



**An Exploration of Young Children's Engagements in
Research Behaviour**

Volume I

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Jane Murray
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Abstract

Natural research behaviours may present in children younger than eight years but tend to be overlooked by professional researchers, with the result that young children are rarely recognised as agents in enquiry concerning matters affecting them. This exclusion amounts to social injustice as it underestimates children's capabilities and denies them particular rights. The thesis proposes that young children engage in research activity congruent with professional adult researchers' behaviours, as part of their daily lives. Furthermore, the inequity caused by excluding children from recognition as researchers may be addressed if professional researchers were to find ways to recognise and value the children's contributions as researchers.

The empirical study that is the focus for the thesis secured a taxonomy of research behaviours from professional adult researchers which was then applied to naturalistic observations conducted with - and by - children aged 4-8 years in their settings and homes. A 'jigsaw' methodology was adopted, featuring constructivist grounded theory and critical ethnography, among other methodologies. Throughout, the project was committed to participatory, emancipatory and inductive principles, though challenges were encountered along the way. Alongside observations, multiple other methods and analysis were employed in the co-construction of data with children and their practitioners in three English early childhood settings and children and their parents in five homes. Professional adult researchers also contributed to primary and meta-data.

Results indicated that problem solving, exploring, conceptualising and basing decisions on evidence were regarded by professional researchers as the 'most important' research behaviours. Children engaged in these behaviours of their own volition, alongside other research behaviours. Their activities included exploring materials to create novel artefacts in art work, rolling in giant cylinders, cooking and ordering objects systematically. While undertaking these activities, children often revealed higher order cognitive processes such as trial and error elimination, causality, analogy and a posteriori conceptualisation.

The study produced a 'plausible account' suggesting that children aged 4-8 years do engage in research activity naturalistically as part of their daily lives and that this activity is congruent with professional adult researchers' behaviours.

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Chapter 1:

Introduction

This thesis reports and discusses an empirical study undertaken to conceptualise ways in which young children aged 4-8 years are researchers and may be recognised as researchers. I began working on this project shortly after I moved to work as a senior lecturer in higher education, following a career as an early childhood teacher spanning two decades. In my work as a teacher, I observed young children researching as part of their daily lives. Anecdotally I witnessed them investigating, questioning, developing systems to achieve goals, testing properties of materials and exploring; these seemed to be higher order processes in which children engaged with greatest involvement when they had time, freedom and opportunity to direct their own activity, particularly during free play. Then, shortly after my move to work in higher education, I attended an international early childhood research conference. At this conference, infants and young children were the focus of attention for delegates disseminating research, but whilst nearly a thousand delegates attending the conference discussed research they had conducted with, on or about children, there were no children at the conference. At that point I realised that, despite all that I knew anecdotally of children as researchers, '...children are excluded...from the '...rarefied world' that is the academy (Redmond, 2008a: 17): a space where 'learners and knowledge producers' converge and where knowledge is produced (Warren and Boxall, 2009:281), a 'score-keeping world' (Lees, 1999:382) which sets itself apart from 'the people' (Bridges, 1998).

Nonetheless, children's abilities to engage as researchers have begun to be recognised by the academy (Kirby, 1999; Fielding, 2001; Kellett, 2005), though this recognition has tended to require children to adopt adults' agenda and be trained by adults to assume adult research protocols. Participatory approaches in research have begun to emerge in a context of a 'new' sociology of childhood (Corsaro, 2005:3; O'Kane, 2008), positioning children as rich, competent social actors from birth (Dahlberg and Lenz Taguchi, 1994; James *et al.*, 1998). However, these participatory research approaches have tended to locate with older children (Chambers, 1994; Ozer *et al.*, 2010), indicating that the academy marginalises younger children in particular.

This marginalisation may have more to do with adults' lack of ability to recognise meanings underlying young children's behaviours than the children's abilities (Hardman, 1973; Bae, 2010; Alderson *et al.*, 2008). Young children's abilities to develop 'a philosophy of what counts as knowledge and truth' - epistemology (Strega, 2005:201) - were established years ago (Isaacs, 1944) yet there remains little acknowledgement of the potential contribution that young children might make to research, even in matters affecting them (Office of the High Commissioner for the Rights of Children (OHCHR) 1989). Indeed, this issue appears to reside partly with OHCHR (1989), which posits the notion of evolving capacities, a concept claimed to balance children's protection with their participation, 'in accordance with their relative immaturity and youth' (Lansdown, 2005: ix). This balance is delicate; it resonates with Piaget's theory of genetic epistemology (1972), which proposes that children's abilities to construct 'higher levels' of knowledge accumulate over time, with experience. Yet this is a contested space, filled with subjective realities and truths: tension presents between the view of the child as an evolving human and the new sociological context in which even very young children are considered 'experts' in their own lives (Langsted 1994: 29). Contemporary young children may be regarded as '...important people who have rights and are important human beings capable of understanding, communicating and influencing (their) own lives and those around (them)' (Harcourt *et al.*, 2011: 7).

In this context it seems appropriate to challenge young children's exclusion from any aspect of society, least of all those which may affect their lives: it is an issue of social justice (Truman *et al.*, 2000). Shortly following the conference, I was to begin my doctorate so I was able to begin to develop the present enquiry with young children, their parents and practitioners, as well as academics, to explore further the notion of young children as natural researchers. Rather than training children in adult modes of enquiry, I wanted to find ways to reveal children's naturalistic behaviours, with a view to exploring whether or not these may be claimed to be research (Bridges *et al.*, 2009). Central to this pursuit was the definition of research, so establishing this became a starting point for the present enquiry.

I devised an aim and questions for an exploration of young children's research engagement; the project adopted the widely accepted definition of early childhood as children up to eight years (OHCHR, 2005). Its original aim was:

'To conceptualise ways in which young children aged 0-8 years are researchers and may be considered to be researchers'.

However, the data co-constructed with children aged 4-8 years was so rich and prolific that in practice, it was not possible to build data with children aged 0-3 years within the scope of this doctoral study. Four questions shaped the study:

1. Within the field of early childhood education and care (ECEC), what is the nature of research?
2. How can a study be conducted to establish young children as researchers?
3. What enquiries are important to young children and how can they engage in them?
4. What support structures might encourage young children to participate in research? What barriers might prevent this?

The development of this aim and these questions was an attempt to position young children more powerfully in the academy's research spaces. From the outset of this enterprise, these ambitions were focused on securing enhanced quality of social justice for young children through an enquiry that might facilitate both their participation and ownership. However, in a sense, the project was flawed from the outset because no matter how altruistically the aim and questions were intended, they were *my* aim and questions, not children's. Whilst I was intent on gaining recognition for young children as researchers, at its inception, the project looked set to reinforce power inequities. Attempting to overcome these tensions led to exciting and daunting challenges with regard to research design and implementation. The thesis charts this process.

The study was co-constructed in three phases in an English context. As part of the methodology, a grounded theory approach was adopted (Glaser and Strauss, 1967), assuming Strauss' favoured approach that advocates the integration of new empirical data with extant theoretical frameworks (Kelle, 2007). The present study's Phase I explored perspectives on research, while Phases II and III focused on children aged 4-8 in their ECEC settings and their homes. The thesis opens with

three chapters outlining the study's methodological and ethical orientation. It then addresses the nature of research in a methodology chapter and a literature review: Phase I. Two further reviews follow concerning literature related to Phases II and III: 'spaces' that adults construct for children and 'spaces' that children construct themselves. In this context, 'spaces' may refer to physical environments (Dudek, 2005) as well as social, cultural, discursive, ethical and other experiences that children may encounter (Moss and Petrie, 2002). Later in the study, two related methodology chapters focus on empirical data co-construction with children and their practitioners in ECEC settings and children and their parents at home. The thesis then outlines the study's analysis and interpretation processes before revealing and discussing findings and their potential meanings.

The chapter that follows introduces and discusses the study's selected paradigm.

Chapter 2:

Methodology (1) - Paradigm

2.1 Introduction

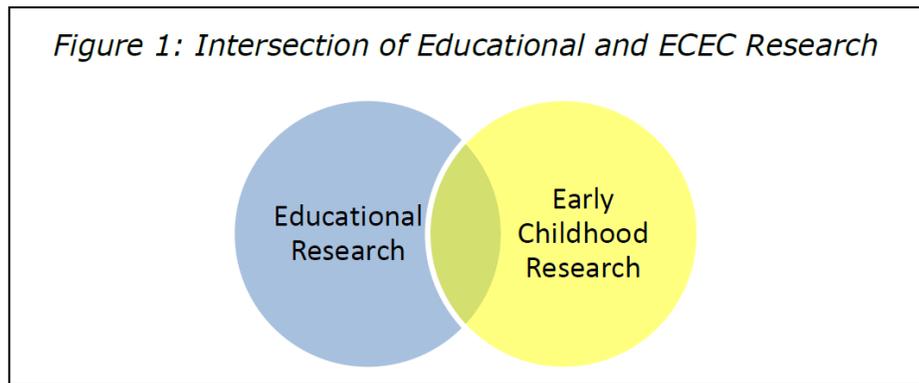
This chapter considers the meaning of 'paradigm' before briefly outlining the context of the present enquiry and my own 'presuppositions', indicating how these have framed the study. I then present the argument for the paradigm selected for the present study.

'Paradigm' derives from the Greek 'paradeigma': 'unchanging model' (Thomas, 2007: 150-151). Definitions of paradigms include 'a frame...a way to "see" the world and organise it' (Hughes, 2010: 35), 'academic socialisation of knowledge', the 'right ways of doing things' (Thomas, 2007: 39; 91), and '...a specific collection of beliefs about what constitutes knowledge and about our relationships with it, together with practices based upon those beliefs' (MacNaughton *et al.*, 2010: 367). Kuhn (1970) is widely attributed with identifying the use of paradigms as 'structures' for contemporary research (*i.a.* Schostak, 2002; Thomas, 2007; Bryant and Charmaz, 2007; Hughes, 2010; Wray, 2011), though much of Kuhn's discussion concerns the development of new models of enquiry that emerge from anomalies in existing models.

Paradigms are socially constructed and socially maintained, consisting of '...theory, methods, and standards together' (Kuhn, 1970: 190; Thomas, 2007). Kuhn (1970) established that operating within a specified paradigm characterised by 'esoteric vocabulary and skills' (p.64) provides legitimacy for research work. Paradigms, then, seem to be important for contemporary research (Hatch, 2007; Hughes, 2010); Schostak (2002) argues that '...at stake is...the status of eternal truth, the final guarantee of there being some sense in life' (Schostak, 2002:137). Yet since there exists '...no single objective definition of what actually constitutes "good quality" research' (Hillage *et al.*, 1998:25), paradigms present variably (Thomas, 2007: 151; Schostak, 2002). Donmoyer (1996) observes that educational research 'is a field characterised by paradigm proliferation' (p.19), while Thomas (2007) posits that '..."paradigm" has come to mean sets of ontological and epistemological presuppositions' which frame research within the social sciences (p.151).

2.2 The research context of the present study

This study is located at the intersection of educational research and early childhood research:



Both educational research and early childhood research include enquiry focused on numerous disciplines (Appendix 133) (Bridges, 2006; Alexander, 2009; Teaching and Learning Research Programme, 2012; Gammage, 2006; Institute of Education (IoE) and Department for Education (DfE); 2012 Journal of Early Childhood Research (JECR), 2012; Early Child Development and Care Journal (ECDC), 2012). From these eclectic areas of focus the present study draws on research capacity, research approaches, user engagement, children's lives and voices, issues in research, communities of enquiry and children's rights and participation. However, themes of history, philosophy, sociology, psychology, neuroscience, family, informal and formal learning contexts, political, economic and cultural contexts, human development, aims and values, teaching processes and adult roles in young children's lives are also embedded within the enquiry.

2.3 My own presuppositions

Hatch (2007) develops the emphasis that Thomas (2007) places on 'presuppositions' by promoting 'different ontological and epistemological assumptions' as 'legitimate' underpinning for 'new research paradigms' (p.9). For this study, I have followed guidance from Hatch (1995) who suggests that researchers should ask themselves 'What are my assumptions about childhood and appropriate ways to study it?' (p.121). Some of my assumptions align with perspectives in literature and policy; all have emerged from my career in early childhood education, spanning more than two decades at the outset of the research. I approached this study assuming that:

- Early Childhood is the age range 0-8 years (Office of the High Commissioner of Human Rights (OHCHR), 2005:2).
- 'Children are excluded by tradition, authority and dependency, first from the adult world (James *et al.*, 1998; Qvortrup, 1994), and then from the even more rarefied worlds of academia and policymaking' (Redmond, 2008:9);
- The 'academy' privileges certain protocols, enabling its members to retain power;

yet:

- Children may engage in research (Punch, 2002);
- Children's ways of communicating may be different from – not inferior to – those of adults (Shevlin and Rose, 2003);
- Children's capabilities are only limited by their 'functionings': 'the various things a person may value doing or being' (Sen 1999:75);
- All children have the right to be respected as persons in their own right (OHCHR, 1989) and to be regarded as competent social actors (James *et al.*, 1998);
- In matters affecting children, children's perspectives are at least as important as those of adults (OHCHR, 1989) but this is not always recognised by adults.

Additionally...

- Early childhood education encompasses early childhood education *and care* (Gammage, 2006);
- Research in the field of early childhood may be conducted in many varied ways (Hatch, 1995);
- I am part of the worlds I study and the data that are constructed (Charmaz, 2006).

These assumptions are indicative, rather than exhaustive; the final point leads into a consideration regarding the selection of paradigm for the present study.

2.4 Paradigm selection

Kuhn (1970) suggests there is virtue in selecting a single paradigm. However, this enquiry is concerned with complex 'socially important problems' (Kuhn, 1970: 37) and I have sought 'appropriate ways to study' the relatively new, multi-disciplinary

field of early childhood (Hatch, 1995:121). Equally, I have attempted to limit my own perspective to give primacy to people in their own contexts. Therefore, I rejected a constraining single set of 'conceptual and instrumental tools' supplied by one paradigm (Kuhn, 1970: 37) in favour of framing the study with a range of 'postmodern epistemologies' (Siraj-Blatchford, 2010b: 199), including interpretivism, postpositivism, constructivism, critical research and poststructuralism. Each was adopted for a specific reason; together they create a rigorous framework that enables the study to contribute to 'the rational and critical resources of learning developed by science, the Enlightenment and democratic norms' (Siraj-Blatchford, 2010b: 199).

Respect for young children's abilities and rights are key tenets of this study. Rather than 'solving a problem' (Kuhn, 1970), I have attempted to explore and highlight young children's research behaviours to 'enrich the human discourse...by providing interpretations' (Hatch, 1995:48). Qualitative enquiry was therefore indicated (Edwards, 2010). Throughout, work has been framed by an interpretivist paradigm, within which participants' 'subjective worlds' were revealed (Cohen *et al.* 2007:21). Dahlberg *et al.* (1999) indicate that such an approach is particularly appropriate to early childhood contexts: I regarded the young children – and other participants - who were part of the research as 'active contributors' (Lee, 2009: 201) with whom I '...continually negotiated the meanings of actions and circumstances' (Hughes, 2010: 41).

Whilst I was aware that emergent patterns may never be fully exposed in the complex 'real world'/ fieldwork contexts, I also recognised value in noting patterns that *did* emerge. The adopted interpretivist paradigm did not exclude 'inherent order'; conversely, I quickly learned the importance of systematic data management! Contemporaneously with the interpretivist paradigm, then, it seemed appropriate to adopt a postpositivist paradigm, which proved effective in accommodating the selected constructivist grounded theory methodology (CGT) and its systems for eliciting and managing data (Hatch, 2007; Charmaz, 2006).

Detailed discussion is provided in the next chapter regarding the adopted CGT methodology (Charmaz, 2006), which was congruent with a constructivist paradigm

in which ‘...individual perspectives...are taken to be constructions of reality’ (Hatch, 2007:13). Furthermore, adopting a constructivist paradigm lent additional coherence to the research design as it aligned with several of my initial assumptions.

Inevitably, those initial assumptions were ‘baggage’ that had to be accommodated through the study; several transmogrified into a critical strand. Whilst the study was predominantly exploratory, there was an element that was ‘intentionally transformative’, (Hatch, 2007:13). I sought ways to do and show research that promoted social justice (Carspecken, 1996; Brown and Strega, 2005). I hoped this study might provide a conduit for young children’s research capabilities to be recognised by the ‘academy’, by their practitioners and by their families and there were indications that this happened. For example, Practitioner H (PRAC H) said to me:

‘...now that you’ve come in... there has kind of opened a door thinking “Oh, could children be researchers?”’ (I-C PRAC-H42; I-C PRAC-H43).

In this way – and by adopting features of Carspecken’s critical ethnography as part of its methodology, discussed in the next chapter - the study was both exploratory and critical.

The adoption of plural paradigms to frame the study rejects the premise ‘...that there is only one way that knowledge can be constituted’ (Hekman, 1990:9). This study recognises ‘...multiple realities, each with its own claims to coherence, and none can be logically privileged over another’: poststructuralism (Hatch, 2007: 13). The poststructuralist paradigm is reflected further in the study’s multiple ‘voices’ (Strega, 2005; Hatch, 2007), including young children’s non-verbal languages (Edwards *et al.*, 1998; Lansdown, 2010; Bae, 2010). Had I selected only one paradigm from the start, I would have denied the children and other participants those possibilities because I would have dictated the tone and conduct of the study. I did, however, reject positivism for several reasons. Firstly, the present study questions who can construct knowledge, whereas positivism privileges those who have learned ‘legitimate methods, problems, and standards of solution’ (Kuhn, 1970:47). Secondly, this study explores multiple perspectives of multiple realities in real world contexts, incongruent with positivists’ ‘fixed, unchanging, and inflexible’

single objective reality (Hatch, 2007:9). Thirdly, given that even Kuhn (1970) acknowledges that ‘...no paradigm that provides a basis for scientific research ever completely resolves all its problems’ (p.79), it seems reasonable to question – even refute - the elevated position of positivism as the ‘gold standard for social science research’ (Brown and Strega, 2005: 8). Paradoxically, though, the adoption of plural paradigms may itself be an emerging paradigm (Kuhn, 1970).

2.5 Link to Chapter 3

Research decisions regarding paradigm and methodology are closely linked (Hughes, 2010); the study’s selected methodology is discussed next.

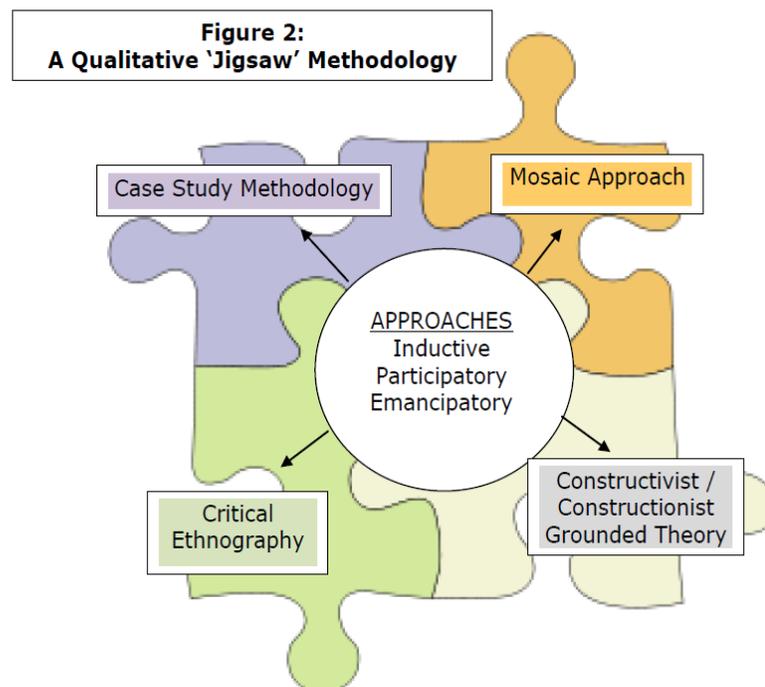
Chapter 3:

Methodology (2) - The Selected Methodology

3.1 Introduction

This study attempts to reveal the perspectives of a marginalised group - young children – in a context from which they have been excluded by dominant methodological approaches (Truman *et al.*, 2000; Redmond, 2008a). It seemed likely that an orthodox methodological approach might not be sufficient to challenge deeply embedded structures. Therefore, mirroring the study's plural paradigms, its qualitative methodology is constructed of a suite of qualitative methodologies (Hatch, 1995), which fit like jigsaw pieces to reify the construction and revelation of multiple voices:

- Constructivist / constructionist grounded theory (CGT) (Charmaz, 2006);
- Critical Ethnography (CE) (Carspecken, 1996);
- Mosaic Approach (MA) (Clark and Moss, 2001, 2011);
- Case Study (CS) (Bassey, 1999):



The methodology's form matches its function: as the study was developed to explore young children researching in their everyday lives, its methodology encouraged young children, practitioners and parents to collaborate actively and authentically in democratic research. To achieve this, the methodology is guided by

inductive, participatory and emancipatory approaches. In this chapter, I briefly share my understanding of each approach before focusing on the four methodologies that form the study's 'jigsaw methodology', shown in graphical form at the end of the chapter.

3.2 Selected methodological approaches

3.2.1 Inductive approach

Inductive approaches are based on inductive reasoning, which rejects Aristotelean *a priori* thinking (Mouly, 1978; Scruton, 2001) in favour of knowledge derived from 'sensory experiences' (Hanna, 2006:273). Inductive approaches are common in qualitative studies framed by postmodern and interpretivist paradigms (MacNaughton and Rolfe, 2010); in the inductive model, the researcher enters the research process with the fewest possible preconceptions regarding outcomes (MacNaughton and Rolfe, 2010). As a doctoral student, I was required to begin with aims and questions and I also had 'ontological and epistemological assumptions' (Hatch, 1995:9) derived from my experiences as an early years' teacher and researcher, which inevitably affected the enquiry. However, I maintained the study as an 'exploration'. An inductive approach enabled analysis to emerge from the empirical data co-constructed with participants (Charmaz, 2006; MacNaughton and Rolfe, 2010; Roberts-Holmes, 2011).

3.2.2 Participatory approach

Partly influenced by Freire (1972) and (OHCHR, 1989), participatory methodologies including children have gained popularity in recent years (Veale, 2005; O'Kane, 2008). Kemmis and McTaggart (2005) identify three characteristics of participatory research: '...shared ownership...community based analysis of social problems and an orientation towards community action' (p. 560); each fits with this study. Firstly, I attempted to share ownership of this study with participants. Because it was my doctoral study I was limited by the requirement to direct it; for example, the study's aims, ethics and methodology had to be approved ahead of fieldwork. Nevertheless, the project originated from my prior encounters with headteachers and professional researchers discussing their views of research (Murray, 2006), so the study's focus emerged from colleagues in the field. Secondly, the study included 'community based' models focused on the study's key 'social problem'

(Kemmis and McTaggart, 2005: 560): the exclusion of young children's research from the academy (Redmond, 2008b). Thirdly, in its co-constructions, the project was oriented towards 'community action' (Kemmis and McTaggart, 2005: 560).

Clark and Moss' aim in developing the participatory 'Mosaic Approach' was to reveal 'children as experts in their own lives' (Clark and Moss, 2001: 6; Langsted, 1994); this influenced my own guiding assumptions and the present study's aim to conceptualise ways in which young children aged 4-8 years are researchers and may be considered to be researchers. O'Kane (2008) notes 'participatory techniques fall within the interpretive tradition of research' (p.127). Nonetheless, the commitment to a participatory approach presented challenges during the research process (Pascal and Bertam, 2009). The nature of those challenges and the ways they were addressed are revealed in the thesis.

3.2.3 Emancipatory approach

Schostak (2002) posits that '...the powers of individuals and communities can only be discovered and exercised if the circumstances allow' (p.197), mirroring Sen's proposition that capabilities are '...the alternative functionings the person can achieve and from which he or she can choose one collection' (Sen, 1993:31). In a context where knowledge derived from logical positivist methodologies is privileged (Brown and Strega, 2005), availability of 'functionings' is limited and power inequalities impact on research processes and outcomes (Truman *et al.*, 2000). Thus, hierarchies affect the ways in which knowledge is produced (Foucault, 1989), potentially resulting in social exclusion.

Emerging from critical social theory (Kant, 1787; Marx, 1867), emancipatory approaches developed as a critical response to power inequalities, particularly logical positivism (*i.a.* Horkheimer, 1937; Habermas, 1987). The framing of knowledge in diverse ways gained recognition, exemplified by 'knowing how and knowing that' (Ryle, 1949), 'tacit knowledge' (Polanyi, 1962), 'Mode 2 knowledge' (Gibbons *et al.*, 1994) and 'cultural capital' (Bourdieu and Passeron, 1977/ 1990). Emancipatory approaches have developed particularly strongly in enquiries with marginalised people (Denzin, 2005; Kovach, 2005; Oliver, 1997; Duckett and Pratt, 2007) because emancipatory research '...seeks to empower the subjects of social

enquiry' (Letherby, 2006: 88); emancipatory and participatory approaches commonly intersect (Truman *et al.*, 2000; Kovach, 2005). Equally, Habermas (1987) highlights characteristics of emancipatory approaches as social interaction, equalised relationships, self reflection and communication free from hegemony, while Kovach (2005) highlights 'collectivity, reciprocity and respect' (p.28) and Wilson (2001) sees the aim of emancipatory research to 'reduce existing injustice' (p.73).

Because this study was my doctorate, I knew from the beginning that it would have to be conducted within the academy's construction (Hargreaves, 1996; Hall, 1998); equally, from my work as a teacher and a researcher I knew I would be charting a context that generally excludes young children: the academy (Redmond, 2008b). The academy is populated by professional researchers (Ball, 1994) and is characterised as a privileged space where 'learners and knowledge producers' converge and where knowledge is produced (Warren and Boxall, 2009:281); a 'score-keeping world' (Lees, 1999: 382) which exercises hegemony over 'the people' (Bridges, 1998). Although the overarching focus was on exploring children's research, I set out mindful – and wishful – that the enquiry may also 'reduce existing injustice' Wilson (2001:73). Equally, I focused my role on social interaction and mutual respect, coupled with attempts to equalise relationships and communication among everyone involved (Habermas, 1987; Kovach, 2005; Letherby, 2006). As I reveal in later chapters, these efforts were not always achieved with complete success, yet the study attempted to confront, rather than ignore power inequalities. Nevertheless, an emancipatory, participatory approach was indicated (Truman *et al.*, 2000). Discussion now turns to the four selected methodologies.

3.3 Selected methodologies

3.3.1 Constructivist / constructionist grounded theory (CGT)

Amid the 'paradigm wars' (Furlong, 2004) grounded theory (GT) was developed by Glaser and Strauss (1967) to gain parity of esteem between qualitative enquiry and positivism (Bryant and Charmaz, 2007a). GT is often used to complement other qualitative methodological approaches (Charmaz, 2006) and there is precedent for its use with ethnography (Timmermans and Tavory, 2007) and emancipatory

approaches (Denzin, 2007). There are many versions of GT, including 'positivist, postpositivist, constructivist, objectivist, postmodern, situational and computer assisted' (Denzin, 2007: 454), though GT is 'a set of principles and practices, not as prescriptions' (Charmaz, 2006: 9). Even Glaser and Strauss could not agree on one version: Strauss is open to integrating existing theoretical frameworks with new empirical data, whereas Glaser focuses exclusively on new empirical data and a wholly inductive approach (Kelle, 2007). GT is a contested space (Bryant and Charmaz, 2007b), yet there are common tenets, including emergence of data from participants, systematic codification and comparison of data to elicit meaning and theory, reflexivity and its potential for the real world to inform and generate theory and vice versa, making theory accessible (Glaser and Strauss, 1967). The accessibility of GT fits well with the present study's emancipatory focus (Brown and Strega, 2005).

For Glaser and Strauss (1967), sociological theory is 'a strategy for handling data in research, providing modes of conceptualisation for describing and explaining' (1967:3). Glaser and Strauss (1967) distinguish between different types of theory, though value all. They argue that GT is rigorous because researcher bias is diminished, its interface with participants has a quality of veracity and its analysis is necessarily systematic. Although this position is contested (Thomas and James, 2006), 'groundedness' is also regarded elsewhere as a vehicle for warranting belief (Audi, 1998). Audi (1998) suggests that different types of grounded beliefs may address particular types of questions. Gadamer (1989) notes that '...the only thing that gives a judgment dignity is its having a basis, a methodological justification' (p.271) and, despite their protestations, Thomas and James (2006) describe GT as 'perhaps *the* most accessible and appropriate way of doing qualitative research in education' (p.792).

