- Facial Expression and Posture
- Persistence
- Precision
- Reaction time
- Precision
- Language
- Satisfaction

Involvement scale

• Level 1 No activity

Activity at this level can be simple, stereotypic, repetitive and passive. The child is 'absent' and displays no energy. There is an absence of cognitive demand. The child characteristically may stare into space. (N.B. This may be a sign of inner concentration.

• Level 5 Sustained intense activity The child shows intense and continuous activity revealing the greatest involvement. In the observed period not all the signals for involvement need to be there, but the essential ones must be present: concentration, creativity, energy and persistence. This intensity must be present for almost all the observation period.

Adult Engagement Scale

Categories

- Sensitivity
- Stimulation
- Autonomy

Sensitivity

This is the sensitivity of the adult to the feelings and emotional well being of the child, including elements of empathy, sincerity and authenticity. The observations focus on the adult's responsiveness to a range of children's needs including:

- A child's need for respect: giving the child a feeling of being valued and put on an equal basis
- A child's need for attentiveness
- A child's need for security
- A child's need for affection

• A child's need for praise and encouragement

Stimulation

This is the way the adult stimulates the child. The observations focus on the following actions of the adult:

- Introducing or offering an activity
- Giving information
- Intervening in an ongoing activity to stimulate action, thinking or communication.

Autonomy

This is the degree of freedom the adult gives the child to experiment, make judgements, choose activities and express ideas. Also how the adult handles conflict, rules and behavioural issues. The observations focus on:

- Degree of child choice of activity
- Opportunities for children to experiment
- Freedom of the child to choose and shape the direction of activity
- Respect given to child's work, ideas, and judgement of finished product
- Opportunity for children to negotiate and solve problems and conflicts
- Participation of child in rule making and enforcement.

Appendix ii

Learning environments: sub-cultures of pedagogy

Forman, Minick and Stone (1993) argue that, in relation to specific institutions structuring interactions between people and between people and artefacts:

One cannot develop a viable sociocultural conception of human development without looking carefully at the way these 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).

To make sense of 'educationally significant human interactions' we need to consider real relationships in specific contexts. Only then can we move towards

a theory that highlights the rich interconnections between cultural institutions, social practices, semiotic mediation, interpersonal relationships, and the developing mind' (Forman, Minick and Stone 1993:6).

The purpose of Stage 1 of the study was therefore 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. In Appendix ii, I address three of the research questions:

- 1. What are the adults trying to ensure children learn in each setting? What are the explicit teaching aims in the curriculum and teacher's 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?

To do so, first, I examine the sub-cultures of pedagogy in the two settings. Then, I look more closely at the use of time to see how the days in the settings are organised and the learning opportunities structured.

ii.1 Sub-cultures of pedagogy in a pre-school and reception class: a small case study.

The sub-cultures were influenced by and influential at several different levels. These ranged from the broad abstract level of what constitutes a pre-school and a good pre-school practitioner, or a reception class and a good reception teacher, through the

broad environmental, though more concrete, level of national and local government initiatives and directives, to the local level of the specific circumstances of the settings. The sub-cultures of pedagogy were realised, recreated and maintained through the learning environments created by the staff and through the interactions between participants – staff, children and parents. Guiding and constraining factors included staff beliefs, externally imposed restraints or requirements such as inspections, assessment, and registration regulations, and the specific circumstances of the settings, including resources.

What is already known of the subcultures of pedagogy in pre-schools and reception units at a general level point to:

- Differences between individual ideas and group 'narratives of learning' (Munn, 1996)
- Differences between the views of teachers and other early years practitioners (in this case nursery nurses) traceable to differences in education and training, but also to differing relationships between curricular matters and external bodies (Munn, 1996)
- The dominant view of the early years professionals' intention of promoting cognitive development in broad informal play-based curriculum, but with a reality of largely physical self-directed activities for three year olds and a move towards more adult-led activities with greater curriculum spread for four year olds (Anning, 1998). This contrasts with the narrower curriculum experienced by four year olds in school where literacy and numeracy are emphasised (McInnes, 2002; Adams et al, 2004).
- A common belief in the need for more child development theory in initial training of early years professionals matched by limitations in current early years professionals' understanding of child development and how to support learning (Menmuir and Hughes, 1998).
- The powerful stabilising influence of the 'internal' culture of schools based on role models of colleagues, in-service ideologies, daily experience of teaching and learning, and teachers' backgrounds and life experiences in the face of shifts in broader influences such as political, policy and curriculum change (Anning, 1991).

There are three reasons for investigating the subcultures of pedagogy further for this study. First, major and subtle changes have occurred in both pre-school and reception provision in recent years (see Chapter 1). An up to date examination of perceptions of teaching and learning are therefore necessary. Second, the sub-cultures in the specific settings are pertinent to the study and are a necessary complement to the more general knowledge about learning environments. Children's learning and development are context specific. In order to make sense of children's learning over the year from age

four to five years, we need to understand something of the setting in which the learning is to take place, the aims for and methods of promoting the learning. Thirdly, the previous studies have tended to focus more heavily on the intended and experienced curriculum. This case study includes a focus on the intended and experienced patterns of interaction as the means through which the curriculum is delivered and received.

Within the term 'interaction', for the purposes of this study, I include not only verbal and non-verbal communication as exchanges between people, but also interaction between a person and an activity/ task/ classroom as set out or created by others.

To guide the enquiry more clearly, the questions were further divided into five subquestions:

- What are the adults' perceptions of teaching and learning in each setting?
- What influences these perceptions?
- How far are the perceptions evident in the provision?
- What else influences provision?
- What is the culture of interaction with the children with regard to purpose, initiation, response, and the structuring of interaction?

In both settings, the staff were required to work to the Foundation Stage curriculum for children aged 3 to 5 or 6 years, a curriculum which should then lead 'naturally' into the National Curriculum for Key Stage 1. In reality, however, it might be pertinent to address the question of how far settings with such different origins, resources and modes of operation, employing staff with such different backgrounds and training, can work to the same curriculum. And how might such differences be realised in the day to day interactions with the children? Further questions, to be addressed in Stage 2, relate to the effects of such differences on the children and whether they matter.

The evidence will be presented and discussed for each setting in turn, concluding with a general discussion of the findings and issues raised from the evidence across the two settings.

ii.1.1 Pre-school

Background: staffing, training and setting.

The pre-school employed a supervisor, a deputy and six other pre-school practitioners. Between them, they offered five pre-school sessions of two-and-a-half-hours duration over three mornings and two afternoons each week, generally to coincide with school term times. There were five members of staff on duty for each session, one of whom was qualified, offering places to a maximum of twenty-four children in each session. The sessions were held in a village hall with an outdoor playground (tarmac), two rooms, a small kitchen and two toilets. All equipment had to be brought out at the beginning and put away into a storeroom at the end of each session.

The supervisor, new to the group, was completing the part-time course, the Diploma in Pre-school Practice (DPP). The previous supervisor, who had worked in the setting for several years, had been the supervisor for two years before leaving for a new job. The fieldwork relating to the case study, though short in duration, therefore spanned two different supervisors. The majority of the recordings, observations, questionnaires and part of the interviewing for Stage 1 took place whilst the previous supervisor was in post. Stage 2 took place with the new supervisor. The deputy was qualified with the DPP and had worked at the pre-school for eight years. Other members of staff had worked at the pre-school for between two and thirteen years, with four out of the eight staff members having worked there for over six years.

In addition to the supervisor and deputy holding the DPP, the staff had attended a range of Pre-school Learning Alliance short courses. The previous supervisor had attended in-service training introducing the Early Learning Goals, which she delivered to the staff with the help of a video. The staff group commented that they believed their level of training adequately equipped them to do their current jobs. The most useful aspects had been those relating to child development, child behaviour and the sharing of practice with other pre-school practitioners, concurring with other studies of early years practitioners' opinions of their training (Hurst, 1994; Menmuir and Hughes, 1998). One person expressed the view that some aspects of the training

were 'common sense'; another felt that 'experience of doing the job' was really the best way to learn about it. In spite of the changes to the supervisor post, the impression was of a homogenous, long-term, stable staff team. Committees come and go, government directives are delivered, changes to funding occur, some changes in staffing occur, and requirements for inspection and training change, but overall the day to day experiences between staff and children remained the same.

So what were the prevailing values and beliefs at the pre-school regarding the aims for children's learning, how children learn, and the role of the pre-school staff in children's learning? And how were these values maintained and passed on in the face of so many changes?

Staff perceptions of teaching and learning

Pre-school: a place for learning through play

The over-riding response of staff to questions about the goals of pre-school provision was that pre-school provided a safe environment with a variety of activities in which children could learn through playing, developing social skills including confidence, independence and the ability to interact with other children. The following response summed up the sense of most of them, which was to provide

'a relaxed and caring atmosphere in which children can learn through play, with a high ratio of adults to children'. (Individual questionnaire response)

With regard to what pre-school *should* provide, the staff team felt very strongly that the pre-school was providing all that it should, but that there should be less pressure to produce paperwork to 'justify ourselves'. Key words were play, fun and a happy environment.

Priorities for learning: independence, social skills and preparation for school.

In spite of the fact that the Foundation Stage curriculum sets out clearly a broad range of six areas in which children should be learning, the staff team felt strongly that basic social skills and skills relating to emotional security were the priority, linking priorities for early learning to preparation for the transition to school. This was borne out in part by the recent joint meetings between the local primary schools and feeder pre-schools which appear to have focused on how pre-school can best prepare children for school. In this context, preparation for school appeared to mean coping with separation from the main carer, ability to cope in a group setting, socialisation into the routines and practices of an educational setting, and a limited number of early skills. Pleasure, not pressure, in achieving these was the ethos.

Significantly, some practitioners identified the importance of children developing relationships with other adults, to 'listen and carry out a request from an adult', to know how to ask questions and get help from an adult. A developmental approach to learning was emphasised characterised by aims of 'being happy in the pre-school', 'enjoying being a 3-4 year old', and 'being allowed to develop'. Opportunities for the children to be encouraged to help each other and learn from each other were also mentioned.

Rita: A lot of learning is by looking and watching the older children, which I think is a good thing about having three and four year olds integrated into a group. Watching the older children who have been in the group for a while. (Supervisor interview 18.3.02)

Model of learning in the early years.

The model of learning implied in the responses was a combination of a Piagetian 'stage' (rather than 'age') and individual constructivist model mixed with a more interactive Vygotskian constructivist model, a model implied across many strands of the early years/pre-school arena. The staff generally emphasised learning through play, though others were more specific. In particular, one person suggested that children learned best 'with support from other children and adults', by watching and copying other children, and by experimenting with equipment. The staff team felt strongly that early years learning could not be characterised differently for the different age groups for which the pre-school catered (under threes, three year olds, four year olds). Instead, each child's stage of development was taken into account regardless of age, though one person did note that four-year-olds might need 'stretching a little more'. The following response seemed to capture the sense of all responses: The underlying principle stays the same, but [children] should be encouraged to maximise their potential for each stage of development. (Individual questionnaire response).

The implied model, then, was that learning occurred through the child's active exploration and play using the resources provided, that for learning to be effective it required adult support and peer role models, and that the rate of learning was an individual matter tied more to children's 'natural' developmental progress than to age.

Planning for Learning: success for all, choice, thematic links but within practical limitations.

The planning for activities at the pre-school was carried out half-termly by the staff team based on the supervisor's outline, adapted from the Practical Pre-school magazine in which activity ideas are linked to the Foundation Stage Curriculum. The issues emerging from the planning showed the group's concern for offering choice, planning for success for all and developing thematic links within practical limitations. The process of planning itself illustrated the inherent values of the group.

In meetings I attended, staff members did not simply endorse the suggestions made by the supervisor, but took part in discussions about what might work and how things could be improved upon in practical terms, contributing additional ideas for activities or resources. Exchanges between the group members during the meeting showed a level of concern for and involvement in each other's personal lives, giving the impression of a mutual support group.

The discussions and the way in which the plan was formulated gave insight into the group's values relating to teaching and learning. The emphasis throughout was on children being able to succeed at the activities with whatever assistance, preparation or collaboration might be required. For example, in one instance, it was suggested that the children should be given a sheet of paper with drawn washing posts and a string 'washing line' onto which the children should stick cut out pictures of items of clothing.

Rita:

They can count how many they can fit on the washing line. Or limit them, perhaps...

Charlotte: You can buy those little tiny pegs, can't you? You wouldn't be able to clip them on the paper, though...
(Someone points out that they could be clipped onto the 'washing line' string).
Charlotte: Might be too fiddly for their little fingers.
(They decide to go ahead with the idea, saying that it would be good for manipulative skills).
(Pre-school planning meeting 15.3.02)

Also emphasised was the desire to offer children choices, to provide variety and interest to engage the children and to link types of activities. In this way, children could move freely through a range of activities requiring the use of different skills whilst still gaining some insight into the overall theme. There was some limited discussion of individual children's needs, though whether and how these was to be monitored and assessed was not made explicit. On the whole, the planning was a broad sweep of activities linked to topics from which, it was hoped, each child would be able to take something, with the activities offering the opportunity for the development of a variety of skills at different levels

There should be something for everyone there. (Pre-school planning meeting 15.3.02)

This did not necessarily indicate a lack of attention to detail in the planning or a lack of consideration about how activities might be conceived by the children. On the contrary, the years of experience the staff had of working with children was used to mould and develop suggested activities to ensure that the children gained most from them. In the pre-school group interview (13.5.02), a member of staff used scissor-control as an example to refer to children's differing skills, how these were catered for and how the development of higher level skills were encouraged by the adults.

You'd have the scissors out on the table and some would sit there with two hands trying to cut, and there are others who can just about snip, and you move on to the child who you know can use scissors really well and you suggest to that child 'How about if I draw you lines? Would you like to cut round them?'...So they're all at different stages and you can pick up what different stage a child is at when you're doing an activity. (Pre-school group interview 13.5.02)

It was understood that each member of staff would decide in each circumstance how and when to extend the children's learning. How to provide for and monitor differentiation of experience to ensure challenge in the busy, noisy pre-school was, however, clearly problematic and required good systems of communication, planning and formative assessment. The ability to do so effectively was linked to the aim of having sufficient time and staff for relationships to be built with the children, ensuring staff members knew children's individual levels of achievement and could respond accordingly.

Another example showed how underlying beliefs of staff gradually surfaced through negotiation by adjusting an activity until it met the prevailing values of the group. In preparation for the Golden Jubilee celebrations, it was suggested that the children should make Union Jack flags. Through discussion, it was suggested instead that an outline Union Jack could be given to each child to colour in. Further discussion led to the final agreement that a Union Jack would be shown to the children for information, but that they should be given the opportunity to design and paint their own ideas for a flag, the limiting factor being that only red, white and blue paint would be offered.

Sally:	What about a flag? (Sounds of agreement heard from the group)	
Charlotte:	Something to take home.	
Jean:	We could do some Union Jacks.	
Rita:	<i>Well, we could just do red, white and blue, and they could paint them with red, white and blue.</i>	
Jean:	We could give them a Union Jack to colour in the best way they can. Just give them red, white and blue and they coloured where they could.	
Jill:	Or perhaps they could just paint their own flag. It doesn't have to be a Union Jack. Just a piece of paper	
Rita:	You could have a Union Jack on display.	
Jill:	they colour it.	
Charlotte:	But let's keep to the coloursred, white and blue.	
(Pre-school planning meeting 15.3.02)		

In this episode, the activity changed from one that was restricted in terms of choice and outcome but complicated in terms of performance skills, developed into one in which it was simpler to achieve a result but with less satisfaction for the children in terms of choice, and finally became one in which the children had more autonomy, restricted only by choice of colours, but with some extension of knowledge. The final version of the activity also had the important element of possibility for successful achievement at a variety of levels. It was arrived at through a group striving to jointly design an activity that felt right. This typified the nature of the teaching and learning activity plans for the pre-school; a blend of variety, autonomy and the opportunity for and promotion of each child's successful participation. The process also illustrated the values of negotiation, group cohesion and group recognition of its pre-school ethos.

Balancing a range of interesting and varied activities against the limits of time, resources and available staff was another issue that emerged. The implication was that it was better to allow sufficient time to do fewer things well than to pack the timetable.

'I think its enough...to make it go well.' (Pre-school planning meeting 15.3.02)

Whilst this was unavoidable and sensible given the practical constraints, it served to limit expectations of what could be achieved by and with the children, though only in such a relaxed, unhurried atmosphere was the time likely to be given to more openended support, comfort and discussion. Perceptions also had to be balanced against parents' expectations; staff referred to trying to avoid raising parents' expectations too high, thereby creating pressure for staff to 'perform'.

The process of planning for learning, then, emphasised the staff group's cohesion. It led to the realisation of the underlying beliefs of teaching and learning into concrete plans for activities as a way of operating that felt right and surfaced through discussion. The planning showed a concern for children's successful participation rather than assessment. It showed a belief that differentiation would occur 'naturally' at the point of interaction between the adult and child based on the relationships formed between the staff and children. It also showed the balancing of competing factors of variety, practicality, time, resources and expectations of parents.

In the training of pre-school practitioners

The DPP course had recently been taken over from the Pre-school Learning Alliance (PLA) by CACHE, an examination body with a broader remit, as part of a government initiative to bring child care/education qualifications into a more coherent framework. When questioned closely about the underlying philosophy promoted in delivery of the course, the DPP tutor identified the PLA approach of 'learning through play'. On probing further, it appeared that this was a Piagetian view of child development, but tempered by Bruner and Vygotsky with a clear role for the adult in

helping children to understand new ideas by talking about them and by graduating available activities.

The underpinning philosophy is the PLA one- that children learn best through play, and by providing an environment where children can be free to explore and experiment. The adult is important, but obviously the adult has to know when it's good to step back. That the best learning comes through play based activities and not through adult directed activities...But recognising also that children need an adult to help them, especially when they're learning new concepts, they need an adult there. They might notice things, but they can't understand why without an adult's help. (DPP Tutor interview 9.4.02)

The discussions on the DPP mirrored perceptions of teaching and learning expressed in the pre-school planning meetings, the interviews and questionnaires, although the group for the DPP was drawn from a much wider pool of pre-school practitioners. These emphasised the importance of providing a developmentally appropriate curriculum; individual needs of children were emphasised based on observation to determine each child's needs. However, overt attempts were made to avoid 'making judgements'. When a principle of forming 'tentative judgements' was put forward for discussion by the tutor, there was a very lively discussion in which it became clear that many practitioners had adopted the notion of 'factual' and 'objective' as being desirable and attainable and 'judgements' to be something they should avoid. However, during discussions in small groups, quite distinct judgements were made about individual children and used to generalise to broader groups of children. One, arising from different people at different times, was the idea that a child showing signs of advanced 'academic' achievement was usually 'behind' in some other aspect of development, usually social and physical development, with the implication that the other aspects were perhaps more important.

Their discussions held clearly expressed values relating to the *process* of learning being of particular importance with young children, rather than the product. For example, they discussed ways in which the learning processes during a typical preschool session could be conveyed to parents.

Tutor: And sometimes if children are snipping at a piece of paper and they cut it all up into pieces...

Susan: ... Yes, they might be chatting as they're doing it and you can write it down... Tutor: You can put it into an envelope.

Susan: ... The child won't remember later on what he was saying...

Tutor: You could put that the child has cut today and it's a product of the experience. But sometimes children do things and it doesn't look much, but they've spent a lot of time concentrating and doing it. It's valuing what they do ...as a record (DPP group discussion 9.4.02)

Implicit in this were the ideas that talking about activities with adults, taking part in activities with adults, and adults listening to children and finding out what their actions meant to them were all important aspects of teaching and learning in the early years.

The value of involving parents in the curriculum emerged as an issue. Although the information flow was two way, the flow of *influence* was more one sided. There appeared to be a resistance to parents influencing what or how their children should learn at pre-school. Some parents were seen as influenced by an emphasis in schools on assessment and were therefore perceived as trying to encourage pre-schools to provide more explicit tuition towards early literacy and numeracy to ensure good baseline assessments. Further complications came from the fact that in community run pre-schools (the vast majority) the staff were *employed* by and had their pay and conditions of service set by an ever changing committee of parents. Whilst pre-school practitioners were clear about their ideas on teaching and learning in pre-school, with a generally cohesive view, they were unsure how this sat with others. It seemed that they were ever re-negotiating their role, never quite sure how they were seen. This could instil a sense of insecurity best guarded against by strong group cohesion to maintain the current stance, rather than become vulnerable to question.

The boundaries between home and school, however, were weaker in pre-school than in school. Parents were expected to help out in the setting regularly and were welcome to stay for any session, settling their children or simply taking part. Parents were involved in fundraising and in contributing resources. Though other studies have found that some parents were in reality more welcome than others (Brooker, 2002), it was not apparent in this pre-school. Staff were on hand at the beginning and end of sessions for brief conversations with parents.

In summary, perceptions of teaching and learning implicit in the training of preschool practitioners showed a great deal of concurrence with the perceptions that emerged from the pre-school in the study. The emphases and issues showed a concern for a process-based, individually-focused and supportive pedagogy which relied heavily on knowledge of children's development and on the personal qualities of the practitioners. These sat within a context in which 'community', 'family' and 'parents' were important, but with which the practitioners and their pedagogy had a complex and sometimes unsettled relationship.

Interaction: building relationships, developing confidence

Perceptions of teaching and learning were evident in what pre-school staff said about interactions between staff and children. The influence of the culture of practice was such that although interactions varied between individuals, an overall ethos was discernible. The ethos was such that the aims for teaching and learning in pre-school were fostered through building relationships with the children and developing their confidence.

It appears that the nature of interactions with children were not explicitly taught, planned for nor evaluated. They were seen as 'second nature', 'professional know how', an 'in-built ability' (that someone may or may not have) based on personality, the person's relationship with the child and experience.

I think it's understanding and knowing about their children, isn't it. It's them getting to know their children and observing their children. They have this inbuilt ability to see that...I know some people don't, but it's not something I can say 'You do it like this' because it's something...It's all about getting to know the children, getting to know the parents, it's this whole knowledge. (DPP tutor interview 9.4.02)

It was apparent from the planning meetings, from informal conversations and from the pre-school supervisor interview that planning for the type of interaction with or between the children was not explicitly addressed. Activities were planned, but *how* they were to be presented to the children and how the children's learning was to be extended through interaction were all left implicit. The supervisor confirmed that it wasn't thought about, but was simply part of the skill that the staff had gained through years of experience with the children. She gave examples of the style of interactions that would be used. These centred on extending what the children already knew: Just making things a little bit more challenging, bringing out the harder jigsaws, the books with more text; asking them questions; asking them what's going to happen next in the story. They probably already know the story, but it's getting them to tell you. Predicting. Pull the information out from them. Introducing more perhaps the science activities; asking them more questions. Extending what they already know and building on what they already know. (Supervisor interview 18.3.02)

The adult's role, perceived as more important to learning than the physical resources available, was described as to talk, to stop and observe, to watch them.

Building children's self-confidence was a central issue. Being able to separate happily from the child's closest carer, usually the mother, was prominent in the group interview. Pre-school played an essential role in this, a role that required the calm, flexible approach of staff unfettered by concerns about too many other specific learning outcomes. A high ratio of staff to children was necessary to allow for adequate, sensitive care and time to slowly build relationships with the child, in partnership with the parents, to help to achieve a smooth transition to from home to pre-school, then on to school.

- Jill: Social and emotional, and all the skills; being able to sit, wait in line, follow an instruction without thinking 'Oh well, I'll go and do this', going to the loo, not the writing skills...
- Jan: Separating from Mum...
- Jill: Just being happy...
- Jan: Making friends, sharing...
- Jill: Learning to take constructive instructions from an adult...Because if they go into school and they've got the confidence; whereas if they feel upset... We do a lot for the children in that respect. (Pre-school group interview

13.5.02)

In the staff group interview, I probed the idea of 'learning through play' given by most members of staff in the individual questionnaires as the best means through which pre-school children learn and are taught. It was clear that this too related to developing children's autonomy and self-confidence through the style of interaction. I asked the staff to describe successful examples of this.

Jan: So a child gets the most out of their play...Try to ask open-ended questions, trying to get the child to initiate conversation, and watch the child, let them solve problems and lead the way rather than try to take over. Let them take the lead, then extend their play through suggestions...Try to make sure they get the most out of what they're doing.