I selected GT as '...a way to learn about the worlds' I was studying and 'a method for developing theories to understand them' (Charmaz, 2006: 9). Equally, the inductive qualities of GT (Bryant and Charmaz, 2007b) as well as its alignment with emancipatory approaches and ethnography (Timmermans and Tavory, 2007; Denzin, 2007) seemed likely to provide space for participants' voices to emerge strongly. Furthermore, the potential of GT to operate alongside other

methodologies (Charmaz, 2006) was attractive at this early stage in my research career: I perceived that GT would enable me to learn more about a range of methodologies while giving me time and space to make methodological decisions as data unfolded, so that I could make them from a more informed position. I narrowed this decision further to constructivist grounded theory (CGT) (Charmaz, 2006) for a number of further reasons. Firstly, GT presumes that data and theories are 'discovered' by the researcher, whereas CGT does not (Charmaz, 2006); in constructivist spaces, '...individual perspectives...are taken to be constructions of reality' (Hatch, 2007:13) and in CGT, 'research participants' implicit meanings, experiential views – and researchers' finished grounded theories – are constructions of reality' (Charmaz, 2006:10). This was an important distinction as I wanted to empower participants. Secondly, CGT 'assumes we are part of the world we study and the data we collect' and that we 'construct our grounded theories through our past and present involvements and interactions with people, perspectives and research practices' (Charmaz, 2006:10). Having been a child, a parent, an early years teacher and researcher in similar contexts to those the participants inhabited (Murray, 2006), I began the study from a position of 'past and present involvements and interactions with people, perspectives and research practices' (Charmaz, 2006:10) located at the heart of the present study. Thirdly, constructivism has strongly influenced the ECEC field: although Piaget's view of constructivism (1929; 1955) has its detractors (Lourenco and Machado, 1996), it is widely corroborated (Vygotsky, 1962; CACE, 1967; Flavell, 1977; DeVries and Kohlberg, 1987; Beilin, 1990; Rushton and Juola-Rushton, 2008). Furthermore, the use of constructivist methodology aligns function and form in this study.

Nevertheless, whilst Charmaz's version of constructivist grounded theory was adopted for the study (2006), additional dimensions were included which transformed it into a constructionist methodology (Papert, 1991). Papert (1991) argues that constructionists assume the constructivist position but add meta-cognition and public dissemination. Meta-cognition is built into the thesis in the form of my own reflections and meta-analyses undertaken by participants, while aspects of the work have already been disseminated, with plans for more. In this study, therefore, 'CGT' refers to Charmaz's constructivist grounded theory model with the additional dimensions of meta-cognition and public dissemination that

make it *constructionist* grounded theory. The CGT process (Charmaz, 2006) was applied to the data (Appendix 134).

3.3.2 Critical ethnography (CE)

Charmaz (2006) advocates that grounded theory and ethnography are an appropriate fit, describing ethnography as 'recording the life of a particular group (entailing) sustained participation and observation in their milieu, community or social world' (p.21). Rooted in anthropology (Mead, 1928; Geertz, 1973), ethnography 'is concerned with lived experiences' (Siraj-Blatchford, 2010a: 277), requiring 'thick description' (Ryle, 1968; Geertz, 1973: 6) that participant observation provides alongside 'supplementary data from documents, diagrams, maps, photographs, formal; interviews and questionnaires' (Charmaz, 2006:21). Ethnographic approaches usually embrace complexity (Silverman, 2006) and require time to develop fully (Jeffrey and Troman, 2004). The present study was planned to be ethnographic; I perceived the authentic capture of the maximum data as respectful to participants. Equally, ethnography is widely used in ECEC research (Hatch, 2007; Siraj-Blatchford, 2010a) as it contemporaneously reveals 'micro- and macro-levels of child care practice' at the nexus of 'cultural values, government policies, family systems, and practice theories' that reside in ECEC settings (Buchbinder *et al.*, 2006: 46). Therefore the ethnographic characteristics outlined above were planned into the study. However, a little way into the project, I began to question if description was sufficient.

My aim to empower young children (Letherby, 2006) and guiding assumption that the 'academy' excludes young children from research (Redmond, 2008b) indicated the adoption of *critical* ethnography. Kincheloe and McLaren (1994) define a criticalist as '...a researcher or theorist who attempts to use her or his work as a form of social or cultural criticism' (p. 139) and I assumed this role, aligning with Carspecken's stance that research cannot be value-free and that it is 'both morally and epistemologically important' for researchers to engage in 'fully democratic research' (1996:207). Only those features of Carspecken's model of 'critical ethnography' (1996) that slotted in smoothly with the CGT procedures and were genuinely useful for the study were included: reflexivity with participants was maintained and CE fitted the study rather than overpowering it with a rigid rubric.

Correlating CGT with CE supported transformation of description towards 'abstract categories and theoretical interpretation' (Charmaz, 2006: 23).

3.3.3 The Mosaic Approach

Clark and Moss (2011) also emphasise reflexivity, focusing on 'listening as an active process, involving not just hearing but interpreting, constructing meaning and responding' (p.9) in interactions with 'children and adults [who] are part of this process' (p.9). Perspectives and interpretations emerging from these interactions enhance 'communication, reflection and action' (Clark and Moss, 2011: 9). Similarly to CE, MA is located in 'lived experiences' (Clark and Moss, 2011: 10), but was designed specifically for use with young children who are viewed as 'experts in their own lives' (Clark and Moss, 2011: 10). Equally the Mosaic Approach (MA) ensures that children, parents and practitioners operate as 'co-constructors' (p.9), linking to constructivism, albeit social constructivism.

A key benefit of the MA for the present study was its adaptability (Clark and Moss, 2011); similarly to CGT, it is not about 'prescriptions' but about 'conceptualising "listening" and the relationships and processes involved' (Clark and Moss, 2011:11). 'Listening' goes beyond 'hearing verbal communication' to 'an understanding that encompasses relationships, dialogue, interpretation and the hundred languages of children': the many, varied ways young children may communicate (Moss *et al.*, 2005:1) The MA also functions as an organising framework; drawing on mosaic patterns, it is constructed from a variety of methods, selected for their fitness for purpose (Clark and Moss, 2011). The MA study comprises two stages: 'Children and adults gathering documentation...piecing together information for dialogue, reflection and interpretation' (Clark and Moss, 2011:13). These stages dovetailed neatly with the other methodologies employed in the present study and the MA positioned children at the centre of the study.

3.3.4 Case Study Methodology

Because the enquiry was located 'in several sites' (Charmaz, 2006:178), case study methodology enhanced my capacity to co-ordinate it. Three case studies were conducted in early childhood settings and five were conducted in children's own homes, creating a multi-layered case study series, constructed collaboratively by

participating children, practitioners, parents and myself. Adelman *et al.* (1980) define the case study as 'the study of an instance in action' (p.3), while Robson (1993) views it as '...a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence' (p.5). Both definitions describe the rationale and procedure for use of case studies in this study. A further rationale was derived from Nisbet and Watt's suggestion (1984) that case study methodology can lead to greater understanding of how abstract concepts and ideas align with each other as a framework for and collection in the study. Equally, adopting case study methodology supported organisation of data construction and analysis in this study by facilitating comparisons of data: important for CGT and CE methodologies. The specific case study model that was used was 'descriptive case study' (Yin, 2012): it provided 'rich and revealing insights' into participating children's behaviours in their homes and settings (p. 49). Bassey (1999) refers to this type of case study as 'story-telling' when a narrative account is developed or 'picture-drawing' when a descriptive account is provided, although Bassey (1999) notes that both explore and analyse and may lead to theory (p.62). Picture drawing case studies were adopted for this enquiry: these aligned well with all three other methodologies, but were particularly congruent with the ethnographic elements of the study.

3.4 Summary

In this chapter I have outlined the four methodologies and three approaches that were brought together to construct a single qualitative 'jigsaw methodology' to direct and shape the present study's progress. Underlying this construction were my own ontological assumptions. These led to the development of a methodology that was participatory, emancipatory and inductive and aligned the form of the study with its function. This was important because, whilst the study was an exploration of young children's research, it was conducted in a context where young children's research is excluded from the academy' (Redmond, 2008b). Throughout this process, I have critiqued the academy's position in this regard, attempting to develop the study as an example of – and vehicle for - democratic research.

In the chapter that follows, I discuss ethical issues and challenges that presented during the enquiry.

Chapter 4

Methodology (3) - Ethics

4.1 Introduction

This chapter considers ethical principles and procedures. It considers the nature of ethics and the role of ethics in research generally, before discussing ethics in relation to this study's four selected methodologies and in children's research. Specific detail regarding ethical procedures for each of the study's three empirical phases is discussed in later methodology chapters, while literature concerning children's 'ethical spaces' is reviewed within the Literature Review on *Children's Spaces*.

4.2 Nature of Ethics

Ethics may '...refer to the set of rules, principles, or ways of thinking that guide, or claim the authority to guide the actions of a particular group; sometimes it stands for the systematic study of reasoning about how we ought to act' (Singer, 1994:2). Aristotle (350 B.C.E.) noted that 'every art and every inquiry, and similarly every action and pursuit, is thought to aim at some good' (I). The etymology of ethics derives from the Greek *ēthikos*, meaning 'customs' (Singer, 1994). Whilst ethics is related to morals (Williams, 2006), they are not synonymous: 'Ethics is the scientific or philosophical treatment of morality' (Cathrein, 1909). Ethics is a wide field that relates to various contexts; different types of ethics have been identified, for example, situation ethics, virtue ethics and practical ethics. Practical ethics – 'the application of ethics...to practical issues' - (Singer, 2011:1) may be as a framework for 'good' behaviour. However, 'good' as a relative or absolute notion is contested (Singer, 2011) so that '...a theory compatible with all our moral intuitions may not exist' (Seabright, 1993:396).

4.3 Ethics in Research

Increasing international focus on ethics in research and human rights has developed since the Nuremberg Trials (Weindling, 2001; Hüfner, 2011; Elliott, 2011). Ethics for research is defined as '...the application of a system of moral principles to prevent harming or wronging others, to promote the good, to be respectful, and to be fair' (Sieber, 1993:14). Organisations guiding research with animals or people focus closely on ethics (Robson, 1993; Council for International

Organizations of Medical Sciences and World Health Organization (WHO) (2002) British Psychological Society (BPS), 2009); in Europe, since the 1975 Declaration of Helsinki amendment (World Medical Association (WMA), 1975), research is subject to ethical approval from committees bound by ethical codes (Druml *et al.*, 2009). Their judgements tend to be congruent with the moral orientation of the overseeing organisation: the Nuffield Council on Bioethics (2012) proposes 'five morally relevant features' related to cognition and quality of life, whereas Roach (1987) proposes that nursing research should be regulated by caring components. Ethics in research often concerns the balance of costs and benefits (Robson, 1993; Cohen *et al.*, 2007; Dawson, 2005; British Psychological Society (BPS), 2010). Equally, whilst ethics committees seek to secure justice, participants' interests are generally given primacy (Centre of Research Ethical Campaign (COREC), 2009) so inevitably, their decisions limit research (Skelton, 2008; O'Reilly *et al.*, 2009). As a result of these developments, some consensus regarding social science ethics exists. This includes non-maleficence, beneficence, participants' protection, voluntary informed consent, fieldwork access, confidentiality and right to withdrawal (Robson, 1993; Cohen *et al.*, 2007; Coady, 2010): considerations for the present study.

4.4 Ethics in Grounded Theory (GT) Research

There is relatively little discussion of ethics in GT literature (Glaser and Strauss, 1967; Strauss and Corbin, 1997; Charmaz, 2006; Bryant and Charmaz, 2007). Olesen (2007) confirms that classic GT texts tend to downplay ethical issues because it is 'commonly and tacitly' taken for granted that ethical conduct is adopted throughout its procedures (p.425). As GT approaches inductively derive theory from participants, by its nature GT conforms to '...the basic principles of ethically sound research that are used to guarantee the protection of human rights: autonomy, beneficence, non-maleficence and justice' (Kylmä *et al.*, 1999: 226). Conversely, when ethical protocols are devised and followed instrumentally without philosophical understanding, rights and well-being may not be protected (Valdez-Martinez *et al.*, 2006). For these reasons, Portrata (2010) suggests that research ethics committees may consider allowing greater freedoms to experienced GT researchers, given that no secure evidence of 'potential harm' in such studies exists (p.154).

4.5 Ethics in Critical Ethnography

Carspecken (1996) suggests that ethics are also implicit in critical ethnography processes (CE): his text is replete with explicit discussion on the moral importance of democratic research and how critical ethnography may achieve this. However, Madison (2005) explicitly addresses ethics in CE, discussing how CE aligns with accredited ethical codes and urging critical ethnographers to ask themselves: 'How...will our work make the greatest contribution to equity, freedom, and justice?' (p.4). Critical ethnography challenges power structures to reify social justice so whilst human rights principles such as autonomy and justice are addressed, perspectives on non-maleficence in CE will tend to be contested. For those who consider protection and promotion of human rights as desirable, the reflexive practices, equalised power relationships and participants' legitimacy inherent in CE position it as an ethical approach to research (Witkin, 2000).

4.6 Ethics in the Mosaic Approach

Kjørholt *et al.* (2005) perceive ethics as a step beyond rights. The Mosaic Approach (MA) gives primacy to listening by regarding it as ethical practice (Clark and Moss, 2011), an approach aligned with feminist approaches including ethics of encounter and ethics of care (Levinas, 1980; Fisher and Tronto, 1990; Dahlberg and Moss, 2005), discussed in the Literature Review on *Children's Spaces*.

Kjørholt *et al.* (2005) suggest that an ethics of listening includes exploration and active participation in collaborative contexts, where listening is '...sensitivity to the patterns that connect...not just with our ears but with all our senses...time full of silences...interior listening, listening to ourselves...an active verb that involves interpretation...not easy' (Rinaldi, 2005: 19-20). Aligning with others who have written about research with children (*i.a.* Cameron, 2005; Clark and Moss, 2011) advocate a reflexive approach - everyone involved in the MA listens and this process is regarded as contemporaneously active and hermeneutic. In these ways, the MA is ethically congruent with both GT and CE.

4.7 Ethics in Case Study Research

Stake *et al.*, (1991) emphasise that case study researchers are '...guest(s) of the people we are studying...intruding into...a private place...*intending* to make it

public' (p.12). In this way, though case study researchers move from 'outsider' towards 'insider' status (Griffiths, 1998) they may not be as focused on empowering participants as are GT, CE and MA. Yet Bassey (1999) identifies 'respect for democracy...truth and...persons' as ethical considerations for case study research (p.73), appearing to conform to most ethical ideals of the other methodologies selected for this study. However, whilst Vasconcelos (2010) reiterates the guiding principle of respect for participants in case study research, she refers to subjects, rather than co-researchers or participants and co-operation, rather than co-construction or collaboration. For the present study, this highlights the importance of using case study in conjunction with other methodologies to ensure its ethical protocols were congruent with its participatory, emancipatory and inductive approaches.

4.8 Ethics in research with children

Ethics in research with children has emerged slowly Hill (2005); in research, children are regarded as marginalised (MacNaughton and Smith, 2005), vulnerable (Bull, 2010), yet competent (Danby and Farrell, 2004; Harcourt and Conroy, 2010) and capable (Mortari, 2011). These disparate perspectives align with O'Kane's ways of participating in research 'with', 'without', 'on' and 'about' children (2008:126) and *by* children. Furthermore, these perspectives reflect tensions between provision, protection and participation in the United Nations Convention on the Rights of the Child (UNCROc) (OHCHR, 1989), making ethical conduct in research involving children challenging. Equally, these perspectives raise questions regarding '...the basic principles of ethically sound research...used to guarantee the protection of human rights' (Kylmä *et al.*, 1999: 226), which are now considered.

4.8.1 Primacy of participation or protection?

Alderson and Morrow (2011) suggest that current research ethics protocols neither protect children from harm nor adequately encourage their participation and this should be addressed. While Farrell (2005) notes that research with children is governed by '...stringent legislation and policy...designed by adults... to protect children' (p.3), Lansdown (2005) suggests that children's protection leads to participation. However, Qvortrup (2008) claims that '...the adult wish for security [is] achieved at the cost of children having new experiences' (p.80). In its ethical

guidance, the National Children's Bureau (NCB) (2011) focuses on both participation and protection but gives primacy to protection and furthermore assumes that '...very young children cannot be expected to understand' funding or data protection issues and should not be exposed to them (p.28) so denying children participation opportunities.

4.8.2 Can children be autonomous in research?

Involving children in research is relatively new phenomenon (Creswell, 2008): until recently children were regarded as property (Slee, 2002) and only recently deemed worthy of academic interest (Postman, 1994). However, the complex power relationships in research (Humphries and Martin, 2000; Cohen *et al.*, 2006) may be amplified in research with children (Alderson, 1995; Woodhead, 2005). Hill (2005) posits that competence, power and vulnerability position children as 'othered' (Lahman, 2008), suggesting there are particular 'key ethical issues in research with children' (p.66); Mayall (2008) suggests that research with children should address their subjugation.

Ethical codes usually require participants' voluntary, informed consent; in research with children, this involves children knowing the research aims, what they are required to do, who will share outcomes, whether or not confidentiality will be secured and whether there will be feedback Hill (2005). Children younger than five years can give voluntary, informed consent, provided that information is presented to them in a way they can understand (Ford *et al.*, 2007; even premature babies are shown capable of giving voluntary informed consent (Alderson *et al.*, 2006). Yet voluntary, informed consent is often given by children's primary carers and on their behalf (Alderson, 2005; De Lourdes Levy *et al.*, 2003), while gatekeepers in their settings may also make decisions for them regarding their research engagement (Flewitt, 2005; Grieshaber, 2007). Alternatively, children's informed *assent*, may be provided once parents' informed consent is secured (Harcourt and Conroy, 2005; Gibson and Twycross, 2007; NCB, 2011): assent is 'affirmative agreement' (Rossi *et al.*, 2003: 132), distinguishable from informed consent by greater legal compulsion embodied within the latter (Coyne, 2010). These conservative practices pertain to the UNCRC (OHCHR, 1989) which predicates children's rights to form and express views on their 'evolving capacities' (Lansdown,

2005), rather than seeing children as completely competent, capable and 'rich' from birth (James and Prout, 1997; Dahlberg and Lenz Taguchi, 1994:2).

Much focus on research with children positions children as 'subjects, objects or participants' (Woodhead and Faulkner, 2008). Rarely are children located as co-researchers (Clark and Moss, 2011; Lundy and McEvoy, 2012) and more rarely as researchers (Fielding, 2004); even then, adults tend to impose their agenda on children (Kellett *et al.*, 2004). Although children can assume autonomy within research (MacNaughton and Smith, 2005; Clark and Moss, 2011), the academy offers little evidence of this.

4.8.3 How can beneficence be assured in respect of children?

The notion of beneficence resonates with refers to benefits to society provided by research (Aristotle, 350 B.C.E.; Tayler *et al.*, 2005); beneficence juxtaposes non-maleficence - minimisation of harm - which prevails as a guiding principle in ethical codes (*i.a.* BPS, 2009; BERA, 2011; NCB, 2011). Key factors for beneficence in social research with children are participatory approaches, trust, respect and openness (Tayler *et al.*, 2005): guiding features of the present study.

4.8.4 In research, what is justice for children?

In this study, justice is interpreted as social justice, a multi-faceted term which can be regarded as: a process, valuing all people as individuals and for their contribution and a rebalancing of power and resources for individuals and their communities (Griffiths, 1998). Potts and Brown (2005) claim that 'anti-oppressive research is social justice' and see such research as founded on issues of 'power and relationships' (p.262). Equally, Humphries *et al.* (2000) locate social justice research as 'emancipatory' research. MacNaughton and Smith (2005) seek ways to secure children's rights, equality and social justice in research engagements with adults that they describe as 'ethico-political engagement' and acknowledge as challenging (p.114). Social justice research undertaken with children resonates with aspects of 'indigenous research' in terms of its emancipatory approaches and processes, issues of power, relationships, anti-oppressive stance and respect for ownership of knowledge (Denzin, 2005; Kovach, 2005).

4.8.5 Is research ethics different when children are involved?

Focus on ethics in research with children is increasing (Alderson, 1995; Morrow and Richards, 1996; Alderson and Morrow, 2004; 2011; Farrell, 2005) and ethics has often been regarded as the distinguishing factor between research with adults and research with children (Punch, 2002). Yet Alderson and Morrow (2011) argue that most issues regarding ethics and children are transferable to all research participants. Alderson and Morrow's perspective may have the potential to minimize 'othering' of children (Lahman, 2008), so reducing hegemonies in research activity.

4.9 Ethical Framework for the Present Study

Notwithstanding the contested spaces in the field of research ethics I was required to conduct this doctoral study according to an ethical framework, articulated in an ethical statement which was submitted with my original proposal. I was advised to construct this statement in a manner likely to secure approval from the University's Research Ethics Committee. Because the present study was conducted within an English University's School of Education it was framed by the *Ethical Guidelines for Educational Research* (British Educational Research Association (BERA), 2004) (the proposal and fieldwork pre-dated the 2011 BERA guidelines). The University's Ethical Code and the School of Education Ethical Code also informed the study's ethical statement (Appendices 1-4).

I return now to a point made earlier, that instrumental approaches to ethical statements by themselves do not necessarily secure ethical processes: '...ethical sentences are cognitively meaningless because they have no method of verification' (Putnam, 1993: 143). Although I followed an instrumental pathway to develop an ethical statement in order to progress to the next stage of my doctorate, the study has moved beyond the instrumental. Its form *and* function were constructed on strong ethical principles congruent with its three approaches and driven by my own assumptions. Therefore, its construction, according to ethical principles is its ethical 'method of verification' (Putnam, 1993: 143).

4.10 Summary

This chapter has outlined the literature on the nature of ethics and its role in research, as well as addressing ethics in relation to the study's four selected

methodologies and research with children. A brief overview of the ethical framework for this study is provided here, but specific detail regarding the present study's ethical procedures and issues is provided in subsequent methodology chapters focused on Phases I, II and III of the study, the first of which follows now.

Chapter 5:

Methodology (4) - Phase I - What is Research?

5.1 Introduction

The study's data were constructed in three phases:

- Phase I: What is Research?
- Phase II: Children in their Settings
- Phase III: Children in their Homes

Aligning with the study's grounded approach (Glaser and Strauss, 1967), this chapter introduces Phase I methodological concerns ahead of a review of the Phase I literature. It sets out the early stages of the study and why and how professional early years and educational researchers (PEYERs) were invited to participate. The chapter then moves on to discussing the participant profile, locations where data were constructed with them, methods used, ethical considerations, and brief reflections on the methodological procedures adopted for Phase I.

5.2 Starting Out: Phase I - PEYERs

A preliminary study conducted with headteachers and professional early years and educational researchers (PEYERs) to identify their views of research proved useful for the present study (Murray, 2006) (Appendix 5). Firstly, the preliminary study gave me further practical experience of identifying problems in empirical study, particularly in relation to educational research (Robson, 1993). Secondly, the preliminary study provided justification for the present study's focus, as it indicated interest in research among two participating groups: headteachers and PEYERs. Thirdly, the preliminary study enabled me to ground my doctoral study in 'sensitising concepts' (Blumer, 1969), defined as: '...a general sense of reference and guidance in approaching empirical instances...directions along which to look' (Blumer, 1969: 148) and '...certain research interests and a set of general concepts' which provide 'ideas to pursue' and 'particular kinds of questions' (Charmaz, 2006: 16). Together with the decision to focus on children 4-8 years - made because of the preliminary study's lack of engagement with children - twenty one sensitising concepts emerged (Appendix 78). These slotted into five categories: research definitions, rationalising research, warrant of research, research in practice and research participation.

5.3 PEYERs as Participants?

During Phase I of this study, because of the interest PEYERs indicated in the preliminary study, I returned to them to elicit further views about research. I wanted to interrogate some of the findings that had emerged from the preliminary study in the context of the new enquiry; in particular, I wanted to explore further how PEYERs defined research, as I perceived them as powerful in terms of research.

PEYERs are a subset of academic staff ‘...defined as academic professionals who are responsible for planning, directing and undertaking academic teaching and research within HE institutions’ (Higher Education Statistics Association (HESA) 2012a), with the added criterion that they work within early years or educational research spaces. This group is located within the ‘academy’ (Warren and Boxall, 2009; Lees, 1999; Bridges, 1998), an institution that tends to exclude children (Redmond, 2008b). I work as an academic professional with responsibility for planning, directing and undertaking academic teaching and research in a university, so throughout the study I was culturally and historically located as a PEYER (Graue and Walsh, 1995). My perspectives therefore contributed to the data so that I was situated as both researcher and researched.

From my experiences as a teacher and lecturer in early childhood, I was aware of a power imbalance in research: my perception was that professional researchers dominate research and exclude other groups. My perception is corroborated in the literature (Hargreaves, 1996; Hillage *et al.*, 1998). As I moved to work in higher education, I found that this hegemony is perpetuated in England by the Research Excellence Framework (REF), preceded by the Research Assessment Exercise (RAE). This ensures that those who have the appropriate cultural and economic capital (Bourdieu and Passeron, 1990) to produce and publish peer-reviewed work, gain recognition as ‘researchers’ and consequently acquire increased esteem, cultural and financial capital to consolidate that position.

The present study contests the exclusion of young children from the academy as an issue of social justice. However, because of the academy’s hegemony, challenge to the academy had to be made in a form that the academy would recognise: I set out

to contest the academy's culture on its own preferred terms. Identifying the academy's construction of research was the first step of the challenge.

5.4 PHASE I: Methodological Issues

Building on the sensitising concepts (Blumer, 1969) outlined above, it was possible to identify the present study's original research aim and four research questions, although these changed a little as the project progressed:

Aim:

To conceptualise ways in which young children aged 0-8 years are researchers, could develop as researchers and may be considered to be researchers, providing warrant for their research to inform policy in matters affecting them.

Research questions:

1. What is the nature of ECEC research?
2. How can a study be conducted to establish young children as researchers?
3. What enquiries are important to young children and how can they engage in them?
4. What support structures might encourage young children to participate in research in ways which could enable them to influence policy in matters affecting them? What barriers might prevent this?

From the start of the study, I wanted to work with participants to reveal their perspectives, while challenging the academy's hegemony. I wanted to adopt a grounded theory approach (Glaser and Strauss, 1967) but before I began, I was advised by an experienced researcher to adopt 'a mixture of quantitative and qualitative methods'. I had used a mixed methodology successfully for the preliminary study, so at the outset, I opted to build a simple mixed methodology into a grounded approach for Phase I, using questionnaire surveys, interviews and a focus group with the view that more detailed data would emerge from the interview and focus group to allow greater insights and build on the original 'sensitising concepts' (Blumer, 1969; Creswell, 2008). However, during implementation, these plans changed somewhat. The remainder of this chapter discusses how and why the Phase I methods were developed, amended and

implemented and considers participants' profiles and ethical considerations, before briefly reflecting on the methodological procedures adopted for Phase I.

5.5 Phase I Participants' Profiles and Locations

Outcomes from the preliminary study, the critical focus of this study in relation to the academy and my own experiences, outlined above, indicated that PEYERs should be the 'initial sampling': 'where you start' (Charmaz, 2006:100). Table 1 provides an overview of Phase I participants:

Phase I Method	Pilot survey	Survey	Interviews	Focus Group
Perspectives sought from...	2 PEYERs (Professors)	20 PEYERs	9 PEYERs	5 PEYERs
Location	2 universities	2 universities	1 university 1 participant home	1 university
Sampling type	Initial sampling (Charmaz, 2006) Purposive (Robson, 1993) 1 x educational research 1 x ECEC research	Initial sampling (Charmaz, 2006) Purposive and convenience (Robson, 1993) Educational and ECEC research	Theoretical sampling (Charmaz, 2006) Purposive and convenience (Robson, 1993) All educational research	Theoretical sampling (Charmaz, 2006) Purposive and convenience (Robson, 1993) All ECEC research
Selected because...	Highly knowledgeable and experienced regarding epistemological issues and English research in fields of education and ECEC. Willing to give time.	Knowledgeable and experienced regarding epistemological issues and English research in field of education. Willing to give time.	Knowledgeable and experienced regarding epistemological issues and English research in field of education. Willing to give time.	Knowledgeable and experienced regarding epistemological issues and English research in field of ECEC. Willing to give time.

5.5.1 Phase I Survey Participants

In the preliminary study, I had piloted a survey with two PEYERs: an educational researcher and an ECEC researcher; they were selected because they were knowledgeable and experienced regarding epistemological issues and English research in their fields, evidenced by their output. I transferred what I learned from the pilot to the present study and sent surveys to twenty more experienced PEYERs. At the outset of the study, there were 164,875 academic staff working in the United Kingdom, of which 15,505 (9.4%) were professors (HESA, 2012b), so

the ratio I used for the surveys aligned with the national profile. However, later, for an interview stage, there was a greater ratio of professors to other academic staff. Participants volunteered in response to requests.

The survey group of twenty participants was relatively small and all but one worked within my university department; the sole external participant was a neighbour who was a highly experienced research active lecturer from a different university. I had several reasons for adopting this relatively small convenience sample. Firstly, I could be sure that all the participants were experienced researchers – this was significant as HESA’s definition of academic staff includes those who only teach (HESA, 2012a) and, given the project focus, informed responses from experienced researchers were important. The second reason was that I planned to follow up the survey responses personally with interviews and a focus group; thirdly, as I was a part-time doctoral student with a full-time workload, I had to manage my time carefully. Lastly, I predicted that colleagues may be more likely to respond.