(Pre-school group interview 13.5.02)

One member of staff went on to describe in some detail an interaction she had had with a child which she felt illustrated the approach favoured by the pre-school.

I mean today I was doing some work with a child and he was doing circles and they were no where near like the circles shown on the paper. He said 'Am I doing all right?' I said 'You're doing wonderful' and it actually made him go on to do the next page. He'd already told me he didn't want to do any more, but I think he'd had so much praise, he thought, 'Oh this is really good. I'm doing all right, I'm doing fine' and he made himself go on. Whereas if I'd turned round and said 'Well, I think you could do a bit better than that. How about doing it this way?', he would have given up. And I think that's what's good about the type of environment we've been pushing... 'Oh good, you're doing really well'.

(Pre-school group interview 13.5.02)

A belief in the primacy of social and emotional development was realised in interaction with the children, which focused on forming genuine relationships between the children and staff and between the children, and building the children's self-confidence. At the same time, the children were inducted into some aspects of the routines and discourse of an educational setting, developing some of the pre-requisite skills for successful transition to school.

Influences on perceptions of teaching and learning.

The strongest influence on the pre-school staff members' perceptions of teaching and learning was each other. There was a very strong cultural identity in pre-school playgroups generally and in this one in particular. The pre-school sat within a network of pre-school playgroups, operating largely on the philosophy of the PLA. This was a philosophy of community run, sessional, child-centred play-based learning, designed to complement the child's home learning by offering supervised planned play in a group setting.

The cultural identity operated at several different levels, maintained and reinforced through various means: first, at the level of the national network of pre-school playgroups, likely to be particularly strong in an area where pre-school education for the vast majority of children took place in such groups; second, at the level of the training and support provided for pre-school staff through the groups of

practitioners/students on the DPP courses, and through the 'in service' courses offered and information supplied by the Pre-school Development Workers (PDW); third, at the level of the individual pre-school through the interpersonal relationships. The means of maintaining and reinforcing the cultural identity included the methods of planning the delivery of the curriculum, the methods of teaching employed on the DPP, the methods of selecting and recruiting new staff, and the enculturation of staff through team interdependence. The way in which individuals moved between these levels (by conversations with the PDW, by attending courses, by being a team member) further helped to reinforce the cultural identity.

In one of the small group discussions on the DPP, the group described their impressions of the impact of Baseline Assessments, SATS, the new curriculum and published test results on parents' views. They discussed how such changes had led to raising parents' expectations for earlier development and more direct 'teaching'. They also discussed how it had resulted in a 'pushing down' of the curriculum so that what used to be expected in year 1 was now expected in reception, and reception goals were now expected in pre-school. It was discussed as something to be resisted, with the premise that rapid progression in academic skills would be at the cost of progression in social and emotional skills (Field notes, page 56). This may go some way to explaining the resistance to change in the day to day interactions with the children, in spite of substantial government led changes to curriculum delivery, inspection and funding.

It was apparent that a certain type of person was sought in the recruitment of preschool staff: ideally be a mother old enough to have children at least as old as the preschool children, preferably with children at school; similar in age to and ideally sharing many characteristics with existing staff. Gender was clearly a silent issue; it was very rare for pre-school playgroup staff to be male. There was consequently no open discussion of whether or not a male might be suitable. When recruiting for more senior posts such as deputy or supervisor, the successful candidate would 'know how playgroups work' and 'what they are all about' (informal discussions 15.3.02). This was based not only on finding someone competent to help in the running of the preschool, but also to avoid someone whose ideas went against its culture. At the level of the individual pre-school, the strong team spirit amongst the staff appeared to provide mutual support and the flexibility necessary for an organisation staffed solely by mothers with school aged children. It provided a mostly calm, happy and relaxed atmosphere. One of the effects of such a close, mutually supportive ethos, however, was that it made dissenting ideas difficult to float. Common agreement was sought on most things and any changes which threatened the stability of the group were difficult to suggest. Although change in terms of adaptations to routines and practices occurred, they did not require a shift in the group perception of teaching and learning, or significantly challenge the role of the staff. A previous supervisor referred obliquely to this when commenting that she had 'gone as far as I can' and that other possible changes had not been pursued partly because the staff would resist. This was also linked to what was possible given the constraints of the physical environment of the setting and its operation as a community run pre-school.

How far are the perceptions of teaching and learning evident in provision?

Children had a great deal of autonomy within a framework set by the staff. The framework aimed for included confident separation from primary carers, knowing the social rules of the setting, and becoming familiar with some of the discourse such as responding appropriately to requests and questions posed by adults. There were clear adult expectations for acceptable behaviour and for the maintenance of routines. Adults also tried to some extent to encourage completion of activities chosen by children or to encourage participation in activities led by the staff such as the craft activity or singing. Apart from anti-social behaviour, these were not dealt with by compulsion, but by gentle persuasion and by supporting the children's attempts until they could manage unaided. The children were socialised into the practices of the preschool, with the older children providing the role models of expected behaviour and the staff providing the support to make it possible.

It was evident that the staff team tried to balance what was possible and preferable for the staff, given their goals and the constraints of the setting, against what was possible and preferable for the children. Staff wanted children to experience a range of activities, but had to bear in mind the implications in terms of unpaid preparation time, extra resources necessary and the deployment of staff. Sufficient 'slack' had to be built into the system to allow staff time for dealing with an unsettled child, an unforeseen incident and simply to allow time for relaxed support and conversation with the children.

The observed interactions were all characterised by high levels of sensitivity and high levels of autonomy within the parameters set out above. Each child's pace and level of learning was implicitly accepted and their differing levels of performance explicitly praised and accepted. Children's performance was facilitated, but in the manner of joint problem-solving or in a way that provided support for some of the physical skills required to achieve the child's aim as perceived by the staff. It usually fell short of implying that the aim should be higher or in some way different. The children's experiences were at times enriched through the use of language by introducing new vocabulary, and by the use of questioning not only of the routine 'What colour is it?' variety, but to engage the children in conversation.

Jill at craft table helping children to make wooden flowers for Mothers' Day: Jill: This is very, very fragile. What does fragile mean? Child: Wobbly. Jill: Okay then, (*laughing*), yes, they're very wobbly....They're not very strong. (Video notes 4.3.02, p. 1)

However, the exchanges often had more of a ring of authentic conversation rather than the adult simply prompting children to speak through a series of questions. There was consequently less implicit pressure of the kind noted in previous studies of school discourse (Willes, 1983; Edwards and Mercer, 1987) for children to limit their contributions to the 'right' kind of response, usually limited by and contingent upon the teacher's aims. In a way, the pre-school discourse provided a half-way house between the discourses of home and school. Children's contributions were expected to be generally relevant to the topic in hand, though a broader span of relevance was allowed. The adults in pre-school helped children to see what counted as relevance without overtly evaluating responses that at first appear irrelevant. In one instance, for example, Rita was telling a story in which knitting appeared. The children discussed whether or not they could knit and what sort of equipment was required. One child began a complicated story of a dog biting off his toy rabbit's ear. Rita listened carefully then asked: 'Tell me what that has to do with knitting and mummies'. The tone of voice indicated a genuine desire to know rather than an implicit criticism that the contribution was irrelevant. Once the child explained that the toy needed to be sewn with a needle, Rita made it clear that the connection was understood: 'Oh, I see, I see. Thank you, Simon.' (Video notes 5.3.02, p. 8).

Relationships

Personal relationships formed between staff and children were an important part of the pre-school provision and underpinned the teaching and learning that occurred. They provided the base of security from which children could begin to make transitions, begin to confidently accept and participate in the routines and restrictions involved in being part of a group in an educational setting, and feel secure enough to try out new or more challenging activities. Central to this was the understanding that the children would themselves choose the members of staff to which they became attached. Although a key worker system operated, the relationships were free-flowing with the key worker system nominal in terms of relationships, used simply as an administrative tool for dividing the workload for maintaining reports and files on the children. The relationships between staff and children were characterised by an accepting, warm, respectful affection. The staff supported each other in achieving this, respecting the children's preferences without question:

Sally: (Speaking to me after offering a space on her knee to a child who was looking for an adult to sit next to on the mat, but being rejected by the child with a glance) It's a good job we don't take it personally. The look said it all. (Field notes)

Learning at own pace

What was clearly evident in the provision was the acceptance for children to learn at their own pace, according to their developing abilities and interests, essentially a developmental view of young children's learning. The pace and shape of children's development was seen as varying between individuals. The pace was generally seen as something to be accepted. Although support, encouragement and praise for progress were all part of the routine interactions, children's differing abilities and rates of development in different areas were simply taken as another aspect of their individualism. Discussions were not overheard of individual children being described in terms of 'falling behind', 'falling short' or 'racing ahead' of any set measure or standard. Their development was always discussed in terms of progress relative to the individual children. In addition, however, informal conversations revealed that the staff did develop aims for specific areas of progression in skills. One example was in relation to a child who found jigsaw puzzles particularly difficult, especially in comparison to her other developing achievements. Staff had noticed and made a concerted effort, including discussions with the parent about support activities at home, to help the child to develop this skill. Staff planned activities and support to develop progression in, for example, scissor control, concentration span in children when seated at an activity and attention and participation in whole group activities. The underlying planning and provision of activities, nevertheless, showed a pattern of providing a broad spectrum of activities from which children could select according to their individual levels of development and interests.

The message about pace of learning was conveyed to the children by the style of the interactions. It was conveyed by the way in which staff sat alongside the children during activities, the encouragement and credence given to whatever was produced or however something was carried out, and through the instances of joint involvement in which the child and adult were collaborators in a task or the adult provided the extra physical skills required by the child to achieve what he or she set out to achieve.

1'll write it for you. You tell me what you want to write.'(5.3.02, p. 5).

A child is describing each of his bikes: 'How many bikes is that?' He volunteers the answer five, but it is three. Rita holds up her fingers and helps him to count each example on her hand (video notes 5.3.02, p. 7).

At the craft table while making Mother's Day flowers, Jill holds the wooden flower, turning it slowly, to help a child while he tries to paint it. She also guides his hand to help him to write his name (6.3.02, p. 10).

The physical supports provided were used as 'tools' for the children to help them achieve their ends, rather than being directly related to the end itself. For example, the purpose of the writing in the example above was to convey a child's message to a mother, not to practice writing for its own sake.

Other influences on provision

Staff perceptions of teaching and learning clearly did impact on the way in which the pre-school was run and on the way staff members interacted with the children. They affected the planning and organisation of activities, the routines of the group, the deployment of staff and the assessments made of children. However, given these firmly held views, other things also had an impact on provision, by far the most influential being resources, including the physical setting.

The low pay of staff and the fact that they were not paid for time spent outside the pre-school sessions for preparation, training or administrative functions such as the writing of reports (except for a weekly administrative session paid to the supervisor) meant that activities and recording of assessments were planned with a constant view to the implications for preparation and materials. Much unpaid work went on outside session time by staff and so their reluctance to increase the load was understandable. Money available to replace and purchase new toys, equipment and consumable resources was limited. Much of it came from fundraising or applications by the committee and staff for one-off grants, such as the lottery fund, a further drain on time and an inconsistent form of revenue. This clearly limited what was available to the children, though the limited resources appeared to be well managed, allowing for a broad range of activities.

The setting had a very distinct influence on what went on in the pre-school. The constant need to 'clear away' affected the type of activities, the type of resources that could be kept and the energy and time available, seriously limiting the quality of the setting as a learning environment. Sand and water could be used only when the weather allowed for comfortable outdoor use. Wall displays had to fit the notice boards, which were high up on the walls (compared to the height of the children) and excluded the possibility of tactile, interactive displays unless staff were prepared to set them up anew and store them every day. Nature projects such as growing seeds, keeping frogspawn or small animals or simply displaying seasonal natural materials were very difficult to carry out. Inadequate toilet and hand washing facilities made it difficult to deal with 'accidents' and messy activities such as finger painting or cooking trickier to plan and implement. Longer term projects such as large scale

model making or the use of papier-mâché or clay were made impossible because of the need to store half finished items in overcrowded cupboards.

The pre-school was luckier than many others in that it had a fenced outdoor play area, but, again, use was limited by its surface. It was used largely as a space for running around and using wheeled toys such as tricycles. The imaginative use of outdoor space as a learning medium for things other than gross motor skills was restricted to warm, sunny days when the 'indoor' activities moved outdoors.

The perceptions staff had of themselves as a resource also influenced provision. In informal discussions, planning meetings and group interview, reference was made to the difference between themselves and 'trained teachers'. Staff seemed to feel inadequately trained to be confident about introducing children to early literacy skills and, to a lesser extent, numeracy or science skills, in spite of the fact that they did provide the environment and many of the activities to encourage such skills development. Reluctance appeared to be linked to a perception that providing for early literacy skills was synonymous with trying to teach children to read and write at too young an age and to the view of teaching literacy as a highly skilled, formal procedure best tackled in school, with perhaps less recognition of the wealth of 'literacy' knowledge children gain before beginning school and on which formal schooling builds. These views contributed to the emphasis on social and emotional development, skills for independence and on social rather than intellectual preparation for school. It also perpetuated the separation between intellectual/cognitive development and play based learning with a stronger emphasis on social and emotional development.

In spite of the myriad of changes introduced to the early years sector from national and local government over the last ten years, the impact of these on what happens between staff and children in the setting was negligible. As the supervisor put it in the individual interview (18.3.02), '*I don't know where it all stops, up there somewhere, but it doesn't come down this far*'. External policies affected the age range of children in the pre-school, the funding available and the requirements for inspection and registration, but with regard to the curriculum and its delivery, two parallel systems operated. Pre-school had to provide evidence of its *provision* for curriculum coverage, but not of children's *participation* in each part of the curriculum or of children's *achievements* in relation to the curriculum. These are of course linked, but there were different understandings between pre-school and school as to what the curriculum guidance was for.

Staff saw a clear link between external directives, resources and provision. In the individual questionnaires, staff noted that many of the government initiatives such as curriculum guidance and local and central government directives on staff training requirements were 'good ideas', but lacked the resources necessary to fully implement them. The impact on provision was therefore minimal, except negatively with the possibility of pre-schools closing because of staffing and financial difficulties.

The physical and external constraints helped to reinforce the perceptions of teaching and learning in pre-school and in turn the pattern of interaction. Staff continued to do what was practicable and successful in the circumstances; the 'usual' becomes the norm and helps to recreate the culture of teaching and learning. Change can be difficult to envisage. Conversely, changes in practice can lead to new perceptions and beliefs about underlying principles. If change is not practicable, then the possibility for cultural change is lost, too.

What is the culture of interaction with (and between) children with regard to purpose, initiation, response, and structuring of interaction?

Unplanned

In pre-school, interaction was not specifically planned for, nor consciously organised. It was not something staff referred to in their routine planning or in informal discussions and evaluations. In the DPP, interaction with the children was not specifically taught, learned or assessed. It was an implicit part of the culture of preschools, a routine 'way of doing'. Good quality interaction with the children was seen as 'second nature', a 'professional know how', an 'in built ability' that someone may or may not have, based on a person's personality, experience and relationship with the child. It was a slightly surprising, unnecessary suggestion that interaction for maximum effect with the children might be taught, discussed, planned for and evaluated. For new staff coming into pre-school practice, it was a matter of absorbing current ways of interacting and adapting accordingly to the culture. A lack of explicit attention to interaction may make it more difficult for staff to self-evaluate, to learn from what appeared to be good practice and to plan for more of it.

General pattern and variations

Different members of staff did interact with children in different ways. Some were more likely to question, some more likely to sit alongside quietly, some to be more directive, and some to engage more in joint conversation. Superficially, it appeared that children responded differently to the different patterns. However, as the children moved freely around pre-school for a large proportion of a session, interspersed with more structured times led by two or three different members of staff, the children's experiences throughout a session were likely to include contact with several different members of staff.

Overlaying the individual differences in styles of interaction was a discernible general pattern of interaction. There was much evidence of the adults' use of interaction to foster children's autonomy and participation within a frame of limited choices and of adults listening carefully to the children and negotiating over meanings to arrive at a common understanding. There was much evidence of praise, almost unconditional positive regard (although unacceptable behaviour was challenged), and a respectful affection for the children. There were short bursts of conversation initiated by children and adults which included telling something about their own lives, commenting on an occurrence or referring to an activity, requesting information or clarification, or expressing opinions. This was different in tone and pattern of exchange to a 'question, response and feedback' sequence. There was also, however, much evidence of adult use of questions to prompt for responses in relation to colours, number and other aspects of knowledge such as size (biggest, smallest), shape and position (under, over, behind, in front), usually done in a rather closed format in which a clear right answer was sought. The adults frequently used language in many different forms of interaction to sort, sequence and categorise, which on occasions acted as a form of modelling categorisation.

Summary: pre-school sub-culture of pedagogy

What did staff ensure children were learning?

There was much internal consistency 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 skills for independence to assist the transition to school (holding a pencil correctly, using scissors, using glue, recognising own written name and perhaps writing it, going to the toilet unaided, putting on own coat).

These form part of the Foundation Stage curriculum, 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.

How is the learning facilitated?

Staff fostered a sense of success in children's activities and learning. It would have been unlikely for a child to leave an activity feeling that he or she could have done better, that they had in some way fallen short of staff expectations. The adults helped to develop the children's autonomy and reasoned choices. The learning was facilitated by providing company, support and help where needed. The high ratio of staff to children allowed staff to be 'on hand' and to talk to children about what they were doing, though independent exploration was encouraged within the set boundaries. The staff provided a safe environment with a range of activities to allow for active exploration and choices and a pattern of respectful, affectionate relationships. They also provided interactions adjusted to the needs of the individual children as perceived by the staff.

These contributed to the sense of 'mastery' and 'efficacy' in the children in relation to 'effectance motivation', described by Berk and Winsler (1995) as being

Children's sense of being able to master the environment and their joy at this mastery. Together, these two aspects of motivation promote competence. (Page 170.)

The children expected to succeed in whatever they attempted and to have some freedom to pursue the things in which they would like to become involved within a framework of constraints. The setting and the interactions were geared towards children's autonomous successes and pleasures, not towards performance against a standard. However, it may be that some extension of cognitive challenge may have created a stronger sense of mastery by raising expectations slightly beyond those immediately possible based on the children's current abilities.

The pre-school pedagogy was largely invisible, both weakly classified and weakly framed, further evidence of which is given in Typical Days, section ii.2. The instructional discourse was weak; the regulative discourse in which it was embedded was stronger than the instructional discourse, but weaker than that of school. They were largely tacit, communicated through staff modelling and exemplification.

ii.1.2 Reception

Background: staffing, training, setting

At this school, reception aged children were divided between two classes. Those whose birthdays fall in the autumn term went into a class with some of the year one children. (The year one children were divided between three classes, loosely based on teacher-assessed ability; the higher achieving children were in one of two classes with year 2 children and the lower achieving children were in the year 1/reception class.) Reception aged children born in the spring or summer term were in the reception only class, the class in this study. The reception class teacher was newly qualified. She was

primary trained, but without specialist early years training or experience. She worked under the supervision of the Foundation Stage Co-ordinator, the Year 1/ reception class teacher, an experienced reception teacher. The relationship, though, was characterised more by a Foundation Stage team than by 'supervision'. The head teacher had also, at one time, been a reception teacher. There was one full-time Learning Support Assistant (LSA) for the reception class, also newly qualified, who had trained as a nursery nurse.

In this class, the content of what was taught was very prescribed. There were specific aims and objectives for each week of each term for the reception children set out in the National Literacy Strategy and the Numeracy Strategy, as well as guidance contained in the Foundation Stage Curriculum and the National Curriculum. In contrast to pre-school, the *outcomes* in terms of pupils' academic performance were important to the classroom teacher, the school and the pupils. The learning outcomes were assessed: the children were assessed formally, using Baseline Assessments at the beginning of the year, updated in the spring term, the Foundation Stage profile at the end of the year and informally regularly. They were used to set the children and determine the level of work they experienced in small group work and to some extent the type of adult support they received. The 'what' of teaching and learning, the way of learning or the instructional discourse, appeared to be of over-riding importance. The children's achievements were monitored according to how closely they met the expected pattern of outcomes, whether they exceeded them, were equivalent to them or were falling behind.

The Learning Support Assistant, under the direction of the teacher, worked primarily with children identified as requiring extra adult support, mainly Tom, Paul and other children from the Below Average groups. In addition to teaching the whole class together, the teacher worked in rotation with small groups of children.

Teacher: *I'm conscious that I need to work with most of the groups once a week. All groups need to have a teacher input once a week, so if there's a task, I might say LSA is working with Below Averages all week, except this one day when I'm going to actually have the teacher input. With the literacy and numeracy, when they go up to Yr 1, each group has to have teacher input once a week. And it's good for my assessment that I actually am aware of where they are and their needs. (Interview 20.2.03)*

The children in groups identified as Average or Above Average received more of the teacher's small group teaching time than the Below Average children because they were usually supported by the LSA. The LSA saw her role as being:

LSA: Sitting with the Below Average children, having the resources...keep them concentrating, keep them on task, helping overall with the school, setting up...Bits of everything really. But generally I try and move on the Below Average ...I normally work with the Below Average children...so it's making them meet their goals really by the end of the reception. (Interview 16.5.03)

The staff team was therefore new and faced the challenge of establishing themselves in a primary school staffed by many long-standing and experienced teachers, whilst finding a way to blend their own experiences and training with the competing demands for a more early years' ethos in the Foundation Stage and for meeting school attainment targets linked to the National Curriculum, the Literacy Strategy and the Numeracy Strategy.

Perceptions of teaching and learning

Model of and priorities for learning in reception

The model of learning, evident in the data, was one of progression through the curriculum, combined with moving the children through directed tasks to achieve learning outcomes, which were assessed. The priorities were for literacy, numeracy and learning how to operate within the rules of the school. From the interviews and informal discussions with the teacher and LSA, it was clear, in contrast to the preschool, that staff felt play had an ambiguous and uncertain role in children's learning. The LSA stressed 'active learning' which incorporated adult-led goals and children's active participation in games.

LSA: Active learning, learning through play is the best way to do it, like in the activities – hands on activities, not worksheets. Actually have your resources there where they can see and play and handle...

I think in numeracy, doing the floor mats...

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you get them on the floor and put them in order...so they can use that as a game. You can then jump along them like frogs, checking that they're in the right order. Just things like that really. I think it all goes in more...if you can just keep on repeating it and you've got so many different ways and activities

that you can repeat them. I think it all generally helps...lots of things. Same as role play. I think that role play is a definite good active learner. They do social, behaviour, any subject practically in role play. (Interview 16.5.03).

The teacher referred frequently to the importance of learning objectives. She explained a desire to incorporate play into the curriculum, but there were constraints on doing so, partly from the teacher's perceptions of what play could contribute to children's learning and partly from the school ethos.

Researcher: What are your thoughts on how children learn best at this age?

Teacher: I would say through doing and through play, though I think it depends on the child and the situations they're in. These children at this school in this class are quite capable of sitting on the carpet for say a 15 minute input, but children in other places may not. So we are pushing them on more. So we do have literacy and we do have numeracy where it's quite a structured time, but I would say they learn best through doing. We're going back to 'doing' more, more play activities in the actual time.

I would like to incorporate more play into the curriculum, but at the moment... It's been made quite clear that they want a literacy and numeracy time, but the activities in that time can be of a play nature. A lot of things that we've read have been saying like you can do your 5 -10 minute input, but children then go off and do activities that might not be related to literacy, but you've got your one focus group. That's not wanted here at this school. We're doing literacy time, we're doing numeracy, they're having handwriting, so it's quite structured for them. But then the afternoons become more play orientated. (Interview 20.2.03).

The practical reality of trying to meet the learning objectives for literacy and numeracy dominated the bulk of the teaching time in the day (see Typical Days, section ii.2). The teacher felt comfortable with that approach as it suited her training as a primary teacher rather than an early years specialist and she had quite ambivalent feelings towards the role of a more open-ended pedagogy, and particularly the role of play, in children's learning.

Teacher: I personally use my time better being more structured because I was trained that way. When they play, and this is where my lack of experience comes in, I don't feel like they're doing...I haven't the skill to look at their play...I can in the role play room because that's quite obvious, but sometimes when they're just playing with a car or something and people can say they're doing that, that and that, I'm like 'Oh, really? Looks like they're just playing to me'. (Interview 20.2.03).