This survey group was then subdivided into two sub-groups: nine PEYERs with expertise in educational research and five PEYERs with expertise in ECEC research.

5.5.2 Phase I Interview Conversation Participants

PEYERs in the educational research group were each able to secure one hour to engage in 1:1 interview conversations with me. Apart from the first interview, which is discussed later, these were all conducted in the university department where we worked and studied: I selected this neutral, familiar space to attempt to equalise power relationships and to minimise distractions so that focus remained on the discussion:

PEYER Participant	Brief description of background. (Deliberately vague to retain anonymity)					
	Highly experienced educational researcher.	Experienced educational researcher.	PhD	PhD Cand	Background as a secondary teacher.	Background as primary school teacher.
A	✓		✓		✓	
B	✓		✓		✓	
C		✓		✓	✓	
D		✓		✓		✓
E		✓		✓		✓
F		✓		✓		✓
G	✓		✓			✓
H	✓		✓			✓
I		✓		✓		✓

5.5.3 Phase I Focus Group Participants

I also set up a focus group with five early childhood education and care (ECEC) researchers. ECEC work tends to focus strongly on collaboration (Siraj-Blatchford *et al.*, 2008), so a focus group rather than individual interviews was indicated; again, this took place in the university department where we worked and studied to attempt to equalise power relationships and to minimise distractions. Reflecting the multi-disciplinary nature of the ECEC field, each ECEC PEYER had begun their careers in practice in one of a range of children’s services: social work, education or health (Lumsden, 2012), although a former health worker who had planned to join the focus group was unable to do so because of family commitments.

Table 3: PEYERs who engaged in the Phase I focus group

PEYER Participant	Brief description of background. (<i>Deliberately vague to retain anonymity</i>)					
	Highly experienced ECEC researcher	Experienced ECEC researcher	PhD	PhD Cand.	Background as a social worker	Background as primary / nursery teacher
J		✓	✓			✓
K		✓		✓	✓	
L		✓			✓	
M	✓		✓		✓	
N		✓				✓

5.6 Phase I Methods

Phase I methods included survey, interview conversations and a focus group. Each is discussed here, with my reasoning for selecting each of them and brief discussion regarding their implementation included.

5.6.1 Phase I Survey

My rationale for using a survey was to explore PEYERs’ ‘...attitudes, beliefs [and] opinions’ (Creswell, 2008: 389). As with the preliminary study (Murray, 2006), I used e-mail to send the survey as an attachment (Schonlau *et al.*, 2002) because of perceived benefits. Participants could print off the attachment to read, save and add to, so were likely to feel some control. The attachment model seemed to have the same ‘instant’ quality of e-mail survey – the surveys would appear in participants’ inboxes almost as soon as I sent them and vice versa (Cohen *et al.*, 2007), so I would quickly know who had responded. I thought it would save time and effort, in comparison with hard copy by post. Academics’ e-mail addresses are readily available on the internet, and I thought that they were likely to access their

e-mails more frequently than accessing hard copy post from campus post rooms. Additionally, because participants would word-process their own data, potential errors inputting data would be avoided (Cohen *et al.*, 2007). In addition to wanting to explore PEYERs' '...attitudes, beliefs (and) opinions' I wanted to give them 'flexibility in responding' (Creswell, 2008: 414), so I developed a 'cross-sectional' semi-structured survey (Creswell, 2008: 389) (*Appendix 6*) which included open questions and opportunities to provide expansive responses. It featured different question types, including rank ordering, Likert and matrix formatted (Cohen, *et al.*, 2006), according to how each suited the study's sensitising concepts.

I piloted the survey with two PEYERs who were professors in different universities; for the pilot, I believed that it would be beneficial to have fresh, external perspectives to provide the template for any necessary changes. Although Schonlau *et al.* (2002) suggest that e-mail surveys are likely to result in a poorer response rate than hard copy surveys, I received detailed responses from both participants. This encouraged me to send the survey to twenty more PEYERs, all but one of whom worked in my university department. However, this time, Schonlau *et al.* (2002) were right: I only received one response and that was from my neighbour who was the only other participant who worked in a different university. Disappointing though this was, I wanted to find out why. I began by reading through the one response I received, which gave some indications of why others may not have responded. Although there were some positive comments, this participant had also noted that the survey was 'frustrating', 'ambiguous', 'took longer than the 15 minutes suggested' and he suggested there was a 'lack of clarity about the purpose of some questions'. In developing this survey I had taken account of relevant methodological literature and advice, but evidently, I had much to learn if I was going to be successful in my enquiry. It seemed that I may be able to learn from this participant so I asked if he would meet me for an interview and he agreed to do so.

5.6.2 Phase I, Interview 1

I framed a schedule for a semi-structured interview (*Appendix 7b*) predicated on the study aims and opportunities to build rapport, whilst including some probing, particularly in relation to the issues with the survey (Silverman, 2006). However,

once I had gained informed consent (Appendices 6i, 7a), the interview did not progress in quite the way I had intended! This was a good thing. Possibly because he was a very experienced educational researcher, this participant seemed confident and relaxed and the interview was almost immediately like a conversation, with the agenda led more by him than me. In terms of eliciting his views, this was positive but it was also beneficial for me because of his experience: he gave me a good deal of guidance on developing the project.

The participant urged me to move away from using a survey: he suggested that writing takes a great deal of effort so that open questions in a questionnaire may irritate participants. He contested Creswell's view that surveys elicit '...attitudes, beliefs (and) opinions' (2008: 389) by suggesting the survey was an inappropriate instrument for eliciting 'people's understandings...their perspectives, their ideas, their philosophical underpinnings, their prejudices'. He justified this further: 'Because a questionnaire is of itself is pre-determining' and 'What you want is an extensive account from your respondents and you're not going to get that with a questionnaire'. He continued by advising me to pursue observation and interviewing: 'You want to know what people genuinely think and I think that involves asking'.

After this encounter, which was audio-taped, I transcribed and analysed the data then reflected on this participant's words. Although I felt rather deflated, I knew he was very experienced in the field of educational research so I believed that his advice was likely to be helpful to the project. Following discussion with my supervisor, I redeveloped the research design into an exclusively qualitative design which would combine a constructivist grounded approach (Charmaz, 2006) with critical ethnography (Carspecken, 1996) for the reasons discussed. Later findings from Phase I also led me to adopt the Mosaic Approach (Clark and Moss, 2001) and case study (Bassegy, 1999; Yin, 2012). These are discussed in Chapter 12 (*Findings 1: Phase I*).

5.6.3 Phase I, Interviews 2-9

I regarded the remainder of Phase I as an opportunity to continue to learn from PEYERs regarding the first two study questions:

1. What is the nature of ECEC research?
2. How can a study be conducted to establish young children as researchers?

The other interviews with eight PEYERs were conducted as intensive 'interview conversations' (Charmaz, 2006) during which I listened, attempted to observe with sensitivity and encouraged the participants to speak within the framework of 'a few broad, open-ended questions' (Charmaz, 2006: 26) (Appendix 8). These interview conversations also followed the study's approved ethical protocols and were audio-taped, again to allow for authentic transcription. During each conversation, I adapted the framework to follow the participants' interests, encouraging the richest possible perspectives, yet I worked hard to contain the conversation within a coherent framework so that the study focus was retained. I reviewed the framework after each conversation, adjusting as indicated by either the nature or the content of encounters with participants.

5.6.4 Phase I, Focus Group

It was particularly important to gain the perspectives of PEYERs with expertise in ECEC as this is the specific field within which the enquiry was located. Again, I sought greater detail in relation to the first two research questions:

1. What is the nature of ECEC research?
2. How can a study be conducted to establish young children as researchers?

I opted to use a focus group, which is a type of 'collective interview' where data emerge through group interaction (Cohen *et al.*, 2007: 376). The decision to channel ECEC PEYERs views through the focus group, rather than the interview conversations was a response to the participants' needs and strengths, as discussed. The focus group method was chosen to generate data quickly and to empower the ECEC PEYERs to share their views in their words (Cohen *et al.*, 2007). The decision to use a focus group with ECEC PEYERs rather than interview conversations may have resulted in different outcomes, but it is not possible to know this. However, discussing this issue during the focus group, PEYER J justified it, noting: 'I think together we make more of a contribution to answering questions because we bounce off each other – you know – ideas' (FGpA121).

5.7 Phase I: Specific Ethical considerations

In this section, I focus briefly on specific ethical points arising in Phase I and how I addressed them. In regard to all participants, ethical protocol was followed according to my doctoral ethical statement, with reference to BERA (2004), as well as my institutional ethical codes (Appendices 1-4). Participants' voluntary, informed, written consent was sought and provided and I ensured participants understood and agreed to participating '...without any kind of duress, prior to the research getting underway' (p.6). I also ensured that participants were not deceived, knew that they could withdraw at any time, did not receive undesirable incentives, did not experience detriment because of the research and had their confidentiality and anonymity preserved. In regard to the survey forms, an explanation of the study, ethical considerations and the survey focus was provided in e-mails to participants along with survey forms (Appendix 6i); return of the form constituted consent (University of Essex, 2012). Before the start of each of the PEYERs' interviews and the focus group, I provided written information (Appendix 6i) and verbally explained the study, and the participants' roles and rights. Each participant then voluntarily completed a consent form (Appendix 7a).

In the thesis, it may have been helpful to have provided more detailed descriptions of participants' backgrounds and experience. However, had I done this, their identity may have been revealed so the barest facts were included to preserve participants' anonymity. This is an example of cost-benefit analysis in ethical conduct (Robson, 1993; Cohen, *et al.*, 2007). Another issue with anonymity arose because of the use of e-mail to administer and collect the survey (Cohen *et al.*, 2007). When surveys were returned by e-mail, I could see from participants' accounts who had returned which surveys. I did offer e-mail participants the option of posting their responses but the only three that were returned (two pilot surveys and one other) were all returned by e-mail. This may have been a factor in the poor response rate.

It may be argued that another ethical issue in Phase I was my bias: my own experiences, prior reading and ideas were part of the material that informed the focus and structure of questions in the survey, the interview and the focus group. These are elements of the 'personal quality of the researcher' that Strauss and

Corbin (1990) refer to as 'theoretical sensitivity' (p.41). In this grounded, participatory, ethnographic study, that I entered having been a child, early years' teacher, lecturer and researcher, I was located visibly within the researched landscape: my 'biases were inevitable' but also 'valid' (Kimpson, 2005: 89). Therefore, even – or perhaps especially – in the first phase of the study, while I was fumbling to establish methodological direction, my views and experiences were part of the enterprise and no less though no more important than others.

5.8 Summary

In this chapter, I have explained that the study set out to contest the academy's view of 'researchers' by questioning whether children might be considered researchers. In Phase I, I engaged with members of the academy - 'powerful people' (Cohen *et al.*, 2007:127) - to elicit their views in relation to the study's first two research questions:

1. What is the nature of ECEC research?
2. How can a study be conducted to establish young children as researchers?

The PEYERs provided responses to these questions; these are shared and discussed in Chapter 12: '*Findings 1: Phase I – What is Research?*'. Two findings from Phase I impacted particularly strongly on the study's research design. As a result of PEYER A's advice, I abandoned quantitative methods. Notwithstanding the exclusion of children from the academy (Redmond, 2008), there were several indications in Phase I from PEYERs to confirm that I should engage with children in the study: PEYER B suggested: 'I'd include children' (B8), while PEYER C questioned why I was asking academics – not children - about research by children (C28i). These findings led me to adopt the Mosaic Approach (MA) (Clark and Moss, 2001) and Case Study methodology (Bassegy, 1999) and include children in the research design. Having considered the Phase I methodological approach, in the next chapter, I explore further the academy's perspectives on research by reviewing relevant literature.

Chapter 6:

Literature Review 1 - What is Research?

6.1 Introduction

This chapter discusses structures and issues in English educational research, including ECEC research, with consideration of the potential for young children's engagements in research. In this study, I have adopted the position proposed by grounded theorists Strauss and Corbin (1990) and Charmaz (2006): literature may be interwoven with the emerging empirical data to complement and inform data construction and analysis.

6.2 Research versus practice?

Although there is a view that intuition may have value (Foucault, 1981; Holton, 1995), in relation to educational research, policymakers and the academy in England – and elsewhere - currently give primacy to positivist approaches (Oancea and Pring, 2008). This view has its basis in the Enlightenment with 'its belief in an externalised, objective truth' (Williams, 2002), that emerged from philosophers, including Locke (1690) and Hume (1748), who rejected metaphysical accounts as any basis for 'truth' (Pring, 2000). Hume also saw inductive reasoning, in which premises can, at best, only support conclusions, as inferior to deductive reasoning, where premises logically guarantee the truth of a conclusion, exemplified by the syllogism 'All A are B, C is A, therefore C is A' (Hume, 1739) or:

'All M are P,

All S are M

Therefore, all S are P.

For example,

All men are mortal.

All Greeks are men

Therefore all Greeks are mortal' (Bonjour, 1998: 39)

Hume's influence has longevity (Simon, 1983; Knauff, 2007; Schechter, 2013, *forthcoming*). Johnson-Laird and Byrne (1991) note that 'By definition, a valid deduction yields a conclusion that must be true given that its premises are true' (p. 2). Conversely, in inductive reasoning, the '...truth of the premises need not guarantee the truth of the conclusion...a reasoner who infers from the belief

(i) All swans that have been observed are white;

to the conclusion

(ii) All swans are white

is reasoning inductively. The premise provides evidential support for the conclusion, but does not guarantee its truth. It is compatible with the premise that there is an unobserved black swan.' (Schechter, 2013, forthcoming). Ayer (1940) posits that 'What we mean, when we say that we have good reason to believe a proposition, which is not formally demonstrable is, I think, simply that it is supported by strong inductive evidence, or, in other words that it accords with our past experience' (pp.190-191). Inductive reasoning tends to be regarded by empiricists as fallible (Ayer, 1940). However, as Ayer (1940) points out: 'this does not affect the logical status of inductive reasoning. We may say indeed that the probability of the conclusions which we reach by inductive methods would, in general, be higher if these methods had never yet actually failed us' (p.40).

Hume's 'principle of verification' (Hume, 1748) articulates that 'learned work' should include '...abstract reasoning concerning number or quantity' or '...experimental reasoning concerning matter of fact and existence' (Hume, 1748:123) to be considered robust (Thomas, 2007). Creswell (2008) suggests that '...in an experiment, you test an idea (or practice or procedure)' (p. 299), while Robson (1993) posits that '...a central feature of the experiment is that you need to know what you are doing before you do it' (p.78). Educational research tends to be aligned with social social sciences research which may include testing, experimenting, studying or examining in its processes (Stebbins, 2001). The view of enquiry congruent with Hume's 'principle of verification' (1748) seems exclusive: Redmond (2008a) suggests that children are excluded from the 'rarefied world of the academic' (p.17). However, at around the turn of the twenty-first century, commentators suggested that many others were also excluded from 'the academy' (Ball, 2001). Educational research in England became the target for harsh critique (*i.a* Hargreaves, 1996; Tooley and Darby, 1998; Hillage *et al.*, 1998), with condemnation that it is something 'virtually nobody reads' (Hargreaves, 1996:7). The identification of this detachment between researcher and researched questioned the academy's hegemony with a suggestion that for research to be useful, it must be useful to its users (HEFCE, 2005; OECD, 2002). The Giddens' proposal (1984) that social science theory is bound into practice, thus different

from the theory / practice 'silo' approach prevailing in the natural sciences, condones this view. The work of Stenhouse (1975) and colleagues in developing action research addressed this to some extent, yet various critical commentaries indicate that there is more to do (Hargreaves, 1996; Hillage *et al.*, 1998; Biesta, 2007).

6.3 Building Research Capacity

Since the turn of the century, further commentators have advocated increased research capacity among users (Furlong and Oancea, 2005; OECD, 2002, Edwards *et al.*, 2005; Elliott, 2007) and some professional educational researchers (PERs) seem *prima facie* to have noted this. The Teaching and Learning Research Programme (TLRP) - 'The UK's largest investment in education research' - was widely recognised as a prestigious enterprise for English educational research. It included '...over 500 researchers, working with thousands of practitioners...' to undertake '...over 70 projects' (TLRP, 2007). However, despite its intention to engage users it was dominated by PEYERs, exemplifying 'the caution of some academics towards close engagement with practitioners' (Commission on the Social Sciences (CSS), 2003:5).

6.4 Research and policy

A section of the TLRP website addresses the policymaker, demonstrating the project's commitment to linking research and policy; CSS (2003) identifies the need for research to 'inform and justify policy' (p.43) as well as 'much better links and relationships between policymakers and academics' (2003:72). However, Hallam (2000) strongly articulates that policy makers sideline any research output which does not accord with contemporary political ideology and Power (2007) argues that on an international scale, recent reforms in education have tended to be politically generated, rather than emerging from the relatively secure evidence base of high quality research.

Bridges *et al.* (2008) suggest that centralised governance has caused much of the current mismatch between researchers and policymakers. They propose that this is because centralisation results in policymakers' detachment from authentic concerns of local communities and that when researchers report their findings from those in

the communities, policymakers are often disappointed to find they do not match their own concerns. This alienates policymakers from the researchers and encourages policymakers to prescribe their desired outcomes. Since the policymakers often fund research, researchers seeking commissions often have little option but to conform to their wishes.

Furthermore, given the same policymakers are often funding educational practice in England, the relationship between practice and research is affected by policymakers' power. Since the Education Reform Act of 1988, trajectories in educational practice have increasingly become dictated by policymakers, with more funding following the practice which most closely matches policy. Practitioners tend to take the pragmatic view that only the outcomes of research which enable them to move in these directions is worthy of their engagement. This was exemplified by the Rose Reviews (2006; 2009), both of which were described as 'independent'. However, both were commissioned in prescriptive detail by the Secretary of State for Education, both conformed to the required detail and both were warmly received by their commissioner. The former has impacted on the lives of all children learning to read in government funded settings in England though the latter was rejected when a new administration was elected to power.

6.5 Researchers' Responses to Policy

Given policy focus on use-inspired basic research (Pasteur, 1878, cited in Stokes, 1997; OECD, 2002), some PEYERs may be engaging in 'use-inspired basic research' rather than 'pure basic research (Bohr, 1958, cited by Stokes, 1997) to safeguard their hegemony and their livelihoods. Some PEYERs seem to have been successful in supplying 'user-friendly' output whilst apparently retaining some level of research autonomy. An example of this is the National Foundation for Educational Research (NFER) which seems to attempt to cover all eventualities. This is indicated by the organisation's apparently contradictory strap-lines:

- 'Guiding policy makers and those working directly with learners we help to improve learners' experiences of education.
- Our research and evaluation work is tailored to clients' needs...we give you the information you need, when you need it.' (NFER, 2010).

NFER also dichotomises its dissemination process, regularly producing one publication aimed at educational researchers (*Educational Research*) and one at teachers (*Impact*).

Another example of this is the prolific list of commissions completed by Sylva and her team for the Effective Provision for Pre-School Education (EPPE) (Institute of Education and DfE, 2012). The success of EPPE may initially have been due to its alignment with the policy *zeitgeist* early childhood education and care (ECEC) (Sylva *et al.*, 2007). The popularity of EPPE among policymakers may also be related to its comparatively experimental slant, although Sylva *et al.* (2007) assert that the EPPE Project was driven by a mixed methodology. Sylva *et al.* (2007) have explored factors that have supported EPPE's successful development and attributed it to the process of 'knowledge exchange' (Walter 2005) which involved them in partnership with their commissioners that they perceived as equal, and Sylva *et al.* (2007) articulate that the team maintained its autonomy.

6.6 Children: researched or researchers?

Contemporaneously with the recent discourse surrounding research, greater focus on young children's 'voice' in research has emerged (*i.a.* Clark *et al.*, 2003). Differentiating *researcher* from *researched* seems to be important: Fielding (2001) and Kellett (2005) both worked on up-skilling children and young people in the academy's research methods. However, the proposition in the present study is that children's research roles emerge naturally in their everyday activity and it is the ways in which these are interwoven with consistently sensitive hearing, seeing, reciprocity and reflexivity of participant adults that empowers the child as researcher. Ways to support young children to develop as researchers continue to emerge (*i.a.* Clark and Moss, 2011; Christensen and James, 2008) and Edwards *et al.* (2007) suggest that it is engagement with the users which 'strengthens the warrants of research' (p. 647).

6.7 Educational Research and ECEC Research: Emergent, dynamic and varied

Thomas (2007) refers to the practical nature of educational theory and he highlights that educational research *per se* is a relatively young social science.

Oancea and Pring (2009) make the point that 'successful intervention...could be said to be the cause of what works', if that intervention is based on 'the accumulation of knowledge through thoroughly tested general hypotheses' (p.27). Moreover, Smeyers (2008) suggests that causality – cause and effect – seems to underpin human 'intellectual understanding of physical systems and living organisms' (p.64); Hume (1748) posited that causality cannot be secure without an underpinning of first-hand experience. However, Smeyers (2008) points out that even where causality is claimed upon a basis of first-hand experience, it cannot always be guaranteed in the complex 'real world' where educational research takes place, because human behaviour is often unpredictable. Equally, Smith (2011) notes that 'causality' is sometimes claimed where 'correlation' would be a more appropriate indication; in other words, Smeyers (2008) and Smith (2011) suggest that claims of causality are not always warranted.

Alongside causality, experimental work and predicatability, patterned behaviour is characteristic of the 'traditional scientific way of seeing the world... (in which) the world is logical and obeys rational scientific laws' (Roberts-Holmes, 2011:70). This model of theorisation emerged strongly during the Enlightenment, when 'the application of Newton's laws' (Smeyers, 2008: p.67) challenged metaphysical models of human understanding (Trochim and Donnelly, 2006), described by Kant (1787) as 'God, freedom and immortality' (p.395) and replaced them with things 'concerning matter of fact and existence' (Hume, 1748:123). Equally, the 'theme of generalisation arises frequently in the discussion of theory' (Thomas, 2007:12) because generalisation provides 'predictive power' (Thomas, 2007: 15). Educational policymakers want to be able to predict as well as seeing patterned outcomes and patterned behaviour. They often just require 'what works' (Oancea and Pring, 2009); so much so in the United States that, by law, educational research must be 'empirical, experimental and quantitative' to attract government funding (United States Department of Education, 2001: Article 37). However, Popper (1953) proposes that '...the acceptance by science of a law or of a theory is tentative only... we may reject a law or theory on the basis of new evidence' (IX). Equally, because they may challenge existing theories, anomalies may be regarded as important as patterns in research (Kuhn, 1970). In considering whether or not a research method or finding is generalisable, the main concern is whether or not the method

provides appropriate evidence (Elliott and Lukes, 2009). Focus on generalisability is often successful in – and necessary for – experimental research (Wilkinson and Pickett, 2009; National Center for Education Statistics, 2012). However, experimental research tends to exclude, by design, that which it cannot easily generalise, predict or link by causality, for example, ‘wellbeing of pupils and teacher workloads’ (Smeyers, 2008: p.79). In this way, experimental research, characterised by its generalisability and focus on patterned behaviour often sidelines important aspects of education (Smith, 2011). Scruton (2001) notes Kant’s argument that sensation *per se* provides no basis for judgement; rather it is mental activity that leads to judgement (1787). Kant (1787) suggested that such mental activity falls into two conceptual categories: *a priori* (analytic) propositions which have no basis in first-hand experience and *a posteriori* (synthetic) propositions which are predicated on experience but can only lead to judgement in combination with mental activity. Bridges (2003) describes *a priori* concepts as ‘philosophical’ and *a posteriori* concepts as ‘empirical / scientific’ (p.21), suggesting that ‘philosophising in educational research’ includes both and that an optimal model for educational research might ‘dissolve the empirical/philosophical divide’ (p.28).

In addition to its links with philosophy, educational research is widely associated with other established disciplines including psychology, sociology, history and economics (Siraj-Blatchford, 1994; Bridges, 2006; Thomas, 2007; TLRP, 2010). Positioned as a subset of educational research, and drawing on a similar range of disciplines, ECEC research has recently gained increased focus with the introduction of imaging tools used by psychologists (Catherwood, 1999) that seem to have satisfied both scientists and policymakers of the old philosophers’ claim that life between the ages of 0-8 years is critically important to the lifespan. The contribution of both innate and environmental factors to human development have acquired new credence through pure scientific method (Goswami and Bryant, 2007; Sylva et al., 2009), resonating with Kant (1788). Coupled with large-scale longitudinal studies such as the National Child Development Study (Centre for Longitudinal Studies, 2010) and the Perry Pre-school Project (Schweinhart, 2001), this has provided rationale for governments to fund ECEC (United Nations (UN), 2009; DCSF, 2009). Investment in our youngest children is seen increasingly as

economically prudent (Heckman and Masterov, 2004; Sodha and Margo, 2010) though the spaces they inhabit are now increasingly monitored and controlled by policymakers (Moss and Petrie, 2002; Murray, 2009; 2010).

6.8 Summary

This section has briefly discussed the field of ECEC research, nested within educational research and has found it varied and dynamic. It is 'scientific and positivistic' as well as 'naturalistic and interpretive' (Cohen *et al.*, 2007:5), partly because it is also multi-disciplinary (Siraj-Blatchford, 1994; TLRP, 2010). Its variability is its strength, since it enables us to gain deeper and broader understandings of its many users and contexts. Yet its variability is also its weakness, since it often gives an impression to outsiders craving 'what works' (Oancea and Pring, 2008) that it is not fit for purpose. Notwithstanding this, English educational research is well-respected internationally (OECD, 2002). Post-Hargreaves (1996), a new will to engage users in more equal ways in educational research processes has emerged (Edwards *et al.*, 2007; TLRP, 2010). The next two chapters explore the literature on young children's 'spaces' within that evolving model.

Chapter 7:

Literature Review 2 - Adults' Spaces for Children

7.1 Introduction

Chapter 7 discusses literature focused on spaces constructed by adults for children, predominantly in relation to England as this is where the present study's empirical data were constructed. Three themes emerging strongly from the literature are addressed: adult paradigms which view children, adults who populate and shape children's lives and places created by adults for children. Discussion surrounding the themes reveals perspectives of cultural history relating to adults' spaces created for children. Discussion points are sometimes addressed recursively in this review, as themes interweave.

7.2 Adult Paradigms focused on Children

As discussed, the complexity of educational research is partly due to the range of disciplines which inform it. The adults operating within these paradigms note children's behaviours, tending to view children as 'other': objects 'to be theorized and articulated by adults' (Lahman, 2008: 285). This may presume children's incapacity and need for representation (Cannella, 2002), excluding children from their own social action. Challenging this presumption is at the heart of this study so examining adults' spaces where it is constructed is important. Disciplines focusing on children are many and varied (Siraj-Blatchford, 1994) and their interactions complex and dynamic (Lewin, 1951; Bronfenbrenner, 1979). However, the study is confined within the field of ECEC research nested in educational research so the most prominent disciplines in that field are briefly considered in this section.

7.2.1 Adult Historians' Views of Children

Only since the 1960s has the study of children and childhood in western cultures become a recognised academic discipline (Aries, 1962; Cunningham, 2005; DeMause, 1976; Hendrick, 2008). Although the ancient Greeks recognised children's *needs* as separate from adults' (Cooper 1997), Aries (1962) establishes that western children were not distinguished from adults for centuries. This began to change in the C16th; gradually, most western children became separated from adults by their 'deficits' in literacy, education and sexual innocence (Piper 2000; Jenks 2005; Postman, 1994; Renold 2002; Meikle, 2007), culminating in a 'high

watermark of childhood' between 1850 and 1950 (Postman, 1994). Yet through centuries, English children have tended to be subjugated and controlled; this perpetuates today in educational contexts in England and some other countries as children are prepared for the future workforce (Hall and Ozerk, 2008; Murray, 2010; Becker, 1993; DfE, 2010b). Equally, in some western cultures, pre-pubescent children present increasingly with precocious sexual awareness, underpinned by commercialism (Postman 1994). The time and space for children to be separate from adults may be disappearing (Postman, 1994; Palmer, 2006): a return to the pre-Enlightenment position.

7.2.2 Adult Philosophers' Views of Children

This study is concerned with epistemology and ethics: branches of philosophy concerning 'knowledge and justification' and principles for personal action (Audi, 1998:10; Singer, 1994:2; Robinson and Groves, 2007). Socrates believed that active learning which 'begins in wonder' is the most effective (Cooper, 1997). This view was also expressed by Rousseau (1762), Pestalozzi (1801) and Froebel (1826) in respect of ECEC during the Enlightenment, a period of debate and critique about ideas (Porter, 2001; Gay, 1969): 'Man's emergence from...the inability to use one's understanding without guidance from another' (Kant, 1784). Conversely, Locke's view of the child as 'tabula rasa' (1692) locates the child as deficient, requiring adults to transmit knowledge. Kant (1788) assumed an interactionist stance, believing that human understanding emerges from human experience combined with human biology. Kant's perspective has recently enjoyed a resurgence of interest in contemporary ECEC (Sylva *et al.*, 2004). Yet the determinism debate continues in England with an increasing focus on 'schoolification' for young children resonant of Locke (1692) (Kaga *et al.*, 2010; DfE, 2010b; 2012a).