She elaborated and justified her ideas on learning, which were fully evident in her practice with the children.

Teacher: I'd say that there's directed play – where there's teacher input and you're directing the children to what you want them to get out of it. I would say things, so you're directing them to say the right answer. I'm actually directing their play, I'm not just letting them play themselves. Structured play is where I'd say 'Right, go and make a car', so it's structured and they've got an actual learning objective.

Researcher: It's structured to your goals.

Teacher: Yes. (Interview 20.2.03).

Play, if it was to have a full role in reception children's learning, was to be structured to adult goals in preparation for entry to Year 1, a progression from pre-school or nursery, where the teacher felt that play was more likely to follow the child's goals.

Teacher: I would say they get a lot of that at pre-school and nursery, so when they come into school, it's more structured. 'I want you to make this, so you're going to make it'. Umm, especially at this stage: they're halfway through reception. In half a year, they'll be in Year 1 where they won't be playing as much, so I wouldn't - I would like to structure or direct their play. (Interview 20.2.03).

The teacher saw her role as directing the children's activities to ensure that learning was taking place. She gave an example of how she saw this during the reception class's version of Plan, Do, Review, which was a system introduced during the year for the afternoons and involved the children opting for activities from a selection, being chosen to carry them out by the teacher and then rotating through the activities as time allowed.

Teacher: I would like to structure it, direct it a little bit more. So if one group were doing CVC puzzles, I'd be there with them saying... instead of ... If they were trying to make CAT, instead of them just trying to match it up by pictures, I would be like, well cat begins with a 'c', or what's the last sound they can hear...'t, t'. So if they're looking for the letter 't' then it's focusing them more to look for the letter not the picture that has the cat's tail on it. In that way, if they are still looking for the cat's tail, but when they pick it up, you can go, okay, what letter is that? It's structuring it more. (Interview 20.2.03).

Teaching and learning were talked about in terms of 'moving the children on' and 'pushing them on' with particular reference to the National Curriculum attainment

levels, aiming for level 1 by the end of reception and level 3 by the end of Key Stage 1, which the teacher saw as realistic goals for children from this school

Teacher: There is the expectation to reach level 1 by the end of the year, so that they reach level 3 by the end of the SATs, so that we have.. you know.. it all goes back to the league tables and things like that...I need to know where I've got to push the children, so if there wasn't that level 1, I'd be like, where am I moving the children on in that sense. For children of the likes of Lydia and Robert and Jenny who are working at P8/level 1c already – well, I need to push them on so that they reach level 1b by the end of the year, not just, well they're in level 1 now, so sit back and relax, but to carry on pushing them. (Interview 20.2.03).

However, whilst level 1 was realistic for the majority of the children, she felt that for the Below Average group, particularly Paul and Tom, the goals were unrealistic because the children had entered school with skills below the level of other children.

Researcher: So you think it's a realistic expectation.

Teacher: Yes, I do, definitely for the Averages and Above Averages. The Below Averages, no, but in every class you're going to have those children. Realistic for them is more the social skills, especially for the likes of Paul and Tom, that they are ready to go into year 1. And especially Paul, that they have grown up, because he is still very young in his mind and things like that. But he has socially improved already, so you know that's not an unrealistic task for him to do really.

But they are highlighted in the baseline and they will always be...the school are aware of them already, so its not going to come as a huge shock when, you know...(Interview 20.2.03).

Her aim, though, was for the children to achieve the goals she had in mind for them through 'fun, play activities.'

Although the LSA was directed by the teacher, she felt she was able to use some initiative to adapt the tasks delegated to her. She gave an example of how she supported the children if they were finding a task difficult or uninspiring.

LSA: There was something the other day we were doing and I had to change it slightly...I can't think what it was...(pause)...Ah, I was helping them count, you know, putting them down and touch counting, and they were found it tricky with the multilink because they were sticking it together and getting carried away with building things, so I said, 'Come on' and we put them on our fingers. And we had the multilink on the tips of our fingers and we were counting each other's. (Interview 16.5.03).

Planning for teaching and learning in reception

The reception teacher and the teacher for the Foundation Stage Co-ordinator met weekly to plan together. In these meetings, the mid-term plans for literacy and numeracy, taken from the Strategy documents, were turned into activity plans for the week. The most detailed planning was, therefore, for literacy and numeracy and the starting point was the specific learning objectives in the Strategy documents. The planning involved translating them into forms of presentation the children could understand and activities, pitched at the correct level for each of the ability groups. An important consideration was whether or not the groups could carry out the activities independently, if they were not working with an adult, and how the type of activity would suit the children's perceived attention spans. Another consideration was whether the tasks would fit into the allocated time slots, whilst another was how the staff would ensure the children met the objectives. The following extract from a planning meeting illustrates the process of planning.

Foundation Stage Co-ordinator (FSC): Shall we do partitioning first at the beginning of the week before they get tired?

(Teacher points out that she is a little nervous about doing it as she hadn't taught partitioning before. The two teachers read the objective together. FSC suggests an activity of throwing five bean bags into a bucket, which she had used previously.)

Teacher: Did they do any recording?

FSC: They did towards the end of the week. Just a bucket shape on paper...some drew, some wrote...I left it up to them to decide really.

Teacher: Might be quite a nice opening activity to do. **FSC**: It's starting to do number bonds, isn't it?

(Teacher suggests starting with throwing bean bags, then the next day doing

(*Leacher suggests starting with throwing bean bags, then the next day doing the same activity, but recording on the big easel.*)

FSC: So you could do that as an introduction and then in group activities, give them practical...things to separate.

Teacher: I wonder whether one activity to do...get the LSA to take a group out, do exactly the same, but take the easel out and start recording.

FSC: Got to be careful...then on Tuesday, you're not extending...see if they've...

Teacher: I'm just not sure if throwing bean bags into a bucket will be enough for them, will extend them in any way at all. But I see what you mean. If we do it on Tuesday and they're just repeating it...they've already met the objective.

FSC: You could challenge them to find a different way or use a different number. (Audio recording of Reception planning meeting, 13.2.03)

The objectives were narrow and specific and the activities differentiated to meet different children's needs within the practical constraints of the classroom. Unlike pre-school, where the emphasis was on ensuring successful completion and pleasure, the emphasis in school was on meeting precise learning objectives and on extending the children's abilities, particularly for the highest achievers if they readily met the learning objectives set for them.

Interaction: translating learning objectives into delivery and support to achieve them.

The way in which the adults in the class interacted with the children was not specifically planned or discussed in any detail. The teacher did, however, feel that she guided the LSA's interactions with the children to an extent. Instructions for the day would be written into a book by the teacher for the LSA and the teacher would go through them verbally too, specifying the LSA's role in the task.

Researcher: How do you guide her interactions? For example if she's told to do numbers 1-5 with this equipment, do you think about how she would interact to do that?

Teacher: Yes, she has her LSA book which I write the activity in, what I expect from her, then I will actually tell her as well. So like today when she was working with the hexagons, I told her: what you are going to do is this. They're going to have cards 0-20. You're going to write the number on the board, then they're going to pick out the number that's 1 more and 1 less. So she knew exactly what the task was and what I expected of her. ...So the way she interacts with the children... she has the skills to do that. I don't need to say you need to support them in this way. She's actually good at doing that – picking up from where the children aren't sure or ... Extending the children is something I'd like to work on with her, where they pick it up straight away. (Interview 20.2.03).

The LSA explained how she perceived the need to adapt her instructions to suit the children with whom she was working

LSA: Some prefer the actions, some do the questioning. The questioning works overall because it does make the children think. Showing them resources, that just helps them to visualise what you're trying to do. I think it's a general overall working of all those things. Trying to interact with them that way. I know the children learn from different ways.

Researcher: Do you consciously adapt to the different children?

LSA: Yes, yes.

Researcher: In what way...can you give me an example of that?

LSA: Well, suppose, if it's questioning, if I'm talking to C it'll be very short questions and repeating it. But if say I was talking to R, he'd obviously understand a lot more if I said it in a more adult way...he'd understand more. So, yeah, you do look at the child. Sometimes I say something to C and I think he won't understand that, so I re-word it, re-phrase it and he's like...right...kind of understand it. I suppose it's all...(Interview 16.5.03).

More detailed planning for interaction was seen as unnecessary as professional knowledge and experience increased. It became part of the professional 'craft' of teaching.

Researcher: *That* 's planning your time with the children. I guess I'm asking a bit more about how you use language yourself to teach the children.

Teacher: As in what I'm going to say? I wouldn't say I plan it in that I write it down. I wouldn't say I even block parts of it. I'm not sure you'd find many teachers who would do something like that because it's very time consuming. It just comes naturally. Not in the sense that, you know, good, but you rely on being able to do off the top of your head. If you change something in the middle of a lesson because it's not working, I wouldn't actually stop and think...I don't think what I am going to say over the next ten minutes.

The teacher pointed out how planning for specific types of interaction was felt to be necessary only when she was less sure of the subject matter or the vocabulary needed to be delivered in a more precise manner.

Researcher: Let's think about something concrete that you've done. Say for example using the scales. You have your objective. Do you actually think about how you need to question about this, this and this, or the vocabulary you might want to use?

Teacher: There is a vocabulary section on the planning where I will write down the main vocab – balance, scales. With the position week, because I wasn't very comfortable with doing position, I photocopied out of the Numeracy Strategy, gave a copy to LSA and myself, highlighted all the words, and had that beside me because with position the vocab is quite important. I needed to make sure LSA was saying the right things and I was saying the right things. So, in that way I did plan. (Interview 20.2.03).

The staff in reception did not, therefore, routinely or consciously decide how the teaching plans were to be translated into interaction with the children, but felt that it was something that emerged naturally based on their knowledge and experience of the

children's needs. Blatchford et al (2002) comment on the need to address pedagogy and interaction more explicitly:

The results show that TAs (teaching assistants) are inevitably involved in direct face-to-face interactions with pupils and there is a need to articulate what kinds of pedagogy – in particular regarding direct teaching interactions – are relevant, and to use this to inform training. (Page 1)

In other words, the style of interaction flowed from the staff perceptions of teaching and learning, from the planned learning objectives and from the ethos and constraints within which they worked. To address changes to the style of interaction would therefore be likely to require changes to be addressed to the perceptions of teaching and learning, the ethos and constraints, also.

The staff perceptions of the role of children's interactions (to adults or to each other) in their learning was articulated in less detail and appeared to be a less prominent part of staff ideas of teaching and learning.

Researcher: Do you think at all in the planning about how you'll be able to encourage the children's speech?

Teacher: Umm, they get opportunities to ... I mean the speaking and listening will come ... we're meant to plan for it, but at the moment I don't have an actual column or pen to mark the speaking and listening.

Researcher: But by planning, I don't mean you've got to have written it down.

Teacher: They'll have a time once a day where they can share something or in the role play room, they'll get most of their speaking and listening skills and just through personal and social skills really.

Researcher: But what about talking about what they're learning at the time? Do you think about the type of activity that will make them or need them to talk about what they're doing – because that's such a huge tool to learning?

Teacher: Probably not as much as I should. In literacy, we talked about our stories before we wrote it, so they talked with their partner and when I was with my focus group, they talked, so we did discuss, brainstorm ideas. But that was the first time they did it. Because that is actually quite a difficult skill for the children to acquire, because what we've talked about, they need then to actually put onto paper. A lot of them talked about drawing pictures of princesses and pirates, but they didn't draw them, they drew pictures of something else. But they had opportunities then. (Interview 20.2.03).

Certainly in practice, as developed in some detail in Chapter 5, 6 and 7, children seen as the high achievers had more opportunity to talk to each other about their learning than did the lower achieving children.

In summary, the perceptions of teaching and learning in reception evident in the data related to children's individual efforts in adult directed activity, supported where necessary, but with high expectations for children's cognitive involvement. Children learnt what they were taught unless there were individual reasons of lack of effort, lack of ability, or lack of a suitable start in life. What they were to be taught was clearly defined. Expectations were set as to what should be achieved in terms of learning outcomes by certain times. Within this ethos, children's levels of ability and effort helped to determine whether they exceeded, met or fell short of the achievement goals.

Influences on the perceptions of teaching and learning

The teacher's training and experience had been within the frameworks set by initiatives such as the National Literacy and Numeracy strategies, Baseline Assessments and SAT tests. It appeared that the perceptions of teaching and learning described in the section above were grounded in, or at least complementary to, the models presented by such initiatives. As a young, newly qualified teacher, it is reasonable to assume that much of the initial influence on her perceptions of teaching and learning and learning came from her training, which was as a Primary rather than a Foundation Stage teacher.

Discussions with a primary PGCE tutor (interview 6.6.02) provided evidence of teaching and learning perceptions in a PGCE primary course. It was of a professional 'craft' of teaching, transferable to different age groups, subjects and levels of ability. Indeed, guidance from the Teacher Training Agency, which came into force from September 2002, determined that Primary PGCE students should be experienced and fully trained in both Key Stage 1 and Key Stage 2, rather than specialising in one as had previously been the case. To accommodate this, experience in the Foundation Stage was dropped, although, in reality, it was likely that students trained under such a scheme would still later be employed to work in Reception units. The craft knowledge included content knowledge of subjects, the national guidance relating to

347

how they should be taught and what should be achieved by children in relation to these by certain ages. It also included knowledge of how to present information, how to assess children's current abilities, how to adapt teaching strategies to different children's needs; in other words pedagogical knowledge as outlined in the 'Standards for the award of Qualified Teacher Status' under Professional Values and practice, Knowledge and understanding and Teaching (Teacher Training Agency, 2004).

When asked about the models of teaching and learning presented and promoted in the PGCE Primary course, the tutor described a model evident in the National Literacy and Numeracy Strategies. It began with the teacher modelling the desired outcomes, then moved towards supported learning, and then moved finally on to children's independent learning. It was also a model that emphasised interactive learning, which in this case meant ensuring that all children were engaged in all aspects of the learning all the time. It was also based on a need for continuous formative assessment as a tool for discovering learning states and learning needs. These were then formed into targets which were worked on to ensure progress. The tutor also emphasised the importance of encouraging collaborative learning with children working within their ZPD in genuinely joint problem-solving, rather than working around a table on individual tasks. She noted, however, that this was rarely seen in Primary schools at the moment. (Field notes from unrecorded interview with primary PGCE tutor 6.6.02).

The teacher in this study, both in interview and in her practice, presented an image of teaching and learning which was heavily dominated by a delivery model of pedagogy. There was a very strong conception of teaching as curriculum taken apart, divided into objectives and delivered through effective performance, but a correspondingly weak conception of learning as anything other than 'message received and understood' – or not. This concurs with findings of research by Edwards and Protheroe (2003) into initial teacher training. Edwards and Protheroe state

The only pattern building that appears to be occurring in action relates to student teachers' ways of interpreting the curriculum and delivering it to pupils....The tools forming the minds of the student teachers we studied were the lesson plans geared at curriculum delivery. (p. 238-239)

They also rightly point out how policy drives the pedagogy:

The student teachers are doing exactly what is required of them by the English Government's education policies and are becoming effective curriculum deliverers (p.238).

In addition, there was the influence of the local impact of national targets for the achievement of set levels of attainment, as mentioned previously. The teacher's role in this and how it was perceived by other teachers in the school helped to shape the perception of teaching and learning.

Researcher: *Is the level 1 a big thing for you and how you're seen in the school as well?*

Teacher: I don't know if it is intentionally, but I feel that it is because it's the first time they're in school, so I haven't really got anyone else to blame it on, if you know what I mean. So, if they're not at level 1 by the end of the year...

Researcher: But they come in with such different backgrounds.

Teacher: They do, but I think it's like – if they're in year 2, it's, well, maybe they missed out on something in year 1 or year R, but now it's like, they're not at level 1? Why? Because what's happened in that year at school, because they learn so much in that first year the expectation is that they should reach level 1, especially where most of these children are from a very good background. You know, most are from stable homes where they're getting the there is the expectation to reach level 1 by the end of the year, so that they reach level 3 by the end of the SATs, so that we have.. you know.. it all goes back to the league tables and things like that. So, I don't feel pressure like if they don't I'm going to be in trouble, so to speak. (Interview 20.2.03).

The teacher guided and influenced the work of the LSA. The LSA felt that she had initially been influenced most by her college training in the Foundation Stage curriculum and her experiences in placements. In school, she followed the teacher's lead and watched the work of other LSAs when possible to help steer her. Although there was a friendly atmosphere amongst the staff, there was no LSA involvement in initial planning or decision making. The LSA did, however, provide the teacher with immediate feedback on how children managed with a set task, which the teacher might then incorporate in her next phase of planning. The LSA appear to be guided by the teacher's perceptions and by the whole school ethos, which were then incorporated into her own interactions with the children. These related to the need for adult direction, the setting of expectations for effort and output, and the differentiation of expectations based on perceptions of children's abilities. Child-initiated though adult-supported activity, heuristic play and collaborative learning did not feature heavily in this ethos.

What are the perceptions of teaching and learning evident in the provision?

In the classroom, children's independence and autonomy were tightly controlled within the curriculum framework. However, the style of one to one and small group interactions between staff (especially the teacher) and higher achieving children fostered their independence in carrying out adult-directed tasks. The teacher, and to some extent the LSA too, supported, facilitated and directed the children so that they were engaged in using their own cognitive abilities. The children's thinking and performance skills were stretched, but only within the parameters of the given tasks. This appeared to be different to Bertram's (1996) description of 'autonomy' in which it appears that children's own agendas have a more central role.

The less able children appeared to spend a little more of their time in more tightly controlled activities with less independence or collaboration encouraged when supported by an adult, evidenced in more detail in Chapters 6 and 7. They appeared to need more intensive support to complete the tasks, which were broken down into ever smaller parts. The aids to independence were sometimes beyond their independent use. For example, for children insecure in their phoneme/grapheme correspondence, laminated sheets of the alphabet were offered with pictures of onset phoneme objects. Some children used these quite successfully, but if a child was unsure of the grapheme and unable to isolate the initial phoneme of an object, it could be a very laborious process. The intended meaning and purpose of the 'writing' could soon become lost.

The perceptions of teaching and learning evident in the provision were consistent with the perceptions described by the teacher. This was of learning taking place through adult-directed tasks, guided by adult's use of questioning, language and encouragement. Learning was through individual cognitive engagement in a structured manner with a given task. It was not through self-directed play or discovery, through discussion in groups, or through joint problem-solving, with the exception of the role play area when a group of children were directed by the teacher

to re-enact the story they had been using in literacy, such as Little Red Riding Hood. In such instances, children could be heard negotiating roles, the use of props and the storyline.

What else influences provision?

Other than the teacher's underlying perceptions or principles of teaching and learning, several different influences could be seen affecting provision in the reception classroom. They ranged from the broader cultural abstract level in relation to the culture of teaching and learning in primary schools and what it means to be a good teacher, to the broad but concrete level of government policy and directives, to the local environmental level of the particular school with its necessary classroom arrangements, goals and local culture.

At the first level, some of the influences can be seen to have been based on a longer history of primary school teaching, particularly in relation to the 'school' discourse that clearly operates in this classroom and has been identified by people such as Willes (1983) and Sinclair and Coulthard (1975). A way of questioning children to prompt thought, monitor progress and maintain discipline was clearly in evidence in teacher to whole class, small group and one to one interactions. The concept of what it means to be a good primary teacher has historical roots, but more recent influences, too (Anning, 1991; Moyles, 2001, Davies, 2002). It includes having a well ordered, fairly quiet classroom in which children appear to be purposefully occupied, encouraging the children to be able to carry out tasks independently, to know and adhere to the school's routines and social rules, and ensuring the children's academic progress along clearly defined sets of learning outcomes. Again, these appear to typify the way in which this classroom was run.

At the second level, government policy was clearly in evidence in the National Literacy and Numeracy Strategies and the National Curriculum. These were evident in the provision and were referred to by the teacher in the interview in relation to the planning. However, what was far less in evidence was the influence of the Foundation Stage curriculum or the more recent government guidance on how to adapt the literacy and numeracy strategies to fit in with the teaching and learning of the Foundation Stage in reception because of the local school ethos. The guidance which suggests that the numeracy and literacy hours might usefully be divided into shorter sessions throughout the day and incorporated into play-like learning activities, though referred to in interview by the teacher, were clearly not practiced in this classroom. Here, there appeared to be a very distinct divide between work and play, with work being adult directed and the context for learning, whilst play was something allowed afterwards, less often used for achieving learning outcomes supported by adult involvement. However, over the year, linking the second and third levels, it became apparent that the teacher experienced the contradictions in trying to deliver both the Foundation Stage curriculum with its distinct ethos and the National Curriculum and Strategies with their influences on pedagogy. The contradictions became more apparent to the teacher as she attended in-service training on teaching in the early years, but nonetheless, the influence of the whole school ethos tied to the strategies remained the stronger of the two.

At the third level, the local circumstances of the school to which the class belongs can be seen to exert an influence on provision. The general ethos of the school, a throughprimary with classes of two year-groups mixed throughout the school, was influential; the reception children were seen as part of the whole school and were encouraged to become so as soon as possible. This included a whole school playground (although a smaller enclosed area was available to reception children until they felt confident enough to venture out), daily whole school assemblies, and lunch in two sittings in the main hall. In reception, the boundaries between school and home were clearly drawn. Key stage one children were encouraged to come into the school in the mornings from the playground alone. Reception children, too, as soon as they felt able and certainly by the Spring term, were to go into school without an adult, although an LSA waited at the door for them. Parents were discouraged from bringing children right into school and certainly into the classroom, unless there was a specific problem. Even then, because of the nature of the timetable, parents were encouraged to make an appointment to see the teacher after school if the issue was likely to take more than a minute or two to resolve. Parent helpers were not a routine part of reception pedagogy, except for out-of-school trips. That reception should be seen as the first class of school life rather than a distinct Foundation Stage in preparation for school helped to make a mixed reception/year one class for the older reception children an acceptable way of dealing with the practicalities of numbers and resources. It appears

352

from recent documentation, guidance and discussions at the government and county level (Primary PGCE guidance, County training plans for early years, local early years group meetings, discussion with head teacher) that the Foundation Stage, including reception was set to become a more distinct and separate phase to the rest of school. Consequently, this ethos may begin to change.

The influences on provision, it can be seen, were multifaceted. Anning (1991) maintains that such influences have little impact on what happens day to day in the classroom. Instead, she suggests that it is the teacher's values and beliefs embedded within the school culture that are the most influential factors in provision. To a large extent, it can be seen to be true for this reception class, though the impact of government directives relating to literacy, numeracy and testing could be seen to have become part of the school culture, affecting practice which in turn affected perceptions, values and culture.

What is the culture of interaction with the children with regard to purpose, initiation, response and structuring of interaction?

Interaction flowed from the planned whole class delivery of learning objectives, with attention given to specific vocabulary and questioning to involve the children. Though the interaction varied between whole class and small group teaching, it was almost always teacher controlled. In small groups, interaction tended to vary according to the group, with the lowest achieving groups receiving more adult control (evidenced in Chapter 5). In small groups, children were encouraged to use each other and the resources provided as tools to help them complete tasks independently, unless the small group was adult-led. The tasks were adult-set and rarely involved collaborative problem-solving. Instead, help from a friend was encouraged with regard to finding out what the task entailed or assisting each other with practicalities such as tying up aprons or asking where items could be found to avoid overloading the staff and distracting them from their work with a targeted small group.

The LSA was learning how to use the school way of interacting with the children by listening to the teacher and to other more experienced LSAs, when possible. The teacher commented favourably on the LSA almost mimicking the teacher's way of talking to the children when the LSA was supporting the lowest achieving children

during whole class teaching. In some respects, the LSA was moving away from her early years training and becoming a 'school' practitioner, something the teacher saw as a desirable shift.

Summary: reception sub-culture of pedagogy

What did staff ensure children were learning?

Whilst all round learning including development of the 'whole child', as specified in the Foundation Stage Curriculum, encouraged through structured play, were the goals for reception, the ones which were most emphasised in planning and in 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

How did staff facilitate learning?

The learning was facilitated through a model of curriculum delivery, followed by independent activity and assessment to ensure that the delivery had been successfully 'received'. The teacher instructed, modelled, questioned and assessed, with questioning and invited participation differentiated according to children's perceived abilities.