7.2.3 Adult psychologists' and neuroscientists' views of children

Psychologists have also reiterated the determinism debate: behaviourists propose that all human behaviour is driven by environment (*i.a.* Watson, 1928; 1930); Pavlov, 1927; Skinner, 1957; 1963; 1968), nativists posit biological determinism (*i.a.* Gesell, 1925; 1928; Gesell and Thompson, 1929; Chomsky, 1957; 1959; 1968), while interactionists perceive that internal and external factors integrate to

affect human development and learning (*i.a.* Freud, 1917-19; Erikson, 1963; Piaget, 1929; 1936; 1969 Vygotsky, 1962; 1978; Sylva *et al.*, 2004).

Early psychologists developed their ideas in practice then reported their findings (Freud, 1896a, b, c); this practice has transferred to contemporary ECEC practice as child observation (Forman and Hall, 2005), in part attributable to key figures who have worked across both ECEC and medicine disciplines (Montessori, 1916; Isaacs, 1930). Child psychologists have increasingly focused on empirical work, but developments in ethics have affected their practice: Watson and Rayner's live experiments with a toddler (1920) would be unacceptable now and while Piaget's work is often revered (Papert, 1999), his early experiments with his own children (*i.a.* 1936) were open to criticism (Donaldson, 1978). More recent work undertaken by psychologists Johnston and Watson (2004) has informed early reading policy in England (Rose, 2006), yet might be considered ethically dubious as they used a control group. Skinner (1953) addressed ethical considerations by using animals in his experiments but claims of transferability to human contexts are debatable and pose ethical questions regarding animal rights. Most recently, the development of neuroscientific instruments capable of revealing aspects of the human mind relatively harmlessly have proved useful for child psychologists (Blakemore and Frith, 2005; Winter, 2010). This has already led to important intelligence indicating infants' significant capabilities (Shore, 1997; McCain and Mustard, 1999; Shonkoff and Phillips, 2000; Meltzoff, 2005; Goswami and Bryant, 2007; Gopnik, 2009). Moreover, empirical evidence provided by neuroscience has proved convincing for policymakers (Gammage, 2006).

7.2.4 Adult Policymakers' and Economists' Views of Children

Becker (1964) demonstrated to policymakers the value of investing in human capital, particularly through education. Sen (1985) and Nussbaum (2000) have since developed an alternative rationale for investing in people - the Capabilities Approach (CA): a flexible economic model which advocates rights to 'being and doing activities that people value and have reason to value' with the aim of securing universal empowerment (Alkire and Deneulin, 2009: 32). Through the work of Anand *et al.* (2005) and the Human Development Index (HDI) (United Nations Development Programme, 2010) the Capability Approach is impacting on

policy internationally (United Nations (UN), 2000-2015; United Nations Educational, Scientific and Cultural Organisation (UNESCO), 1995-2015). Yet the HDI has been criticised (Anand and Sen, 1994; Harkness, 2004; Noorbakhsh, 1998; Panigrahi and Sashi, 2002) and international monitoring literature suggests that many countries are not adequately addressing the development of human capital in young children (OECD, 2001; 2006a, UNICEF IRC, 2007; UNICEF, 2010; UNESCO, 2010). Disproportionate numbers of children live in various states of poverty, including lack of access to recreation or learning. This includes England's children (UNICEF IRC, 2008; Palmer, 2012). Notwithstanding successful attempts in the early C21st to address issues of child poverty (Glass, 1999; Her Majesty's Treasury (HMT), 2007), England only achieves moderately well against international measures (OECD, 2003; 2006b) and since 2010, progress has declined (UNICEF Innocenti Research Centre, 2012). Furthermore, children's dominion over their own spaces has diminished (Valentine and McKendrick, 1997; Tucker and Matthews, 2001; Self, 2010; Powell, 2009; Layard and Dunn, 2009). Children's play, free time and early learning have become colonised by policymakers who view the lifespan between 0-19 years as preparation for tomorrow's economic imperative (Mayall, 2008). This centralised construction of English children's lives denies them certain human rights (OHCHR, 1989; Sen, 2005).

7.2.5 Adult Sociologists' Views of Children

While Ariès (1962) is generally attributed with identifying childhood as socially constructed, Corsaro's 'new sociology of children' views 'childhood as a structural form' (2005:3): the child is cast as a 'structured becoming' (Jenks, 2005:11), consuming 'cultural capital' prepared for them by adults (Bourdieu and Passeron, 1977). This hierarchical model resonates with social theories from Parsons (1951: 205) and Durkheim (1893) which locate acquired, shared beliefs and practices as crucial underpinning for the successful operation of societies. Others argue that humans are biologically disposed to share certain basic ways of thinking (Tylor, 1871; Levi-Strauss, 1962). These views indicate different childhoods for different children (Frones, 1993; Dahlberg *et al.*, 1999; Murray, 2009) or even little or no time that might be termed 'childhood' (Postman, 1994; Palmer, 2006). Yet Qvortrup (1994) articulates that children should be able to enjoy their transient experiences as children, rather than exclusively spending time preparing for

adulthood: 'Children are human beings, not only "human becomings" ' (pp. 18). Qvortup's position frames Corsaro's recognition of children as already 'active, creative social agents' (2005:3), a view shared by other new sociologists (*i.a.* Dahlberg and Lenz Taguchi, 1994; James *et al.*, 1998), who posit that societies dichotomise their views of the child as 'Dionysian' or 'Apollonian' (Corsaro, 2005; Valentine, 1996a; Jenks, 2005); English education policy for children from four years has tended to adopt the Dionysian view, recently locating the child as deficient within a framework of 'performativity' (Lyotard, 1984: 47-53; George and Clay, 2008; West, 2010). For the short-term at least, this contests sociologists' views of the child as a participatory 'social actor' (Hardman, 1973; Qvortrup, 1994; James and James, 2008; Alderson, 1995; 2001; Hill, 2006; O'Kane, 2008). New sociological perspectives (James and Prout, 1997; Dahlberg *et al.*, 1999; Cannella, 2002; MacNaughton, 2005) resonate with postmodernist or poststructuralist ideologies (Foucault, 1972; Freire, 1970; Lyotard, 1984), presenting and debating uncertainties as a positive way to develop our understanding of the evolving nature of 'childhoods'.

7.3 Adults who populate and shape children's lives

Discussion in this section is loosely framed around an ecological system model (Bronfenbrenner, 1979), widely used in the ECEC field (*i.a.* Fumoto *et al.*, 2004; Swick and Williams, 2006). Three groups of adults who affect children's experiences are addressed briefly:

- Policymakers;
- Professionals in ECEC contexts;
- Parents, primary carers and adult family members.

Inevitably, this list is not exhaustive; it represents three groups of adults with potential to affect the lives of young children aged 0-8 years at macro-, meso- and micro-levels (Bronfenbrenner, 1979).

7.3.1 Adult Policymakers

Arguably more than ever before, international policy has the potential to impact on young children's lives (Matović Miljanović and Janković, 2006) through infrastructure, transport, communication links, technology and international projects (UN, 2010) as well as monitoring national governments (OHCHR, 1989;

CEC, 2006; L'Europe de L'Enfance, 2010; OHCHR, 2008). Yet international pressure on English policymakers has had little effect: regulation of provision for children aged 0-5 years pushes practitioners into 'delivery' increasingly focused on the 'irrelevant and pernicious paradigm of school effectiveness' framed by English policymakers' view of 'what counts' (Fielding, 2001:134; Hopkin *et al.*, 2009; Murray, 2010). Equally, policymakers may also impact on children's liberty: children in England are far less likely to have freedom, time and opportunity to play unsupervised than previous generations (Smith and Barker, 2000) and they are the objects of policymakers' surveillance during the course of their daily lives (Foten and Thomsen, 2004; Parton, 2008; James, 2009; Murray, 2009). These policies may sideline the authentic needs of children (Boyle, 2001) and may explain why well-being among England's children is particularly poor (Green *et al.*, 2005; UNICEF IRC, 2007; Layard and Dunn, 2009).

7.3.2 Adult Professionals in ECEC contexts

Most children living in England come into contact with children's services professionals though the nature of this contact is variable (Waller, 2009); for example, some children may meet more social care professionals than others (Parton, 2005). A minority of children encounter few children's services professionals because they are home-schooled (Meighan, 1981) or 'missing from education' (Ofsted, 2010). This section focuses on professionals in early educational contexts, particularly teaching assistants, early years' teachers and early years' professionals, as these are most likely to be the professionals young children see most frequently and they are among the groups who contributed to the empirical data construction in the present study. These professionals occupy a wide range (Moss, 2000; McGillivray, 2007; DfE, 2010a) with varied qualifications (Nutbrown, 2012).

7.3.2i Adult Teaching Assistants

Because of New Labour policy (DfEE, 1998; Her Majesty's Treasury, 2004) the children's workforce developed exponentially in the first decade of the C21st in England. Policy devolved administrative tasks from teachers to teaching assistants (DfES, 2002) and between 2002 and 2009 the numbers of state-funded teaching assistants (TAs) doubled. The role became professionalised (Edmonds, 2003); a

range of qualifications and a new status (Higher Level Teaching Assistant) were introduced for these workers (Rose, 2005). The aim of introducing more para-professionals was to improve standards but the evidence for this remains inconclusive (Cremin *et al.*, 2003; Blatchford *et al.*, 2009; Brown and Harris, 2010).

7.3.2ii Adult Early Years' Teachers

Conversely, there seems to be clearer evidence that children's learning and development can be positively affected by high quality teachers (Sylva *et al.*, 2004; Fler, 2008; Barber and Mourshed, 2007). Pollard (1985) found that primary teachers value children's work in terms of effort, perseverance and neatness but value children's social behaviours in terms of politeness, quietness and respect for authority. The nature and supply of teaching is impacted on by policymakers (DfE, 2010) but in England there is little policy distinction between teachers working with children of different ages. However, for early years' teachers, high quality pedagogic practice is characterised by caring *and* education, principles, knowledge of individual children, child development, teaching skills, curriculum and safeguarding, assessment practices, reflection, reciprocity, partnerships and teamwork (Siraj-Blatchford *et al.*, 2002, Moyles *et al.*, 2002; Primary National Strategy 2005; MacNaughton and Williams, 2008). Yet since the Education Reform Act (HMG, 1988), a managerialist approach to teaching has been imposed, jarring with key educationalists and ECEC authors who espouse values as drivers for education (*i.a.* Dewey, 1910; Krishnamurti, 1953/1981; Steiner, 1919/1997; Schiller, 1979; Pring, 2000; Noddings, 2005; Montessori, 1916; Isaacs, 1929; Bruce, 2005).

7.3.2iii Adult Early Years' Professionals

Conversely, values of empathy and commitment underpin the Early Years Professional (EYP) role (Colloby, 2008). Persuaded by research of the benefits to young children's learning and the economy of at least one graduate practitioner in an early years' setting (Sylva *et al.*, 2004; Schweinhart *et al.*, 2005), the English government passed the Childcare Act 2006 (HMG, 2006), establishing a commitment to professionalise the ECEC workforce, including a new type of graduate early years' worker: the Early Years' Professional (Osgood, 2009). However, pay and conditions for EYPs are not addressed at national level as are

teachers' (Owen and Haynes, 2009; Nutbrown, 2012), causing recruitment and retention issues and undermining the status of ECEC in England.

7.3.3 Parents, primary carers and adult family members

Parents are seen as '...the most important people in their children's lives Ball (1994): '...children's first and most important educators' (Alexander, 1997:13). Moreover, Peters *et al.*, (2008) suggest that: 'Parents play a crucial role in influencing the aspirations and achievements of their children' (p. 15). This is a view shared by Galinsky (2010), who postulates a view of children as deficient, so requiring parents to 'promote essential life skills' in them: 'focus and self-control, perspective taking, communicating, making connections, critical thinking, taking on challenges and self-directed, engaged learning' (pp. 5-11). This section considers some of the actions parents take for their children, how policy has affected parenting, and challenges and alternatives in parenting. Unless otherwise stated, 'parent' and 'primary carer' are used interchangeably.

7.3.3i What do Parents do for Children?

Ginsberg (2007) posits that parents provide social role modelling, while Lamb and Lewis (2005) claim that parent: child relationships impact significantly on children's development and interactions. This view is triangulated by psychoanalysts and attachment theorists (Freud, 1933; Axline, 1964; Bowlby, 1988; Ainsworth *et al.*, 1978; Winnicott, 1953), though Erickson (2005) suggests that children's emotional support in the home is more likely to come from mothers than fathers.

Nevertheless, Hancock and Gillen (2007) note that some children do not receive emotional support from either parent; this may result in developmental and psychological difficulties.

7.3.3ii Policy, Parenting and Partnership

In the latter half of the C20th, family structures changed in England: fewer children now grow up within a nuclear family, while women are having fewer children and are working more (Banton, 2004; National Family and Parenting Institute (NFPI), 2009). Equally, during the first decade of the C21st, policy has focused on diverse parenting issues with significant emphasis on parents supporting children's learning (James, 2009), congruent with research suggesting that active parental interest

impacts positively on children's outcomes (Feinstein and Symons, 1999; Desforges and Abouchar, 2003; Harris and Goodall, 2007; Peters *et al.*, 2008; Melhuish *et al.*, 2008). Whilst children from lower socio-economic status (SES) homes often remain disadvantaged, government policy seems fixed on a notion of middle-class parenting for all (Lareau, 2000; Weininger and Lareau, 2009): homogenous *habitus* (Bourdieu and Passeron, 1977).

The idea of engaging parents in their children's learning is not new (Pestalozzi, 1801; Froebel, 1891; Hadow, 1931; 1933; CACE, 1967). Moreover, in contemporary USA, the National Education Goals Panel (2000) has encouraged parent partnership and Skolverket - the Swedish National Agency for Education - advocates 'close and confidential co-operation with the home' (2006:13). Equally, Alexander found flourishing parent partnership in India and Russia, though little in France (2001). Yet the recent expanse of parenting policy emerging from English government (National Family and Parenting Institute (NFPI), 2010), may be perceived as intrusion into private family spaces: in countries with fewer parenting policies, parents may feel greater autonomy and confidence to support their children naturally within their daily lives (Rogoff, 2003; Paradise and Rogoff, 2009). Furthermore, English popular media has exploited parents' vulnerability in recent years (Channel 4, 2010; BBC, 2005).

Terminology relating to the parent: school interface can reveal power relationships. Miller (1997) describes 'Participation, Parent help, Contact, Collaboration, Involvement, Partnership' (p.147) whilst Wolfendale (1984) proposes a continuum spanning from 'Nil contact' to 'Partnership'. Howe *et al.* (1999) suggest that 'involvement' might include mundane activities such as attending outings and administration, though Cannella (2002) warns: '...by constructing the language of "parent involvement" educators place themselves both above younger human beings and their parents as those who possess the accepted knowledge that must be "revealed" to others' (2002:107).

Equality and respect are regarded as characteristics for successful parent partnership (Pen Green Team, 2000; Dahlberg *et al.*, 1999; New Zealand Ministry for Education, 1996) though Laloumi-Vidali (1997) suggests that educational

professionals often find this challenging. Moyles and Hargreaves (1998) posit that practitioners may benefit from learning of 'the wealth of situated learning and intuitive teaching which takes place outside schools' (p. 220), a view echoed by the Early Childhood Education Forum (ECEP, 1998). Moreover, Athey (1990) identifies that it is beneficial for 'parents, grandparents and professionals to work together in order to increase quality of mind for young children' (p.207).

7.3.3iii Some Challenges and Alternatives in Parenting

Grandparents may also have a role in supporting children's learning and development in respect of children's understanding of oral language and ICT (Gregory, 2005), children's early literacy (Feiler and Logan, 2007) and children's understanding of early science (Ruby *et al.*, 2007). Equally, up to 2/3 of lone parent families in England are reliant on grandparents' care (Griggs, 2010), largely for economic reasons, though Wang and Marcotte (2007) suggest that this is not confined to England. Economic hardship is a reality for many families living in England today where households with children are more likely to be low-income: around 31% in England in 2010 (Palmer, 2010). Despite substantial policy designed to address child poverty, outcomes remain unfavourable for children and an intergenerational link proves difficult to break (Feinstein *et al.*, 2008; Millburn, 2009; Wagmiller and Adelman, 2009). This seems to establish itself early in life: Feinstein *et al.* (2008) posit determiners for intergenerational links (Appendix 129). However, one group of children does not have parents caring for them: looked after children (LAC). For these children, outcomes are among the worst (Gaskell, 2010).

7.4 Spaces Created by Adults for Children

7.4.1 Introduction

In a social context which excludes children from agency (Qvortrup, 1997; Cannella, 2002; Mayall, 2006) and physical spaces (Valentine, 1996b; Matthews *et al.*, 2000; Thomson, 2005; Wake, 2008), this section discusses some spaces which adults create for children (Rasmussen, 2004). 'Adults have a crucial role in providing suitable environments and in facilitating children's experiences' (Santer *et al.*, 2007:xv) so spaces they create may affect young children's opportunities to research. This section considers three spaces where English children may spend time:

- Home
- ECEC settings
- Recreational spaces away from home or ECEC settings

Kernan (2010) notes that children in England are increasingly limited to the 'islands' of their homes and settings; while Leverett (2011) designates spaces created for children as 'domesticated', 'institutionalised' and 'insularised' (p.9).

7.4.2 Home

Pellegrini (2004) notes that '...we still know very little about children outside of school settings' (p.2). This section draws together some of the knowledge, considering the nature of 'home', 'being at home' and children's experiences at home and school.

7.4.2i The Nature of Home

Discourse surrounding 'the meaning of home' is multi-disciplinary, and dynamic (Mallett, 2004: 62). Home is a 'haven' (Harden, 2000; Mallett, 2004: 70), a place of comfort, security and safety (Dovey, 1985), a private place (Saunders and Williams, 1988) and the 'centre of family life' (Moore, 2000: 208). Conversely, home is the site for hostility (Judge *et al.*, 2006), poor educational aspirations for children of low socio-economic status (SES) (Strand and Wilson, 2008), poverty (Bradley *et al.*, 2001), familial dysfunction (Harvey and Mukhopadhyay, 2006; Clark *et al.*, 2000) and violence (Meltzer *et al.*, 2009).

The significant changes that have occurred in home spaces in the past generation have resulted in more 'blended' family households, increased divided, lone and single parenting and smaller households and for younger children, more time with grandparents (Office for National Statistics (ONS), 2009; Griggs, 2010). However, the affective nature of home in young children's lives remains powerful (Ainsworth *et al.*, 1978; Cresswell, 2004; Sylva *et al.*, 2004; Ebling *et al.*, 2009): human functioning relies on belongingness and love needs as a foundation for personal growth and fulfilment (Maslow, 1943). Sense of place and emotional attachment are linked in the home (Lewin, 1935; Agnew, 1987; Laing, 1969; Miczo, 2008) and although emotional attachment may '...transcend the material characteristics of domestic space' (Moore, 2000: 207), humans imbue objects with emotional

meaning and symbolism derived from experiences (Csikszentmihalyi and Rochberg-Halton, 1981; Winnicott, 1953). Equally, changes in family structures or house moves disturb children's emotional security (Werner-Lin *et al.*, 2010), whereas a stable home provides 'confidence or trust that the natural and social worlds are as they appear to be' (Giddens, 1984: 375; Miczo, 2008): 'ontological security' (Saunders, 1989: 186).

7.4.2ii Being at Home

Every home is a unique cultural construction (Bourdieu and Passeron, 1977): an intimate environment (Yee and Andrews, 2006). Literature provides limited perspectives on home experiences and there is consensus regarding home as a '...foundation to build individual and group identity and a sense of self' (Werner-Lin *et al.*, 2010:132; Marris, 1991; Altman and Low, 1992; Busch, 1999). This section considers primary carers' roles and their provision for children at home.

While 'home is seen as the appropriate place for children to be raised' (Harden, 2000: 47; James *et al.*, 1998), there are inconsistencies in the literature regarding homes that adults create for children. Although parental employment may provide some stability for children (Taylor and MacDonald, 1998), '...growing emphasis on education outside the home for pre-schoolers has meant that home is not always the child's place' (Holloway and Valentine, 2000a: 777). International policy advocates integration of care with education in ECEC settings (OECD, 2001; 2006a; Kaga *et al.*, 2010): experiences that primary carers provided at home in previous generations (Hareven, 1993). 'Children and home are easily linked... by security, trust and affection - on the condition that there is at least one adult in the home' (Forsberg and Strandell, 2007: 393; Bowlby, 1988), yet parental childcare at home is regarded as either 'priceless or worthless' (Grace, 1998: 401). Single parenting and SES seem to impact on the time parents spend with children (Sandberg and Hofferth, 2001; Craig, 2006; Wilmott and Nelson, 2003; Sullivan, 2010); equally, gendered division of parental domestic labour remains a contested area (NFPI, 2005; Beagan *et al.*, 2008; Ristovski-Slijepcevic *et al.*, 2008; Sullivan, 2010).

Parental attitudes, dispositions and material goods they provide in the home seem to affect children's global development (Brooker, 2008; Paradise and Rogoff, 2009;

Hofferth and Sandberg, 2001; Goode *et al.*, 2008; DeVault, 1991) and parental wealth and children's health are strongly correlated (Ross *et al.*, 2005; Field, 2010). Equally English children's activity within their 'home learning environments' is often characterised in traditional educational terms (Tizard and Hughes, 1984; Wells, 1986; Sylva *et al.*, 2010). Conversely, Tizard and Hughes (1984) also found that, similarly to South American children (Paradise and Rogoff, 2009), English children learn much informally in daily activity with their parents. Children's language and literacy learning at and around home seems particularly dependent on SES (Tizard and Hughes, 1984; Wells, 1986; Neuman and Celano, 2001; Hart and Risley, 1995), though Sylva *et al.* (2010) emphasise that parents' activity with children impacts on early language and literacy learning. Links between children's language and literacy experiences at home and school are discussed further below. Two themes emerging strongly from the studies are discussed here: children's exposure to language during everyday activities and play as a factor for children's development and learning.

Ginsberg (2007) articulates that play 'builds active, healthy bodies', is 'important to healthy brain development' (p.183) and strengthens familial relationships. Parents playing with their young children can support development of pro-social behaviour (Lindsey *et al.*, 2010; Landy and Menna, 2001; Lindsey and Mize, 2001). Yet, whilst many parents know their children's play interests (Gleason, 2004), Ginsberg (2007) identifies a recent decrease in parent-child play. For middle-class families, one cause may be increased formal extra-curricular activities (Vincent and Ball, 2007); whilst these may enhance children's social engagements (Coplan DeBow *et al.*, 2009), they may also inhibit children's global development (Bruce, 1994).

Parents often construct children's experiences and sense of self through provision of physical spaces (Cresswell, 2004), characterised by '...activities other than sleeping' in contemporary children's bedrooms (Busch, 1999: 117), particularly in respect of technology (NFPI, 2005; VanZutphen *et al.*, 2007). Children in higher SES homes and urban locations tend to access computers at home more than other children (Holloway and Valentine, 2000a; Siraj-Blatchford and Siraj-Blatchford, 2006), though Marsh (2010) perceives an increasing trend for younger children accessing 'online' technologies at home. In England and the US, children's exposure

to physical spaces is affected by parental concern for children's safety (Parton, 2005; Clements, 2004): far fewer parents allow their children to play without close supervision than a generation ago (Ginsburg, 2007; Valentine and McKendrick, 1997). In England, '...more than one third of children never play outside' (NFPI, 2005: 3) and consequently miss important developmental experiences (Hutt *et al.*, 1989; Meadows, 2006; Fry 1987; Hancock and Gillen, 2007). However, parents in other countries continue to make provision for their children to engage in risky outdoor play (Ziviani *et al.*, 2008; Little, 2010). Notwithstanding many English parents' focus on children's safety, some children are exposed to peril by their parents (Harden, 2000): up to 500,000 children experience physical abuse at home annually (Women's Aid, 2009).

7.4.2iii Home-School

This section develops the theme of home-school links further. Here, as mentioned, children's language and literacy are briefly revisited, then young children's mathematical engagements at home are considered. As indicated, these are strongly emphasised by English policymakers' focus on children's 'scholarisation' from a young age in a context of economic pressure and international comparison (Alexander, 2010:87; Mayall, 2000; Matthes, 2007; DfE, 2010; 2012; OECD, 2000; 2006b; 2010). This section also considers ways that adults support children's transitions between home and ECEC settings.

Several studies have addressed parents' provision for children's language and literacy experiences at home, (Tizard and Hughes, 1984; Wells, 1986; Hart and Risley, 1995; Neuman and Celano, 2001); further related literature is discussed here. The Bullock Report (1975) has strongly influenced English children's school experiences (Cox, 1989; DES, 1989). Bullock (1975) drew on Bernstein's work (1971) to advocate that children's home languages should be valued in school, but similarly to Bercow (2008) thirty-seven years later, Bullock (1975) noted the limited nature of many children's home language experiences and recommended that educational settings explain to parents how they might support young children's language. This paternalistic view has been replicated, for example, by the introduction of 'home-school agreements' (HSAs) (HMG, 1998; Coldwell *et al.*, 2003). Marsh (2003) alludes to the prevailing hegemony of educational settings in

engaging parents; she found that settings often sideline working class children's home literacies in favour of middle-class perceptions of literacy. The phrase 'parental involvement' is widespread (Wheeler and Connor, 2009; Whalley, 2001; Desforges and Abouchar, 2003) but it detracts from 'equivalence' (Pugh and De'Ath, 1989) because it assumes that parents will only be 'involved' in their children's learning on educational settings' terms. De Abreu and Cline (2005) argue that 'one-way' directives from school to home disadvantage children whose socio-cultural expectations at home do not match those at school. Furthermore, such hegemony militates against '...true dialogue', characterised by '...mutuality of respect, trust and caring' (Turnbull *et al.*, 2000: 644). However, in England the 'one way' approach has recently gained further momentum from government (DfE and Department of Health, 2011).

Notwithstanding this point, when parents from all SES categories read with their children, socio-economic differences seem to diminish (Sylva *et al.*, 2003; Vandermaas-Peeler *et al.*, 2009; Hannon and Nutbrown, 1997; Evangelou *et al.*, 2005). However, work commitments, tiredness and parental illiteracy present barriers for parents sharing books with children (Jama and Dugdale, 2010; National Literacy Trust, 2011); indeed, a downward trend in literacy has emerged in the United Kingdom in international comparisons (OECD, 2010; 2006c; 2000).

Equally, the United Kingdom's position in mathematics education has dropped in comparison with other countries (OECD, 2010; 2006a; 2000). Children with Chinese heritage seem to do particularly well in mathematics; their parents tend to value mathematics and encourage their children to aspire to mathematical excellence (Zhao and Singh, 2011), whereas Caucasian parents tend to place greater emphasis on other aspects of their children's lives (Skwarchuk, 2009). Parental income also seems to affect mathematical achievement (Hirata *et al.*, 2006; Vandermaas-Peeler *et al.*, 2009).

Whilst English government emphasises literacy and mathematics (DfE, 2010), Brooker *et al.* (2010) found that teachers and headteachers believe this focus detracts from young children's social and emotional development. These perspectives reflect ongoing tension between education and care that may affect

young children's experiences at transition points (Kaga *et al.*, 2010). OECD (2006b) suggests that: 'Facilitating transitions for children is a policy challenge' (p.13), noting that many children do not experience the 'smooth transitions' advocated for minimising 'regression and failure' (OECD, 2001:126; OECD, 2006b:13). Transition challenges seem particularly prominent between ECEC and primary education (Kaga *et al.*, 2010; Dahlberg and Lenz Taguchi, 1994). English policy has maintained disparity between these phases (DfEE and QCA, 2000; DCSF, 2008; DfEE and QCA, 1999), but this has diminished somewhat in English ECEC with its recent emphasis on 'school readiness' (DfE, 2012), a recurring and contentious theme across international literature (Dockett and Perry, 2002; Brooker, 2008; Kaga *et al.*, 2010; Action Team on School Readiness, 1992; DfE, 2010c; High, 2008; Bertram *et al.*, 2009).

Transition is aligned with change (Fabian 2007; Lam and Pollard, 2006); Brooker (2008) observes that transitions in young children's lives have increased in an increasingly globalised context and posits that these 'discontinuities' can be frightening for young children (2008:3). Equally, Tizard and Hughes note that: '...school and home make very different demands on children' (1984: 247). Kagan (1991) distinguishes between young children's long-term ['vertical'] transitions such as starting school (Nelson, 2004; Brooker, 2002) and shorter-term ['horizontal'] transitions which might occur several times daily, for example, at mealtimes or bedtime. Transition is widely viewed as '...a process, rather than an event' (Sanders *et al.*, 2005: v) and there is consensus to support the OECD's view (2001; 2006a) that successful management of young children's transitions by adults is important for lifelong outcomes (Nelson, 2004; Ghaye and Pascal, 1989; Pollard and Filer, 1996; Yeboah, 2002; Whalley, 2001). To this end, the literature is replete with suggestions for how this might be achieved (Murray, 2004; Bullock, 1975; Wheeler and Connor, 2009; Willey 2000; Atkinson, 1988; Cleave and Brown, 1990; Dowling; 1995; Laverick, 2008; Whalley, 2001).