In this classroom, 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 flow was primarily from school to home although parents were invited to meetings to learn more about the curriculum and to individual meetings to discuss their child's progress. Information from home to school could be relayed through the child's reading diary,

notes or by parents making an appointment to see the teacher. However, parents were not regular visitors to the classroom or part of the classroom pedagogy, though support for school learning at home was expected with regard to reading and, later in the year, learning spellings. Insufficient or incorrect support by parents with these was frowned upon.

In class, there was a strong regulative discourse (way of behaving) 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 (way of learning) 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.

ii.2 Typical days in pre-school and reception.

Every day in pre-school or reception was different. Plans made had to be flexible in the face of the daily ups and downs of life in an educational setting with young children. Nevertheless, each had a routine and timetable typical to that setting, which formed the structure for the day's activities, and it is to these typical routines that I now turn to consider how the children in the study spent their time in the settings.

ii.2.1 A note on the data

Tables 4.1 and 4.2 show the typical daily timetables for a pre-school session of 2.5 hours and a reception day of 6.75 hours, giving a breakdown of how the routine activities were categorised. The figures are a compilation of several observation records (video notes and field notes from 13.11.02, 11.12.02, 9.1.03, 16.1.03, 14.5.03, 18.6.03) which were chosen for their unremarkable character in relation to the majority of the observations. The validity of the timetables as a true reflection of a 'normal' day in the settings was checked by staff. The reception teacher did comment

that she thought the 25 minutes for the whole group literacy input, which was the figure reached as typical for the dates above, looked rather long. This led me to check the details against other dates in the video data. Sure enough, a further review of the observation and video data from school for dates from 6.3.03 to 15.5.03 showed whole group literacy times averaging around 15 minutes and led me to alter the 'typical' time for this slot to 20 minutes. It was evident that the amount of time children spent in such work had been reduced over the year, possibly in response to the teacher's attendance at in-service courses on early years teaching, the influence of which emerged both in informal conversations later in the school year and partly in classroom practice, though more clearly in the plans for the following year.

Figures ii.1, ii.2 and ii.3 divide the time spent in the settings into 5 categories. Of these, one is really a sub-category in that **"Free choice' from limited selection'** has been sub-divided to show how much of that time was spent in what would be recognised in the British education system as 'playtime': outdoor play in the large playground supervised by, but not directed by, staff. Children were free to play any games they wished within the bounds of health, safety, resource limitations and consideration for others.

At pre-school, snack time has been categorised in the data as a **compulsory small group activity** because the children sat around small tables in pre-determined places and were encouraged to stay for the entire snack time, until an adult allowed the whole table to leave. At school, lunchtime is treated similarly and categorised as such. Drink/snack time at school, however, entailed the children sitting on the mat in a spot of their choice. This has therefore been included in **'routine maintenance /shifting** /**refreshments'** as it was neither small group nor compulsory. Other variations in the timetables occurred over the week and throughout the year. The nature and implications of these are discussed below.

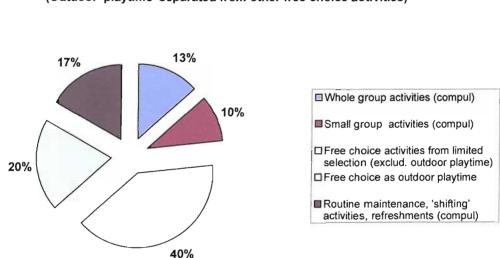
ii.2.2 Organisation of the day: structuring learning opportunities

The most striking difference between the two sets of data is clearly in the *amount* of time spent in the setting in a typical day. Whilst clear from Tables ii.1 and ii.2, this can easily be forgotten when reviewing the charts in which only the *percentage* of time on each category of activity is revealed. The implications of the timings should

be borne in mind when assimilating the data. The children at school had far fewer hours and remarkably less energy left available to them each day in which to pursue other activities, interests, relationships or just to recover from the demands of being in the setting. This emerged as a noteworthy point in the observations, particularly in the first half of the academic year when children at times looked tired in the afternoons found it more difficult to comply with tasks, to manage the rigors of being with so many people, or expressed a desire to be at home or with their parents. It was something also commented on by three parents in interview (Chapter 4, section 4.3).

Pre-school

Figure ii.1



Pre-school - typical session (Outdoor 'playtime' separated from other free choice activities)

At pre-school, the largest of the five categories was 'free choice from a limited selection' which accounted for around 40% of the session (Figure ii.1). As can be seen from Table ii.1, this was organised into one long slot at the beginning of the session. Children were free to come and go from activities as they pleased; they chose their own companions, though this in itself could be problematic and was by no means a smooth, simple self-selection, but was influenced by children's positions in friendship and gender groups (see also Chapter 5, section 5.3). Within the context of 'free choice', there were some 'persuaded' activities. These often related to a craft item, particularly if for a special occasion, or time with the child's key worker carrying out play tasks or worksheets to enable the key worker to complete observations.

Table ii.1:	Typical	routine	at	pre-school
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Time of day	Activity	Time on whole group compulsory activities (mins)	Time on small group compulsory activities (mins)	Time on 'free choice' activities from limited selection (mins)	Time on routine maintenance/ 'shifting' activities – comp. (mins)
9.30 – 9.35	Sign in, name card in basket				5
9.36 - 10.35	Free play			60	
10.36 – 10.40	Tidy up				5
10.41 – 10.50	Registration	10			
10.51 – 10.55	Lining up, hand washing				5
10.56 - 11.10	Snack time		15		
11.11 - 11.15	Coats on, lining up				5
11.16 – 11.45	Outdoor play			30	
11.46 – 11.50	Tidy up, come in				5
11.51 – 12.00	Whole group songs/ game	10			
TOTAL		20	15	90	25

	-	able ii.2: Typic		ception	
Time of day	Activity	Time on whole group activities in mins (compulsory)	Time on small group activities in mins (compulsory)	Time on 'free choice' activities from limited selection in mins	Time on routine maintenance/ 'shifting' activities/refreshments in mins (compulsory)
8.45 – 8.55	Coming in, dealing with belongings, sitting on mat				10
8.56- 9.05	Registration	10			
9.06 – 9.10	Brain gym	5			
9.11 – 9.30	Whole class numeracy input	20			
9.31 -35	Explanation & allocation of activities				5
9.36 – 9.50	Small group numeracy activities		15		
9.51 – 9.55	Tidy up				5
9.56 – 10.00	Brief plenary & prep for assembly				5
10.01 – 10.20	Assembly	20			
10.21 – 10.40	Playtime, including coming in and out			15	5
10.41 – 10.45	Drinks				5
10.46 – 11.10	Whole class literacy input	20			
11.11 – 11.15	Activity outlines & allocation				5
11.16 – 11.30	Small group literacy		20		

Table ii.2: Typical routine in reception

	activities				
11.31 -	Tidy up				5
11.31	l indy up				
11.36 -	Whole	5			
11.40	group lit				
11.10	plenary				
11.41 -	Handwriting	10			
11.50	practice	10			
11.50	Preparation				10
12.00	for lunch				10
12.00	time				
12.01 -	Lunchtime		30		
12.30	in hall				
12.31 -	Outdoor			45	
1.15	play				
1.16 -	'Quiet'	20			
1.35	reading,				
1100	changing				
	books				
1.36 -	Whole class	20			
1.55	input e.g.				
	geography				
1.56 -	Allocation /				5
2.00	'choice' of				
	activities				
2.01 -	Small group		(20)	(20)	
2.20	activities*				
2.21 -	Tidy up				5
2.25					
2.26 –	Playtime,			15	5
2.45	including				
	coming in				
	and out				
2.46 -	Whole	15			
3.00	group input				
	e.g. PSHE,				
	'circle time'				
3.01 -	Activities			15	
3.15					
3.16 -	Tidy up				5
3.20					
3.21 -	Preparation	(5)			10
3.30	for home				
	(might				
	include				
	story)				
TOTAL		145	65 (85)	90 (110)	85

Key: * In this part of the day, the activities are sometimes compulsory and sometimes allow more choice.

In each of these, however, the child had the final say as to whether or not she or he wanted to be involved. In addition, children whose play was deemed too boisterous, noisy or potentially dangerous (usually a small group of boys) were again 'persuaded' to become involved in a more sedate activity, at least for a short while. During the 'free play' part of the session, a range of activities were set out for the children's use with the aim of offering all areas of learning from the Foundation Stage curriculum, if not on a daily basis, then certainly over the course of the week. Choice from these was generally an individual matter for the children, though often influenced by friendships and staffing. Although in their planning, staff did refer, for example, to the maths activity and the FSC areas of learning, the curriculum was not divided into subjects in its presentation to the children.

Outdoor playtime was something the children, especially the boys, looked forward to, although some children chose to potter indoors occasionally instead. Up to 24 children used the reasonably large playground, fenced and gated, for a combination of gross motor skills and socio-dramatic play. Scooters, tricycles, go-carts, prams, pushchairs, balls and tractors were all available together with road signs, a petrol pump and basketball net. Complex games of family life, dragons behind the building and superheroes ensued, watched over by three members of staff, who sometimes acted as props and supports, but usually as negotiators, peace-keepers and providers of first-aid.

Compulsory activities at pre-school, amounting to 30% of the time and divided into 3 categories and 8 time slots over the session, tended to be centred on routine maintenance tasks such as registration, snack time, or grouping for a song before going home as well as tidying and lining up. In addition, these slots were used as opportunities to practice the recognition of children's written names, colours, shapes and numbers, and to a lesser extent, the recognition of graphemes.

In pre-school, the children were not grouped according to age or ability. The only compulsory groupings (for snack time) were mixed in terms of age, gender and achievement and were based on the groups attached to a key worker. The same groups were sometimes used loosely by key workers to take a group into the quiet room for play tasks related to observations, but other children were free to join them -

and frequently did- whilst some from the group would choose not to take part. The groupings, then, were weakly framed (Bernstein, 1996) and the curriculum content weakly classified.

Reception

Figure ii.2

Reception - typical day 1 (more 'free choice' tasks, 'playtime' separated from other 'free choice' activities)

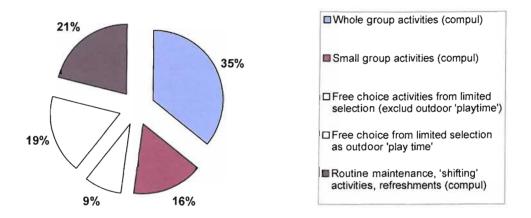
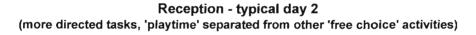
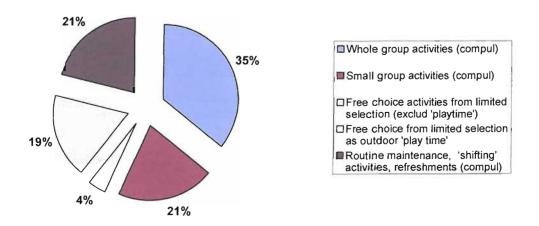


Figure ii.3





A striking difference between pre-school and reception was in the length of time spent on whole group compulsory activities, a figure of 35% for school (Figures ii.2 and ii.3). This was the space in which much of the direct teaching took place and, as can be seen from Table ii.2, it was split into 10 or 11 slots throughout the day. Of the 150 minutes on whole group activities each day, around 20 minutes was spent in 'silent reading', changing reading books and sometimes reading individually with the teacher or LSA, clearly more individual activities. However, this was a small proportion of the time spent in 'whole group compulsory' which were generally characterised by the whole class listening to and taking part in a structured activity led by the teacher.

In school, the children spent considerably less time in 'free choice' activities, between 23% and 28% for school compared to 60% in pre-school. Of this time, the majority was in the form of 'outdoor playtime' (19%). During school playtime, the ratio of supervising adults to children was low (between 2 and 5 adults for a school of over 200 children) and children had access to a limited range of resources, though they were allowed to bring small toys from home. There was a slide, seating areas, and a box per class of balls, bats, hoops and similar equipment. Although there was a very small separate, fenced playground for the reception children, this was only used at playtimes for the first part of the autumn term. It was then decided that the children were 'ready' to venture into the large playground, a decision based partly on the fact that the small play area was in fact too small to accommodate all the reception children safely (field notes: informal discussion with teacher). The option of staying in the small playground was removed shortly afterwards. Children were generally not allowed to choose whether or not to go out to play, although on only a few occasions early in the year did I observe two children showing reluctance. Most were enthusiastic about playtime. The four year olds at school, then, spent their playtimes, which constituted a large proportion of their 'free choice' time, in a large space with over two hundred other children aged up to 11 years with relatively low levels of adult supervision.

The amount of time available to children in school as 'free choice' activities other than 'playtime' varied from around 4% to 9% of the time in a usual day. The additional free time was usually available in the afternoon when children would be asked to select from a range of around five activities offered by the teacher, with the children's choice based partly on a first-come-first-serve basis, but tempered by the teacher choosing children from those with their hands raised. Some swapping around and the choice of a further activity was possible later if time allowed. The activities on offer were displayed on the notice board. For a while, this was referred to by the staff as Plan, Do, Review, but in reality the 'planning' was carried out by the teacher with children simply making their choice known, and the 'review' didn't appear to happen at all when I was present, though the teacher did say that sometimes they would have a brief group discussion about what they had been doing. On other days, the afternoon sessions would instead involve the children in small group compulsory tasks, for at least some of the time, related to geography or history or some other curriculum area which needed to be slotted into the timetable.

With the day split into many small parts, the constant need to tidy up, shift activities, line up and move around meant that a higher proportion of their time, around 21%, was spent in 'shifting' or routine maintenance activities than in pre-school. Whilst this provided short bursts of activity and so fitted well with a model of children as having short attention spans and requiring constant change, it also emphasised a timetable shaped by a curriculum divided into subjects. The constant changes were experienced by some children as very frustrating when they felt insufficient time to become immersed in and complete a task (Lydia and Robert), or by others as a source of great relief that the literacy or numeracy or handwriting were quickly over (Paul and Tom).

During the small group compulsory activities in school, the children were grouped in compulsory groups according to the teacher's assessment of their abilities. The groupings were non-negotiable. Some slight changes did occur in the groupings over the year, though they remained fairly static. The groups were ostensibly different for literacy and numeracy, but in reality there was a tremendous amount of overlap. The groups were labelled in class by a shape or symbol. In the teacher's planning, they were referred to as Above Averages (AA), Averages (A) and Below Averages (BA) for the purpose of devising tasks to suit their learning needs, in line with Government directives urging clear differentiation in teaching (for example, DfEE, 1999c:30). The ability groups were also sometimes used for allocating tasks in the afternoon sessions, leaving little time during the day except at outdoor playtime for children to choose

their work or play companions. However, unsurprisingly, many children appeared to form friendships within their groups. The groupings were, then, strongly framed (Bernstein, 1996).

Variations in the timetables

There was little apparent variation in the **pre-school** timetable over the week, though clearly activities were varied. The exception to this was perhaps on Wednesdays when a morning session followed by an afternoon session meant less pressure to 'tidy away' in the morning. This could mean that more alternative resources were available to a child in the morning if the child did not wish to play outside. However, adults were usually willing to find alternatives for a child if requested anyway, though the possibilities may be more limited if everything had already been stacked in the overfull cupboard.

There was also little apparent variation over the year in pre-school. At Christmas, a little more time was spent in whole group singing in preparation for a low key performance of Christmas songs to the parents at the Christmas party. The party itself, like the summer outing, involved *all* of the children on the register from all sessions who wished to attend, and offered a very distinct change to the usual programme. They were so different, however, with parents present and responsible for their own children, that they really presented a separate adjunct to the timetable, rather than a variation to it.

Another more subtle variation was that in the summer months, the children spent more time in outdoor activities. This generally meant a shift of the indoor activities to a sectioned off part of the playground. It did not mean an extended period of the usual outdoor 'playtime' with wheeled toys, nor usually the use of natural resources or local environment as learning tools. It did however mean the possibility of more large scale, active and 'messy' play such as water, sand, and large scale painting, with 'noisy' play impinging less on others and therefore less likely to be constrained.

In **reception**, the timetable varied rather more over the week, though literacy and numeracy were quite stable features of the day. On one morning, the class would be split into two. One group would be taken by the teacher to the ICT suite at the far end of the Key Stage 2 end of the school, whilst the other would stay with the LSA in the classroom to read and change reading books. The groups would swap activities half-way through the first session. On another morning, part of the pre-lunch period would be taken up in physical education, either in the hall or outside on the playground. This was a highly structured affair with all children required to change into their PE clothing, to find their belongings and change back successfully afterwards, a cause of anxiety for some of them in the early part of the year. It often involved being split into groups and moving around the equipment in the hall, waiting in line for a turn and carrying out the activity demonstrated by the teacher, or taking part in ball control exercises or team relay-style games, again all highly structured and controlled by the teacher according to a PE programme. This was in very sharp contrast to physical activity at pre-school, which was not treated as a separate subject, but where children climbing, jumping, crawling through tunnels, cycling and developing ball skills were an integral part to a session's routine, without any requirement for special dressing or undressing.

Over the year, the routine also varied. Although my records show that the whole group part of the literacy strategy input was generally around 25 minutes in the first term, there were times when the teacher expressed a desire to miss out the whole class input in an attempt to make the activities relating to literacy and numeracy more integrated throughout the day. However, in spite of my being at school for a day each week (later in the year, for half days), I only observed this happening once except when the class were involved in performing an assembly or play to the school and parents and needed time for rehearsals. In fact, it was later made clear to the reception staff that distinct literacy and numeracy hours were required by the school. As already noted, it was apparent that the length of the whole group input did shorten in the second half of the school year.

Towards Christmas, more time was spent on rehearsing for and finally performing the school play to which parents and pre-school children were invited. This, together with the two class assemblies performed by the children in front of their parents and the rest of the school, was a major vehicle for the creation of a group identity and team spirit amongst the children. Perhaps too young to feel self-conscious, it was something they very much enjoyed; their faces glowed with pleasure as they sang and

acted with great gusto, even improvising quite skilfully in response to the audience's reaction. It was at this time of year, as pressure and excitement mounted, that a more relaxed approach to activities also occurred in between the 'must do' agenda. It was at this time, one of the few times in the observations, that the teacher sat alongside children on the floor and played with them in an unstructured, non-controlling manner, modelling and offering assistance, nonetheless (field notes, 19.12.02).

As in pre-school, the reception class made greater use of the outdoor space in the later part of the school year. This tended to be as a location for small group activities more suited to outdoors such as riding tricycles, water play or building with the large scale building blocks, and was generally in the small enclosed play area adjacent to the classroom. However, other activities did include potting out sunflowers, which had been grown by the children from seed, and touring the school grounds with the teacher and LSA to look for signs of spring's appearance.

Summary: typical days

There were clear differences in the structures and routines shaping the children's time in the two settings. The differences were perhaps exemplified by the ways in which Physical Education or activities to promote physical development were organised in each.

Four year old children's time in reception was far more controlled than that of children in pre-school. School presented a strongly classified, tightly framed regulative and instructive discourse, even in reception, with a visible pedagogy (set subject-based lessons, visible timetable, set groupings, whole class teaching). 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.

Pre-school, by contrast, was loosely classified and loosely framed, with a far less visible pedagogy which appeared to blend more with the local community 'family' ethos than with other educational establishments, except like-minded pre-schools.

ii.3 Summary and conclusion: learning environments

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

- The interpretation of what is meant by curriculum and how this impacts upon practice; is it something for which to provide opportunities, in which to ensure participation, or of which to ensure achievement?
- The starting points and main emphases for planning; the children's current levels of achievement, broad areas of interest as themes, or specific learning objectives with learning outcomes?
- 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 pattern of interaction between adults and children in each setting, the link to underlying beliefs of teaching and learning and the impact upon the children.

There appears to be a continuum of curriculum interpretation and provision ranging from a focus on *opportunity* to *participation* and on to *achievement*. The key to where a setting positions itself with regard to these seems, in part, to be externally imposed assessment requirements.

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 outlined in the chapter. Bertram (1996) refers to this as 'engaging', for which he describes three elements: stimulation, autonomy and sensitivity. Evidence from my fieldwork suggests that 'stimulation' is synthesised from more specific aspects:

Extending: in which the adult 'ups the ante', to use Bruner's phrase, by raising expectations, increasing the child's responsibility in a task or the difficulty of the task, in effect keeping it within the 'zone of proximal development'

Enriching: in which the adult adds information, adds a requirement for combination of skills, demonstrates, or draws the child's attention to linked ideas.

Exploring: in which the adult helps the child to clarify understanding and meanings through discussion, questioning or activity.

Practising: in which the adult encourages the practice or rehearsal of current skills to develop the speed, level, or automaticity.

Encouraging: in which the adult praises effort, outcome, or perseverance.

Assessing: in which the adult provides feedback against a set standard or set of expectations (implicitly or explicitly).

In pre-school, in Stage 1, staff most often appeared to use the practising and encouraging elements with some enriching and exploring, but with less evidence of extending and assessing. This is supported by more detailed analysis of Patterns of Interaction in Chapter 5 and is consistent with the pre-school staff's perceptions of learning as being largely developmental and at the child's own pace. In reception, of these, staff more often appeared to use extending, practising and assessing, (again, further evidenced in Chapter 5), consistent with the model of teaching and learning as curriculum delivery, independent structured activity and assessment.

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. In these, a cluster of Foundation Stage providers from schools and pre-schools met termly to discuss common issues. I attended two meetings of the local group, which included reception teachers and sometimes head teachers or heads of Key Stage 1 of two schools, and staff from two pre-schools. (Representatives of both of the study settings attended these meetings, which were held in the school of the study.) The meetings were led by the schools; schools set the agenda, controlled the delegated funding to finance them, chaired the meetings, and the implicit hierarchy reinforced rather than blurred distinctions between the 'two levels' of the Foundation Stage.

Evidence presented on Typical Days in the two settings gave details of how the pedagogic sub-cultures were enacted in the organisation and structuring of time and resources. It raises 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 is supported or guided by an adult; children's differential uses of and

reactions to what is offered or made compulsory in the timetable; and the issue that *attendance at* an activity is not the same as *involvement in* an activity. Children may well be following the expected rules of participation without being cognitively or personally involved.

Appendix iii: Assessment categories and criteria for grading

Key: Black font indicates description of grading level. Red font describes how assessments were carried out by me with children. Blue font indicates comment on how assessment was carried out by teacher.

Personal:

- 1: Joins in activity when encouraged;
- 2: Settle for 5 mins before moving on;
- 3: Complete directed activity and find resources;
- 4: Concentrate on activity for 10+ mins no supervision & start to tidy away;
- 5: Complete activities independently & begin to organise self for next.
- 6: Initiate activity, select and use resources independently.

7: Begins to understand that self-chosen tasks need to be completed in given timescale.

Social:

- 1: Observes children at play;
- 2: Solitary play, parallel play, and/or interacts with adult in play;
- 3: Plays co-operatively with chosen friend(s);
- 4: Participates in group activity taking turns;
- 5: Initiates interactions with familiar adults and peers.
- 6: Initiates interactions with unfamiliar adults/peers;

7: Copes with minor disagreements with friends

Counting:

1: Joins in counting songs;

2: Say numbers 1-10 in order;

3: Recognise 3 written numbers 0-10, 2 of which were over 5; (Used set of individual cards with hand-printed numbers)

- 4: Sequence number cards 0-10;
- 5: Recognise 3 numbers 11-20 out of sequence, recite numbers 0-20.
- 6: Recognises, counts, orders, writes and uses numbers up to 20.

Number:

1: Can match using one-to-one correspondence; (using set of Lego bricks and 6 Lego people, asked child to give one brick to each man)

2: Counting objects in sets ranging from 1-5; (Asked child to give Lego person 2 bricks, then give another person 4 bricks)

3: Select 6+ objects from larger set and say how many in their set; (Gave set of bricks to mother. Asked child to take 6 bricks from mother. Asked child to say how many s/he had)

4: Awareness of subtraction & addition in meaningful context, e.g. story problem; (Set out Lego person with 2 bricks in front of it and 1 near to it. Asked child: 'If this person has 2 bricks here 1 over here, how many does he have all together?' Then place the 3 bricks together and ask 'If we take 2 of these bricks away, how many will the person have left?'

5: Add, subtract in meaningful context and represent work with objects or pictures. (similar to above but using 2 and 3 bricks respectively and only setting out pieces of initial problem, leaving child to move pieces or calculate without using bricks as they choose, but then asking them to show me 'How did you know' when an answer was presented.)

6: Uses range of strategies for addition and subtraction, including some mental recall of number bonds. (Presented following story problem verbally only, leaving child to attempt strategy.

'This Lego person wants to build a garden wall and a house. He needs 3 bricks for the wall and 4 for the house. How many bricks will he need altogether?' After attempt: 'Can you tell me how you worked it out?'

Speaking / listening:

Drew on observations in setting. Also in home visits, prompted discussion about recent events – day at school/pre-school, holidays, outings, what they think a new child coming into their setting would need to know.

1: Communicates non-verbally;

- 2: Listens 5-10 min story, answering simple questions with single word or phrase;
- 3: Use phrases of 6-8 words consistently;
- 4: Listen to others, respond appropriately in sentences;
- 5: Recount event in sequence using descriptive language.

6: As above, but showing awareness of listener, relevant detail, increased vocabulary.

Reading – Visual/ behaviour:

(Asked child to find favourite book at home to show to me.)

- 1: Handle and look at books (correct way up, turn pages 1 by 1);
- 2: Comment on with some accuracy content / play read (no accuracy required);

3: Demonstrate print carries meaning (e.g. retell story using pictures, notice familiar letters in text, match some commonly seen words);

- 4: Recognise familiar words, predict what happens next;
- 5: Read simple repetitive text with some understanding.
- 6: Reads books of own choice with some fluency and accuracy

Reading – Letter knowledge:

(Used clearly hand-printed copy of child's name on card.)

1: Recognise initial letter of own name;

2: Recognise own name;

3: Recognise 5 letters by shape giving name *or* sound; (Used sheet of clearly hand-printed alphabet. Gave to mother to go through with child in my presence, seeing which the child recognised. Mother generally pointed at each letter in turn an asked for a response or if few were known, pointed to those most likely to show success. I prompted for 'name' or 'sound' as necessary.) (At school, in one of the initial assessments I observed, teacher placed all letter cards of alphabet on floor, scattered randomly with some at angles to the child, and asked child to pick out any s/he recognised. Teacher did prompt with a few likely ones when there was little response.)

4: Recognise 10 letters by shape giving name & sound;

5: Recognise 20+ letters by shape giving name & sound

6: Uses knowledge of letters, sounds and words when reading and writing independently.

Reading – phonology:

- 1: Locate sound in room;
- 2: Indicate syllables in given words (1,2 or 3);
- 3: Recognise 2 words that rhyme out of a given 3;
- 4: Match 3 out of 4 pairs rhyming objects;
- 5: Recognise initial sounds of words

Writing:

(Sought examples from pre-school, school and home. Discussed with key-worker/teacher and mother; asked child to attempt to spell simple words (cat, dog, hat) using phonic knowledge if any indication of likely success.)

1: Make random shapes on paper;

- 2: Understands that writing is different to pictures;
- 3: Can demonstrate that writing conveys meaning, can write 5 letter shapes, not copied;

4: Can write showing emergent knowledge of phonemes and read back *and/or* write 2 words, not own name;

5: Can use at least 3 familiar words and most initial phonemes correctly.

6: Communicates meaning through simple phrases and simple sentences with some consistency in punctuating sentences.

Handwriting:

As above. Asked for demonstration or examples of any letters or words child could write. 1: Can scribble with writing implement;

2: Can draw line left to right across page in lines 1cm apart, trace over handwriting patterns or name;

3: Can copy own name, write name with use of upper & lower case letters;

4: Can write 5 letters correctly shaped;

5: Can write familiar words with correctly formed letters

Drawing person:

1: Basic representation of person, circle, may have lines for limbs or simple face;

2: Head/body/arms/legs/some facial features;

3: As 2 but with additional features (fingers, hair), arms/legs approximately correctly positioned;

4: As 3 but with more features such as clothes, ears; more detail e.g. clothes.

5: As 4 but with joints, detail in clothing, maybe in profile.

Appendix iv **Categories of adults' interactions** D: Adult/large group E: Adult/small group F: Adult/ The adult:

F: Adult/one child

	Code	Category	Description
	(Prefix		
	with D , E ,		
	or F as		
	above)**		
Cognitive/	1	Instructs/ explains/	Adult explains what is expected
Monitoring/		disciplines	or how to carry out a task
Maintenance			5
	2	Maintains routines	Adult gives directions to maintain
			routines or carries out routines
			verbally, e.g. register, lining up.
· · · · · · · · · · · · · · · · · · ·	3	Assesses	Adult provides feedback against a
		115505505	set standard or set of expectations
			implicitly or explicitly.
	4	(Re)focuses	Adult draws child/ren's attention
	, '+	child/ren's	
			(back) to encourage on task
0	F _	attention *	behaviour.
Cognitive	5a	Stimulates	Adult 'ups the ante' by raising
		- extends	expectations, increasing the
			child/ren's responsibility in a task
			or the difficulty of the task.
	5b	- enriches/ informs	Adult gives new information, asks
			for a combination of current
			skills, demonstrates, or draws
			child/ren's attention to linked
			ideas.
	5c	- explores	Adult helps the child to clarify
			understanding and meanings
			through discussion, activity or
			questioning.
	5d	- reinforces/	Adult repeats idea, information, or
		reflects	skill development possibly in a
			different form to help reinforce
			learning. Or adult asks child to
			reflect on what child has said or
			done, or paraphrases for the child.
			Differs to 'practising' in that it
		,	may not involve a currently held
			-
	5e	mantiana	skill or knowledge item.
	56	- practises	Adult encourages the practise or
			rehearsal of current skills or
			knowledge items to develop
a • · • ·			speed, level, or automaticity.
Cognitive/	6	Models desired	Adult behaviour, speech or
Social		actions or speech	actions provide children with an

			example of what is expected or what is possible.
	7	Initiates joint- involvement	Adult invites or tries to entice child into participating in activity with the adult or adult joins in with child's activity.
	8	Absorbed in joint activity with child	Adult takes part in an activity shared with child.
	9	Enables (offers/responds to request)	Adult offers or responds to request for enabling support for child/ren to set/achieve own or adult-set goals, or to achieve successful performance of task.
	10	Listens/observes	Adult does not participate, but watches and listens.
Social/ Cognitive	11	Encourages	Adult praises effort, outcome or perseverance.
	12	Expresses concern for child/ren's well-being	Adult demonstrates concern for child/ren's physical, social or emotional well-being, perhaps by questions, suggestions or by offering affection (includes safety).
	13	Initiates conversation with child/ren	Adult shares experiences, ideas, comments or questions with the child/ren that do not relate to any other specific teaching objective.
	14 (p/n)	Responds (pos/neg) to child initiated conversation.	As above in response to same from child/ren.

Notes:

* Refocusing (category 4) and discipline (category 1) relating to not paying attention differ in the nature and tone of the interactions and in the implication of embodiment of power. Refocusing is a more enticing, suggestive type of interaction open to refusal and leaves the final decision with the child. When an adult demands the child's on task behaviour and no negotiation is implied, this is categorised as Instructing/Explaining/Discipline (cat. 1).

** The code for grouping refers to the *context* of the interaction. Many interactions during a whole group input, for example, may be addressed to a specific individual, but for the purposes of coding these would be included as adult to large group interactions.

Appendix v Categories of children's interactions

All categories o	f interaction	mav involve	verbal or	non-verbal	communication.
All culceor as of	inter action	11000 000000	,	-	

Focus	Broad	Code	Function	Description
	category			
	Support seeking	A1	To achieve own goal	Child turns to adult for specific information, clarification or assistance to enable child to continue successfully with activity.
		A2	To achieve adult set goal	As above
		A3	To aid understanding	Child turns to adult for information or clarification to enable understanding, for example of the purpose of an activity.
		A4	Seeks adult feedback	Child attempts to obtain evaluative feedback from adult on action or product.
		A5	Seeks joint involvement from adult	Child invites or tries to entice adult into participating in activity.
		A6	Seeks or gives affection	Child seeks physical comfort from adult perhaps by holding hands, sitting on lap.
	Support offering	A7	Offers information, suggestion or conversation to adult	Child offers these on own initiative.
		A8	Offers assistance to adult	Child offers to help adult in some way on own initiative.
	Responsive /collaborative	A9	Accepts information or support offered to achieve goal.	Child's subsequent behaviour shows acceptance and some use made of the support offered.
		A10	Responds (positively) to adult feedback.	Child's following actions / expression/ articulations are based on adult's evaluative feedback, indicating a positive response.
		A11	Responds (negatively) to adult feedback.	Child's following actions / expression/ articulations are based on adult's evaluative feedback, indicating a negative response.

	A12	Responds to	Child's following
	1114	adult	actions/expression/articulations
	I	direction/request	are based on adult's
		(positively)	direction/request indicating a
			positive response, for example,
			attempts to carry out request.
 	A13	Responds to	Child's following
		adult	actions/expression/articulations
		direction/request	are based on adult's
		(negatively)	direction/request indicating a
			negative response, for
			example, refusal, signs of
			unhappiness.
	A14	Absorbed in	Child takes part in an activity
		joint	shared with an adult where
		involvement	both have a part to play.
		with adult	
 In adult-led	A15	Listens to	Child may, for example, be
group activity		/participates in	listening to and taking part in
		adult-led large	registration, weather time,
		group activity	'days of the week' song with
	_	(routine)	the whole group.
	A16	Listens to	Child may, for example, be
		/participates in	listening to and taking part in a
		adult-led large	story, songs, a literacy (or
		group activity	other curriculum area) input by
		(non-routine)	an adult with the whole group.
	A17	Volunteers to	Child calls out or indicates
		contribute alone	desire to answer/perform alone
		in the large	in relation to the whole group
	l 	group activity.	activity.
	A18	Requested by	Child is requested by to
		adult to	answer/perform alone in
		contribute alone	relation to the whole group
		in the large	activity.
		group activity.	
	A19	Participates in	Child takes part in, for
		unison with rest	example, group singing,
		of large group	counting, group response to
			question, chanting in line with
		T • .	expectations placed on group.
	A20	Listens to	Child may, for example, be
		/participates in	listening to and taking part in a
		adult-led small	small group game, counting
		group activity.	activity, craft activity.
	A21	Volunteers to	Child calls out or indicates
		contribute alone	desire to answer/perform alone
		in small group	in relation to the small group
 		activity.	activity.

		A22 A23	Requested by adult to contribute alone in the small group activity. Participates in	Child is requested by to answer/perform alone in relation to the small group activity. Child takes part in, for
			unison with rest of small group	example, group singing, counting, group response to question, chanting in line with expectations placed on group.
Child to child(ren)	Collaborative	B1	Seeks joint involvement by suggestion	Invites or entices others into joint activity by making suggestions to other children.
		B2	Seeks joint involvement by making a request	As above but asks permission or, for example, requests joint use of resources.
		B3	Seeks joint involvement by following other's lead or joining in	As above but, for example, does so by following other children's movements, taking on a role in their play, carrying out actions as directed by others.
		B4	Seeks joint involvement by initiating conversation or non-verbal interaction	As above but, for example, by shadowing, responding non- verbally to other children's actions, making initiating actions or conversation.
		В5	Responds (positively) to attempts by other child/ren to initiate joint involvement.	Child responds positively to other child/ren's use of devices listed above to try to encourage joining in.
		B6	Responds (negatively) to attempts by other child/ren to initiate joint involvement.	Child responds negatively to other child/ren's use of devices listed above to try to encourage joining in.
		B7	Absorbed in joint involvement with other child/ren	Child is absorbed in joint activity with others which is sustained through interaction and / or attempt to reach goal.

		B8	Negotiates for	Child uses attempts at tact and
		00	space /resources	consideration of others whilst
			/status	being assertive about own
			/friendship	needs or desires.
			(positively)	needs of desires.
		 B9	Negotiates for	Child does not apply tact or
	r.	D9	space /resources	consider feelings/needs of
			/status	others when asserting own
			/friendship	needs or desires. Maybe
			(negatively)	aggressive.
	Evaluative	B10	Corrects or	Offers evaluative feedback or
	Evaluative	010	supports other	assistance to peers.
			children	
		B11	Seeks peer	Tries to elicit evaluative
			feedback or	comment or assistance from
			support	peers.
		B12	Responds to	Child's following actions /
	r		peer feedback or	expression/ articulations are
			support	based on peer feedback or
				offered assistance
	Companionable	B13	Absorbed in	Child is involved in individual
	Companionable	212	parallel activity	activity companionably
				alongside others carrying out
				similar activities.
		B14	Listens to	Child's attention shifts from
			/observes others	own activity to that of
				(companionable) others.
		B15	Responds	Responds willingly to other's
			(positively) to	initiations, not as an attempt to
			other's attempts	initiate joint involvement, but
			to initiate	perhaps whilst engaged in
			conversation or	individual activities alongside
			non-verbal	others, or whilst taking part in
			communication	routines (register, lining up,
				snack time).
		B16	Responds	As above, but response
			(negatively) to	indicates child's unwillingness
			other's attempts	to be drawn into
			to initiate	communication.
			conversation or	
			non-verbal	
			communication	
		B17	Initiates	Not as an attempt to initiate
			conversation or	joint involvement, but perhaps
			non-verbal	whilst engaged in individual
			communication	activities alongside others, or
				whilst taking part in routines
				(register, lining up, snack
				time).
Child	Epistemic*	C1	Selecting from	Child is absorbed in solitary
Child	Epistemic*		Selecting from	Child Is absoluted in Solitary

alone			and using	activity which
			resources to	may involve fantasy play or
			meet own goals	trying to achieve self-chosen
				outcome.
		C2	Problem-solving	Child appears to be actively
			_	trying to find a solution to
				some difficulty in a task.
		C3	Interacting with	Child is using the resources to
			activity	try to achieve a pre-set goal.
			resources to	Goal may be set by nature of
			achieve 'closed'	resources e.g. Jigsaw puzzle,
			goal	tracing card, or may have been
			8-11-	pre-set by adult.
		C4	Evaluates own	Verbal or non-verbal
	1		performance	behaviour indicates an
			P	evaluation of child's own work
				or performance.
	Ludic*	C5	Explores	Child may be exploring the
	Lucio		possibilities	properties and possibilities of
			possion	resources, of own physical
				skills, and of own expressive
				means.
	Horizon	C6	Drifts	Child wanders around room
	scanning			observing others, looking at
				resources before settling to
				next activity.
		C7	*Listens to	Child's attention shifts from
			/observes others	own activity to that of others.
				*Differs to listening/ observing
				under child to child
				interactions in that child is not
				observing <i>companionable</i>
				others in similar activities
				Unicis in similar activities

* Adapted from Moyles (1994: 8)

Appendix vi Further examples of children's trajectories

Tom: a disrupted trajectory into reception

Tom lived with his mother and, for some of the time, with his two half brothers, aged 11 and 15. Tom's mother juggled persistent ill-heath, three children and part-time clerical work. Difficulties spilled over from time to time into the relationship with school with the result that Tom was frequently late, occasionally came without his lunch, didn't have the correct equipment, forgot to return forms, or pre-arranged parent/teacher meetings were missed. Likewise, the early home visit by the teacher and LSA had been impossible to arrange, so the home/school interface was a contentious area. Staff appeared to have formed a particular view of Tom's mother based on these experiences.

His mother's concerns for Tom were evident in relation to his hearing, something that had been highlighted as a possible problem in nursery, attention drawn to it by concerns about Tom's speech. She had followed up it up previously with little effect and was now following it up again. By the summer term, towards the end of his reception year and following screening by the school nurse, there was talk of a possible operation to have grommets fitted. In the first home visit, Tom's mother expressed pride and pleasure in her son's progress at nursery, describing him as a very bright, chatty and quite determined little boy.

He's the most tenacious out of the three. He likes to rule the roost and get his own way...He's very bright, ever so bright, very bright...He loves colouring, he loves reading. (5.11.02; home visit interview with mother)

She described his interest in animals and his skill and interest in creating models and art work. She showed me a clay model of a hamster in a cardboard nest that he had made and painted at nursery some time previously. Of Tom she noted:

He can be very articulate when he wants to be. He can be a chatterbox...he's more comfortable at home. (5.11.02; home visit interview with mother).

This was in contrast to the school's quickly formed perception of him as possibly having a difficulty with language. She described him as

Very artistic...He does some beautiful paintings...He's very into bright colours.

Her views of his interests were as follows:

He loves screwing things, building things, doing things with his hands... He plays with Lego, he likes building it up. He's into planes. They made biplanes together.

Similar to the mothers of other boys in the study, she mentioned his dislike of not being allowed to move around freely.

He didn't like being, sometimes, being sat down for too long. He wanted to get up. I think he's still a bit like that. Tom doesn't like being forced into a situation.

She showed me the reports on Tom from the nursery he had attended for three terms prior to starting school. They commented on Tom's pleasure in talking about things relating to his own life, on his construction skills, and that he got on well with other children. The reports also stated that Tom could count reliably to five and could

recognise and match two numbers, skills which he was unable to replicate at school for some considerable time. At nursery, an Individual Education Plan had been drawn up for Tom by the nursery, with his mother's agreement, to try to develop his ability to follow instructions, to concentrate on an activity and to improve his listening skills. Concerns about his communication skills and ability to concentrate were stated to be probably linked to recurrent ear infections, though the report also stated that his hearing had been found to be unaffected. The level of detail contained in the reports, the professional manner in which they were compiled and the way in which the information reflected the mother's impressions of Tom led me to view the impressions as reliable perceptions of Tom at nursery and at home. The school had not received these reports and were unaware of their content.

The excerpt of conversation below was taken from the second home visit during which Tom's mother tried to direct and help Tom to carry out the assessment tasks. Throughout the visit, as in the first visit, Tom's mother had offered a stream of conversation rich in ideas, though at times it had felt difficult to steer the conversation to focus on the information I sought, even though my intention was to be open to as broad a range of information as the mothers deemed pertinent. In this excerpt, she guides and directs Tom, drawing on language and strategies with which she knows he will be familiar (such as using the phrase 'in a line'; referring him to use his ability to count on his fingers to help him). Sometimes, the shifts of focus as conversation went beyond the tasks seemed to make it difficult to engage Tom fully in using his skills and concentration to attempt them. His attention was not consistently guided, refocused when it lapsed, or supported. Yet at other times, his mother offered sensitive prompts and support to help him. The excerpt below illustrates how his mother appeared to act alternately as both support and detractor to his attention.

Putting number cards in order from 1 to 5

Mother:	Put them in order now Tom, in order. That's not order.
Tom:	What?
Mother:	I'm not helping you. You get on.
Tom:	I can't do order.
Mother:	Put them in a line. That's what Jane asked for. So what's the highest number? Yes that's right. Now put what goes next to that, what goes next to number 2 on your fingers? No
:	
	1, 2, 3. Where'd 3 go? Find number 3. Where's number 3?
Tom:	I don't know.
Mother:	I know you're tired. Well, he's just started thishe's had a couple of late nights, haven't we? But he's doing alright.
Mother:	What's there? Now tall long what we adopted at the zoo
	What's there? Now, tell Jane what we adopted at the zoo.
Tom:	Monkeys
Mother:	Baby gorilla, we've got a baby gorilla we've adopted, haven't we? And we're going down there, aren't we at half term?

He retold several stories from his favourite book to me with some detail and accuracy, and certainly with interest and enjoyment.

Tom's mother relayed how he had been very excited about starting school. She felt that going to nursery had helped to prepare him for that. She did express some concerns, partly to do with the fact that the first day I visited was also the day that Tom (and all the other youngest children in Reception) was to stay full time at school. 'He can get very upset and grumpy and I protect him as much as I can.' She noted that he was tired in the afternoons and that he had seemed confused in the first few weeks at school and had wandered off from the classroom. She had been concerned about him starting at four years, pointing out that in her opinion the children were 'nurtured' in nursery. By contrast,

I was quite shocked because at school they don't keep them in the little playground anymore. They go into the big playground... He's settling down really well. I'm so glad he went to pre-school.

Tom's mother's (and the nursery's) assessments of Tom appeared to be at odds with the identity Tom very quickly formed at school. At home and at nursery, Tom was seen as 'bright', good with numbers, interested in and quite skilled with construction, painting and model making, sociable, communicative in relation to things that mattered to him and keen to use his body, though his weaker areas relating to clear communication, listening and possibly concentration were also noted. At school, he was seen from early days as generally rule-abiding, polite, able to get along with others and well-behaved, though at times confused about places and routines, but as generally 'behind' most of the children in other aspects. As the teacher put it in an informal conversation with me about him during the first term, 'He'll always have that,' meaning that he would always be behind and find learning difficult. My impression was of a child whose competencies (3D construction: pleasure in exploring shape; colour and movement; and in talking about his own experiences) carried less currency in school. Sequencing, receiving and following ordered instructions, expressing oneself articulately verbally in line with school discourse and using fine motor control to produce 2D, recognisable representations carried a far higher currency at school, but were things which did not feature in Tom's strengths at that time in that setting. In spite of the teacher's and LSA's genuine concern and efforts to provide as much adult support for him as possible given the resource limitations, the support offered at times seemed at odds with what might be most useful to him. His communication skills needed nurturing in relation to his own interests, competencies and home life if he was to be helped to develop his concentration skills and language use. The LSA support during whole class work 'on the mat' at times seemed to confound his attention difficulties as he had to try to take in two different sets of input at once. There was very little, if any, time for the contingently responsive conversations based on his interests that are associated with most assisting young children's language development in the direction most likely to be valued and of use in school.

George: a continuous trajectory into reception

George lived at home with both parents and two brothers aged eight and thirteen. He had older half-siblings from his father's previous marriage with whom he also had a close relationship. His parents shared work and childcare arrangements, his mother looking after the children in the mornings whilst his father worked, and his father taking over in the afternoons and early evening whilst his mother worked until late. George had attended a day nursery for three mornings a week from the age of two, and had attended ballet classes for young children run by his mother on one afternoon a week.

According to his mother, George's strengths and interests lay in his large-scale sociodramatic play. He could reconstruct complex scenes and dialogues from films that he had seen and would play for extended periods, drawing on a wide range of resources from the home to develop his ideas. He would immerse himself totally in such play, 'completely lose himself', and appear unconscious of the gaze of others. The sociodramatic play also involved small scale construction and he would spend a long time creating and using play scenes developed from his imagination and memory. His pattern of play seemed to follow the interconnected though free-flowing characteristics of play identified by Athey (in Nutbrown, 1999:48). His mother described how he would, for example, play for a long time with a Duplo train set, constructing and using it as a train set, then developing the use of the pieces into other aspects of play as he created and recreated scenes from his mind.

At home, he was able to concentrate for extended periods and become thoroughly involved in his range of activities. He had from an early age been used to initially observing then, quite quickly, becoming a participant in the young children's dance classes run by his mother. He demonstrated knowledge of the social rules of that setting and was able to participate, remaining enjoyably focused for some time. 'He knows what is right and wrong in that structure' (mother, 1st home visit 12.11.02). He would comment on other children who found it more challenging to follow the rules. During the time I spent in his home, he played alongside his mother and me, joining in with the conversation at times. In the assessment tasks, he was a willing participant. The brief excerpt 4.2, page 104, demonstrates how his mother helped to initiate and guide the tasks using a calm, light-hearted tone, but she was also quiet for much of the task-time, observing but allowing him to demonstrate his obvious competence and enthusiasm. This was a very similar pattern to that noted in the second home visit to Robert's family.

At school, he had found the large group 'set pieces' such as daily assembly, class assembly performed in front of the whole school and parents, and later the Christmas play particularly enjoyable, perhaps because of his familiarity with drama and performance. He had been at first an observer then a participant in the dance school public performances. His favourite thing at school apart from these was PE. In spite of a slow start in his very early years with his physical development (his mother pointed out that he was very 'late' in sitting unaided and didn't stand until he was around 16 months old), his mother described his physical skills as being particularly good by the time he started school. She noted them as a particular strength. He had good fine manipulative skills and was noticeably more able than many of his peers in his gross motor skills. Though his deep involvement in play described by his mother may have suggested a preference for solitude, in practice in school he developed co-operative play well with his peers when opportunities arose. He defended his space and resources tactfully and allowed like-minded others to enter into his play world, intertwining his scenes with theirs. In spite of George's assessed performance in fine motor skills, which reflected his mother's assessment of his abilities, he did find it difficult to control a pencil sufficiently to form numbers 3, 5 and the letter z (by his own assessment 10.7.03), figures that required a sudden change of direction, the

scripted equivalent of the glottal stop. This was common to several of the young fouryear-olds in the reception class.