7.4.3 ECEC Settings

This section considers ECEC settings for children aged 0-8 years. Although children in England enter formal education in the term after their fifth birthday - in practice often earlier (Cleave and Brown, 1990) - the 0-8 years age range aligns with the

international definition for 'early childhood' (United Nations Committee on the Rights of the Child, 2005:2). OECD (2006a) confirms that: 'The provision of quality early childhood education and care (ECEC) has remained firmly on government agendas in recent years' (p.12); as mentioned, a key factor in this is perceived economic return (Becker, 1964; Heckman *et al.*, 2010; Walker, 2011). In England, despite policy shifts to raise childcare quality (HMG, 2004; HMG, 2006), there is much still to do to make this both affordable and consistently high quality (Price Waterhouse Cooper, 2011; Truss, 2012). Equally, English primary education policy has become more focused on managerialism at the expense of care and a meaningful experience for every child (Forrester, 2005; Murray, 2010). Discussion now turns to focus on the nature of provision, curriculum and pedagogy and accountability.

7.4.3i The Nature of Provision

In 1998, the Early Childhood Education Forum identified twenty different types of settings common in England, reflecting the lack of commitment by successive English governments to universal ECEC provision (Pugh, 2001), in common with many countries (UNICEF and Bernard van Leer Foundation, 2006). However, as discussed, New Labour's National Childcare Strategy (DfEE, 1998) began to 'raise the physical, social, emotional and intellectual status of young children through improved services', predominantly through 'SureStart' (Glass, 1999: 257). From 2004, all 3 and 4 year-olds became entitled to 12.5 hours free childcare a week, rising to 15 hours, with 95% uptake (DfE, 2010d), and disadvantaged two-year-olds included from 2013 (DfE, 2012b). SureStart was loosely modeled on the US HeadStart programme, though it was a generously funded universal service which led to 3,500 children's centres opening across the country by 2010, providing differentiated provision for children and their families, according to local need, with some attached to schools (Rudge, 2010). It could be argued that New Labour's policy brought further diversity in ECEC, since children's centres were a new type of provision. However, many children's centres housed provision that already existed, such as sessional and full day care and myriad services for families and parents (National Audit Office, 2006; Rudge, 2010). In this way, children's centres brought a new coherence to provision for young children in England (Whalley, 2006); eight

types of provision were identified by the DfE in 2010 (Appendix 132), though since 2010, budget cuts have depleted services (Williams, 2012).

The variety of ECEC settings in England has also resulted in diversity in the physical environments experienced by young children; the physical environment is often overlooked in considering the quality of young children's experiences in their settings (Penn 1997; Bilton, 2010). Yet the physical environment is recognised as significant for young children's development (Piaget, 1936; Fischer and Hencke, 1996; Gandini, 1998; Nicholson 2005): Clark (2010) notes that the lives of young children '...are deeply involved in the physical reality of their environments (p.12), while artefacts that young children may encounter are also regarded as potentially valuable for their learning and development (Hart, 1997; New, 1998). To this end, Ball and Niven (2005) suggest that the development of children's centres in England has generally improved the physical environments where many young children regularly spend time. Equally, during the time that New Labour were in power in England (1997-2010), a large-scale building programme was launched to rebuild or renew 45% of England's primary schools by 2023 (Richardson, 2009) so that thousands of children aged 4-11 years could experience buildings better suited to their learning needs (Peck, 2007). However, this project ended abruptly under the coalition government in 2010 (Harrison, 2010).

Outdoor experiences have long been advocated as essential for young children's development and learning (Froebel, 1826; McMillan, 1919) but only became statutory for children five and younger from 2000 (DfEE and QCA, 2000). Recently, there has recently been a significant increase in literature focusing on outdoor experiences for children aged up to eight years in their settings, (*i.a.* Ouvry, 2003; Dymont and Bell, 2007; Waller, 2007; Bilton, 2008); this has run contemporaneously with discourse noting the demise of free outdoor play for children away from their settings (*i.a.* Valentine and McKendrick, 1997; Tandy, 1999; Clements, 2004). However, children aged five years and older have fewer opportunities for free time to play during the school day (Moyles, 2010a): Gleave (2009) identifies that school playtimes '...may have decreased by as much as 50 per cent since the 1970s' (p. 4). This denies children their right to play (OHCHR, 1989) as well as diminishing the potential for play to make '...a major contribution to, and

sophisticated impact on, the development of individuals and humanity over time' (Bruce, 2010:288).

7.4.3ii Curriculum and Pedagogy

A rich seam of literature focuses on curriculum and pedagogy that adults provide for young children (*i.a.* Moyles *et al.*, 2011; Riley, 2007; Cable *et al.*, 2010; Palaiologou, 2010); given that the present study's empirical data were constructed with children aged 4-8 years in England, discussion will focus predominantly on England's two statutory frameworks that cover this age range. The Early Years Foundation Stage (EYFS) (DfE, 2012a) directs provision for children from birth until '...the end of the academic year in which they turn five' (p. 2) and the National Curriculum (DfEE and QCA 1999) follows from that point until age sixteen.

The EYFS incorporates some of Start Right report's *Fundamental Principles* (Ball, 1994:51-52) (Appendix 130) and OECD's *Eight Key Elements of Successful Early Years Policy* (2001:126) (Appendix 131) but has regressed from the previous framework's fully integrated model of education and care and its view of children as 'competent learners from birth' (DCSF, 2008:11) to 'promote teaching and learning to ensure children's 'school readiness' (DfE, 2012:2). EYFS (DfE, 2012a) also focuses strongly on its own outcomes: 'early learning goals'. It comprises three elements - learning and development, assessment and safeguarding and welfare - and highlights communication and language, physical development and personal, social and emotional development as 'prime areas'. Similarly to its predecessor, the EYFS (DfE, 2012a) maintains principles and emphasises 'planned, purposeful play' (DfE, 2012a: 6; DCSF 2008:11).

In regard to play, England seems to focus more on controlling children than many other countries. Whilst England aligns itself with other ECEC frameworks internationally by featuring play, the English model puts comparatively strong emphasis on practitioners directing children's play (DfE, 2012a). The English requirement for practitioners to plan and provide 'purposeful play' for children (DfE, 2012a: 6) jars with facilitating children to 'plan, do and review' their *own* play (Schweinhart and Weikart, 1993), with children expressing their 'personality and uniqueness' through play (Australian Government Department of Education,

Employment and Workplace Relations for the Council of Australian Governments, 2009), giving children agency 'to control and form goals' (Samuelsson and Johansson, 2006:47) or with children simply engaging spontaneously in their own play (New Zealand Ministry of Education, 1996; Skolverket, 2006). Yet there is evidence to suggest that once adults attempt to control children's play, children no longer regard the experience as play and their participation reduces (Emilsson and Folkesson, 2006; Howard *et al.*, 2006), so the English model may often deny children their full rights to play and participation (OHCHR, 1989). Equally, although DfE (2012a) posits that characteristics of young children's learning are 'playing and exploring...active learning...creating and thinking critically' (pp.6-7); it also states that these are to be taught, again advocating adult hegemony.

Play is not in evidence in the statutory National Curriculum (DfEE and QCA, 1999; Santer *et al.*, 2007). In 1988, Tizard *et al.* (1988) found that playtime and lunchtime consumed 28% of English children's school day; subsequently, school playtimes for children in England were reduced (Blatchford and Baines, 2006). Notwithstanding these points, Alexander (2010) notes that English primary education has changed little since the nineteenth century. The original National Curriculum (DES, 1989) was given legal force by the Education Reform Act (HMG, 1988) which defined separate 'key stages', the first of which provides for children aged 5-7 years. The revised National Curriculum, current at the time of writing (DfEE and QCA, 1999), has four purposes: 'To establish an entitlement...to establish standards...to promote continuity and coherence... (and) to promote public understanding' (pp. 12-13). For children up to age eleven, DfEE and QCA (1999) covers ten statutory subjects, religious education and non-statutory Personal, Social and Health Education and Citizenship. Three subjects – English, mathematics and science – are designated 'core' subjects; there is loose correlation between EYFS 'prime' and 'specific' areas and the National Curriculum Key Stage One subjects. English primary school pedagogical approaches have tended to cleave to whole-class transmission teaching advocated by Alexander, Rose and Woodhead in 1992. At Key Stage 1, the curriculum, rather than the child, tends to become the focus and children become aware of losing their locus of control (Daniel and Gustafsson, 2010; Sanders *et al.*, 2005).

However, two major primary curriculum reviews in England (Rose, 2009; Alexander, 2010) catalysed the development of more interactive approaches and broader curricular offers likely to ease the jarring transition between EYFS and KS1 (*i.a.* Haydon, 2008; Bowden, 2010). Yet both reviews were sidelined by the coalition government in 2010 and at the time of writing, the primary National Curriculum is under review again, with an emphasis on '*a tighter, more rigorous, model of the knowledge which every child should expect to master in core subjects at every key stage*' (DfE, 2010b: 10). This intention signposts 'a standardised image of childhood' (Woodhead, 1999:3).

7.4.3iii Accountability

There is recognition that variability of ECEC provision in England correlates with variability of quality (Sylva *et al.*, 2010). All provision in England for children and young people aged 0-19 that is in receipt of government funding is inspected. Prior to the 1988 ERA, schools were inspected by Her Majesty's Inspectors and pre-school provision was inspected by social services. Since 1993, English schools have been inspected by the Office for Standards in Education (Ofsted), extended to nurseries in 1998; the Childcare Act 2006 (HMG, 2006) heralded integrated inspection for 0-19 provision but in 2012 inspections for schools were separated from settings on the 'Early Years Register' (Ofsted, 2012). Yet inspection imperatives may not necessarily accord with 'sound educational (or early childhood) practices' (Møller, 2009: 45; Gammage, 2003).

Inasmuch as settings and schools are monitored they are also agents for the monitoring of children (Craig, 2004; DfE, 2010b). Adults gather data on children to feed into databases for monitoring and comparison by those who then acquire 'power-knowledge' about groups of children and individuals (Foucault, 1977:27; Murray, 2010). Whilst this 'panoptican' practice (Bentham, 1791) is rife in England, similar models are practised elsewhere (Hatch and Grieshaber, 2002; Fenech and Sumsion, 2007).

7.4.4 Recreational Spaces away from Home or ECEC Settings

Gleave (2009) identifies that adults in England are increasingly limiting children's autonomy by structuring children's recreation time for them. This section focuses

on adults' provision of activities for children away from home and school and adults' limitations on children's autonomy when they are neither at home or at school.

7.4.4i Provision of activities for children away from home and school

Ofsted (2008) found that over the course of one month, English children's time away from school or home was spent at clubs or classes, at organised events, at libraries, museums, cinemas or theatres, at their local parks or playgrounds, visiting youth clubs or meeting friends. Yet 18% of children had no opportunity to visit a park or playground in the previous month, even though they wanted to (Gleave, 2009). Gleave (2009) notes that in recent years, English 'children's free time has become more strongly associated with learning, rather than enjoyment' (p.2) and Moyles (2010a) concurs, suggesting that less free play for young children often equates with poorer quality learning and development. Play is seen as '...what children and young people do when they follow their own ideas and interests, in their own way and for their own reasons' (Department for Culture, Media and Sport (DCMS) 2006: 6; Mayall, 2005) so a decrease in children's autonomy may lead to less play. Internationally, children seem to have fewer opportunities to play than previous generations (Gammage, 2006): in the US, Justor, Ono and Stafford (2003) found children aged 6-8 years spending longer in 'formal school settings' (p.5) as well as decreasing time spent by children in active sport and outdoor activities. In 2002, Justor *et al.* (2003) also found that children had nine hours less free time per week than had been the case in 1981. In England, one reason for play decreasing may be increasing institutionalisation of children's out-of-school activity (Gleave, 2009), partly due to an increases in maternal employment (Smith and Barker, 2000).

Equally, since the 1980s, there have also been significant increases in children's engagement with screen-based technologies (World Health Organisation, 2000; Justor *et al.*, 2003), although the effects of this for young children's global development are contested (Sigman, 2005; Morris, 2010; Linebarger and Piotrowski, 2009). Even when western children are not in school or undertaking directed activity at home, such as household chores or music practice (Klein *et al.*, 2009; Davidson *et al.*, 1996), their time and play have increasingly become more

organised and structured for them now than was the case a generation ago (Gleave, 2009). In a survey for NFPI, parents reported that they engaged with their children in '...day trips, playing at home and watching TV, DVDs or videos together' (NFPI, 2005:9). However, in a study of nine-to-twelve-year-olds in the UK, Mayall (2005) found that children perceive their lives outside school to be overfilled with homework and household chores, with little 'free-time': 'time when they are freed from the tasks of childhood' (p. 84).

Moreover, Mayall (2005) also found that the same children prized their 'free-time' highly as their right and that they counted 'reading, watching TV, listening to music, being with friends and playing' as the activities they may choose to do themselves in their own free time (p. 85). Mayall (2007) also notes that '45 per cent of playing fields in England have disappeared in the 13 years 1992 to 2005' and observes a decrease in children cycling, walking and playing cricket since the 1990s (p. 12). Veitch *et al.* (2007) endorse this more generally: children today have fewer opportunities for outdoor play than their parents did. Yet Santer *et al.* (2007) found that even where there are spaces suitable for children to play outdoors, they are not much frequented by children. Whilst Santer *et al.* (2007) suggest that adults have attempted to address this issue, Wyver *et al.* (2010) indicate that the situation may be due to increasing parental anxieties regarding their children's safety. Equally, children aged 6-12 years in Australia found playground equipment in their local parks to be boring, unvaried and lacking challenge (Veitch *et al.*, 2007). Whatever the reasons, in England, far fewer children play without supervision now in their neighbourhoods than was the case a generation ago (Valentine and McKendrick, 1997). Notwithstanding this, in their study of children's play in sixteen countries, Singer *et al.* (2009) found that mothers reported that children in 'developed countries' (defined by the authors as United States, United Kingdom, France, Ireland, Portugal) played outside more and watched television less than children in 'newly industrialised countries' (India, China, Brazil, Argentina, South Africa, Turkey) and children in 'developing countries' (Thailand, Pakistan, Indonesia, Vietnam, Morocco) (p. 295).

7.4.4ii Adults' limitations on children's autonomy outside home or school

Whilst children may not be playing freely outdoors as much now as they did two decades ago in England, Mayall (2007) notes that the significant disappearance of outdoor play spaces has been balanced somewhat by an increase of 15% in leisure centre provision in England (Sport England, 2003), suggesting that some community space for children's physical exercise that was lost has been regained, though in leisure centres, children may be more closely monitored by adults.

There is some evidence to suggest that high levels of adult-structured activity during 'leisure time' may enhance children's educational and social outcomes (Scherger and Savage, 2010). English parents seem to value adult-structured activity for their children: in a large-scale international study conducted by the LEGO Learning Institute (2002), around half of the parents from the UK who were asked articulated a preference for their children taking part in adult-planned activities rather than autonomous free play. In recent years, public spaces such as museums and art galleries have begun to develop more child-friendly activities (Jackson and Leahy, 2005; MacRae, 2007). However, children themselves seem to have high regard for opportunities to play unsupervised (Lester and Russell, 2008), often preferring to be away from adults who may monitor them (Matthews *et al.*, 2000). Equally, adult intrusion in children's own activity can cause symptoms in children such as depression, stress and anxiety (Gleave, 2009). Of potentially significant concern is Christensen's finding that a culture prevails in some families where adults control or punish children by allowing or withdrawing the right to choose for themselves what to do in their own spare time (Christensen, 2002).

Furthermore, children are increasingly excluded from spaces which are also open to adults (Matthews and Limb, 1999; Redmond, 2008a) and they are problematised by some adults (Tucker and Matthews, 2001; Jenks, 2005; Wyness, 2000). In England adults sometimes explicitly require children to leave public spaces, such as shopping malls and leisure centres (Matthews *et al.*, 2000) and they sometimes exclude children from '...the very spaces set aside by adults for children's own use - namely recreation grounds, playing fields and parks' (Tucker and Matthews, 2001: 163) - as well as school (McDonald and Thomas, 2003).

Other reasons for children's exclusion from public spaces emerge from parents' wishes to protect their safety as well as parental work commitments. Contemporary children are likely to be 'backseat children' (Gleave, 2009): driven by their parents to activities and ECEC and school settings (Barker, 2003; Foten and Thomsen, 2004). Cannella (2002) particularly notes socio-economically privileged parents marginalise their '...inexperienced, immature, innocent' children from wider society (p. 162). In these ways, children have fewer opportunities to be alone or with peers without the presence of adults and to learn to negotiate their local area for themselves.

7.5 Summary

This review has considered some of the spaces constructed by adults for children: the paradigms through which adults view children, the adults who populate and shape their lives and the places that are created by adults for children. However, adults' spaces for children are often loci for adults to mould children from 'other' to the 'same' as themselves (Fielding and Moss, 2011:44). To this end, many English children have their time micro-managed by adults. Coupled with diminished numbers of public spaces where children can play and parental fears for their safety, this excludes children and leads to fewer opportunities for their autonomous activity.

Chapter 8:

Literature Review (3) - Children's Spaces

8.1 Introduction

Much literature suggests that children are marginalised (*i.a.* Matthews and Limb, 1999; Redmond, 2008b) until their preparation for adulthood has been undertaken (Qvortrup, 1994; Fielding and Moss, 2011). This study is concerned with social justice as it is meted out in - and through - one aspect of that marginalisation: research in matters affecting young children. In that endeavour, this third and final review explores 'children's spaces', described by Moss and Petrie (2002) as 'sites for new forms of democratic practice' (p. 116). Following this introduction, the third review opens by attempting to define 'children's spaces' followed by a rationale for a literature review focused on 'children's spaces'. 'Ethical spaces' for children are then considered, ahead of discussion surrounding children's physical, social, cultural, discursive and temporal spaces. Among numerous reports of research on, with and about children (Woodhead and Faulkner, 2008), there are a few examples of research that children have conducted autonomously. Given the focus of this study, 'children's research spaces' forms the final section of this third review.

8.2 What are 'children's spaces'?

Hardman (1973) established that '...children may have an autonomous world, independent to some extent of the worlds of adults' (p. 95). Moss and Petrie (2002) appear to reframe Hardman's 'autonomous world' as 'children's spaces', perceiving them as 'a richer set of meanings over and above the territorial' (p. 177). They view children's spaces as different from children's services, maintaining the latter do not always give primacy to children's needs, and perceiving children's spaces as 'places for emancipation' (p. 111). Moss and Petrie (2002) see 'children's spaces' as foregrounding '...the present, rather than the future; they are part of life, not just preparation for it. They are spaces for children's own agendas, where children are understood as fellow citizens with rights... agents of their own lives but also interdependent with others' (p. 107). Moss and Petrie's four cornerstones of children's spaces - physical, social, cultural and discursive spaces (2002: 9) - are revisited in this review. Clark also focuses on physical space, deconstructing it into 'existing', 'possible' and 'new' spaces (2010), as well as 'temporal spaces', which she sees as a merging of 'space and time' (2010: 131). Others have addressed

temporal spaces in relation to young children (*i.a.* Zieher *et al.*, 2007; Fleet and Britt, 2011), so temporal spaces are another consideration for the review. Equally, there is a large body of literature focused on children's social and cultural spaces so this is addressed in the review. Furthermore, Moss and Petrie (2002) place significant emphasis on a singular ethos that they see as inherent to 'children's spaces' – characterised by 'ethics of encounter' (Levinas, 1980) and 'ethics of care' (Fisher and Tronto, 1990) - so, in the context of this study focused on young children as researchers, 'ethical spaces' are explored further. Moss and Petrie see children's spaces as 'places for provocation and confrontation, dissensus and "indocility", complexity and diversity, uncertainty and ambivalence' (2002:110): discursive spaces. For Moss and Petrie (2002), children's spaces are:

'...opportunities for excitement, wonder and the unexpected; children living childhoods not entirely ordered and determined for them by adults and their preoccupations; relationships and experiences that are not defined or legitimated only in terms of work and outcomes; the value of play and playfulness in its own right...where children's questions and questioning are taken seriously and respected by adults who themselves are open to learning from children' (p. 111).

At this stage, it is important to point out an anomaly: I am an adult writing about literature written by other adults, so only adults' views are presented in this review of *children's spaces*. Some of the selected literature reports empirical research undertaken with children, but even so, I cannot wholly guarantee that the children's original views were reported faithfully by those who gathered them. Hardman (1973) warns that adult interpretations of children's thoughts and behaviours may render the children's meanings 'incomprehensible' to adults (p.95). In a review focused on children's spaces this is potentially problematic, but, since the review sits within the framework of doctoral study and its accompanying constraints, little can be done to address the incongruity in the review *per se*. The anomaly highlights researchers' difficulties in securing children's authentic views, which was a driver for the enquiry. Moreover, the empirical element of the thesis attempts to redress the anomaly to some extent by embracing young children's authentic experiences and views at first hand. Equally, Moss and Petrie (2002) suggest that children may be generous in sharing their own spaces: 'places where meanings are kept open,

where there is space for critical thinking, wonder and amazement, curiosity and fun, learning by adults as well as children' (p. 110).

8.3 Rationale for a literature review focused on 'children's spaces'

A number of authors have noted recent 'adultification' of children's lives (i.a. Postman, 1994:124; Palmer, 2006). They argue that a 'golden age' of constructions of childhood that characterised many children's lives from the mid-nineteenth to the mid-twentieth century has now been lost to influences including consumerism, poverty, premature sexualisation and widening access to information communication technology. Paradoxically, much literature suggests that children remain marginalised by adult hegemonies (i.a. Matthews and Limb, 1999; Lyon, 2007; Redmond, 2008a), until their preparation to 'become' the 'same' as adults has reached actualisation (Qvortrup, 1994; Fielding and Moss, 2011:44). In England, this has become manifest in two ways: firstly, children are over-protected (Valentine and McKendrick, 1997) and secondly, they are reviled (Wyness; 2000). Each is discussed in greater detail in this review's section on '*Recreational Spaces away from Home or ECEC Settings*'.

Children in the UK - comprising England, Scotland, Wales and Northern Ireland - seem to '...face a much more difficult world than those in continental Europe' (Layard and Dunn, 2009:3). About one third of all children in England live in poverty (CRAE, 2008; DWP, 2012) and Brewer *et al.* (2011) forecast 4.2 million children in the UK to be living in poverty by 2020. Equally, UNICEF IRC (2007) found that children in the UK fare least well of children in the world's twenty one richest countries, in terms of inequality, their families, friends, lifestyle and schooling. Furthermore, OHCHR (2008) has been particularly scathing of UK government, recommending, *inter alia*, that it should take '...urgent measures to address the intolerance and inappropriate characterisation of children' in the UK (p.6) and indeed, English children have indicated their own dissatisfaction in relation to their rights (CRAE, 2009). Given that higher order thinking and understanding are recognised in children younger than six years (Robson, 2012) and neonates may assert their identities, '...have abstract structured knowledge' and apply their experiences to conceptualise (Gopnik, 2011: 129-130; Alderson *et al.*, 2008), there may be merit in contesting UNCRC's view of infants as '...totally

dependent upon adults' (Abramson, 2006: 68). To that end in part, children's rights are discussed further in this review's section on '*Children's Rights and Participation*'.

Moss and Petrie (2002) perceive children's spaces as important 'places for emancipation' (p. 111), yet children in England seem to find such places increasingly inaccessible. Subjected to adult agenda, often to the exclusion of their own, as has been discussed, English children are constrained by 'schoolification', 'adultification' and vilification (Kaga *et al.*, 2010; Postman, 2004; Valentine, 1996). Furthermore, English children experience significant inequality and low levels of well-being in comparison with their contemporaries in other countries (UNICEF IRC, 2007; 2010); in the past two decades, they have become increasingly excluded from public spaces which other groups remain free to use (Tucker and Matthews, 2001; Santer *et al.*, 2007). Particularly in relation to participation, internationally agreed children's rights to which English government signed up in 1991 are not accorded to English children who are therefore denied the full potential of their capabilities (CRAE, 2009; OHCHR, 2008). There is good evidence to indicate that English children's freedom, participation and happiness are poor in comparison with other countries (Layard and Dunn, 2009). If children's spaces are 'places for emancipation' (Moss and Petrie, 2002: 111) they may have the potential to facilitate children's agency and enhance their participation and happiness. Therefore, the identification of children's spaces and the establishment of new children's spaces are potentially important. This review addresses these possibilities.

8.4 Children's Ethical Spaces

This section is concerned with ethical spaces in and around children; it is important for this study because of its focus on social justice. Ethics is defined, followed by consideration of children's *internal* ethical spaces – their personal capacities to address ethical issues. Next follows discussion of ethical spaces *external* to young children's 'internal worlds' that may surround them and interact with their 'internal worlds' (Thompson, 2006). Discussion surrounding ethics in research with children is a focus for the methodology chapters.

The branch of philosophy termed 'ethics' has Greek etymological roots located in 'habit, custom, and character' (Reynolds, 1993:327) and there are three main ethics theories: duty-based, consequential, and virtue (Warburton, 2004; Robinson and Groves, 2007:34; Singer, 2011). Aristotle believed it important to know what is right *and* to act virtuously (Warburton, 2004). Ethos is regarded as shaping identity (Reynolds, 1993; Edmiston, 2010): *internal* ethical identities interconnect with their *external* socio-cultural identities, while simultaneously standing discretely (Edmiston, 2010). Ethics is viewed as a practical *and* theoretical discipline (Singer, 2011): '...a set of moral principles and rules of conduct' (Morrow and Richards 1996: 90). In terms of the young child's 'internal world' young children's moral understanding has traditionally been regarded as limited (Thompson, 2006; Piaget, 1932; Kohlberg, 1969; 1984; DeVries and Zan, 1994): Kohlberg's stages of moral development (1984), for example, suggest that 'interpersonal conformity' prevails, characterised by the need to be seen as 'good' (Stage 3, 6-11 years) (pp.174-175). Recently, young children's moral development is recognised as more sophisticated than previously thought (Rochat, 1995; Hayashi, 2010; Pramling *et al.*, 2001; Hamlin *et al.*, 2010; Johansson, 2009). Pramling *et al.* (2001) correlate 'ethic' with 'moral', defined as 'understanding right and wrong' (p.362).

Numerous studies indicate that children between 0-8 years can engage in moral reasoning. Whilst Vosniadou and Ortony (1989) regard reasoning by analogy as '...crucial for recognition, clarification and learning and it plays an important role in scientific discovery and creativity' (p.1), Matthews (1994) suggests that children of fifteen months who reason by analogy develop empathetic behaviour. Equally, Meltzoff (1995) found that children of eighteen months understand and support others' intentions, exemplifying theory of mind (TOM): '...the understanding of others as psychological beings having mental states such as beliefs, desires, emotions and intentions' (p.838). TOM is an important indicator for humans' understanding of their place in the world and others' actions, predicated largely on 'our ability to understand the mental states that underlie (others') actions' (Song *et al.*, 2008:295). Debate regarding the quality of infants' theory of mind has been voluble; whilst some suggest that 'young children have theories', others posit 'commonsense theory of mind... not the product of scientific theorizing' (Wellman, 1990: 130; Karmiloff-Smith and Inhelder, 1975; Fodor, 1987; Gopnik, 1988). More

recently, though, it is recognised that 'children are far more capable (of sophisticated scientific theorizing) than was thought even two or three decades ago' (Whitebread, 2012:137; Meltzoff, 2011; Chugani, 1997; Senju *et al.*, 2011; Song *et al.*, 2008).

Singer (2011) articulates that in justifying one's actions as *ethical*, 'self-interest alone will not do' (p.10): morality is viewed as socially situated (Johansson, 2009). Opie and Opie (2001) found that children aged 6-14 years constructed their own moral 'codes of oral legislation', while Haynes (2008) describes children of four-to-six years engaging with peers in 'philosophical discussion'. Equally, Edmiston (2010) perceives that children's ethical development is inspired and enhanced through child-adult socio-dramatic play. Socio-constructivist theories of infants and young children developing moral reasoning, then, prevail across contemporary literature (*i.a.* Hong, 2003; Smith *et al.*, 2003; Lane *et al.*, 2010). Yet in ECEC practice and policy contexts, the area of ethics does not enjoy prominence (Dahlberg and Moss, 2005) so discourse is relatively limited, with much authored by Moss and Dahlberg (*i.a.* Dahlberg *et al.*, 1999; Dahlberg and Moss, 2005; Rinaldi, 2006; Edmiston, 2008; Fielding and Moss, 2011). Daniel and Gustafsson refer to a '..."children's space" *ethos*' 2010:266), alluding to Moss and Petrie's notion of 'sites for new forms of democratic practice' (2002: 116), while Fielding and Moss (2011) identify related ethical approaches: 'ethics of encounter' and 'ethics of care' (p.44).