From my early observations and recordings, George was a child who had fallen naturally and acceptingly into a classroom where children were frequently taught as a whole group by the teacher, incorporating song, action and dramatic devices. He was able to 'read' the social rules of the classroom, to follow instructions and understand the pattern of adult to whole class discourse. His place in that was as a willing, participative and rule-abiding member of the group. The setting and activities were familiar after two years in a fairly structured day nursery (mother's description) and being party to the ways of being at a dance school.

Appendix vii Episode 1: Polyhedrons at pre-school, 5.3.03

Key:

Left or right refers to position on screen as seen by the viewer.

H Henry

TC Target Child (Henry)

L Lloyd

J Jill

C3, C4 Other children visiting table

Pause// Overlapping speech

Follows quickly without overlap or pause

[-] Section of speech missed out as it relates to children other than main participants.

22 Unclear /unheard speech

Ro w	Time	TC code	Jill actions	Jill's speech	Henry's actions	Henry's speech	Lloyd's actions and speech	Analysis / comments	Adult Engagement/
no.							and specen	comments	child
									involvement (1
									min. intervals)
1	10.27.35	A14 C1	Sitting, leans in towards H. Reaches across to box of shapes and takes one out.		Beginning to put together shapes, gaze down.				To 10.28.38 Adult: uses body pos. to indic. Interest in child's actions.
2	10.27.40	A14 C1 A9	Takes several shapes out and separates them, laying them on table in front of H with finger.		Uses one of the shapes offered by J. Adds to construction.				Stimulates by putting shapes in front. Stim. By encouraging perseverance and effort.
3	10.27.56	A14 C1	Watches H closely, leaning head and body sideways towards him as he tries to join construction pieces.	J>H Whoops	Tries to affix pieces, gaze down to construction, but fails.				Child: Involvement indic. by perseverance & effort. Selects shape from those given by adult.
4	10.28.05	A14 C1	Points at piece with finger, indicating slit to fix into. Head tilted towards H.	Try again Don't know if you can push it in harder	Continues to try unsuccessfully.			J supportive / enabling	

5	10.28.09	A14 C7 C2	Turns head and body sharply to left in direction of climbing frame in response to noise.		Gaze briefly to left to noise, then back to construction. Tries different places to affix piece.			
6	10.28.15	A14 C1 C7	Turns head left towards a child at end of table. Turns back to Henry, leaning towards him to speak. Stands up and leaves table.	J>C3 Do you? Okay J>H I'll come back to you in a minute. I'm just gonna help C3 go to the loo. J>C3 Come on, C3	Stands construction on table in front of him gaze down. Continues to construct. Model wobbles over, he supports it. Gaze down. Picks up model. Looks at it, brief glance up to camera.			
7	10.28.38	C7			Turns head towards end of table. Turns further, following J's direction with gaze. Watches.			10.28.38-10.29.39 Adult: Absent from table
8	10.28.45	C7			Turns back to construction. Gaze back to J's direction again. Alternates gaze between J's direction and construction, holding model.		H's actions during J's absence show lower level of involvement than when J is present. He waits.	Child: Halts involve. In construction; waits attentively for adult.
9	10.29.13	C1			Affixes piece to construction. Turns construction, half smile, gaze briefly to camera.			
10	10.29.22	C7			Turns body and gaze further round to J's direction. Appears to watch other children in room. Waits, sitting still.			
11	10.29.39	C1 C7			Adjusts construction. Yawns. Still waits and watches.			10.29.39-10.31.09 Adult: Absent
12	10.30. 21	C1 B11			Adds one piece to model. Gaze to child at end of table. Shows model to child.	H>C3 How d'you like my lights How d'you like my lights		Child: Still waits. Brief attempt to become involved again. Appeal to other child.

13	10.30.45				Holds nose. Holds another piece of construction. Waits.			
14	10.31.09	C7			Yawns. Alternates gaze to model and to left.			
15	10.31.24	A14 A4	Walks back to table. Sits down. Facial expression – wide, open-eyed interest in H's model. Listens to his explanation, body turned to H.	J>H Wonderful What've you made You made lights Fantastic//	Turns towards J approaching and holds up his construction to show her. Body turned towards her. (chants to self)	H>J Lights ?? with lights //Christopher Christopher Christopher		10.31.24-10.32.39 Adult: Returned. Sensitivity/ stimulation expressing delight in H's construction. Asks for H's interpretation. Stim:
								initiates pattern repeat exercise.
16	10.31.34	A12	Glances up at L, approaching table and sitting opposite. Looks with interest and listens as H explains model.	What colours are they That's a funny colour sort of brown isn't it - //green	Points to/touches different colours with finger as he speaks, gaze to construction.	Red and Yellow - //green	J joins in with colour recog. Enables. Not a test.	Autonomy: accepts H's refusal as reasonable by voice and actions. <u>Child:</u> Seeks adult approval. Actions express pleasure in response.
17	10.31.48	A10		That's brilliant yep	Stands model on table in front of him. Claps hands once and puts them under table. Looks pleased, gaze to model.		H's actions show pride and pleasure in his model & the recognition of it by J	Turns body away to indic. refusal to partic. In pattern repeat. Indicates involvement in own activity.
18	10.31.56	C1 A7	Takes some pieces of polyhedron and puts them into a line pattern in front of her on table with fingertips, gaze to table.	Can you do this for me Get some of my colours I know Pardon?	Picks up own model again and looks at it. Begins to take his construction apart.	Fell down They're breaking to pieces		
						They're breaking to pieces		
19	10.32.05		Takes more shapes from box next to H. Places shapes on table, gaze down.	So loud in here I can't hear anybody – they're making so much noise				

20	10.32.13			Can you find me -					
21	10.32.22	A14	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		C1 A13	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		H –agency – own agenda can be pursued. Use of words and actions to indicate own agenda but politely.	
23	10.32.39	A14 C1	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		J adopts non- controlling pos. Decides to follow H's agenda. Affirmation – his agenda valued.	
24	10.32.48	A14 C1 A10	Watches intently. Sits back and upright.	They're quite hard to do aren't they	Tries to fix two shapes together, pushing slowly. They break apart.	Yep they're quite hard		J notes his difficulty, but doesn't leap in to help. Affirmation – recognition of legitimate effort. J offers minimal level	10.32.48-10.33.49 Adult: Sensitivity: acknowledges difficulty. Stim: models method of fixing pieces. Stim: models own
			Takes two shapes from own pile and, holding them close to H and leaning towards him, models fixing them together, elbows on table.	You have to look put them in together like that	Continues to gaze at own construction pieces and manipulates them.			of help first – modelling.	way of constructing. Sensitivity & auton: enables but withdraws support as soon as poss to allow independent success.
25	10.32.56	A14 C2 A7	Watches L approaching. Rests elbow on table, chin in hand.	J>L Course you can Lloyd	Gaze to L briefly. Tries to fix two pieces together. One breaks away.	One shot right across the	(Approaches table opposite side to H and J.) Can I do some of that		Child: Accepts support then perseveres alone with more success.
				J>H Oh dear	Smiles.	One shot right across the table			

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26	10.33.05	A14 C2	Gaze down to end of table, left, in line with H's description. Takes two shapes and fixes them together.	It did	Continues to concentrate on trying to fix pieces together.				
27	10.33.19	A14 B13 C2	Gaze to L. Gaze down to own construction. Continues to manipulate own shapes, glancing up at L.	J>L What are you going to make Lloyd That's an interesting way of putting it together	As he tries to fix them, they fall apart again. Gaze to pieces.		(Unclear view of L, but can see L's head down towards his construction in front of him)	J welcomes L by attention to his own intentions.	
28	10.33.29	A14 B13 C2	Makes a 'bridge' shape and places it in front of her. Gaze to H. Hands under table.	J>H Shall I help you	H's pieces break apart. He continues to struggle to fix them together.			J offers higher level of support in response to H's continuing difficulties.	
29	10.33.32	A14 B13 A9	Puts one arm around H's back, bringing both hands round in front of H and takes his hands. Guides his hands, holding the two pieces of construction, and fixes them together. Immediately removes own arms and hands once pieces are fixed and places hands in lap.	Just do one - stuck You put those together like that There you go Alright? Is it fitting	Gaze to pieces, scratches ear. Holds pieces still.	Yep		J uses combination of own actions, guiding H's actions and words to enable. J withdraws support once goal achieved but checks.	
30	10.33.49	A14 C1 B13	Gaze and half turn away from H to investigate noise from other children. Turns back and watches H closely, hands together on edge of table. Occasional glances to other children interspersed with interested gaze to H, head tilted towards him.	Oh	More successfully joining pieces of construction now. Gaze to construction, face intent, scratches ear. He adds another piece. It breaks off. Continues to try.				
31	10.34.09	B13 B14	Gaze to L. Arms on table, chin resting in hand, leaning forwards towards L. Frequent gaze to L's face and back to L's construction.	J>L Wow Lloyd what're you making there That's really fantastic What've you made	Gaze to L's construction, back to own construction, then alternating between the two.			Affirmation – L's construction valued	10.34.09-10.35.09 Sensitivity: body indic.s attention to H's actions. Words & actions praise. Stim.s: prompts H's

32	10.34.22			It's a wheel isn't it 'cause it's going round			(Holds up his construction to view it. Turns it carefully)		interpretation of construction & offers own. <u>Child:</u> Appears to evaluate own construction against L's.Shows deeper involve. Explaining own interpret in response to adult's interpretation of
33	10.34.26	B13 A4	Leans back. Glances at H.	Brilliant		That way's ?? mine		H's responds to J's reaction to L's model.	model.
34	10.34.32	A14 B13 C4 A12	Turns towards H. Moves extra loose pieces of polyhedron away from H's construction.	J>H Well that's good too What does it look like to you	Places model on table in front of him. Puts hands under table and gazes at model. Gaze up to J and back down to model. Touches face.	Don't know		Affirmation – J offers H opportunity to interpret own model.	
35	10.34.38	A14 B14 A11	Face turned towards H, chin in hand. Points at H's model in line with her description. Pointing and looking intently at model.	l'ill 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		J offers an interpretation & value. H – agency. Takes up part of J's suggestion but	
36	10.34.55	A7	Leans head right over H's model to look at other side in line with H's explanation. Head close to		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,	That's the wing That's the gap way That's the gap where you walk That's the <u>-</u> that's the		adapts it to own view of the model and elaborates on the interpretation. J – affirmation – actions convey deep interest.	

		model		just touching, palms up.	thingy and that's the		
					wheel that goes back like // that		
37	10.35.09	Gaze to L, hand on chin.		Demonstrates his		L>J	
			J>L ls it a flower	construction going up.		//D'you know what this is	
		Points finger at L in	is it a nower			this is	
		emphasis.	Oh that's a good one	Begins to take his		A windmill	
		Very slightly shakes head	A windmill yes	construction apart.			
		as if in slight wonder, gaze to L still.	A windmin yes	Gaze to L's construction			
		-		and back to own.			
38	10.35.23	Elbow on table, hand to mouth.	Have you ever been in a windmill				<u>10.35.23-10.36.30</u> Adult:
		mount	- Lloyd				Stimulates:
			- Have you ever been in a				exploratory
			windmill		There's a windmill in the		questions; enriches with information.
					tellytubbies		Sensitivity and
		Head turns to H briefly.	J>H Is there				autonomy: allows H's own
		Points at H with finger to	Yes there is you're right			Yeah	interpretation of
		emphasise agreement.	And there's a windmill in -				model.
		Gaze back to L, head resting in hand.	Um let me see – Trumpton too	Begins a new construction,			<u>Child:</u> Involvement
			But I don't suppose you	fixing pieces with greater			apparently stimulated
			watch Trumpton	ease now.			by Lloyd's model
			It's not on telly anymore				and adult's response to it.
39	10.35.36		J>L.	Gaze to L and back to own		I've never heard of it	
		Doints to L with finance	No	construction.			
		Points to L with finger, emphasising words.	Actually Thomas the Tank Engine's				
		Eyes wide in explanation,	got a different sort of mill				
		eyebrows raised. Indicates	a watermill				
		rotating movement with finger and hand.	hasn't he				
40	10.35.44	Hand across chin, gaze to		Concentrating on his		Yeah yeah and he's	
		L. Knitted brow as if	#Has it got a windmill as	construction. He is involved in making a copy of the		got a different one#	
		thinking and listening intently.	well	shape that L had produced.		Yeah he's got	
				-		something that takes	
				Brief gaze up to L and his construction.		water up and he's got a windmill (indicates	
				construction.		a minumin (maicates	

						rotating movement with arms)	
41	10.35.57	Emphasises points made with finger. Indicates circular movement with finger. Indicates direction of the movement described with finger.	Yes I think you're right I know there's a watermill there because I remember seeing it The other day I happened to turn the TV on and Thomas the Tank Engine happened to be on and I thought Oh I haven't seen that for such a long time The waterwheel was going round and Thomas was going along the railway track	By this time H has half constructed a copy of L's model. Gaze down to construction, still building, looks intent.			
42	10.36.17	Hand back to chin, gaze still to L. Gaze briefly to left to noise. Gaze to H and down to his new construction	J>H Have you got the video	Gaze to own construction, still constructing.	I've not seen that video for a long time		
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		
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	Gaze to C3.			<u>10.36.46-10.37.35</u> <u>Adult:</u>

			J>H That's brilliant	Attempts to spin his construction	It spins round It goes		Sensitivity Stimulation Child:
46	10.37.00	Indicating turning motion with both hands and fingers.	It does It goes round and round	Gaze up to J.	??		Involvement in conversation in response to stimulation.
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.			
48	10.37.10	Arms folded on table, leaning forwards and towards H, gaze to H.	Have you been to the zoo yet 'Cause you were talking about // going to the zoo	Gaze up to J then back to construction. Begins fixing two pieces again	//No we're going – It's too packed		
49	10.37.23	Sits upright. Gaze to camera, smiling. Moves body/head closer to H to listen.	Oh can't go when it's too packed # #sensible yeah # Yes I think that's sensible too	H constructs a new shape, similar to previous one.	 # we're going when it's not so packed # # when everyone's at school 		
50	10.37.35	Scans room with gaze. Gaze to L's construction, head in hand.	J>L Have you managed to do it	Lifts his shape into the air briefly, examining it.		There's different bits Look one won't fit right in	
51	10.37.50	Offers another piece. Gaze to model and L.	Some are very new and some are very old Lloyd Choose another one Actually that one might be better There Is that okay	Gaze down, still constructing.		Yes it's very old isn't	10.37.50-10.39.03 <u>Adult:</u> Sensitivity Stimulation <u>Child:</u> Involves self in conversation.

						it
52	10.38.04		Yes that's the problem We need some new ones We'll have to ask Jan to buy us some new ones	Continues to construct a slightly irregular version of the earlier 'wheel' shape. Gaze to L.		
53	10.38.07	Gaze to H's model.		Gaze to own construction.	Look look – Look at this	(Lloyd has now made a more complex, regularly shaped construction)
54	10.38.20	Gaze to L's model, then back to H's model.	J>L Ah ha what have you made now # You have that's fantastic# J>H Oh that's a good idea	Places model on table, hands under table. Gaze up to J. Gaze back to own construction. Leans head over own model; holds it. Brief gaze to L's model. Points at own construction. Talks at same time as L.	 // Look there's a open thing // Look there's # a open thing a aeroplane There's a tunnel and you go through it and there's a thing to go through it for the animals 	There's // three there and three // there #
55	10.38.39	Emphatic movement of head towards L and gaze to L, indicating intention to engage L in conversation.	J>L Have you ever been on an aeroplane	Turns face upwards emphatically to J, drawing J's attention back to him.	H>J I have to Portugal	
56	10.38.49	Face turned to H, eyes half closed, eyebrows raised in inquiry briefly. Gaze back to L promptly. Eyes wide, brows raised,	J>H Have you been to Portugal Oh very nice J>L // Singapore lovely	Breaks up own construction. Gaze to L's model and L's		And I've been to Singapore already // and tonight I'm going
		smiling.		face' back to L's model. Gaze to own construction pieces.		to Singapore again
57	10.39.03	Smiling. Wide eyes, smile, look of surprised pleasure.	Are you In your dreams or really and truly Fantastic	Gaze to L. Hands off table, sitting back slightly.		I'm really am

			// Have you packed all your bits	Turns head and face to J to be almost diagonally in front of her face.	// ??		
58	10.39.12	Gaze directly to L. Elbows on table, chin resting in hand, leaning forwards.	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	10.39.12-10.40.19 <u>Adult:</u> Stimulation Sensitivity/ autonomy: H's ideas valued. <u>Child:</u> Involevd in
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	Yeah Hmm	conversation.
60		Laughs. Nods head in H's direction in agreement. Gaze to L. Hand gesturing, half smile, raised eyebrows.	J>H You would J>L You do need sandals and as Henry said you need clothes 'cause otherwise you'd be naked We couldn't have that That would be embarrassing wouldn't it Hmm	Sitting still, face to J. Hands off table.	you'd be // naked	// Sandals	
61	10.39.34	Gaze still to L. Face resting in hand, eyes with fixed gaze. Blinking rapidly	So is it hot in Singapore or is it cold # How hot	Sitting still, hands under table. Gaze to L and / or his construction.		Hot #	
62	10.34.40		// So do you need clothes		// I'm going to Rhodes	Very ???	

		Gaze to H, then to L, then back to H, gesturing with open hand in emphasis.	J>H You're going to Rhodes Lloyd thinks he doesn't need clothes 'cause it's hot				
63	10.39.50	Accepts picture from another child bringing it to table to show her.	J>L You must need T shirt and shorts surely Yeah J>C3	Turns left to look at C3's picture.	(Indicates yes?)		
		Examines it.	// ??? Elephants	Face to J, sitting very upright.	// And I'm going ??		
64	10.39.55	Half turns to H, gaze to H. Arms folded on table, leans back slightly from H, but facing him.	J>H Are you And what do you need to wear in Rhodes What sort of clothes do you wear in Rhodes Is it hot or cold there	Leans back slightly from J, but upright. Gaze to J and then to left.	1'm going to Rhodes		
					Hot		
65	10.40.04		So what clothes do you need	Gaze to J.	Hmm lots and lots		
66		Gaze to H. Head tilted towards him.	Yes but what sort D'you wear a coat #	Gaze to J and to left alternately	# Yes and my nanny got some things for taking when we go to Rhodes		
67	10.40.19	Arms folded, leaning towards H. Nods emphatically.	Hmm And do you stay in a hotel or in $a - a -$ an apartment	Shakes head, glances away.	I don't know yet		
68	10.40.29	Gaze to H, turned towards him.	You don't know So are you going by sea or - on an aircraft Or - are you going on -	Gaze to J, face turned towards her, hands behind back.			
			a bus		Aeroplane		

<u> </u>			Aeroplane			
69	10.40.38	Gaze still to H Picks up some flower shapes to demonstrate. Demonstrates joining two pieces, gaze to construction. Head tilted to side to listen to H at same time. Glance to H then back to pieces.	So how are you going to get to the airport J>L Well that's # J>H Pardon # it's still there Oh right	Wrinkles up nose and gazes away. Gaze to L.	Hmm don't know // Car #car Car – and you have to leave your car there and when you come back - #	(Holds up 'flower' shaped construction piece) What // d'you have to do with these
70	10.40.51	Gaze to L, still manipulating pieces.	J>L When you went to Singapore – did you take your – did you go on the bus to the airport or did you go by taxi	Arms behind back still, gaze to L and J alternately.		
71	10.41.00	Widens eyes and smiles. Eyes wide indicating awe, still manipulating pieces.	Was it a big // aeroplane or a little aeroplane A jumbo jet Fantastic	Half smiles, raises shoulders. Gaze to J.	// ??	?? and we went on a bus to ? airport and went on the aeroplane (Indicates flying up with hands) A jumbo jet
72	10.41.12	Puts down pieces, half turns to H, gaze to H. Hands clasped on table, head on side. Leans back from H slightly		Gaze to J, eyebrows raised slightly.	l've been on a jumbo jet as well I've got a aeroplane book	
		Leans back from H slightly and turns slightly to be diagonal to both H and L.	Have you	Nods head.	Yeah	

			What sort of aeroplanes are in your aeroplane book then				
73	10.41.28	Attentive gaze to H and L alternately, including both in conversation.	Jumbo jets Anything else Concorde Now that's an aeroplane to fly in isn't it I'd like to fly in it	Face and gaze to J, arms down. Heads nods once in emphasis.	Um jumbo jets Um Concorde		
74	10.41.34	Leaning slightly to side away from H with body half turned towards H and L, thus creating a triangle and so appearing to include H and L in conversation.	Would you like to fly in Concorde	Eyes wide, nods head.			
75	10.41.37	Uses hand/finger gesture to indicate back and forth movement	Does Concorde go as fast as a jumbo jet or is it slower than a jumbo jet # ls it faster Yeah I think you're right#	Louder, emphatic answer. Scratches nose. Nods head emphatically but slowly; a knowledgeable comment, he is sure of his ground.	# Faster #it's the fastest plane in the world #		
76	10.41.43	Nods head, eyebrows raised, eyes down. Gaze to L's construction.	# yeah Yes I think it is for lots of people to go in Yeah I think you're right	Half turned towards J. Gaze to left.	????		
77	10.41.58	Brief gaze to passing child making loud noise with 'shaker', quizzical brow. Gaze to L. Gaze to H then back to L.	So when you go in an aeroplane d'you get anything to eat J>L What d'you get to eat		Yeah When I went to um – to um – um – when to went to um – to – um um -#		

78	10.42.14	Picks up shapes and begins to fix together, head tilted	#Yeah#	Gaze to J.	#when 1 went to Portugal		_
		towards H, gaze to own			I spilt my orange		
		construction.	Oh dear		i spiit my orange		
		Gaze flicked upwards in					
		mock horror, smiling.			We got a ??and??		
		Constructing with shapes.	Oh that's good so you got				
			it sorted out				
79	10.42.30	Gaze to L, then back to	J>L	Gaze to L.			
		own construction. Still	Did you do anything like				
		joining 'flower' pieces.	that when you were on	Gaze to J, gesturing with	//and		
		(Echoing L's activity?)	your // way to Singapore#	hand to mouth indicating	#mummy said when we		
				holding a lolly.	go up we had to suck a		
			J>H		lolly		
			Yes because of your ears				
			Makes your ears pop				
			doesn't it				
80	10.42.38	Gaze behind in response to		Turns, gaze behind in	And		
		noise.		response to noise. Turns	And		
		Turns back to front.		back to front.	I liked it when it went		
			T liles the former house	Smiling, face turned	bum bump		
		Noda Maninulatas shanas	I like the funny bump bump business too	upwards to J.			
81	10.42.41	Nods. Manipulates shapes. Gaze to L, moving	Did you like the bump	· · · · · · · · · · · · · · · · · · ·			
01	10.42.41	forwards, leaning across	bump Lloyd				
		table; face closer to L, half	Did it go bump bump for				
		smile.	you //				
		sinc.	Did you think that was			//yeah	
			funny -			(but sounds only half	
			Or did you think that was a			interested as if	
			bit scary			concentrating on	
						construction)	
			Fun oh fantastic			?? much??-	
						Very much fun	
82	10.42.59	Brief gaze to H then back	J>H	Gaze behind briefly then			_
1		to L.	Can you remember what	back to J.	?? (says J's name?)		
		Turns head towards H and	you had to eat				1
		lowers head closer to him,	I'm just gonna ask Lloyd				
		gaze to L. Points finger in	what he what he had to eat	Gaze flicks low between			
		air roughly in L's	J>L	L's and own construction.			
		direction.	What did you have to eat	Sits very still.	ļ		
			on the aeroplane				
						I dunno	
			You can't remember				

			J>H			
		Gaze to H.	What did you have to eat then			
				Shifts from side to side.	Ah I think – I don't know I can just remember my drink	
82	10.43.16	Manipulating shapes, fixing two together. Alternates gaze between H and construction	Oh you just remember your drink # Did you fall asleep on the aeroplane	Gaze to J, head up, slightly raised brows. Hands under table.	# And one time we went in the night and we had to stay up very late	
84	10.43.25	Wrinkles nose in mock horror of staying up so late.	 // Did you Ooh that's late isn't it J>L 	Wrinkles nose slightly in emphasis.	Yes // we had to go at about nine o'clock	
		Gaze to L.	Did you go at night time to catch your aeroplane Lloyd	Gaze to L's construction, hands under table. Pats front of chest,	// We had to put our 'jamas on	// ??
				eyebrows raised.		
85	10.43.37	Leans back away from but facing H, gaze to H, looks surprised at this information. Turns back to face table, brief gaze to camera. Continues to construct.	You had your pyjamas on on the aeroplane // Ah that's interesting		// Yeah	
86	10.43.46	Gaze to L's construction, head tilted to side towards H.	Fantastic isn't it Why don't you try to make one like that	Furrowed brow in concentration, gaze to L's construction, head slightly down, hands under table.	H>∟ What's that Lloyd	22
		Leans across in front of H to push box along, giving him a clearer table space.	Move // that that way Oh you can if you try #	Raises eyebrows. Takes some pieces	// 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	Begins to join pieces together.		

			l'm sure you can make				
			something				
88	10.44.05	Picks up own construction again, gaze to H.	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	Gaze to own construction. Head tilted to side briefly. Brief gaze to J.	Hmm Well –		
		Head turned to H then back to own construction, elbows on table.	A mini # That's really nice wow What colour was your mini Oh	Creating a 'wheel' shape again.	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.)	
89	10.44.30	Gaze to Lloyd.	J>L Did you buy anything Lloyd when you were away with some pocket money You can't remember	Places it on table and adds to it, gazing at it. Some effort in connecting pieces. H has now made the wheel shape again with slightly wobbly/irregular connections.		(L appears to be concentrating on his construction, manipulating it and watching it.) l'm not – l'm not sure	
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.	-// []	<pre>?? //I'm going to ??</pre>	
92	10.45.06					??? Yeah ?? with a	

			.!>L	Gaze to L.		swimming pool		
	{					swimming pool		
			Wow this year	Gaze down to construction,				1
	\		Wow	adding extra pieces to basic				
1	1 1		Can you swim	wheel shape				
			curryou on him	······	Well my sister can but I			
					can't			
					l can only do doggy			
					paddle			
93	10.45.18	Nods.	J>H					
12	10.10.10	Places own model down	l can do doggy paddle yes	Still adding to construction.				
		and folds arms on table,	It's hard work swimming			1		
		head towards H.	When you've had					
			swimming lessons you'll					
			be fine at swimming won't					
	1		you	Gaze to construction.				
			You'll be able to swim –	appears involved.				
Į.				appears involved.				
	ļ		Just like your sister					
94	10.45.20					(Gaze to J)		
		Gaze to L, leaning forward			l l	I – I had swimming		
		slightly.	J>L			lessons already		
		sugar,	Have you	Gaze down to construction,				
1			Have you					
		Glances behind at noise.		still adjusting it.				
		Arms folded on table,	Did you enjoy your				1	
		leaning forwards.	swimming lessons		// And – er – in in Amy's	// yeah (nods)		
		-	-		one – there's a guy who			
					thinks he's the good one			
			J>H		but they had a race and			
			Oh		Amy won			
95	10.45.37	(Another child brings a	J>C4	Adjusting construction,				
	\ \	model vehicle to the table	Oh wow what've you	adding extra piece, gaze				}
		to show J.)	found Stuart	down. Piece falls off.		(Gaze to C4 and toy.)		
		J takes it and inspects it.	What is it	Attempts to reconstruct.				
		J takes it and inspects it.					1]
			I can't see you've got your	Carefully hold central piece				
			hand over it	whilst trying to attach extra				
			Is it yours	bit. Leans forward to look				
			[-]	more closely at				
1				construction.			1	1
				construction.				
96	10.46.08					This is a rocket ship		
		Gaze to L's construction,				(Holds it up to move		
		elbows on table, chin in	J>L	Brief gaze to L's	1	it around)		
		hand, leaning forwards	A rocket ship	construction, then back to		This is a rocket ship		Į.
						That's its wheels then		
		towards L. Brief gaze to	Wow	own.	A	it turns over // and		
		H's construction then back			And		1	1
		to L's.		'Flies' own construction	// this is a this is a rocket	then		

			J>H Fantastic rocket Some of your rocket's fallen off // You'll have to put it back on again	around in air with sound effects. Some falls off. Places model on table, begins taking it apart.	 //And these are – (sound effects) Actually I'm taking it apart I can't cause it's - 	(demonstrates actions with construction in both hands) and then it goes and these are its ??? (Flies rocket around).
97	10.46.40	Holds own construction and looks at it. Adds a piece. Gaze down to own construction, shaking head.	I wonder what I've made Oh I don't think I'm as clever as that In fact I don't know what I'm making	Gaze to J's construction whilst taking his apart. Laughs, hand to mouth.		See if you can make the same as me (Sound effects)
98	10.46.55	Leans back out of H's way, gaze to where H is reaching.		Leans across J to reach different construction shapes		
99	10.47.07	Helps retrieve shape, hands it back to L. Continues with own construction.	You've had enough of that of making the rocket Oh whoops I should be careful with those bits because you might flick yourself in the face	Helps retrieve shape from under table. Begins to join 'flower' shapes together. Gaze to L's construction.		l'm not making a rocket anymore (Flicks model upwards. Piece flies off and across table). What
100	10.47.19	Holds up her polyhedron construction. Gaze to L.	l'm not sure what this is but – what do you think it could be A car	Gaze to J's construction.	Actually I think it could be a – um - a d??	(Gaze to J's construction.) Hmm a car
101	[-]	[Two more children join table with items to show to J. Another child arrives- out of view – with paper clip stuck on/into her neck.	J>C5 C5 come here a minute			

102	10.48.04	Appears to be crisis. All gaze to child. J deals with it by taking her to the supervisor]	J>H l've got to see Jan I'll be back in a minute [-]	(H and L are now alone at the table.) Gaze to camera briefly. Gaze towards direction J left in. Gaze to L. Stands up to get a better view.	That's gonna hurt That's got to hurt // That's got to hurt That's got to hurt	// ??her neck There's that ??	
				Plays with his construction, role-plays vehicle taking off. Lands and crashes onto L's.		(Moves vehicle towards H with sound effects. Gaze up to camera). L>Me Need to fix it this end (Accepts crash but moves his construction further away.)	
103	[-]					L>H I was right near ??	
		(Brief cut in filming)	<u> </u>				
104	10.49.37	J returns to table. Gaze to L's construction, slight frown of concentration.	J>L Well that's very good Excellent It is clever	Stands up and moves closer to J. Still standing, begins new construction with polyhedrons.		L>J Look at this J this if this car flips it goes the other way (Demonstrates movement of his construction). It's very clever Do that and that	
105	10.40.50					(L demonstrates how it stands up in either direction)	
105	10.49.59	Points at top of L's construction.	Right You could make it into something else that way lt's just that top bit				
			J>H			l gonna put some??	

	1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	H before you move I'll do			
	your shoelace up okay			
	Shall I do it now			
TIDY UP TIME				

Appendix viii Transcription of Episode 2: 2D and 3D shapes in reception, 16.1.03

Key:

Left or right refers to position on screen as seen by the viewer.

- Р Paul TC
- Target Child (Paul) C1-C4 Other children at table
- A/ Adult Reception teacher
- Pause -
- // Overlapping speech
- Follows quickly without overlap or pause #
- Unclear/ unheard speech 22

Row No.	Time	Adult actions	Adult speech	Target child actions	Target child speech	Other child(ren) actions /speech	Analysis: Adult engaging behaviour (for intervals of 1 minute)	Analysis: Target Child involvement behaviour (for intervals of 1 minute)	Analysis: other comments
1	9.35.25	Holds rectangle in palm of hand, elbows resting on table. Looks into box, eyes down. Turns face to TC. Pats other hand flat onto rectangle.	(A>TC) Is it flat? Yes, it's flat, so it's a? 2D shape.	Elbow on table, hand touching face, gaze to A, serious expression. Nods. Removes hand from mouth, sitting with arms off table.		C3>A Flat!	To 9.35.37 Stimulates using direct questioning incorporating assessing, reinforcing and exploring. Sensitivity shown in praise.	To 9.35.37 Nods appropriately to question. Appears attentive and uncertain.	T: use of actions & words to teach
2	9.35.38	Places rectangle on table. Gaze to next table. Frown. Turns to select next	Excellent. Sh, sh, sh.	Places hands on edge of table. Touches and		(C>A) 3D. (C1 next to TC touches 2D shapes on table)			

		shape from box. Takes out tri prism.		moves set of 2D shapes on table.				
3	9.35.40	Holds it in hand in view, gaze to Cs.	(A>Cs) Is it a 2D or 3D shape?	Reaches to move one 2D shape closer to self. Slight frown.	C3>A 3D shape			
4	9.35.46	Places shape on table to left away from 2D shapes. Gaze down. Slight frown but slight smile as she brings out next shape (cuboid).	(A>C) 3D shape. Excellent (low voice)	Puts both hands on 2D shapes. Removes C1's hand from shapes. Pulls shapes towards self.		 9.35.38 to 9.36.38 Uses faster questioning to stimulate in the form of practicing/reinforcing Reduces autonomy by stopping boys from touching shapes. Uses praise (sensitivity) to reinforce desired behaviour of those not touching shapes. This also serves to highlight TC's undesired behaviour. Controls behaviour of children on next table, reducing their autonomy for a purpose 	9.35.38 to 9.36.38 Becomes more animated and involved in moving shapes; turns into goal directed behaviour i.e. stopping C from having the shapes. In response to A curtailing this, touches face, gazes around room, blank expression, becomes less involved. Responds appropriately to A's direct request to take a shape.	T uses position of shapes on table to categorise. Affirmation
5		Holds in hand. Head tilted to side away from Cs but gaze to Cs. Slight turn up of mouth.	(A>Cs) 2D or 3D? (high voice, faster) (A>Cs)	Puts both hands flat over shapes.	C2 and C3>A 3D (C2 nods.)			

		Places shape on table with 3D set.	'Re you sure?(high voice) Okay.					
6	9.35.57	Puts both hands over 2D shapes on table. Serious face. Gaze to Cs, indicating each with both hands in emphasis as names are said.	(A>TC & C1) Boys, please stop touching them. (firm voice). Well-done, J, L, G for not touching them.	Hands off table to face, elbows on table. Finger to nose, gaze to Cs being praised.	(TC>A) I moved them away from him. (<i>almost</i> <i>inaudible</i>)			T: control of children's actions. Selective affirmation.
7	9.36.10	Takes circle from box. Holds it up, gaze to Cs.	(A>Cs) ls it a 2D or 3D?	Continues to pick nose.		C1>A 3D C3>A 2D C2>A 3D C3>A It's a circle too. 2 things.		C3 noting connected learning
8	9.36.15	Holds circle up in 2 hands, gaze to L. Raised brows, nods. Raises fingers in cup shape	A>L It is a circle, L, you're right. A>Cs If it's 3Dit's gonna belike this darling. It	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		Affirmation. More principled learning.

		over top of circle. Reaches down to take orange. Holds orange up next to circle, gaze to Cs.	would look like a sphere Okay? 2D means it's a flat shape.		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			T reinforcing learning objective to P; using actions; guiding P's actions.
10	9.36.36	Turns head/body towards next table. Finger to lips, shaking head. Open gaze, brows slightly raised.	A>Cs at next table: Uh, no, no, triangles. You're too noisy with the hammering. You don't need to be that loud. That's better, Tim.	Following A's gaze to Cs at next table.	(All Cs gaze to next table.)	9.36.39 to 9.37.39 Stimulates by adding 'guessing game' pattern into the questioning (hands over eyes). Adult chooses shape; children open eyes and guess name or 2D 3D shape. No autonomy.	9.36.39 to 9.37.39 Arms on desk, gaze to other children, facial expression of uninvolved spectator. Looks around room. Covers face with hands in response to Adult's instructions; reacted pre- emptively, showing listening. Face expectant. Hands over face game – facial expression shows pleasure and	

							 more involved	
							animation.	
11	9.36.42	Turns back to own table in emphasis, gaze down, slight frown. Sudden head movement/gaze straight ahead, face in repose, listening.	Okay!	Arms on table. Picks nose. Gaze to C6 on right, approaching table.		(C6 approaches from other table to ask if she & friend can go to toilet.)		
12	9.36.50	Shakes head, hand stroking chin. Points to Kate & Isobel briefly, then strokes face. Points towards door, brows raised.	A>Kate No! You can't together. Yes. Kate, Isobel, go back to your work, please. Kate, you can go to the toilet.	Gaze to A then to Kate. Watches her go, picking nose.		(C6 asks if she can go alone. C2 and C3 gaze and turn bodies to C6. All Cs gaze to mat area.)		
13	9.36.58	Puts arms down. Turns towards box at side. Moves it. Clasps hands in front on table. Places both hands on 2D shapes on table, gaze down. Pulls shapes towards her.	A>Cs Okay, now Are you ready? I'm gonna choose a shape (pause) ??take it off??	Turns to look at Cs on mat. Gaze back to A. Hand over face.	TC>A D'you have to close your eyes?	(C2 swaying across table, elbow on table, fingers to face.)		P's contribution taken up by teacher. Not acknowledged.

		Puts them into box. Appears hesitant for a moment as if deciding what to do next.	I'm gonna give to					
14	9.37.17	Gaze to TC and Cs, points one finger onto table indicating where shapes will go. Fold arms, leaning forwards, half smile, eyes slightly wide as if in anticipation of revealing a secret.	A>Cs Okay! If you close your eyes, Miss G will put a shape in the middle of the table. When you open your eyes, if you know what the shape's name is, you can tell me the name. Put your hand up.	Places both hands over eyes quickly, elbows on table. Removes hands from eyes. Gaze to A. Shoots hand up in air.				T uses 'game'
15	9.37.29	Puts hand in box, gaze to TC then to other Cs. Places shape in middle of table. Folds arms on table, leaning forwards. Gaze to Cs ahead.	Don't call out, okay? Close your eyes, close your eyes everyone Ready. Open your eyes! (Said very quickly).	Puts hand down again. Covers face with hands. Removes hands from face, smiling, looks at shape.	Hands to faces. C1>A Umm# C3>A #3D shape			Rules of game. P responds actively to game.
16	9.37.40	Folds lips in briefly, half smiling. Tone indicates correct but not	A>C3 It is a 3D shape, you're right. It's got a tricky name, this one. Not sure	Picks nose. Gaze fixed on A, head resting in chin.		9.37.40 to 9.38.40 Sensitivity – offering positive reinforcement for answer given by	9.37.40 to 9.38.40 Head in hands, watching Adult attentively. Concentration	C2 refers to familiar objects to make sense of task.

		what A was looking for. Gaze to TC. Points at/touches top of shape. Picks up shape and holds end towards Cs.	you've met this one before. What shape is this here? Yes Like a tent, yes (high tone)	Turns from A to right, hand & gaze down to leg. Gaze to camera.	C1>A Umm C1 & C2>A #Triangle. C1>A Like a tent// C2>A //like a tent	another child. Also points out task as 'tricky' to soften force of expectation of correct response. Similarly, Adult notes triangular prism is 'very big word'. No autonomy offered. Continues stimulation via closed questions.	falters, gaze and body turned away. Expresses pleasure in response to Adult addressing 'big word' comment to him. Reaches to touch shape. Head on desk at Adult's request. Looks up, concentration wandering.	
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 triangularCan you say that word? Triangular prism.	Smiles to me, shrugging shoulders to ears.	C2 & C1 nodding ?>A Triangular C2 leaning forward onto			T: Note combined use of actions and words to teach.
18	9.38.07	Gaze to TC, nodding in emphasis.	It's a very big word isn't it? Wow!	Gaze to A.	table			P's exaggerated physical response.

		Smiles.		Nods. Smiles.					T: repetition.
			Triangular prism. Triangular prism	Exaggerated laugh, open mouth, head thrown back.		C2>A Like when someone's in jail?			C2 tries to relate word to more familiar word to understand.
19	9.38.10	Gaze to C. Nods. Tilts head side to side briefly, lips together, indicating 'maybe'. Amused smile, nod, gaze to camera.	A>C2 Like prisonyesyes when someone goes into jailyeskind of, similar.	Gaze to camera again.	TC>? What's that				
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.			P tries to opt out of game. T: incongruence in message from words and tone/actions. Used to control.
21	9.38.26	Places shape in centre of table, quickly. Half smile. (No gaze or verbal response to TC)	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!			T: tight focus on learning objective.
22	9.38.37	Gaze to C3,	A>C3				9.38.41 to 9.39.41	9.38.41 to 9.39.41	T: affirmation, but partial. Some

		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.	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	Reduced autonomy – directs Paul to attend to task. Continues to stimulate via use of 'game'. Corrects children's contributions sensitively by offering positive feedback but also guiding to 'correct' or sought response.	Turns away from table. Turns back at Adult's request. Facial expression shows awareness of being 'corrected' by adult when told to turn round. Gaze down. Plays with hands/fingers on table, not attending. Closes eyes in response to adult's request. Fidgets. Question asked shows desire to do something else. Again responds to adult's request to close eyes; jumps 'awake'. Appears to be responding to action part of 'game' but not involved in thought.	incongruence between words and tone of voice. Affirmation.
23	9.38.43	Gaze to TC. Eyes open wide, but brow raised. Face unsmiling, mouth slightly open. Voice serious. Silent gaze extended for a	A>TC Paul! Look at me.	Turns back to A, arms resting on desk, gaze to A.					T: control using words and nvc.

		second.					 	
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 lt's a cube, C3, a cube.	Stretches arms out in front on table.				T: reinforcing learning point.
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?		T: recaps.
26	9.39.02	Puts hand into box, head tilted to side, half smile. Puts shape on table.	A>Cs Eyes closed. Eyes closed, C3. Ready 1 2 3 open them!	Closes eyes in exaggerated way, half smiling. Turns head to right. Turns quickly back to A.	TC>A			Game genre P tries to opt out.
27	9.39.??	Gaze to C, listening, head tilted, smiling.	A>C		I don't wanna play this one.	C1 & C2 indicate telescope with		Children link shape to familiar object.

			Yes, it's not called a telescope, is it? It's the same shape as a telescope. It's a A cylinder	Picks nose, rubs eye/face, head tilted.		hand/eye movement. C2?? ??telescope C2>A Cylinder!			
28	9.39.17	Places shape on left side next to other 3D shapes. Sits back, arms off table. A does not respond to TC with voice or gaze. (Did she hear?)	Well-done. Brilliant. Right. A>C1 Pardon? It's Mrs. Payler's	Rests head on hand. Leans arms and body onto table, face to A.	TC>A Can I go on that in a minute? (<i>indicating</i> ' <i>hammering</i> ' <i>table</i>).	C1>A (pointing at my audio recorder) Whose is this? Whose is this?			T: positioning of objects. Praise or verbal marker? P again tries to opt out.
29	9.39.21	Glance to camera/me. Glance to watch.	A>Cs Ready? Ooh, what shape shall I get now? Close your eyes. A>C4 C4, close your eyes. A>Cs One two three open them		TC>? I show you a trick				P tries to create interest.
30	9.39.40		Put your hand up when you know what it is. Don't call out.	Standing. Opens eyes, smiling. Looks at adult. Leans right over and onto table, almost into A's face.		C1 puts hand up. C2 puts hand up C1 and C2	9.39.42 to 9.40.42 Reduces autonomy – 'Don't call out', 'Not in your mouth'. Continues to stimulate using closed question	9.39.42 to 9.40.42 Lies on the table, hand to mouth. Puts face down in response to adult's request. Shows mild pleasure.	T: control over children's actions/ game rules?

31	9.39.45	Gaze to C3.	A>Cs A cone A cone		raise hands high in air, standing. C3>A Cone	'game'. Employs some sensitivity in encouragement, saying 'good try' for incorrect answer. Voice conveys warmth, but also authority and control.	Jumps up 'awake' on request, stands briefly, lies over table. Appears to be complying but not actively cognitively involved. Face on arms on desk. Jumps to attention when adult says they can go and do some building, animated, expectant face. Asks teacher if it can be outside.	
32	9.39.55	Face resting in hand, elbow on table. Frown and gaze to C4.	A>Cs Okay, ready, eyes closed. A>C4 Not in your mouth, C4, please darling. A>Cs		All Cs resting upper bodies onto table towards A.	· · · · · · · · · · · · · · · · · · ·		T: control of C4's actions using voice and actions.
33	9.40.03	Places small triangular prism on table. Shakes head,	Eyes closed Open your eyes What was its name? What was its name? A>C1 Not a cylinder	TC>A A cylinder	C1>A Cylinder (C2 points to the other			C2 explores similarities

		gaze down to table.				triangular prism on the table, indicating their similarity) C2>A It's like that one. It was like that one. Gel pen			in trying to find answer. Links to familiar word.
34	9.40.23	Smiles. Brief gaze to me. Looks into box. Turns face towards children.	Gel pen (quietly echoing) Good try darling. Triangular prism. A triangular prism. Right, last time, then you can go and do some building. Ready?	Stands up, arms on table.		All sitting, leaning over table, arms on desk, faces resting on hands, gaze to A. C3 turns to look at building on			Affirmation.
35	9.40.40	Head tilted to side, gaze to TC. Sits upright, gaze to C3, eyes wide, face serious. Conceals shape in hand.	Last time cause you've worked well. A>TC You ready? Sh A>C3 Close your eyes!	Head and upper body resting down on table, hiding face.	TC>A Can me do some outside? TC>? ??work ?? outside ?	mat. C1, C2, C4 hide faces with hands.	9.40.43 to 9.41.43 Autonomy – offers choice of next activity from limited selection to children in task group except Paul. During one-to- one with Paul, maintains eye to eye gaze and purposeful facial expression. Uses directive stimulation, combining assessing/	9.40.43 to 9.41.43 Head on desk. Jumps up, reacting on time. Laughs briefly. Stands, looking increasingly suspicious and hesitant as teacher lets other boys leave table. Rocking, twisting body, fingers feeling table, gaze	T mentions releasing them from activity for 'working well': reward of play. P also keen to move on.

							reinforcing/informing . Enriches by pointing out salient features of 3D shape. Extends by asking for name, enriches by giving name. No use of exploration with Paul. Gives no autonomy to Paul. Calm and warm demeanour, not playful or relaxed.	to teacher. Sits next to teacher, head in hands, elbows on desk. Hides face in response to request. Fingers in mouth, covering half of face. Eyes cautious but attentive. Looks unsure. Nods.	
36	9.40.48	Places cube on table. Gaze down, lips pressed together.	A>Cs One, two, three, go. Cube, well-done.	Half standing, laughs loudly, exaggeratedly.		(C2 standing) C2>A Cube			P's actions exaggerated.
37	9.40.56	Gaze to activities to left and right, pointing to indicate.	A>C1 & C2 Right, C1, C2, you can go and do the nail boards or you can go and do that A>TC No ?? A>C3, C4 C3 and C4, you can go down over there and make something with the building	Standing, points over to hammering table. Looks hesitant and uncertain. Twists body from side to side.	TC>A ??me do that? Wanna do that	C1 and C2 leave table to left. C3 and C4 leave table to			P keen to move on.
38	9.41.15	Takes shape from box. Rests elbows on table,	blocks. A>TC Right. This is some one on one	Sits in chair next to adult Arm on table,		right.			

		both hands in	work, ready,			 		 	
		air, concealing		palm down.					
			close your eyes.						
		shape between		Hands over face	E				
		them. Gaze to		briefly, elbows					
		TC, face at		on table.					
		same height,							
		directly in front					Í		
		of TC.							
39	9.41.30	Puts cube on	Right	Opens eyes,		 		 	
		table, folds	??	moves hands.	(Whispers to				
		arms.	What was that	Smiles at shape	adult)				
		Ear close to TC,	again?						
		face turned to			(Whispers again)				
		side.	Not a 2D shape,						
		Mouths	it's a						
		beginning of							
		'three' as clue	3D						
		before saying it.	Not flat						
		Takes large		Nods					
		almost flat	This is a 2D						
		square from box	shape						
		and puts it on							
		table.							
		Points at cube,							
		tapping from	This is a 3D						
		table to top of	cause its						
		cube with							
		fingertips of							
		both hands to							
		indicate height							
40	9.41.47	Indicates	This is a flat			 	ļ	 	
		flattish square,	shapeand this						
		then picks up	has got corners,						
		cube. Touches	faces.						
		faces and edges							
		to indicate.							
		Picks up flattish							
		square and puts							
		it back in box.							
	_	It Dack III DOX.							