Discussion now turns to ethical spaces that are extrinsic to young children, with which they interact. Levinas (1980) develops the idea of 'ethics of encounter' by juxtaposing 'same' and 'other' within an encounter: he proposes valuing the 'other' as different but no less than oneself because this respects the 'Other's' 'otherness' – or 'alterity' (1980: 38). Conversely, Levinas (1980) suggests that attempting to 'grasp' the 'other' as a mission for transformation until the 'other' becomes the 'same' as oneself is undesirable. Yet western models of education tend to be predicated on the latter model, perceiving 'the needy and incomplete child' as 'an object to be educated' (Gibbons, 2007: 506): a 'passive receiver and reproducer... awaiting receipt of adult knowledge and enrichment' (Dahlberg *et al.*, 1999: 50). Levinas' rejection of 'grasping' the 'other' resonates with Freire's denunciation of

the 'banking' model of education (1970); he argues that: '...knowledge is a gift bestowed on those who consider themselves knowledgeable upon those whom they consider to know nothing' (p. 53). Levinas' view (1980) also has congruence with Katz's perception of many early childhood programmes as 'factories...designed to transform raw material into pre-specified products by treating it to a sequence of pre-specified standard processes' (1998:42). Within this construction, predicated on the economic notion of 'human capital' (Becker, 1993), Cannella (2002) describes the child as 'silenced...controlled, oppressed, labelled and limited' (p.162).

Conversely, in 'children's spaces', new 'knowledge as constructed' and 'co-constructed' by children is valued (Dahlberg *et al.*, 1999:48; Moss and Petrie, 2002; Dahlberg and Moss, 2005:105). For this to happen, suggest Dahlberg and Moss (2005), an 'ethics of encounter' requiring mutual respect will feature. In the context of ECEC, Dahlberg and Moss (2005) interpret this as people investing time and energy in each other without any expectation of a 'rate of return' (Heckman and Masterov, 2004) and genuine affirmation of children's 'theories, interpretations and questions' (Rinaldi, 2006a:125) through a 'pedagogy of listening' (Dahlberg and Moss, 2005:96). Children's rights, abilities and interests are recognised and respected in this model (New, 2000).

Dahlberg and Moss (2005) have been significantly influenced by the Italian Reggio Emilia ECEC settings (*i.a.* Malaguzzi and Gandini, 1993; Malaguzzi, 1994; Edwards *et al.*, 1998). Unlike transmission models built on adult agenda (Ramey, 1974), Reggio Emilia provision is seen as 'a space or context for multiple listening' (Rinaldi, 1998a: 6). Underpinning this provision is Malaguzzi's philosophy (1998a) which draws on Piaget's constructivism (1936), Vygotsky's and Bruner's social constructivism (1978; 1986) and Dewey's ideas of democracy and pragmatism (1916; 1925). Dahlberg and Moss (2005) conceptualise ECEC provision promoting an ethics of encounter characterised by a pedagogy of listening as 'a laboratory or a workshop of learning and knowledge' (p.105). In this context 'pedagogy' presents as '...a complex and holistic relationship between people' (Peeters, 2006:1). 'Pedagogy of listening' means more than just listening: *it means struggling to make meaning from what is said without pre-conceived ideas of what is correct or*

appropriate' (Dahlberg and Moss, 2006:15). At its basis lie relationships (Rinaldi, 2006b).

Nevertheless, it has been found that children who experience any culture where adults listen to them present with enhanced confidence and social behaviours (Clark *et al.*, 2003). Yet 'pedagogy of listening' requires encouragement and appreciation of children's *Hundred Languages* (Malaguzzi, 1998b) (Appendix 128): their multi-media, multi-modal and multi-sensory ways of experiencing and interpreting the world (Vecchi, 2010). Drawing on Levinas (1980) and quoting Blanchot (1987), Readings (1996) describes pedagogy as '...an infinite attention to the Other' (p.161); in co-constructing children's *Hundred Languages*, 'pedagogy of listening' serves to enhance emotional and social development as well as 'the intellectual life of children' (Edwards, 1998:181).

Echoing Singer's (2011) description of ethics as both practical *and* theoretical, Fielding and Moss (2011) perceive that Reggio Emilia's values are etched into its practice (p.156): ethics are regarded as important where children are valued for themselves. They propose that an ethics of care may be manifested in schools and settings through a dialogic approach – such as 'pedagogy of listening' - characterised by openness, reciprocity, continuity, inductiveness, adaptability, interconnectedness, task focus and mutual meaning-making (2011:77-8). Equally, Noddings (2005b) argues for a school system based on a structure of 'care for self...others...non-human life...human-made environment...and for ideas' (p. 47). However, in England, '...children see schools as driven by an adult agenda and struggle to find limited opportunities for their own agency' (Daniel and Gustafsson, 2010:266); many children in England experience encounters in their ECEC settings that are not ethical: their prevailing perceptions are that their settings and schools give primacy to their academic output rather than caring about them 'as persons' (Fielding and Moss, 2011:52). Fielding and Moss (2011) suggest that the bifurcated state of education and care in English mainstream schooling has emerged from the deontological principle (Kant, 1785) that reason should drive ethical actions (Tronto, 1993; Taggart, 2011), though Kant's contemporary Hume valued moral virtues such as 'a manner, a grace, an ease, a gentleness' (1777: 72) for their contribution to 'human happiness' (Noddings, 2005a: 34). Taggart (2011)

suggests that, whilst ethics of care may underpin ECEC practitioners' aspirations for their work, limited evidence is available. Yet it is widely recognised that education and care operate best in an integrated model (OECD 2001; 2006a; Sylva *et al.*, 2004; Kaga *et al.*, 2010; Gerhardt, 2004). In England, the Childcare Act (HMG, 2006) was an attempt to bring together education and care for children aged 0-19 years, though a more recent government seems to have sidelined care in favour of education (DfE, 2010b; 2012).

Children themselves seem capable of an 'ethic of care': even as neonates, infants cry in response to other babies' distress (Decety and Jackson, 2004). Roberts (2010) suggests that a caring disposition, including 'acting out of concern' and 'appreciating wellbeing needs of self or others' is a key characteristic of a young child's agency (p.47), suggesting it may be a key component of the child as social actor, but this emerges from 'a secure (emotional) base' (Bowlby, 1988). The review now turns to addressing children's physical spaces.

8.5 Children's physical spaces

Spencer (2004) suggests that it is natural for humans to form attachments to physical spaces and this is recognised specifically in respect of young children (Dudek, 2005); Bailey and Barnes (2009) note that '...place has an important role in the development of self-identity and self-awareness' (p. 185). However, there seems to be more literature on 'adult spaces for children' than on 'children's spaces' (Rasmussen, 2004), reinforcing a driver for this project: children are excluded from adult policy and research spaces (Redmond, 2008b).

Notwithstanding this, in recent years, intelligence has accumulated concerning physical spaces used by children (Hart, 1976; 1997; Clark and Moss, 2001; Matthews and Tucker, 2001; Smith and Barker, 2001; Clark, 2007a; 2010). Moreover, adults may lend their own interpretations to children's actions (Roberts-Holmes, 2011) but overlook the significance of 'everyday' rich data concerning children making '...the most of spaces and places in an *ad hoc* way' (Horton and Kraftl, 2006:71; Bailey and Barnes, 2009:181). Yet children tend to be less limited than adults by others' pre-conceived ideas about features in their environment, valuing places '...for what they can do in them, how they can use them' (Bailey and

Barnes, 2009:181). In natural environments, Hart (1976) observed children voluntarily engaging together in construction, socio-dramatic and imaginative play that they developed themselves.

Children repeatedly cite outdoor play as desirable (Cousins, 1999; Moss and Petrie, 2002; Clark, 2007b), according with a view that humans have a 'deep and intimate association with the natural environment' (Wilson, 1993: 31; Louv, 2005). Children seem to benefit from freedom to explore their environments through their senses (Malaguzzi, 1996): many want to play outdoors and want natural environments to play in as well as safe provision that is well maintained and accessible and welcoming (*i.a.* Smith and Barker, 2001; Matthews *et al.*, 2005). Yet many children in England are denied these experiences (Layard and Dunn, 2009), whereas Danish and German town planning has removed traffic from the streets to foreground children's outdoor play; equally, Danish and German children engage in more outdoor activity than children in England (Rivkin, 2006; Layard and Dunn, 2009).

Children's autonomy often seems correlated with their outdoor activity (Maynard, 2007; O'Brien, 2009; Moser and Martinsen, 2010; Kernan and Devine, 2010). Hart (1976) suggests that the most important quality of children's interaction with the environment involves finding and constructing places for themselves, for example, when den-making. Related to Csíkszentmihályi's concept of 'flow' (1990), young children's deep, authentic involvement in such activities has been identified as important for their cognitive development (Laevers, 1994; Pascal *et al.*, 1996). Hart (1976) suggests that when children order the physical spaces around them this seems to lead to '...the development of a sense of personal order' (p.7). Hart (1976) also found that children prefer 'freedom to choose their own play places' '...in fields and hedgerows, rather than 'prescribed' 'playgrounds, play areas and back gardens of the homes' (p.12); Rasmussen identifies a 'children's place' as '...a piece of ground to which (two) boys attribute meaning through playing games and building on a specific plot of land' (2004: 158). Equally, Forsberg and Strandell (2007) found that eight-year-old children adopted '...a slide, a tree branch to hang from, spaces under balconies, attics, bicycle sheds and other outbuildings' in and around their homes for '...play, hide-and-seek, theatre plays and climbing' as their spaces (p. 397).

Although Daniel and Gustafsson (2010) point out that '...of all provision for children in the UK, schools are the most at odds with the 'children's space' ethos' (p.266), Clark (2010) identifies that this is not universally the case. She describes one infant school in Italy where teachers of children starting school leave the displays for their new children to develop themselves, only providing support if the children request it. Furthermore, children's 'secret spaces' emerge strongly in the literature, defined as '...somewhere to go to be alone or to withdraw with their friends' (Clark, 2010:95), away from the 'supervisory gaze' (Ennew and Swart-Kruger, 2003). Children told Veitch *et al.* (2007) that they liked hiding in bushes in public outdoor spaces and Einarsdottir (2005) found that children identified 'private places' as a highly popular physical feature in their ECEC settings. Hart (1976) suggests that children in his study valued fields where they played partly because they were '...sufficiently far away from the children's homes to be considered "secret"' (p.13), while Kyrönlampi-Kylmänen and Määttä (2011) found children aged 5-7 years created secret spaces their parents were unaware of at home. Equally, Clark and Moss (2005) also found that young children value spaces that give them privacy from adults; Clark (2007) suggests that such spaces are often the 'book corner and the home corner' in settings, 'home... or outside with friends' (p. 356). Additionally, Clark (2007) identifies that children's valuing of secret spaces in their settings is attributable to their 'quiet in noise', with one little boy aged four internalizing his secret (physical) space in his setting as 'my nice inside self' (p.356). Moreover, children's 'secret spaces' outdoors in ECEC settings seem to be important for children's independence and mastery (Moser and Martinsen, 2010). Campbell (2005) observed children aged 3-5 years engaging in the 'secret business' of '...their own gendered social order with sexist, heterosexist, classist and "racist" effects' (p. 135) through play, with girls 'colonising and regulating spaces' and boys 'using bodies to invade spaces' to create a 'contested terrain' (p.143). Yet children's own secret places may be '...necessary for (children's) mental health and wellbeing in a busy kindergarten' and may encourage children to participate as social actors (Moser and Martinsen, 2010: 468).

Garvey (1991) notes that '...objects are the prime source of social exchange for the toddler' (p.51), yet children often sideline sophisticated resources to focus on

simple objects and everyday artefacts that they find more interesting. These include trees and sticks (Rasmussen, 2004; Waters and Begley, 2007; Veitch *et al.*, 2007; Waller, 2006; 2007; 2010), dirt (Hart, 1997; Clark, 2010), insects (Clark, 2010) and wooden blocks (Gura, 1992; Einarsdottir, 2005; Vig, 2007). Hart (1976) observed children employing trees, bushes, leaves, grass, discarded house bricks and old carpet pieces to transform their environments and create and 'inhabit' dens. Italian children attending Reggio Emilia settings often choose 'natural materials such as cones, shells or pebbles' as artefacts to take from home to their settings that often assume emotional importance as transitional objects (Gandini, 1998:169; Winnicott, 1951). Equally, young children enjoy construction activities that they lead themselves, though the nature of the materials they use is eclectic (Hart, 1976; Gura, 1992; Dunphy and Farrell, 2011).

The literature suggests two ways in which children's interactions with their environments have proved helpful for adults attempting to gain authentic insight into their cognitive processes: schemas and small world play. Emerging from early sensory explorations (Goldschmied, 1989), young children often reveal 'schemas' (Piaget, 1926): 'general cognitive structures' (Athey, 2007:48), 'schemes' - physical actions - and 'schemas' - 'figural thought' (Meade and Cubey, 2008:3). Piaget and Inhelder (1956) noted a typology of different patterns of actions in schemas:

'...[placing items] next one another (proximity) or in series (order), actions of enclosing, of tightening or loosening, changing viewpoints, cutting, rotating, folding or unfolding, enlarging and reducing and so on, (p.452-3).

Children's repeated motor actions seem to lead to new understanding for children and adults working with them (Nutbrown, 2006; Athey, 2007). Equally, Hart (1976) found that children create their own micro-environments modelled on their real world experiences, using 'shoeboxes, dolls and toy cars' (p.7) in interaction with their natural environments, enabling them '...to assimilate new knowledge and to re-work existing notions of the macro-environment' (p.8). Such play supports children's explorations of '...possible roles in possible worlds' (Dyson, 1997: 14). Equally, encouraging children in their small world play is a tool that psychotherapists often use (Axline, 1964), though more recently, small world play

has increasingly been hijacked by adult agendas, such as commercialism and war (Scott, 2002; Johnson, 2005).

8.6 Children's temporal spaces

This section explores literature focused on young children's own temporal spaces: the 'layers of history and memory' that children may have opportunities to build (Creates, 1997, cited in Fleet and Britt, 2011: 147). Philosophers' views are discussed in relation to temporal spaces as deeply embedded features of human experience (Heidegger, 1962; Lyotard, 1992; Merleau-Ponty, 2002) and ways in which time imposes constraints on children are considered (Zieher *et al.*, 2007).

Literature correlates time with other human concepts, though Kant sees 'time' as an intuition, regarding it as an 'inner sense' (Scruton, 2001:41). Kant also regards space as an intuition, albeit an 'outer sense' (Scruton, 2001:41). Etymologically the Latin word for time – *tempus* – originally referred to space (Casasanto *et al.*, 2010) and Scruton (2001) observes that 'space, like time, forms part of the organisation of my sensibility' (p.41). Other philosophers perceive time ontologically, linking it with 'being' (Heidegger, 1962), 'consciousness' (Merleau-Ponty, 2002:481) and identity (Lyotard, 1992). Conversely, Rasmussen (2004) postulates that 'Time and place are central categories in conceptualizing the transient, ordinary nature of everyday life' (p. 155) and Markström and Halldén (2009) suggest that they form 'the teacher's social order' in ECEC settings, noting that '...individual children often resist a regulation and create time and space for themselves' (p. 116). Equally, value placed on time is seen as driven by marketisation (Becker, 1993).

Memory links experiences with time. One type of memory – *working memory* - has been established as a human 'executive function' that 'allows the recall of past events and planning for the future' (Whitebread, 2012: 145). Established by Baddeley and Hitch (1974), working memory '...refers to a brain system that provides temporary storage and manipulation of the information necessary for such complex cognitive tasks as language comprehension, learning, and reasoning' (Baddeley, 1992: 556). Baddeley (1992) emphasises the dual role that working memory has in storing and processing information simultaneously. Yet the capacity of working memory seems limited: adults are unlikely to recall more than seven

pieces of information (Miller, 1956), whilst in children, there seem to be greater limitations. The apparent superiority of adult working memory in comparison with children's seems to be attributable to: '...speed and automatocity...due to practice', 'improvements in our knowledge base...and increasing self-awareness and control of our own cognitive processes' (Whitebread, 2012:101).

The foundations of a personal catalogue of temporal spaces begin prenatally. Connections between time and space –through, experience, emotion, memory and identity – commence before birth: the foetus responds actively to sounds and sensations encountered in the womb, which the baby recognises postnatally (DeCasper and Fifer, 1980; Mehler, Lambertz *et al.*, 1986; Greenfield, 2000; Riley, 2003). Moreover, neonates seem to order their senses to organise their perceptions of their environment (Gopnik *et al.*, 1999). Recent neuro-scientific and psychological research addresses 'critical periods' and 'sensitive periods' in infancy and early childhood (Wiesel and Hubel, 1965; Daw, 1997; Bruer, 1999; 2001; Fox *et al.*, 2011), suggesting that life experiences are aligned with time.

Clark (2010) postulates that '...children's sense of space and place can be infused with their past associations with that environment' (p.116). Many of the temporal spaces that are important for young children grow in response to early attachments (Cresswell, 2004; Bowlby, 1969). Mallett (2004) describes home as '...a repository for memories', suggesting it '...locates lived time and space, particularly intimate familial time and space' (p. 63). Young children's experiences of time spent at home imbue that space with 'emotional, social, physical and symbolic significance through patterns of inter-action over time' (Moore, 2000: 212), while memories '...frame or shape our experiences of the temporal', providing foundations for emotional security (Hill, 2011: 16).

Many children seem to have more opportunities at home than in their settings to play at their 'own pace' without interruption, enabling 'flow' (Csíkszentmihályi, 1990; Kyrönlampi-Kylmänen and Määttä, 2011:7; Göncü, 1998; Bruce, 2005). However, parents and children have engaged less in unstructured play together over recent years (Ginsberg, 2007), a marked development since Tizard and Hughes' study (1984). Although young children value time with their parents

(Kyrönlampi-Kylmänen and Määttä, 2011), this is not available to all children because of siblings, work commitments or parental separation (Downey and Condron, 2004; NFPI, 2005; Zieher *et al.*, 2007; Hancock and Gillen, 2007; Kyrönlampi-Kylmänen and Määttä, 2011). Many contemporary children spend their days in a repeated 'time-bound' 'rotation' of routine activity conducted at 'the everyday pace set by parents and society' (Christensen *et al.*, 2000:146; Kyrönlampi-Kylmänen and Määttä, 2011: 12). This avoids '...a potential threat to a time-scheduled society' (Forsberg and Strandell, 2007: 405) but sidelines young children's natural 'rhythm and pace' which is 'unhurried and flexible' (Kyrönlampi-Kylmänen and Määttä, 2011: 13). Increasingly, many parents perceive 'quality time' as 'activities and experiences' (Christensen *et al.*, 2000: 146) but a 'hurried lifestyle' may affect children adversely, becoming '...a source of stress and anxiety (that) may even contribute to depression' (Ginsberg, 2007: 185). Children seem to perceive quality time' as the 'ordinariness and non-eventful quality of time at home with the family' (Christensen *et al.*, 2000: 146).

Conversely, some children 'hide' in their bedrooms to avoid domestic chores or academic work (Christensen *et al.*, 2000) and some spend time alone at home. In Finland, many young children are at home on their own while their parents work (Forsberg and Strandell, 2007), spending their time engaging in 'play, hide-and-seek, theatre plays and climbing', listening to music or sewing' (Forsberg and Strandell, 2007: 397). Children 'home alone' in Canada '...watch TV, spend time on the computer, talk to friends on the phone or chat online' (Ruiz-Casares and Rousseau, 2010: 2568). However, whilst many children enjoy the autonomy and independence being at home alone affords and some enjoy being able to 'entertain themselves (and) discover their hobbies', some report feeling lonely and frightened (Ruiz-Casares and Rousseau, 2010: 2568-9).

'Temporal spaces' appear to comprise a catalogue of experiences which relate to object permanence, human interactions or both (Moore, 2000; Miczo, 2008; Hill, 2011). Young children '...may look matter-of-factly on places that to adults are haunted with memories' (Tuan, 1977: 33, cited in Clark, 2010). While Tuan appears to deny children as conscious beings with personal identities (Merleau-Ponty, 2002; Lyotard, 1992) such a suggestion is rejected by 'new sociological' authors (Clark

2010; Cousins, 1999; Brooker, 2002; Carr *et al.*, 2005), who posit that children internalise their communities and individual inhabits: a phenomenon also noted by Biesta (1999). Moreover, a child's claim to temporal spaces is viewed as each child in interaction with spaces and people, regardless of the physical measurement of time (Heidegger, 1962 Clark, 2010). This accords with Graue and Walsh's valorisation of young children's operational space 'here and now' (1995) and makes the point that children form meaningful personal temporal spaces no less valid than adults' Clark (2010).

In settings where children's contributions to decision-making are heard and noted and where they can share 'ownership of space', they may quickly build up a lasting personal catalogue of temporal spaces (Fleet and Britt, 2011). Garrick *et al.* (2010) catalogued ways that children aged 3-5 years recalled enjoying spending their time in settings in England, including, for example, '*...playing over there' (points to home-corner) with dolls' (p.9)...*'My friends push me really fast (on a bike) and I like it' (p.11). Australian children aged 11 and 12 recalled climbing on large play apparatus and 'driving' their model cars around the roots of a tree in kindergarten (aged 4-5 years) (Fleet and Britt, 2011:153-7). English children aged 3-5 years seem to reify their experiences of variable setting accommodation in terms of how they spend their time in it: Garrick *et al.* (2010) found that a childminder's garden provided '*...a grassy area for chasing games and skittles, log stumps for jumping, and a castle and "fairy glen" for imaginative play' whereas children at (an) out-of-school club described mainly play on a hard surfaced school playground with few resources' (2010: 8). As children in England reach compulsory school age, their personal temporal spaces often become subsumed by '...the spatial-temporal ordering of the school, and the teachers' paramount control over its social organisation' (Christensen and James 2001:79), diminishing their agency (Fielding and Moss, 2011) and their capacity to create personal histories comprising personally meaningful interactions with people and objects (Holloway and Valentine, 2000b).*

8.7 Children's social and cultural spaces

Schaffer (1992) asserts that cognitive and socio-emotional domains are 'increasingly blurred' (p. 99), while the importance of both 'social relations and

cultural context' as 'children's spaces' is established (Rasmussen 2004:15; Trevarthen, 2001; Hedges, 2010). Children share these spaces with other people, a situation described as 'belonging': 'The relational dimension of personal identity, the fundamental psycho-social "glue" that locates every individual...at a particular position in space, time and human society and...connects people to each other' (Woodhead and Brooker 2008: 3; Bath, 2009).

8.7.1 Infants' earliest social relationships

Humans seem programmed for social behaviour from infancy (Murray and Andrews, 2000; Meadows, 2010). Even very young babies have a sense of self, significant awareness of other humans and can empathise and interact socially (Decety and Jackson, 2004; Stern 1985; Meltzoff and Moore, 1977; Field *et al.*, 1982). Neonates attune to their birth mothers' voices and faces DeCasper and Fifer, 1980; Bushnell *et al.*, 1989), respond positively to human eye-contact (Farroni *et al.*, 2002) and become distressed if ignored (Nagy, 2008). Early interactions between babies and primary carers - including imitation - lay foundations for later social communication skills (Field 2007; Trevarthen 2001; di Pellegrino *et al.*, 1992; Rizzolatti *et al.*, 1996; 2002; Byrne, 2005). By ten months, babies respond to social and emotional cues of others: social referencing (Stern, 1985; Campos and Sternberg, 1981; Feinman, 1982; Striano and Rochat, 2000). Social interactions that babies accomplish in their first year seem to underpin their continued well-being and global development (Nagy, 2008) and by eighteen months toddlers demonstrate understanding of others' intentionality (Meltzoff, 1995).

8.7.2 Intersubjectivity

Biesta (1999) suggests that the foregrounding of social interaction is key to pragmatic approaches that reject the primacy of striving for 'absolute truth' in favour of 'symbolic interaction' (Mead, 1934; Blumer, 1969), 'communicative action' (Habermas, 1984) and 'social converse' (Dewey, 1900:24). These dynamic, shared spaces are co-constructed through 'intersubjectivity': open communication with others and empathy (Crossley, 1996: 173; Göncü, 1993). Evidence suggests then, that far from lacking 'functionings' (Sen, 1993:31; Deneulin and Shahani, 2009), infants and young children have 'capabilities' to engage intersubjectively

(Crossley, 1996) and can, therefore construct, in interaction with others, their own social spaces from birth (Trevarthen and Aitken, 2001).

8.7.3 Children's own cultural spaces

Young children also develop their own cultural spaces, each a '...complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man (sic) as a member of society' (Tylor, 1871 / 1958: 1). Whilst adults seem to have a role in 'guiding children into being competent users of the cultural tools of their society', as a survival mechanism (Anning and Edwards, 2010:14; Trevarthen, 1998; Lorenz, 1935; 1952), children's peers may also support enculturation (Cole, 1985; Evaldsson and Corsaro, 1998; Corsaro, 1985; 2003; Valentine, 2000). Equally, cultural transmission from adults may not be the only way for young children to acquire 'the requisite orientations for satisfactory functioning' (Parsons, 1951: 205): Woods (1983) notes three characteristics underpinning children's own cultures - relationships, competence and status. Wells and Claxton (2002) recognise children as cultural social actors in co-constructions of new cultural habits and values and play is seen as a site for children's cultural emergence (Opie and Opie 1959; Opie, 2001; Huizinga, 2003; Edmiston, 2008). Yet even by recreating narratives and roles in their play, young children in contemporary western societies demonstrate allegiance to popular culture created by adults (Arthur, 2001; Howard and Roberts, 2002; Buckingham, 2007; Marsh, 1999; 2000a; Kallilia, 2006; Scott, 2002; Kasturi, 2002). However, Gussin Paley (1984; 1990; 1992; 2004) and Dyson (1997) suggest that many children '...infuse their own intentions - their own meanings - into objects and actions' in pretend play (p. 14) though Göncü *et al.* (2000) differ from Brooker (2010) by suggesting that such play is not universal across the world.

Children's uses of space in ECEC settings '...reflect cultural patterns' (Lubeck, 1985:95). Children in Italian Reggio Emilia settings absorb cultural enthusiasm from their environments (Edwards *et al.*, 1998) which they translate into their own projects: Malaguzzi remarked 'It's not just the images that come from the hands and imagination of the children that count, but also the fruit of the harmony of all their ideas' (Kaufman, 1998: 288). 'Reggio' themes were reframed in English contexts during the '5x5x5=creativity' project (Bancroft, *et al.*, 2010), yet adults in

the English project found it difficult to relinquish autonomy to the children. Apart from playtimes, Smidt (2006) found that English children in the early twenty-first century '...spend their days practising for the SATs tests in school' (pp.83-4), whereas Pollard's study (1985) two decades earlier found that children continued their playground games in the classroom.

Smidt (2006) notes that children's own cultures are often sidelined in English school settings, but found that children invent ways to develop and maintain them, for example, inventing role play at playtimes. Equally, in a Scandinavian context, young children sometimes reject practitioners' plans in favour of developing autonomous cultures (Markström and Halldén, 2009). However, whilst young children seem to engage naturally in gendered play (Gussin Paley, 1984; Dunn, 2004; Campbell, 2005; Slade, 2008) - 'Girls read; boys play football!' (Siraj-Blatchford and Clarke, 2000:8) - Pollard (1985) found that English primary teachers tend only to approve of feminised playground games, such as skipping and hopscotch.

8.7.4 Social constructivism and social constructionism

Constructivists perceive knowledge and the world as '...constructed and constantly reconstructed through personal experience' (Ackerman, 2001:1); children may do this in 'complex, dynamic, and malleable processes' during which they '...interpret, organize, and use information from the environment and...acquire or construct increasingly complex skills, knowledge, and intelligence' (Lash, 2008: 34).

Constructionists assume this position but add meta-cognition and public dissemination (Papert, 1991). Ackerman (2001) draws on Piaget and Inhelder (1967), Papert (1980) and Vygotsky (1978) to suggest that transformations '... from intuitive towards rational thinking' underpin both constructivist and constructionist theories (p.6).

Equally, theorists have proposed that constructivism and constructionism can be socially reified (Vygotsky, 1962; 1978; Wood *et al.*, 1976; Rogoff, 1995). Social constructivists perceive young children as simultaneously '...learning, reorganizing, strategizing, risk taking, expressi(ng) emotions, questioning, experimenting, interpreting, and form(ing) the world and culture' with others (Lash, 2008: 34).

Childhoods are seen as socially constructed (Aries, 1962; Prout and James, 1997), the 'meaning making relationship with others' each human being contributes to the social construction of the world and knowledge: 'social constructionist theory' (Moss and Petrie, 2002: 19). Moreover, social constructivism and social constructionism assume privileged spaces in ECEC discourses (Waller, 2009; Browne, 2010), often referred to in relation to adult:child interactions, such as 'sustained, shared thinking' (Siraj-Blatchford *et al.*, 2002), 'scaffolding' Wood *et al.*, 1976) and 'guided participation' or 'apprenticeship' (Rogoff, 1995).

Many children socially construct peers' learning and experiences and have this reciprocated, for example, through tutoring (Broadhead, 2001; Mitra, 2003; Whitebread *et al.*, 2005), joint problem-solving (Ashley and Tomasello, 1998; Topping *et al.*, 2011), sharing language (Opie and Opie, 1959; Wang and Hyun, 2009) and relationships (Corsaro, 2003; Dunn, 2005). Equally, young children work with peers to 'produce alternative constructions' (Dahlberg *et al.*, 1999:95; Markström and Halldén, 2009; Rinaldi 1998; Brooker, 2002). Furthermore, children's well-being and identities are predicated on relationships that make them feel '...liked, recognised and accepted for who they are and what they are' (Woodhead and Brooker, 2008: 3-4; Van Oers and Hännikäinen, 2001; Einarsdottir, 2005; Dunn, 2005). Corsaro (2003) found that children as young as four years discuss their affiliations with each other in abstract ways that evidence meta-cognition and public dissemination, characteristic of social constructionism (Papert, 1991).

Conversely, some young children do not engage happily in social experiences with their peers and this may leave them feeling lonely, bullied or rejected (Dunn, 2005; Gussin Paley, 1990; Slade, 2008). Whilst Corsaro (2003) perceives conflict as '...a natural element of children's culture and peer relations' (p.162), such early experiences may have negative implications for life chances (Ladd *et al.*, 1996).

8.7.5 Play as children's social space

There seems almost universal international acknowledgement that children's play is a 'good thing' (OHCHR, 1989), yet in England, adults either seem to want to control children's play (DfES, 2008; Wood, 2010a) or they do not want it to enter *their*

space (Matthews *et al.*, 2000; Tucker and Matthews, 2001). Children's play remains a nebulous and challenging area for adults (Manning and Sharp, 1977; Bennett *et al.*, 1997; Göncü and Gaskins, 2007; Nutbrown, 2011), yet persists as a source of fascination for adults studying children's lives (Fromberg and Bergen, 2006; Brock *et al.*, 2009; Chazan, 2009; Broadhead *et al.*, 2010; Brooker and Edwards, 2010). Play seems both natural and necessary for children (Louv, 2005; Moyles, 2010b) and can provide an authentic context for their 'agency' (Marsh, 2000b; Edmiston, 2008): their capacity 'to act independently' (James and James 2008: 9).

Smith (2007) outlines functionalist theories of play as survival skills (Groos, 1901), discharge of 'excess energy' (Spencer, 1898) and therapy (Hall, 1908). In UK contexts, a widely accepted definition of play is '...freely chosen, personally directed, intrinsically motivated behaviour that actively engages the child' (National Playing Fields Association (NPFA) *et al.*, 2000). De Vries (2006) suggests that, whilst adults may often perceive young children's social play as byzantine, 'social reciprocity' embedded within it is valuable for supporting children's emotional development and identity; furthermore, Edmiston (2008) suggests that young children may develop 'ethical identities' through social play.

Much non-verbal social interaction may be manifested in young children's play (Malaguzzi, 1998a; Fogel *et al.*, 2000; Macintyre, 2001); '...primarily through various bodily cues and forms of non-verbal communication' (Bae, 2010: 208). Identifying meanings in children's social play often proves challenging for adults (Sutton-Smith, 2001; Wood, 2007), though Hardman (1973) advises: '...children's thoughts and social behaviours may not be totally incomprehensible to adults, so long as we do not try to interpret them in adult terms' (p.95). Schwartzman (1978) suggests that adults are so challenged by the task of theorising play that they have only managed to reach consensus on what play is *not*. Ryan (2005) posits that: 'Children's play is not a neutral space but rather is a political and negotiated terrain' (p. 112). Numerous play taxonomies have emerged in the literature (*i.a.* Parton, 1932; Smilansky, 1968; Hutt *et al.*, 1989; Broadhead, 2001; Hughes, 2002; Kernan, 2007). Hutt *et al.*, 1989) categorise play as 'epistemic', 'games with rules' and 'ludic', while Kernan (2007) characterises play as voluntary, meaningful and low risk to its players, spontaneous, symbolic, deeply involving, active, joyful,

humorous, exciting and sensitive to children's social moods. However, Parten (1932) and Broadhead (2001; 2004) view children's play specifically through the lens of social interaction.

Some studies have engaged children in addressing issues surrounding their own social play (Hart, 1976; Henshall and Lacey, 2007; Foster and Gleave, 2008; Kapasi and Gleave, 2009; Gleave, 2010). This work acknowledges children's rights (Penn, 2008) and includes themes of social values, autonomy, risk management, social exclusion and inclusion. Kapasi and Gleave (2009) identify three characteristics that children regard as most important for their play encounters: '...friends to play with, time to play and freedom to play without structure' (p.4).

8.8 Children's discursive spaces

Children's spaces are 'places for provocation and confrontation, dissensus and "indocility", complexity and diversity, uncertainty and ambivalence' (Moss and Petrie, 2002:110): discursive spaces. There is consensus within the literature that discourse is more than pure language. Habermas views 'discourse' as dialogue and rational thinking (1984) while Weinfurt sees it as '...the acts that people accomplish within conversations' (2004: 195): 'social action...signifying practices and meaning-making' (Wetherell, 2007: 662-3). Discourse is a socio-cultural perspective locating language as a vehicle for thought and verbal interactions may be considered expressions of thinking (Vygotsky, 1962). Understanding of cultural context is crucial to an understanding of discourse (Lerman, 2001) and, as discussed, it is important to recognise the multiple modalities that young children may adopt as vehicles for their thinking (Bae, 2010). Bruner and Olson (1978) posit that children's uses of multi-modal expression and communication may also be ways they engage in epistemic activity. Young children think and interact with the world through their senses and perceptions (James, 1890; Stern, 1985) and reasoning emerging from 'matter of fact or existence' is considered 'robust' (Hume, 1748; Thomas, 2007).

The section that follows focuses on literature surrounding children's internal and external 'discursive spaces'. It addresses their uses for 'trial and error', their senses and perception in mediating their interactions with their worlds, considers their uses

of play as a discursive space, addresses children's 'meta-communication' and 'inner speech' and develops further discussion on pedagogy of listening. In this section, I will argue that communication and rational thinking are interwoven in 'discourse' but that while children may engage in discourse, this can be overlooked because their modalities of communication and the complexities of their thinking may not always be recognised. Furthermore, I will argue that children's discourses are most likely to flourish in contexts where their capabilities and competences as social actors are genuinely recognised.

8.8.1 Children's uses of 'trial and error'

It is suggested that all learning emerges from trial and error (Popper, 1999; Swann, 1999). First identified by Thorndike (1911), 'trial and error' is eclectically defined as '...the absence of a systematic strategy' (Dempsey *et al.*, 2002: 163) '...the method by means of which living organisms cope with unforeseen events' (Hájíček, 2009: 276) '...either by the complete elimination of unsuccessful forms or by the evolution of controls which modify or suppress unsuccessful organs, or forms of behaviour, or hypotheses' (Popper, 1972 / 1979) : 242). Popper continues: a 'method...of proposing theories and submitting them to the severest test we can design...may be called *critical method*' (p.16). Yet Popper (1972 / 1979) posits: 'As children, we learn to decode the chaotic messages which meet us from our environment...by trial and error elimination' (p.63).

Popper (1972 / 1979) posits that '... new reactions, new forms, new organs, new modes of behaviour, new hypotheses, are tentatively put forward and controlled by error-elimination' (p. 242). Aligning with Popper, Swann (2009) proposes a schema to represent the trial and error-elimination process: '...P represents a problem, *TS* a trial solution applied to the problem, and *EE* stands for error-elimination:

$$P \square > TS > EE > P \square$$

(p.260). Moreover, Hájíček (2009) highlights the role of memory in the trial and error process.

Popper (1972 / 1979) describes trial and error-elimination as a psychology which is...dominated by logic (p.96). Yet Swann (2009) observes that children rarely

engage in trial and error at school, because teachers ‘...penalise the student for failing to understand, failing to give the prescribed answer’ (p.267).

8.8.2 Children’s uses of their senses and perception

Piaget (1969) sees humans as active agents who combine perception and activity to construct new understanding. The study of young children’s uses of their senses and perception is well documented (Berk 2008). Spelke *et al.* (1992) posit that ‘cognition develops concurrently with perception and action (p.605). From before birth, humans develop their senses and perceptions and use these to mediate their interactions with the world (James, 1890; Stern, 1985; Berk, 2008).

Sensation is distinguished from perception in the literature (James, 1890; Smith *et al.*, 2003). Via *sensory receptors*, humans collect and transmit to the brain information about the world surrounding them: this is ‘sensation’, whereas ‘perception’ is the brain’s interpretation of that input, enabling humans to derive meaning from their sensory encounters (Smith *et al.*, 2003). During the perception process, the *sensory register* ‘...encodes what is...sensed’ (Smith *et al.*, 2003: 421), and the *sensory memory* briefly retains sensory information *en route* to the brain (Woolfolk and Perry, 2012:G-8; Goddard Blythe, 2011: 12). Neonates’ sensory systems are ready for information processing (Woolfolk and Perry, 2012). Part of this capability appears to be manifested in humans’ capacity to free up processing space once they have become used to a stimulus (Woolfolk and Perry, 2012: 123).

The psychological literature is prolific regarding the five ‘external senses’ (Goddard Blythe, 2011:11-12). Sense of touch presents intra-utero (Field, 2001) and is mediated by nerve endings just below the surface of the skin as they respond to pressure of movement on the skin’s surface (Keenan and Evans, 2009; Goddard Blythe, 2011). Again, the sense of taste presents at birth (Crook and Lipsitt, 1976; Beauchamp and Mennella, 2009) and normatively remains highly sensitive (Lamb, *et al.*, 2002). Equally, very young babies use sense of smell to distinguish key people in their lives (Macfarlane, 1975; Cernoch and Porter, 1985; Porter *et al.*, 1992). A functionalist view posits that sense of smell can protect against toxic substances (Rieser *et al.*, 1976; Steiner, 1979).

Most visual capability is in place by one year and infants tend to prefer to look at human faces rather than inanimate objects (Fantz, 1966; Hood, 1995; Brooks and Meltzoff, 2005). Neonates are relatively myopic (Kellman and Banks, 1998) and children continue to refine their perception of object size up to age 11 (Kellman and Banks, 1998: 146). In particular, reading requires specific physiological characteristics that can often take until age seven to acquire, including '...sufficient control of eye movements to follow along a line of print' as well as '...head-righting reflexes needed to provide a stable platform, upon which centres involved in the control of eye movements rely for stable support' (Goddard Blythe, 2011:34). Equally, learning to read requires symbiosis of complex decoding and comprehension knowledge and skills (Rose, 2006), including analogy (Goswami, 1992), prediction (Graham and Kelly, 2008) and phonological knowledge (Johnston and Watson, 2005), whilst attuning to semantic, syntactic and grapho-phonetic cues (Goouch and Lambirth, 2011). For those learning to read English, decoding presents particular challenges because of its irregularities (Suggate, 2011). Yet English children are currently required to acquire conventional reading - and writing - skills during their first five years (DfE, 2012a).

Goddard Blythe (2011) notes that 'Babies are born with '...the capacity to learn any language' (p.12) and attune aurally to the human voice better than other sounds (Vouloumanos and Werker, 2004), particularly their mothers' voices (Moon and Fifer 1990; DeCasper and Spence, 1986). Neonates hear relatively well (Saffran, Werker and Werner, 2006), though it takes six years for children's auditory capability to reach its peak (Maurer and Maurer, 1988; Goddard Blythe, 2011).

Stern (1985) identifies yet more senses: *senses of self*, which lay the foundations of 'personal growth and fulfilment' when they develop positively (Maslow, 1943), 'senses of agency, of physical cohesion, of continuity in time and of having intentions in mind' (p. 6). Additionally, children's motivation and excitement are two expressions of 'senses' that appear in the literature. Children's excitement is correlated with their experiences (Sylva *et al.*, 2010), their happiness (Tsai *et al.*, 2007) and their engagements with problem-solving (Sherman and MacDonald, 2006).

Bruner (1967) notes that young children's perception is 'organised around a minimal number of cues and these cues are usually the ones to which the child can most readily point' (pp. 21-22). This may account for a tendency in young children to engage in anthropomorphism (Meadows, 2006): the attribution of human traits to non-human objects or animals – presents commonly across the human life course in various cultures (Guthrie, 1993; Gray *et al.*, 2007). Piaget (1929) and Lane *et al.* (2010) note that anthropomorphism is prevalent in children aged 2-7 years, suggesting a predilection in humans to adopt the behaviour of other humans as a point of reference. Infants younger than one year are drawn to the human form (Legerstee *et al.*, 1987; Bloom, 2005). Bruner (1967) notes that four-year-olds reason that the changing *appearance* of quantities of water in a traditional conservation experiment are due to action taken by the experimenter: 'natural phenomena are explained by attributing special powers to intervening human agents.' However, Bruner (1967) observes that 'School suppresses such thinking with astonishing absoluteness. There is not one instance of such reasoning among the children who have been in school seven months or more' (p. 240).

8.8.3 Play as a discursive space

Play facilitates children's use of '...multi-modal ways of communicating, for example, through symbols, tools, drawings, sculptures, constructions, artefacts and actions (including body language)' (Wood, 2010b:18). Yet Göncü and Perone (2005) propose that play has increasingly come to be seen as 'trivial' because of constructions proposed by major theorists (Piaget, 1945; Vygotsky, 1978; Leont'ev, 1981) of 'childhood' as 'playful and exploratory' and 'adulthood' as 'logical and productive' and the reification of those constructions: '...seriousness seeks to exclude play' (Huizinga, 1944:45). Equally, the prevailing economic imperative driving education in England (Fielding and Moss, 2011) has exacerbated policymakers' perceptions that play lacks value for children from five onwards (DfEE and QCA, 1999). Even where play is a required curriculum element for children aged 0-5 years (DfE, 2012a) it must be 'planned' and 'purposeful' (DfE, 2012a:6). A tension exists between this requirement and the widely accepted definition of play: '...freely chosen, personally directed, intrinsically motivated behaviour that actively engages the child' (NPFA *et al.*, 2000); in those terms, young children in English ECEC settings may not be playing at all.

The scope of this review limits consideration of all aspects of play; because both socio-dramatic and object play occur commonly in the literature and provide opportunities for children to both communicate and develop rational thinking within social contexts (Habermas, 1984), they are now discussed as discursive spaces.

Smilansky and Sheftaya (1990) regard socio-dramatic play as '...dramatic play behavior (*sic*) in its most developed form' (p.3); 'pretending' is seen as a key characteristic of 'genuine play' (Huizinga 1944:22) and shared pretend play '...is a first key step in understanding what another person feels and thinks' (Dunn, 2005:33). Hendy and Toon (2001) distinguish between 'socio-dramatic' (SD) play and 'thematic fantasy' (TF) play: in SD play, children revisit and develop real experiences, whereas TF is purely imaginary play: '...the human imagination is so extensive and complex' (Newson and Newson, 1979:12) Equally, 'symbolic play', resting on '...the ability to separate meaning from object' (Manning-Morton and Thorp, 2003:75) is regarded as important for cognitive development (Vygotsky, 1976) . Symbolic play traverses both SD and TF play (Edmiston, 2008; Kalliala, 2006), for example, '...using a cylindrical block as a baby's feeding bottle' (Trudell, 2010:202). Children's self-directed SDTF play is a universal phenomenon (Brooker, 2010; Whitebread, 2010), but the extent and nature of that play seems to be affected by environment (Smith, 2007).

In SDTF play with their peers – and alone - young children create and recreate their own meanings and discourses (Gussin Paley, 2004; Johnson, 2006; Kalliala, 2006; Cobb-Moore *et al.*, 2010), usually according to a range of common themes, including 'danger-rescue' and 'lost-found' (Corsaro, 2003). However, Kitson (2010) proposes that adults should lead children in SDTF play as this '...legitimises the play' (p.117), though this is a contested notion (Corsaro, 2003; Ryan, 2005; Albon, 2010) and, again, lacks congruence with children's '...freely chosen, personally directed, intrinsically motivated behaviour' (NPFA *et al.*, 2000). Such adult constructions may subvert children's opportunities for their own discourses (*i.a.* Hart, 1976; Whittington and Floyd, 2009: 'Power is always present...one wishes to direct the behaviour of another' (Foucault, 1991:11). Yet Cannella (2002) contests: 'Younger human beings should have the right to refuse our participation, to resist

any form of colonisation that our involvement in their lives might produce' (p. 167). In practice, though, adults deny children rights to refuse invasion of their play spaces (Edmiston, 2008; Wood, 2010b) so children '...are constrained by structure' (James and Prout, 1997:28).

Alternatively, a co-constructed model is advocated for children's SDTF play and its discourses (Rogers and Evans 2008; Edmiston, 2008; Wood 2010b) in which one player's empathy, meta-consciousness and response is tailored to the other (Bakhtin, 1990): 'adult interactions...should respect the flow and the spirit of the (children's) play' (Wood and Attfield, 2005: 182-3), Yet Wood (2010a) tends to value adult structures for children's play, rather than a more democratic co-construction of meanings (Edwards *et al.*, 1998). Gussin Paley (1984; 1990; 2004) suggests that young children's discourses in socio-dramatic play in US ECEC settings emerge from provocations including peer interaction, first hand experiences, hearing stories and language, questioning and props. Waller (2006; 2007) confirms this in a different context: English nursery children aged 3-4 years playing with their peers at a country park. Wood (2010b) acknowledges the complexity and depth of intersubjectivity that young children demonstrate during SDTF play and Gussin Paley (1984; 1990; 2004) emphasises the importance of *time* for children to develop their socio-dramatic play episodes into richly discursive spaces. While Wood (2007) appears to recognise children as social agents whose interactions create discursive spaces characterised by '...possibilities, enquiries, problems and connections' (p.129), she seems unconvinced that all young children can benefit from 'free choice' in their play (2010a: 22).

Children often call on their environment for their SDTF play (Waller, 2010); Opie and Opie (1959) found children's 'parody' of adults prevailed in school playgrounds across the UK, while, as mentioned, Hart (1976) aligns with psycho-analytical theory (Axline, 1964) in proposing that such play has a functional role, providing '...opportunity to reverse roles and to act out real-life situations in an intense way, to express pressing personal needs and explore solutions' (p.7). Children's discourses during play - often SDTF play - seem to expose their understanding of their own interests and experiences as well as others' (Dunn, 2004; Trudell, 2010) Such discourses reflect children's socio-emotional and rational thinking in social

contexts and often exemplify intersubjectivity (Göncü, 1993), while revealing children as active social agents (James and Prout, 1997). Examples include Australian children, aged 4, role-playing 'doctors' and 'vets' (Whittington and Floyd, 2009), Israeli kindergarten children playing 'doctors' (Smilansky and Sheftaya, 1990), English 6-7-year-olds children playing 'Batman' (Marsh, 1999), Finnish 6-year-olds playing 'Power Rangers' (Kallilia, 2006) and Shona children from 4-14 and Mayan children from 1-10 years 'playing house' (Nyota and Mapara, 2008; Gaskins, 2000). Smith (2007) asserts that theories of SDTF play combining both 'universals and cultural variations' are well rehearsed and terms this 'an evolutionary approach' (p.43).

Children's object play is sometimes integrated with their SDTF play and when used as 'third objects' (Mitchell, 1981) may also be regarded as discursive spaces. Object play is categorised as functional, dramatic, realistic or imaginative and begins early in life, involving '...objects of both large and small size and of simple and complex character' (Morgenthaler, 2006:65). Arnold (2009) suggests that young children may link cognition and emotion in their object play and from around fourteen months, children's social interactions increase when objects are present (Garner and Bergen, 2006). Montessori's play materials were designed to encourage children to behave in designated ways (1916), whereas Piaget (1945) saw children constructing and applying problem solving strategies inductively in object play. Equally, Vygotsky (1978) theorised that humans bestow on objects meanings derived from their social and cultural contexts and as mentioned, psychoanalysts perceive value in the ways object play can elicit emotional mastery (Axline, 1964).

Construction play provides discursive spaces that include dialogue and rational thinking (Habermas, 1984) and – particularly in a social context – seems to lend itself to the development of 'communicative power' (Gura, 1992:43). Gura (1992) suggests that construction play can be a 'nonverbal language' (p. 27) through which children manipulate space to obtain meanings and to symbolise and communicate their ideas (Gura, 1992). Young children may use purpose-built, natural or everyday objects (Hart, 1976; Gura, 1992; Legoff and Sherman, 2006; Waller, 2010); simple objects such as paper and sticks have been shown to enhance young children's understanding (Karpov, 2005; Worthington, 2010).

Equally, whilst children may use 'realistic props' or 'substitute objects' (Johnson, 2006), they differentiate reality from fantasy (Lillard, 1993; Sawyers and Carrick, 2008). In their construction play, children manipulate '...objects for the purpose of constructing or creating something' (Rubin, 2001:4). Examples include natural and recycled materials such as fabric, wood, leaves, acorns, stones and sand (Hart, 1976; Huleatt *et al.*, 2008), drinking straws and sticks (Ahn and Filipenko, 2007), wooden blocks (Gura, 1992; Cuffaro, 1995) and plastic modular blocks (Legoff and Sherman, 2006). Wooden block play has been found to encourage development of language, socialisation and cognition – particularly logical thought processes – in young children (Gregory *et al.*, 2003). Forman (1982) indicates that construction play can provide evidence of young children's *representational thinking*, a key cognitive process (DeLoache, 1989; Nelissen and Tomic, 1996; Gura, 1992). Equally, in young children's uses of construction play as discursive spaces, knowledge is shared through dialogue and modelling to develop logical hypotheses (Ahn and Filipenko, 2007).

Schemas provide another discursive space for children and often involve objects (Piaget, 1945; 1956). To process the cognitive constructions that underpin these physical expressions, '...human beings construct mental models of the world, and...they do so by employing tacit mental processes' (Johnson-Laird, 1983: x). Johnson-Laird (1983) credits Craik with conceiving mental models: the original proposition that 'thinking is the manipulation of internal representations of the world' (p.x). Craik (1943) defines 'modelling' as:

'...any physical or chemical system which has a similar relation-structure to that of the process it imitates... a physical working model which works in the same way as the process it parallels' (p. 51).

Equally, Johnson-Laird (1983) notes: '...a mental model... plays a direct representational role, since it is analogous to the structure of the corresponding state of affairs in the world' (p.156). Craik (1943) outlines the process of mental modeling:

'(1) "Translation" of external processes into words, numbers or other symbols;
(2) Arrival at other symbols through a process of "reasoning", deduction, inference, etc.

(3) "retranslation" of these symbols into external processes (as in building a bridge to a design) or at least recognition of the correspondence between these symbols and external events (as in realising that a prediction is fulfilled)' (p.50).

Forrester (1975) provides further explanation:

'The mental image of the world around us that we carry in our heads is a model. One does not have a city or a government, or a country in his head. He has only selected concepts and relationships, which he uses to represent the real system' (p. 213).

In the light of neuroscientific evidence, Johnson-Laird (1995) reasserts his notion of mental modelling: '...deduction...is not a purely verbal process' (p.999). Johnson-Laird's claim (1995) recognises that high order thinking may be conducted – and exemplified – in ways other than the verbal or written languages that are common adult media (Edwards *et al.*, 1998; Lansdown, 2010; Bae, 2010). For example, Luquet (1927) noted the communicative potential of children's drawings; Wittgenstein (1922) also sees the 'picture' as an expression of cognitive processing, describing it as 'a model of the reality as we think it is' (p.45) and even asserting logical proposition as 'a picture of reality' (p.45). However, Wittgenstein (1922) perceives that 'the picture (*per se*) is a fact' (1922:33), aligning Wittgenstein's 'picture' (1922) with Johnson-Laird's 'representational proposition' (1983: 154), but differentiating it from mental modelling which is perceived as *representative* of fact (Craik, 1943; Forrester, 1975; Johnson-Laird, 1983).

In adopting schemas as vehicles for cognitive processing *and* as communication media for their thinking and understanding (Athey, 2007; Nutbrown, 2006; Meade and Cubey, 2008), young children often place and move objects (Athey, 2007). When they do this, they may be engaging both fact and representation, sometimes selecting one, whilst at other times mediating both. This activity may include representational proposition (Johnson-Laird, 1983) mental modelling (Craik, 1943; Forrester, 1975; Johnson-Laird, 1983) or logical proposition (Wittgenstein, 1922), suggesting high order cognitive processing. The idea of schemas assuming a dual role - cognitive process *per se* and the communication of that process - aligns with Habermas' view (1984) that discourse is both dialogue and rational thinking. Equally, children sometimes discuss their schemas with others. Belinda (3 years)

asked questions while pursuing her enclosure schema: “‘Why does the washing have to get covered up with water before it gets clean?’, ‘Why do we have to wrap the potatoes before they go in the oven?’, and ‘Why won’t this one [big tin] fit inside this one here [smaller tin]?’” (Nutbrown, 2011: 136).

8.8.4 Meta-communication and Inner Speech

Children’s personal verbal and non-verbal expressions in - and of - play are ‘meta-communications’ (Garvey, 1990:134): ‘...the forms of communication used by children to define the boundaries between behaviour that is “inside” the...play and that which lies outside it’ (Rogers and Evans, 2008:26). Whittington and Floyd (2009) provide an example in 4-year-olds’ ‘doctor’ role-play: ‘*Grace, the new patient, was lying across the chair. Wendy, the receptionist, announced ‘**and I’m gonna sit here**’ and sat at the reception desk*’ (p.148) (meta-communication in bold type). Vygotsky (1978) suggests that children’s thoughts and actions operate ‘...first, on the social level, and later, on the individual level’ (p. 57) and in a later text explores young children’s ‘inner speech’ (1986: 35): their ‘...tendency to talk to themselves, or self-commentate, while they are undertaking a task’ (Whitebread, 2010:165). Also termed ‘egocentric speech’ by Piaget (1926:40) and ‘private speech’ (Berk and Landau, 1993), this discursive space is characterised by discussion and rational thinking (Flavell *et al.*, 1997; Habermas, 1984), though it does not involve other people. However, while Piaget (1926) perceived this phenomenon as reinforcing activity - a reflection on cognitive processing - Vygotsky (1986) saw it as ‘an agent of realistic thinking’, integrated within cognitive processing (p.33).

Inner speech may have a role in self-regulation (Whitebread, 2010; Fernyhough and Russell, 1995), particularly in situations where young children are engaged in parallel or solitary play when others are present (Gussin Paley, 1990; Meade and Cubey, 2008). Fernyhough and Russell (1995) suggest inner speech may facilitate emotional expression, language and communication practice, establishing personal identity and identity. Some young children seem to engage in ‘private speech’ in much the same way that they are drawn to ‘secret’ physical spaces (Hart, 1976; Clark, 2010; Kyrönlampi-Kylmänen and Määttä, 2011). Berk (1994) asserts that: ‘...private speech is healthy, adaptive and essential behavior (*sic*)’ (p. 83) yet it

seems to diminish significantly once formal schooling begins (Flavell *et al.*, 1997): teachers ‘...frequently dismiss children’s self-directed speech as distracting classroom behavior’ (Zakin, 2007:1). From four years old in England, then, many children’s discursive spaces may be ‘...silenced...controlled, oppressed...and limited’ (Cannella, 2002:162).

8.8.5 Pedagogies of Listening

Freire (1996) declaims that: ‘Dialogue is the encounter between men [*sic*], mediated by the world, in order to name the world’ but asserts that this cannot take place if some ‘...deny others the right to speak their word’ (p. 69). However, Fleet and Britt (2011) observe that ‘...children are often the most silenced participants in the educative process’ (p.143). This does not have to be the case. Dahlberg and Lenz Taguchi (1994) draw on the new sociology model of ‘child as social actor’ (James and James, 2008) to advocate ‘...a way of relating (that) starts from the view of the child as a competent and capable child, a rich child, who participates in the creation of themselves and their knowledge’ (p. 2). This section engages with Dahlberg and Lenz’s model child (1994) and ‘*pedagogies of listening*’ in which children’s own discursive spaces may flourish.

The negotiated nature of knowledge co-construction is exemplified by Edwards (1998) who describes the ‘difficult task’ for the Reggio Emilia teachers as they ‘help children find problems that are big enough and hard enough to engage their best energies and thinking over time’ (p.187). Bridges (2003) suggests that pragmatists often neglect problem setting, yet when children set their own problems they may classify, sort, categorise, quantify and represent data (Helm and Katz, 2001). Within the context of Reggio, ‘problem’ is defined as ‘a challenge...a situation, a task, which is some way stimulates cognitive conflict, or a push in thinking’ (Tarini and White, 1998: 379); Tarini and White (1998) perceive ‘...materials, projects and activities’ as provocations that may encourage children to set and solve problems (p.379).