		Points at cube.				 	
			D'you know its name?	Shakes head, hand to mouth.			
41	9.41.51	Elbows on table, resting head in hand.	It's called a cube. All the sides are the same size. Alright? Okay? Okay	Gaze to cube. 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	C5 comes to table to talk to A, not clearly heard. C5>A Miss G, I haven't got a hammer so I can??		
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.			
44	9.42.25	Turns to take shape from box, one hand still on cylinder. Brings out apple and puts it on table.	Okay, and the last one D'you know what shape this is?				

-				Gaze to apple.	TC>A		 	
				Sule to upple.	S'n apple			
45	9.42.34	Picks up apple and rolls it across table	It is an apple, you're you're right. D'you know what shape it is? And if I roll it like a tennis ball. Can you remember?	Head resting in hands. Gaze to A then to apple. Shakes				
46	9.42.40	Puts it back with both hands, gaze into TC's face. Points over to mat area. Looks left to hammering table to check number of children.	A sphere. Okay, excellent. Right you can go and do the building blocks. A>C4 C4, can you come and see me//. A>TC Um Yes you may	head. Stands quickly to leave. Looks at mat, looks at hammering table to left, points.	TC>A //Can 1 do that?			

Appendix ix Themes

Date	nd control Who /	Comments
Date	Where?	Comments
Agency	where:	
<u>Agency</u> 17.10.02	Lydia	Numbers 3 & 5
10.10.02	Robert	
10.10.02	Koben	Showing work to T and his explanation
5.12.02	Carly	Writing (audio)
	Carly	Lifecycle of frog book
	Carly	Blood pressure monitor
22.1.03	Carly	Cogs and gears
7.5.03	Carly	Cakes and lollipop sign
12.12.02	Robert	Painting at end: negotiating the interpretation of the painting
5.2.03	Lloyd	Looking for purpose and 'correct' way – 'What are you supposed to make with this?'
5.2.03	Lloyd	Audio- autonomous, 'equal' to adults – watch actions here; game? Equal?
13.2.03	Molly	Interested as observer in other girls' activities. Asks adults questions about them.
13.2.03	Molly	Watches others then tries out activities alone later (mat jumping, this time)
3.10.02	Lydia	Seeks support, cuddle
6.2.03	Lydia	Confident in class discussion with visiting policeman
6.2.03	Lydia	Writes self-initiated good, phonetically-credible attempt
		at writing T's name during handwriting
14.2.03	Lydia	Directs support /help needed.
6.3.03	Paul	Role play room incident. Anger/frustration.
12.12.02	Robert	To LSA: 'trying v. hard' –pride.
14.2.03	Robert	Dressing weather bear
14.2.03	Robert	Negotiates over ownership/resources.
12.12.02	Robert	As 'mediator' between me & Paul
5.2.03	Henry	With deputy; 'Shall I show you what I'm really good at?'
3.10.02	Tom	Construction and animals versus number work
2.12.02	Robert	Painting of 'kings'
12.12.02	Robert	Maths colouring (note later development in school as 'top' group routinely opt and are allowed to finish work

		beyond allotted time.
14.2 03	Reception	More 'space' on Fri am.s for children to converse more
		freely with fewer time and number constraints. Led to
		opportunity for Lydia and J to have an excellent
		scaffolded reading episode. Note also how (some)
		children recognise when and with whom to exercise
		agency, i.e. LSA more willing to accept boundary pushes
		when T not there. Different atmosphere leads to some of
		the best eg.s of collaboration in my data.
4.6.03	Paul	Playdough food or trolley?
22.10.02	Robert	Eating playdough
Control		
5.2.03	Lloyd	Audio- autonomous, 'equal' to adults – watch actions
		here
23.1.03	Paul	'Irrelevant' contributions in class discussion; need to be
		'on task'
23.1.03	Paul	Struggling with weather bear drawing (understanding?),
		unable to do own name; task seems to emphasise his lack
		of skills rather than build on strengths.
23.1.03	Paul	RE: teacher interrupts his speech to quieten & focus
		(assuming irrelevance?)
6.2.03	Paul	Weighing activity in groups; P points to role play room
		and asks if they will be going in there. T replies 'Is that
		anything to do with weighing and measuring?'
14.2.02	Devil	(T., 1,, 1', 2', 1, 1, 1,, T. (Q(,, 1))
14.2.03	Paul	'Too demanding' in whole class sessions. T: 'Stop saying
(2 02		my name P. I don't choose children who call out'.
6.3.03	Paul	Role play room incident. Anger/frustration.
6.3.03	Paul	T trying to direct & improve his drawing and on-task
		behaviour, but sounds like lack of value in his current
		skills
20.9.02	Teacher 1:1	Baseline Assessment in early days at school
24.9.02	time with	
3.10.02	children	
23.1.03	Paul, Robert	1 to1 time of teacher used in number knowledge
	, 1000000	assessment.
5.2.03	Henry	Contrast to way in which work for key worker files is
		carried out in pre-school.
14.2.03	Lydia	Crying re. tidy up time.
5.2.03		Audio notes, see comment on choice in pre-school but
		not in school in relation to complying with directives, but
		v. little difference in the language used, so children have
		to learn the difference (is control enforced or not?)
		depending on context.
14.2 03	Paul	'Irrelevant' contribution: Teacher exercises more control

		over what is relevant and acceptable in school than in pre-school. In pre-school, control is more tacit.
14.2 .03		[•] Plan–do-review [•] : very little actual choice or real planning or reviewing in this. Quite controlled, but some leeway.
5.3.03	Henry and Lloyd	Pre-school: polyhedrons – dept sup makes suggestions but doesn't insist on her way of doing.
1.5.03	Tom and Paul	Phoneme set rings
14.5.03		Deputy supervisor and boys/cars incident
8.1.03		Pre-school sup letter of week

Delivery/ guiding/ discovering

<u>v</u>	ung/ uiscover				
Delivery					
20.2.03	Reception	Whole group 'delivery': class assembly			
20.2.03	Reception	Numeracy add one/ take one			
30.4.03	Pre-school	Road safety by dept supervisor. Good e.g.			
8.5.03	Reception	Counting on: doing, saying, recording.			
14.5.03	Pre-school	Registration: a successful e.g.			
6.3.03	Reception	Numeracy: counting on			
15.5.03	Reception	Literacy and handwriting: contrast between level of			
		challenge for least and most skilled children and			
		differential feedback and outcomes.			
23.1.03	Reception	Geography: clothes for weather & 'weather bear'			
13.2.03	Pre-school	Letter of week abandoned. Supervisor: 'No, you didn't			
		listen to the others.' and brief post-interview with			
		Molly			
12.12.02	Reception	Teacher weighing			
6.2.03	Reception	Weighing activity.			
8.2.03	Reception	T's comment in field notes re: whole class input. Need			
		for closer adult/child involvement?			
24.9.02	Reception	Dramatic devices to capture interest			
23.1.03					
1					
6.2.03	Reception	Teacher dressed up as LRRH; children involved.			
14.10.02	Pre-school	Less successful whole group time			
20.11.02					
5.12.02					
11.12.02	Pre-school	Objects brought in – noise level – not linked clearly to			
		phoneme			
Guiding					
20.11.02	Lloyd,	Logical lotto			
	Henry	-			
11.12.02	Lloyd,	Counting puppies			

	Henry	
2.10.02	Stuart,	
	Supervisor	
5.3.03	Henry, Jan	Using stencils
5.2.03	Lloyd, Bev	Spaghetti weighing
6.3.03	Paul,	'Improving' his drawing technique.
	teacher	
8.1.03	Stuart, sup	Puppies numeracy
12.12.02	Robert,	Numeracy adding worksheet
	teacher	
11.12.02	Henry,	Counting, writing no. 5
	Lloyd, Dept	
	sup	
9.1.03	Tom,	Guided reading
	teacher	
9.1.03	Paul,	Puzzle
	teacher	
9.1.03	Tom,	Numeracy
	teacher,	
	LSA	
15.1.03	Supervisor	Using scales
16.1.03	Paul, Tom,	LSA successfully supporting P and T in whole class lit
	LSA	
22.1.03	Carly, Sup	Pencil control worksheet for key worker files
23.1.03	Lydia, LSA	Painting: enabling, exploration, companionable – all
		non-assessing
5.2.03	Henry, dept	Worksheet: exploring, extending, enabling, non-
	sup	assessing
30.4.03	Stuart,	Making zebra crossing together. Joint effort &
	Sally	conversation
13.2.03	Molly	Using scissors
8.5.03	Tom,	Guided reading
	teacher	
1.5.03	Paul,	Handwriting
1.5.02	teacher	
1.5.03	Tom, Paul,	Phonic set rings
	LSA	
Diagonation		
Discovering		
(and collaborating)		
7.11.02	Gaarga	Puzzla : confusion batwoon latter types
20.11.02	George	Puzzle : confusion between letter types
20.11.02	Lloyd, Henry	Construction, logical lotto
11.12.02	Lloyd,	Counting puppies
11.12.02	Henry	Counting pupples
22.1.03	Carly	Cogs
11.12.02	Molly	Playing alone, enjoying role play resources.
13.2.03	Molly	Watches others then tries out activities alone later
13.2.03	IVIOITY	

12.12.02	Robert	Numeracy; 'good worker'; desire to get things right; helpful to Tom; keen to finish work. To LSA: 'trying v. hard' – pride. Pm: a problem-solver and 'reasonable' person.				
7.11.02	George, Robert	Numbers, collaborating				
13.11.02	Carly	Exploring social rules				
14.2.03	Robert, Andy	Audio notes: on computer; joint ideas and discussion, Robert explaining ideas and actions.				
14.2.03	Lydia	Field notes; excellent e.g. of scaffolding between children				
6.2.03	Lydia, Robert	Group negotiating over LRRH story role play.				
14.2.03	Robert	Dressing Weather bear, Robert & friends. Note children's use of language & resources in role play room.				
6.11.02	Pre-school	Boys greater interest in role-play area when 'fire station				
19.12.02	Reception	'Free choice': girls – drawing; boys – construction, but Tom unsure.				
5.12.02	Molly	Colouring, cutting angels; ideas from others				
20.2.03	George	Handwriting: children adapting non-engaging task to game.				
6.3.03	Paul, Alan	Paired for bingo: what are obstacles to collab?				
30.4.03	Stuart	Helping younger children: Danny and Sam				
21.5.03	Henry, Lloyd	Levels of activity: primary level = social; contextual level = playdough				

Abstract or purposeful activity

Abstract						
16.1.03	Paul	2D 3D shapes; meaningful as game only?				
9.1.03	Tom, Paul	Number towers				
1.5.03	Paul, Tom	Phonic set rings				
	Reception	Note: Many of the numeracy activities Paul and Tom				
		took part in on a daily basis were abstract: counting				
		cubes, matching cubes to numerals, ordering numerals,				
		recognition of numerals. Some phonic work and				
		handwriting/numeral writing was similarly abstract.				
5.2.03 and	Pre-school	Sudden rash of worksheets to assist staff in observations				
after		to enter into key worker record files.				
Purposeful						
3.10.02	George	Making sense of counting task and 'snakes'				
20.11.02	Lloyd &	Post-office role-play. Later, writing and posting letters				
	Henry	home and to each other.				
23.1.03		Geography, whole grp discussion on weather/umbrellas,				

		logical thought, explicitly expressed PLUS use of whole body by T. Also dressing Mr Bear together.			
5.2.03	Lloyd	Looking for purpose in spaghetti/weighing activity			
13.2.03	Molly	Persistently looking for purpose in having scissors out when shapes are pre-cut			
20.2.03	Reception	Class assembly, a joint project meaningful as 'performance'			
Most mornings. Good e.g. 7.5.03	Pre-school	Children counting number attending to tally with register			
7.5.03	Pre-school	Cake making			

Other themes in data set with some examples: *Friendship/ relational issues*:

E.g.

L.g.		
	25.9.02	
Carly	2.10.02	Conflict with friends
	13.11.02	Carly
	5.12.02	Excluding Molly
	22.1.03	Negotiating with G re: L, applying social
		pressure
Henry and Lloyd	6.12.02	Not Molly
	11.12.02	Henry waiting for Lloyd-space to dry 'sticking'.
		Molly again peripheral. H& L playful in
		registration - pleased to be together.
		Affection at end.
Paul	22.10.02	
Robert	12.12.02	Audio- inviting others to join in his building. As
		'mediator' between me & Paul
Molly	13.2.03	Moves in & out of play with others, then alone.
		Names but doesn't play with friend.
George & M	20.2.03	Numeracy; hand on shoulder

<i>Children expr</i> E.g.	essing need for	mother/ main carer:
Tom	24.9.02	
	14.11.02	
Lydia	3.10.02	Want a cuddle
	7.11.02	Want to be at home
	12.12.02	Want to be warm
Stuart	2.10.02	

Assessment activities: Baseline Assessment dominating first half term in reception:

E.g. 20.9.02 24.9.02 3.10.02

23.1.03 1:1 time of teacher used in number knowledge assessment – Paul, Robert

Key worker files later in pre-school: E.g. 5.2.03 Henry, but some agency of child 'Shall I show you what I'm really good at?' 14.5.03

Tiredness in children and staff in reception:

E.g.	3.10.02	Tom
	14.11.02	Lydia pm
	12.12.02	Robert aching neck
	13.2.03	School planning around 'tired' periods, i.e. end of week and afternoons.
	20.2.03	Teacher – drained after class assembly.
	6.3.03	See field notes.

High currency of representational skills, especially in reception.

E.g.	23.1.03	Paul unable to draw clothes on weather bear or write name.
	6.3.03	Field notes. T attempts to help Paul to do better
represe	entational	drawings, but also tied with power and control.

Appendix x Mother and child interactions in the home relating to discussions about interests and assessment tasks: summary of types noted

	Stuart	Henry	Lloyd	Carly	Tom	Paul	George	Lydia	Robert
1. Principled	part	part	yes	yes			yes		yes
contingent									
strategies						_			
2. Exercising	part	part	yes	yes			yes		yes
and								1	
encouraging									
agency by									
-making									
meanings explicit;									
expecting to be									
understood;		}							
- effectively				[
negotiating type									
of support (- later seen		Ves	Ves					yes	yes
used by child		yes	yes					yes	y 03
in setting, too)									
- valuing	yes	yes	yes	yes			yes		yes
children's	yes	yes	yes	yes			y 03		J U 5
opinions and					ļ	}			
ideas									
3. Esoteric or	yes	yes			yes				
outcome	5	5							
strategies									
4. Initiating		yes	yes	yes			yes		yes
joint									
involvement						1			
- successfully									
by child									
-	part				part	yes			
unsuccessfully									
by child									
5. Seeking	part	part	yes	yes	part		yes		yes
support								ĺ	
- effectively		ļ							
negotiated;									
uncontested									
control									
- ineffectively					part	yes			
negotiated;									
contested	ļ			1					
control									

Appendix xi Research questions with related data collection and analysis

	Source	Method of collection	Quantity/duration	Means of analysis
Question 1:				
What are the				
adults trying to				
ensure children				
learn in each				
setting? What				
are the explicit				
and implied				
messages of				
teaching and				
learning in each				
setting?				
Sub-questions				
1:				
What are the				
adults'				
perceptions of				
teaching and				
learning in each				
setting?				
What influences				
these				
perceptions?				
How far are the				
perceptions				
evident in				
provision?				
What else				
influences				
provision?				
What is the				
culture of				
interaction with				
children with				
regard to				
purpose,				
initiation,				
response and				
structuring of				
interaction?				
Stage 1	4 pre-school	Video and audio	10 hrs	Analysis of data for Stage 1
Pre-school:	sessions	rec.		(ethnographic two-site case-
1 1 5-3611001.	505510115	Field notes.		study) based on evidence and
		Informal		issues emerging from data in
		discussions with		relation to the sub-questions.
		staff and children.		guided by literature review
				and staff feedback on interin
				issues, interpretations and
			2.5 hrs total	interview transcripts.
	2 Staff planning	Audio rec.	2.5 hrs total	
	meetings	Field notes	6 of 8 returned	1
	Individual staff	Structured; open-	6 of 8 returned	1

questionnairesended questionsInterview withSemi-structured,0.5 hrssupervisoraudio rec
supervisor audio rec.
Staff group Semi-structured, 1 hr; 3 people
interview audio rec.
Diploma in Pre- Participant 5 hrs observation
school Practice observation. 0.5 hrs interview audio
course: Field notes. rec.
observation of 1 Audio rec.
day; interview Semi-structured
with DPP tutor; interview
informal
discussions with
students;
documents and
handouts relating
to course
content.
Documents: Pre-
school
inspection
report; Curriculum
Guidance for the
Foundation
Stage. Staff
planning doc.s
Early Years Strategic and
Development Implementation
and Childcare Plans; telephone
Partnership discussion with
Strategic Manager
School: 3 half school- Video and audio 8 hrs
day sessions rec.
Field notes.
Informal
discussions with
staff and children.
Individual staff Structured; open- 0 returned
questionnaires ended
Interview with Semi-structured. 0.5 hrs
Rec/Yr 1 Audio rec.
teacher.
Interview with
Reception 1.0 hrs
teacher.
Interview with
Reception LSA
l.0 hrs
and B Ed day of each
(Advanced Early course.
Years) courses Informal
discussions with
students.
Informal interview
with tutors.
Review of some
course documents. Field notes.

	Documents:			
	School			
	inspection			
	report; booklet			
	for parents of			
	reception			
	children. Staff			
	planning doc.s.		1.5 hus	
	Introductory	Observation.	1.5 hrs	
	meeting for	Field notes		
	prospective			
	Reception			
	parents			
Pre-school and	2 Joint 'Early	Field notes	2 hrs total	
school	Years Group'			
	meetings			
Question 2:				
By what means				
do the adults				
attempt to				
ensure and				
facilitate				
learning?				
Incorporated				
into Sub-				
questions 1 as				
above.				
Stage 1:				
drawing on				
same data				
sources and				
methods listed				
for Qu. 1				
above				
Stage 2:			Ethut brief	Analysis of notes and sheets
Pre-school	On-going	Informal	Frequent but brief.	for evidence of adults
	planning by	discussions; field	V	tailoring planning to
	staff.	notes.	Key worker files	children's learning,
	Key-worker	Key worker	reviewed in term 1	monitoring learning and re-
	assessments of	individual child		evaluating plans.
	children.	assessment sheets.		evaluating plans.
			2.5 has sudio	
	2 planning		2.5 hrs audio	
	meetings	x y 1 1 1'	Can dataile airean undan	Analysis of recordings and
	Target staff	Video and audio	See details given under	notes for evidence of adult
	observations	rec.	Qu. 3 below.	interventions aimed at (or
		Field notes.		potentially) enhancing
				learning. (Micro analysis of
				interaction episodes outlined
				under sub-questions 3i-iii
				below) Analysis of recordings and
	Target child	Video and audio	See details given under	notes for evidence of adult
	observations	rec.	Qu. 3 below.	notes for evidence of adult
				interventions aimed at (or
				with potential for) enhancing
				Learning
				learning.
School	On-going	Informal	Frequent but brief.	Analysis of notes and sheets
School	On-going planning by	Informal discussions; Teacher's plans;	Frequent but brief. Weekly plans for literacy and numeracy	Analysis of notes and sheets for evidence of adults tailoring planning to

	Teacher assessments of children.	field notes. Teacher's individual child assessments incl. baseline assessment.	reviewed; medium term plans for other subjects. Baseline assessments for each child plus termly assessments of	children's learning, monitoring learning and re- evaluating plans.
	Foundation Stage literacy and numeracy planning meeting in school.	Audio recorded meeting between Rec./Yr 1 teacher and Rec. teacher.	phonics and numeracy 1 hour	
	Target staff observations Target child observations	Video and audio rec. Field notes.	See details under Qu. 3 below.	Analysis of recordings and notes for evidence of adult interventions aimed at (or with potential for) enhancing learning. (Micro analysis of interaction episodes outlined under sub-questions 3i-iii)
Question 3: What are the different types and frequencies of interaction between adults and children?				
Stage 1	Observations and staff interviews	As listed above for question 1.	As listed above for question 1.	Contribution to development of taxonomies – see below.
Stage 2	Initial general observations	Field notes. Informal discussions with staff.	1 x morning per week x 4 weeks each setting	Contribution to development of taxonomies – see below.
	Target adult observations	Video rec. (audio rec. if nec.) Field notes.	1 x 1 session per term in each setting focused on 1 member of staff each time. Total 6 staff; approx. 9 hrs minimum recorded; 16.5 hrs minimum observed.	1 st level: Analysis of range of staff interactions in each setting, noting differences in type and frequency between settings. Taxonomy developed. Coding of sample recordings analysed for patterns.
			Sample of 2 days/sessions in each chosen as typical for coding: total 300minutes in January and May 2003.	2 nd level: Analysis of where and how individual children's patterns of interaction relate to the adult patterns of interaction (meta analysis of patterns as above and drawing on micro analysis).
	Target child observations	Video and audio rec. Field notes.	5 sessions per child evenly spread throughout year. Total approx. 75 hrs recorded, 147 hrs minimum observed.	1 st level: Analysis of range of children's interactions in each setting, noting differences in type and frequency between settings. Taxonomy developed. Coding of sample recordings analysed for

			Sample of 2 days/sessions per child chosen as typical for coding.	patterns.
Sub questions to Q. 3: <i>i. What is</i> <i>happening</i> <i>within the</i> <i>interactions at</i> <i>the teaching and</i> <i>learning</i> <i>interface that</i> <i>might be</i> <i>implicated in the</i> <i>children's</i> <i>learning?</i> <i>ii. How do</i> <i>individual</i> <i>children in</i> <i>different settings</i> <i>experience the</i> <i>range of adult</i> <i>interactions?</i> <i>How far do the</i> <i>children</i> <i>influence the</i> <i>patterns of</i> <i>interaction</i> <i>themselves?</i>	Target adult and child observations as noted above. Informal discussions with children after episodes when possible.	Field notes; some audio recording.		2 nd level: i) Micro analysis of 2 sample episodes of frequently used interaction in each setting, drawing on multimodal analysis methods, Involvement and Engagement scales (Pascal and Bertram 1997) & other child interaction/ early years pedagogy studies. ii) Analysis of existence and saliency of issues generated in level 1 across the data for year, combined with themes analysis across data for year.
Question 4: What is the evidence for the children's appropriation and learning?				
Stage 2	Staff assessments of children	Formal assessments such as Baseline Assessments, key worker assessments, continuous assessments by staff such as phonic and numeracy assessments. Informal assessments gleaned from discussion.	For each child, at end of 1 st half term, and end of 2 nd and 3 rd terms. Informal discussion as and when possible.	Summary sheets of each child's achievements based on baseline assessment elements, supplemented by additional comments omitted in BA such as personal strengths, construction skills, physical sport skills, creativity. Points of progress on BA/ National Curriculum scales noted over year. Note of any aspects of reduced competence or interest over year. Children's developing (or reducing) competence in, use of, or influence in Joint Involvement Episodes over
	Parent interviews and parent diaries.	Semi-structured interviews, audio recorded.	17 home visits/ interviews/ assessments completed	year. Contributions to analysis of learning noted above from children's views, parental

	Discussions with children	Supplementary assessment for pre-school children similar to aspects of baseline carried out by me/parent during parent interview. Notebooks as diaries for parent entries; guidance for entries given. Short informal individual conversations with children re: thoughts on learning expectations and achievements in settings, thoughts on own learning.	 (2 per family where possible); approx. 18hrs audio rec. Repeat in last term. Field notes. 5 diary notebooks returned with entries by parents. 	sources and observations.
	Target child observations – as noted for Q. 3 above. Also, eg.s of children's work, drawings, constructions.	Photocopied samples, audio/video recordings of process of production.		
Question 5: What is the evidence for the sources of this learning?				
Sub-question: How do pedagogic episodes (or other aspects of interaction) contribute to young children's	-			
learning? Stage 2	As for Q. 4, but reference back to analysis of interactions for Q. 3 too.		·	

Concluding question:

How do the cultures of pedagogy and the adults' and children's operation within it impact upon forms of interaction implicated in the children's learning through their 4th year? Drawing on data and analysis for all of the above questions.

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