The literature reveals a number of other ‘pedagogies of listening’. These include the *Project Approach* (P.A.) (Katz and Chard, 1989; Helm and Katz, 2001) – a collaborative ‘research effort’ (Katz, 1994:1), the English ‘5x5x5=*Creativity Project*’

(Bancroft *et al.*, 2008) - a dynamic, collaborative '...creative learning community of teachers, artists, co-workers in cultural centres, parents and children' (Hay, 2008:3) - and '*Communication Friendly Spaces*' (CFS) (Jarman, 2007) which chimes with the notion of the environment as 'third teacher' (Gandini, 1998:177) so that co-construction is manifested by children's interactions with the physical environment. '*Dialogic Inquiry*' (Wells, 1999) and '*Dialogic Teaching*' (Alexander, 2004) provide more explicitly 'person-centred' co-constructed pedagogies guided by democratic principles and valuable for the subversion of 'authoritarian tendencies' (Alexander, 2004:48). Schaffer (1992) frames specific types of social interactions between adults and children as 'joint involvement episodes' (JIEs): '...a specified object, event or other environmental feature that is incorporated in the social interaction and thus becomes a focus for the partners' joint involvement' (p.101). Equally, another model of co-constructed pedagogic practice has emerged from two large ECEC English studies: '*Sustained, Shared Thinking*' (S.S.T.) (Siraj-Blatchford *et al.*, 2002; Sylva *et al.*, 2010). SST is defined as:

'An episode in which two or more individuals "work together" in an intellectual way to solve a problem, clarify a concept, evaluate activities, extend a narrative etc. Both parties must contribute to the thinking and it must develop and extend.' (Siraj-Blatchford, 2002:8)

Identifying '*ways to relate*' seems to be a common theme across these 'pedagogies of listening', though they are manifested differently. For example, whilst Siraj-Blatchford *et al.*, (2002) assert that young children benefit from strong and equal relationships between the adults who work with them, Bancroft *et al.*, (2008) take a broader view: they place strong emphasis on 'respectful relationships' (p.46) in which adults and children learn together through 'reciprocity'...'dialogue and discussion' (Fawcett and Hay, 2008: 16-17). Alexander (2004) also recognises that it is important for children to believe their teachers are interested in their thoughts and knowledge and suggests this is more likely if the teacher asks children '*authentic questions*' (p. 14). Similarly, the P.A. advocates that '...the teacher and children propose the questions they will seek to answer through the investigation' (Katz, 1994:1) and that '...'...children and teachers work collaboratively' (Helm and Katz, 2001: 78), while Jarman's CFS promotes children's '...opportunities to interact with each other' as well as 'secure links between home and setting' (2007:9).

Dahlberg and Lenz Taguchi's view of the child as '*competent*' (1994:2) is also a recurring feature of these '*pedagogies of listening*'. Jarman's CFS 'encourage [children's] independence' (2007:9), while the P.A. foregrounds '...children's initiative, involvement and relative control over their own activities and participation' (Helm and Katz, 2001:2). Within the *5x5x5=Creativity* project, '...children are seen as innate and creative knowledge builders, explorers and co-constructors' (Hay, 2008:3): and 'competent thinkers' (Bancroft *et al.*, 2008:27), reified by adults' intentional valuing of '...children's "agency"', offering children time and space to have ideas and see these through' (p.19). Furthermore, Alexander (2004) recognises that: 'Children must think for themselves before they truly know and understand' (p.12). However, although Schaffer (1992) and Siraj-Blatchford *et al.* (2002) advocate a view of the child as competent *to an extent*, each retains caveats, suggesting that SST and JIEs may not promote children's agency as freely as other pedagogies of listening. For example, whilst Siraj-Blatchford *et al.* (2002) acknowledge children's competence, they perceive it as affected by the '...age at which children started early childhood education (before 3 had better impact), quality of staff interactions with children and the extent to which children were allowed to complete activities' (p. 29). Furthermore, they imply a deficit view of the child by suggesting: 'The child learns a great deal from observations of those more competent than themselves' (Siraj-Blatchford *et al.*, 2002: 32). Equally, whilst Schaffer (1992) perceives JIEs as 'an asymmetrical process in which the child leads and the adult follows' (p.101), he suggests JIEs 'support children's development of competence' (p.102).

Moreover, Siraj-Blatchford *et al.* (2002) suggest that only some children may be considered '*capable*', diverging from Dahlberg and Lenz Taguchi's view of the child (1994:2). Siraj-Blatchford *et al.* (2002) categorise their observations of children in ECEC settings as: '...highly capable learners, children learning "as expected" and those who were "struggling" to learn' (2002: 62). Conversely, Jarman (2007) aligns with Sen's definition of '*capabilities*', predicated on '...the alternative functionings the person can achieve and from which he or she can choose one collection' (Sen, 1993:31): for Jarman (2007), young children's capabilities are enacted '...by enabling the children to access resources independently' (p. 9). Equally, Katz

(1994) details 'functionings' that comprise children's capabilities within the Project Approach:

'Phase 2: ...investigating, drawing from observation, constructing models, observing closely and recording findings, exploring, predicting, and discussing and dramatizing their new understandings' (p.1).

Alexander (2004) endorses a view of the child as capable actor, whilst recognising socio-cultural influences: 'Children construct meaning not only from the interplay of what they newly encounter and what they already know, but also from interaction with others' (p.11). However, Bancroft *et al.* (2008) align with Dahlberg and Lenz Taguchi's 'view of the child as a capable child' (1994:2): 'Every child is perceived as having potential from birth' (Bancroft *et al.*, 2008:14).

There is also divergence across the '*pedagogies of listening*' in relation to Dahlberg and Lenz Taguchi's 'view of the child as a rich child' (1994:2). Whereas Doddington and Hilton (2007) perceive that: 'Playing, experimenting children come to new knowledge in sensual, affective and active ways that enable them to understand its substance' (cited in Bancroft *et al.*, 2008:16), once again, others imply that children are deficient. Schaffer (1992) tends to assume that only more knowledgeable others can enhance the child's experience (p.102), whilst Siraj-Blatchford *et al.* (2002) reject a pedagogic model that recognises the child as already 'rich' and enriching, in favour of interactionism. However, Jarman (2007) values children by promoting an environment that '...ensures that each child has their own personal space' (2007:9). Moreover, Katz (1998) notes that: 'Projects that involve young children in investigating real phenomena offer them an opportunity to be the natural scientists or anthropologists they seem born to be' (p.33), whilst Alexander advocates Bruner's proposal for a 'mutualist and dialectical' approach in educational settings (Bruner, 1996:57, cited in Alexander, 2004).

Most of the '*pedagogies of listening*' included in this discussion align with the 'view of a child who participates in the creation of themselves' (Dahlberg and Lenz Taguchi, 1994:2). Katz (1994) explains that: 'During the first phase of the project (approach), the children...recall their own past experiences related to the topic' (p.1) and she also articulates that project work enables children to experience

'...feelings of mastery' (Katz, 1998:33). Equally, Alexander (2004) notes the value of discourse embedded within an empathetic socio-cultural context: 'Children construct meaning not only from the interplay of what they newly encounter and what they already know, but also from interaction with others. In turn, this interaction is critical...for the development of their very identity [and] their sense of self and worth' (p. 11). Siraj-Blatchford *et al.* (2002) indicate that the best quality settings are those that regard '...children's cognitive and social development as complementary' (p.10) and those where '...interactions with the children were based on a deep level of respect that arose from acknowledging the extent and depth of their emotional state at any one time' (p.48). Equally, Bancroft *et al.* (2008) note that: 'Creative values and supportive relationships help children develop a sense of belonging and personal identity' (p. 180), whilst Jarman (2007) identifies features of the ECEC environment that may enable children to be 'more self-confident' (p.28), although she moves away from the child's agenda when she adds that this makes children '...more ready to learn...and KS1 SATs tests have improved by a third' (Jarman, 2007:28).

The final component of Dahlberg and Lenz Taguchi's 'meeting place' (1994) is the view of *a child who participates in the creation of their knowledge* (p.2). Siraj-Blatchford, *et al.* (2002) acknowledge that cognitive construction takes place when children are 'motivated and involved' in a context of 'reflexive "co-construction"' in which '...each party engages with the understanding of the other' (p.10). Equally, Katz outlines the tangible ways in which children engage in the Project Approach:

'...preparing and presenting reports of results in the form of displays of findings and artifacts, talks, dramatic presentations, or guided tours of their constructions' (p.1).

Schaffer (1992) regards children as the instigators in JIEs; they engage in 'gazing, pointing, manipulation and referential speech' (p.102). Moreover, Alexander (2004) claims that children are best able to apply their newly constructed understandings in social contexts which, he argues, are 'critical...for children's understanding of the kind of knowledge with which schools deal – mathematics, science and so on.' (p.11). Moreover, Jarman (2007) revisits the notion of meta-communication by articulating the importance of supporting '...children in planning and making

informed choices about what they do' (p.9). Equally, she stresses the importance of sharing and celebrating the children's constructions of knowledge and understanding, '...through documentation and display' (p.9). Bancroft *et al.* (2008) agree, but place greater emphasis on *co-construction*, suggesting that adults '...may know more than the children about certain things and have more experience but their role is as participant in a shared enquiry' (p. 46).

The literature suggests that children's *discursive spaces* are most likely to flourish where their capabilities and competences are genuinely recognised, respected and enacted and where children and adults are considered authentic equal partners in co-constructions of understanding and meaning. In practice, these are 'ethics of encounter' Levinas (1980:38). Motivation, involvement, time and space also emerge from the literature as important elements in this process. Children can participate in discursive spaces as authentic social actors, though this is not always recognised. The following section explores further the literature concerned more specifically with young children's participation and rights.

8.9 Children's Rights and Participation

The children's spaces discussed so far include examples of children's participation, one of three strands shaping children's rights (OHCHR, 1989). In recent years, rhetoric concerned with children's rights and participation has been prominent (Jones and Welch, 2010; Percy-Smith and Thomas, 2010), yet in England, both areas remain underdeveloped (CRAE, 2009; Morrow, 2008). The case for children's rights is a contested area. However, Freeman (1992) notes that 'Children are particularly vulnerable and need rights to protect their integrity and dignity (p. 55), while Annan (2001) observes: '...many adults neglect their responsibilities towards children' (cited in Alderson, 2008: 13). Whilst social groups such as women or prisoners are afforded specific rights, children are seen as lacking capability (Archard, 2004) but Alderson (2008) refutes this argument: 'Old ideas that babies, and even young children, are pre-rational are challenged by the evidence' (p.29).

The section explores issues relating to children's rights and participation in three sections: *The Nature of Rights and Children's Rights, Children's Rights Legislation and Policy* and *Children's Participation*.

8.9.1 The Nature of Rights and Children’s Rights

Feinberg (1970) defines a ‘right’ as: ‘...a claim against someone whose recognition as valid is called for by some set of governing rules or moral principles’ (p. 257); ‘human rights’ are defined as ‘...basic rights and freedoms that all people are entitled to regardless of nationality, sex, national or ethnic origin, race, religion, language, or other status’ (Amnesty International, 2011). Hohfeld (1920) suggests that a ‘right’ ‘...is often used to designate *power*, *prerogative* and *privilege*’ (pp. 36-37), though Jones and Welch (2010) warn that ‘...there are no “natural” or absolute rights’ (p. 30). Moreover, Hohfeld (1920) proposes a ‘scheme of “opposites” and “correlates”’, juxtaposing rights with duties (p.36):

Jural Opposites	{right	privilege	power	immunity
	{no-right	duty	disability	liability
Jural Correlatives	{right	privilege	power	immunity
	{duty	No-right	liability	disability

Hohfeld (1920) acknowledges tensions inherent in ‘rights and duties’, by emphasising *claim rights* and *liberty rights* whilst positioning *power rights* and *immunity rights* as secondary (Wilson, 2007). *Liberty rights* are seen as ‘...the rights of individuals to pursue their own lives without interference’ (Jones and Welch, 2010:30-31): ‘...the absence of external Impediments (*sic*)’ (Hobbes, 1651/1909:99). Equally, an individual may need others to assist them in achieving their rights (Wilson, 2007; Curran, 2002). Hohfeld’s suggestion (1920) that *claim rights* should balance rights with responsibilities ‘should be uncontroversial’ (Ife and Fiske, 2006: 297) but *claim rights* may have a more pragmatic quality than *liberty rights*: they acknowledge limitations that social contexts may impose.

Moreover, rights requiring protection are regarded as ‘negative rights’ (Symonides, 2000), whereas ‘positive rights’ are ‘legal, institutional, customary’ rights and ‘fundamental rights’ as ‘moral, natural, human’ rights (O’Neill, 1988: 445; Archard, 2004). However, ‘welfare rights’ - ‘...to food, shelter and medical care’ and ‘...health, bodily integrity, and privacy’ - are also regarded as ‘positive rights’ (Eddy, 2006:337; Griffin, 2000; Archard, 2011). Jones and Welch (2010) suggest that ‘welfare rights’ ‘...identify things that need to be in place to help everyone to make best use of their liberty rights’ (p.32). However, this view is contested

because of the finite supply of *welfare rights* (Griffin, 2000; Eddy, 2006), so Griffin (2000) argues that ‘...welfare rights are, at most, ethical rights’ (p.30). Parallels may be drawn between *claim* and *welfare rights* and Sen’s definition of ‘capabilities’ which acknowledges ‘...the alternative functionings the person can achieve and from which he or she can choose one collection’ (1993:31). Furthermore, MacCormick (1982) alludes to *moral rights*, ‘a good of such importance that it would be wrong to deny it or to withhold it’ (p.160). Equally, Archard (2004) distinguishes between *moral rights* and *legal rights*, but maintains that a given right might be both.

Whilst ‘all people are entitled to... basic rights’(Amnesty International, 2011), a distinction exists between purely adults’ rights (‘A-Rights’), purely children’s rights (‘C-Rights’) and rights that both groups share: ‘A-C Rights’ (Feinberg, 1980). Two types of ‘C-Rights’ focus on ‘being’ and ‘becoming’ (Qvortrup, 1994): rights to goods such as food, shelter, love and freedom from harm (Feinberg, 1980) and ‘rights to an open future’ (Archard, 2011), for example, education (Feinberg, 1980). However, ‘C-Rights’ present tensions: the child may either be positioned as passive recipient of protection rights or ‘adult-in-waiting’, but not as social actor (James and James, 2008).

While children’s protection rights have significant focus in England (Parton, 2005), provision and participation rights have generally enjoyed less focus (Mayall, 2006). Children in England do not have full access their provision rights to ‘...an adequate standard of living, to education and childcare, to cultural life and the arts, and to know about the UNCRC’ (Alderson 2008: 27; Mayall, 2006). While poverty may be one reason for this (Jones and Welch, 2010), structures and attitudes among children’s professionals seem to be others. For example, health workers tend to define children’s ‘best interests’ from a protectionist perspective (Lowden, 2002), while in educational contexts, a culture of ‘...adult decision-making’ prevails (Richards, 2010:7) and parents, not children, are regarded as the ‘main consumers’ (Alderson, 2008: 28). Furthermore, provision for free play for children in England is inadequate and has steadily diminished (David, 1996; Mayall, 2007), while although knowledge of the Convention on Children’s Rights is a key provision right (OHCHR, 1989; Nutbrown, 1996), children in England have ‘...very little knowledge

of the CRC' (Willow, 2007: 7): it is not part of the statutory curriculum (DfEE and QCA, 1999; DfE, 2012a).

Equally, while Skelton (2007) claims that children's participation rights have led to 'paradigmatic shift in thinking about children' (p. 167), they were a late addition to the Convention (OHCHR, 1989; Skelton, 2007) and are not yet fully reified. Although Alderson (2008) asserts key children's participation rights as life and optimal development, name, identity and family, forming and expressing views, decision-making and respect for the child's evolving capacities, Landsown (2010) indicates that greater clarification on what children's participation rights mean in practice would be helpful (p.11). Moreover, Mayall (2006) indicates that value attributed to them tends to be 'tokenistic' (p.11). The cause of this may be functional (Maslow, 1943); alternatively, deeply embedded adult hegemonies seem to deny children participation (Chawla and Heft, 2002:204).

8.9.2 Children's Rights Legislation and Policy

For centuries, men's hegemony over women and children perpetuated in England: Mirk (c.1405) wrote: 'Hyt ys old Englysch sawe: A mayde schuld be seen, but not herd'. Children were legally regarded as their fathers' chattels until the end of the nineteenth century (Booth, 2006). Following the Forster Act (HMG, 1870) which introduced universal compulsory primary schooling in England, The Children Act (HMG, 1889) was the first act in English law to protect children: it also addressed child cruelty, child employment and begging by children (Batty, 2005). Postman (1994) terms the period between 1850 and 1950 the 'high watermark of childhood' in the United States (p.67) and the 1870 and 1889 Acts heralded a similar period in England. The Children Act 1908 (HMG, 1908) followed, again focusing predominantly on child protection: it introduced the juvenile court system, abolished the death penalty for children under 16, made child neglect and abuse a criminal offence and prevented children under fourteen from entering public houses and children under sixteen from buying tobacco (Children and Young People Now, 2008; Bradley *et al.*, 2009; Bradley, 2009). Following The Children Act 1948 (HMG, 1948), local authorities introduced children's committees and children's officers, with social services departments catering for the needs of children established by

the Local Authority Social Services Act 1970 (HMG, 1970; Batty, 2005). However, in England, parents retained children's proxy legally until 1989 (Cull, 2001).

Two key pieces of children's rights legislation affected England from 1989: at national level, The Children Act 1989 (HMG, 1989) and at international level, the United Nations Convention on the Rights of the Child (OHCHR, 1989). A legal test case provided a strong direction of travel for The Children Act 1989: the Gillick trial (1985) resulted in a pivotal House of Lords ruling that '...parental rights to control a child do not exist for the benefit of the parent. They exist for the benefit of the child and they are justified only in so far as they enable the parent to perform his duties towards the child and towards other children in the family' (Fraser *Gillick v. West Norfolk and Wisbech Area Health Authority and Department of Health and Social Security* (1986) AC 112 Lord Fraser at 170D, cited in Seymour, 1992:111). *Inter alia*, the shift from parental rights to parental responsibility was captured in The Children Act 1989 (HMG, 1989; Brophy, 2001), which moved legislative focus towards including provision and participation.

Contemporaneously, at international level, the United Nations Convention on the Rights of the Child (UNCRC) (OHCHR, 1989) materialised. Following World War I, Englishwoman Eglantyne Jebb co-founded the *Save the Children Fund* (SCF) in 1919 (Milne, 2008), then co-wrote the *Declaration of the Rights of the Child*, endorsed by the League of Nations in 1924 (Mahood, 2008). The 1924 *Declaration* '...recognised and affirmed for the first time the existence of rights specific to children' (Humanium, 2011). It focused on protection and provision, with small consideration of participation as 'rights-in-trust' (Archard, 2011).

Following World War II, international focus on human rights gathered pace. In 1945 the League of Nations became the United Nations (United Nations, 2000). The Nuremberg Trials tried Nazi collaborators between 1945 and 1949, resulting in the Nuremberg Code (United States Government, 1949) which strongly informs contemporary ethical procedures (Murray, 2011). Whilst the Nuremberg Trials were in session, *The Universal Declaration of Human Rights* emerged (United Nations, 1948), framing 'childhood' as '...entitled to special care and assistance' (United Nations, 1948). This led to the second *Declaration of the Rights of the Child* by the

United Nations General Assembly in 1959 (Humanium, 2011), which remained focused on protection ‘...with little emphasis on empowering them as well’ (UNICEF 2009:5). Equally, it was not legally binding, but thirty years later, in 1989, the United Nations Convention on the Rights of the Child (UNCRC) became a legal agreement (UNICEF, 2011), ratified by all but two United Nations member states: the United States and Somalia (Gordon *et al.*, 2007). UNCRC’s authors were a disparate group of UN diplomats who generally resided in Geneva or New York; few were either practising lawyers or ‘...knew much about the real situation of children in any country including their own’ (Milne, 2008: 51).

Despite this, UNCRC (OHCHR, 1989) is widely considered to have made a strong and positive contribution to children’s rights internationally (James and James, 2008; Reid, 1994; Franklin, 1995; Milne, 2008). UNCRC was ratified by England as part of the United Kingdom in 1991 (Frost, 2005) though it has not been enshrined into domestic legislation (James, 2008): ‘...little attention is focused by central government on the importance of children’s rights’ in England (Lyon, 2007: 100). Consequently, English children indicate their dissatisfaction in relation to their rights (CRAE, 2009) and few know much about their entitlements (Willow, 2007). Given that Article 42 requires that the content of the Convention should be made widely known, this amounts to an abrogation of duty by UK government (OHCHR, 1989). Nevertheless, a significant tranche of children’s agenda legislation has been passed in England since 1989, including The Protection of Children Act 1999 (HMG, 1999; Batty, 2005) and The Children Act 2004 (HMG, 2004) which was the legislative framework for *Every Child Matters: Change for Children* (DfES, 2004) and which consulted children following eight-year-old Victoria Climbié’s death from abuse in 2000 (DES, 2003a; 2003b; Laming, 2003; Batty, 2005). Children’s protection was once again foregrounded with safeguarding a paramount concern (Roche and Tucker, 2007) but the ‘whole child’s well-being’ became the focus for children’s services (Cheminais, 2006:1). The Childcare Act 2006 (HMG, 2006) followed, focusing on a commitment to ‘...improve the well-being of children and reduce inequalities’ by providing high quality childcare, enabling parents to work and so reducing poverty (Pugh, 2006:v), placing greater focus on children’s provision rights (Alderson, 2008). However, England’s May 2010 election resulted in a coalition government and a shift in focus for children in England away from the

'whole child's well-being' (Cheminais, 2006:1) towards adult control and economic imperative (DfE, 2010b; DfE, 2011:5). Significant financial cuts to children's provision have characterised the coalition government's policy (Butler, 2010). This has amounted to a reduction in English children's 'functionings': 'being or doing what people value and have reason to value' (Alkire and Deneulin, 2009: 22), which is likely to diminish their capabilities '...the alternative functionings the person can achieve and from which he or she can choose one collection' (Sen, 1993:31) .

8.9.3 Young Children's Participation

Participation is perceived as a dynamic and differentiated. Notwithstanding national and international policy, Alderson (2010) posits that 'Participation begins in the less-observed private world of the family' (p.89). She views children's key participation rights as life and optimal development, name, identity and family, forming and expressing views, decision-making and respect for the child's evolving capacities was introduced (Alderson, 2008). In considering children as researchers, it can be argued that the most relevant participation rights on this list are the latter three; these are discussed in this section. Partridge defines participation *per se* as 'two-way active involvement' (2005:181), although Thomas and Percy-Smith (2010) suggest children's participation is 'in search of definition' (p.1), indicating it remains an emergent field. Discourse surrounding children's participation in England has been located in a number of areas, including research, decision-making (Kirby *et al.*, 2003; Partridge, 2005; Morrow, 2008), health (Moore and Kirk, 2010), law and social care (Cashmore and Parkinson, 2008; James, 2008) and the right for children in English schools, '...regardless of need or ability, to be involved in decisions which affect their lives has been established in law' (Shevlin and Rose, 2008: 425; Whitty and Wisby, 2007). Equally, the discourse indicates that 'listening' to children has become increasingly aligned with their participation (Cousins, 1996; Lancaster and Kirby, 2010; Clark and Moss, 2011). Yet, although progress has been made, against benchmarks (*i.a.* Arnstein, 1969; Hart, 1992), in practice, children's participation in England has remained low (Mayall, 2006; James, 2008; Yamashita and Davies, 2010). 'Embracing the child-centred, child-enabling and child-empowering values underlying participation is one thing. Putting these values into practice is quite another' (Woodhead, 2010: xxi).

Prima facie, in Article 12, OHCHR (1989) appears to recognise the child as a competent social actor: 'to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child'. Yet the caveat that this right should be 'given due weight in accordance with the age and maturity of the child' indicates that the child is not born capable, rich and competent as new sociologists suggest (Dahlberg and Lenz Taguchi, 1994; James and Prout, 1997; James *et al.*, 1998; James and James 2008), but is born 'deficient' though able to develop capability to form views as they grow in age and maturity. This view aligns temporality with notions of 'being' and 'becoming' that are in turn explored across various disciplines (Heidegger, 1962; Prigogine, 1980; Qvortrup, 1994). However, it may also lead to adults assuming hegemony to restrict children's functionings – and by default capabilities – (Alkire and Deneulin, 2009; Sen, 1993) and it has led to reconstructions of the notion of children's 'evolving capacities' (Alderson, 2008; Lansdown, 2005), first identified in UNCRC Article 5 (OHCHR, 1989). The World Bank (2010) defines 'capacity' as 'fully operational', whereas the proposition of 'evolving capacities' suggests that children's 'acquisition of competencies will vary according to circumstances' and their 'capacities can differ according to the nature of the rights to be exercised' (Lansdown, 2005). In this way, argues Lansdown (2005), 'evolving capacities' balances recognition of children as active social agents with rights with entitlement to protection, according to their 'relative immaturity and youth' (p.ix). Yet Van Beers *et al.*, (2008) posit that: 'Reference to "evolving capacities" is often made when adults decide to include or exclude children from various aspects of social life' (p. 54).

Article 12 (OHCHR, 1989) and 'evolving capacities' (Lansdown, 2005) are open to interpretation: what is the 'due weight' that should be accorded to which ages and what maturities of individual children? Nonetheless, Article 12 assumes that age may equate with capability, though this claim may not be secure: Alderson *et al.* (2008) evidence even premature babies aged 0-7 months asserting their identities, personhood, self-expression and intersubjectivity. Equally, OHCHR (2005) explicitly recognises in an addendum to the original UNCRC: '...young children as social actors from the beginning of life, with particular interests, capacities and vulnerabilities,

and of requirements for protection, guidance and support in the exercise of their rights' (p.2). Moreover, there is good evidence to suggest that humans are able to express their views regarding matters affecting them from birth. Neonates communicate in proto-conversations with carers (Trevvarthen, 2004; Meltzoff and Moore, 1977); equally, as discussed in relation to socio-cultural and discursive spaces, young children express their views through multiple modalities, including 'bodily cues and forms of non-verbal communication' (Bae, 2010: 208; Gallas, 1994; Malaguzzi, 1993, 1998a; Murray, 2012). Moreover, children aged 3-5 years are 'capable of being involved in planning their own activities' (Cousins, 1999; Garrick *et al.*, 2010), a process requiring them to express their views regarding matters affecting them. The nature and extent of 'due weight' given to the 'views of the child' seems, then, to depend on the capability of those people who accord the 'due weight' to identify and recognise children's capabilities to form and express their own views in 'all matters affecting' them; as Hardman (1973) notes, when those people are adults, they may find it difficult to comprehend children's thoughts and actions because they 'try to interpret them in adult terms' (p. 95). Addressing this issue may prove an important functioning for reifying children's capabilities (Alkire and Deneulin, 2009).

Lansdown (2005) posits that children need different levels of 'protection, participation and opportunity for autonomous decision-making' (p.ix). In children's lives, 'decision-making' may include 'informal choice making, formal decision making... and the innumerable concealed prior 'decisions' now set in habits and routines, customs and structures, which adults tend to assume but children often question or have to learn, such as how to stand in line at school' (Alderson, 2010:89). Additionally, Nutbrown (1996) posits that childhood '...can be a time of active decision-making, engaging relentlessly with minute-to-minute experiences and making one's mark upon the world, a vital time in the life of every human being' (p.xiii). Children's decision-making is seen as a democratic practice (Lockyer, 2008; Fielding and Moss, 2011) that has developed in prominence in recent years (Van Deth *et al.*, 2011). It is regarded not only as an aspect of preparation for adult participation in society (Thomas and Percy-Smith, 2010; Fielding and Moss, 2011), but also as an aspect of children's current participation (Norwich and Kelly, 2006), although neither is a universally held perspective. In many contexts, children are

recognised as capable decision-makers in matters affecting them (Alderson, 2008; Shevlin and Rose, 2008; Cox *et al.*, 2010), though Archard, 2004 observes that, in practice, 'Crudely, the bigger the decision, the older one must be to be allowed to make it by oneself' (p.109) and Shevlin and Rose (2008) note that implementing decision-making in the ways articulated by UNCRC '...has been fraught with difficulties' (p.423).

There seems to be strong rationale for children's decision-making, based on two strands: current benefits and future benefits (*i.a.* Norwich and Kelly, 2008; Thomas and Percy-Smith, 2010; Fielding and Moss, 2011). Kräntzl-Nagl and Zartler (2010) suggest that: 'To be taken seriously by adults is a very positive experience, in particular for younger children...participation in decision-making processes can increase respect for property and common goods' (p.171). Furthermore, when children and young people engage in meaningful decision-making, their involvement and active citizenship are promoted within their communities (Pells, 2010; McGinley and Grieve, 2010). Moreover, children who experience authentic democratic decision-making seem to be likely to grow 'competent, responsible citizens who will contribute to a society's development' (Kräntzl-Nagl and Zartler, 2010:72; Batlseer, 2010; Fortin, 2008).

Children sometimes engage with their communities through decision-making (Percy-Smith and Thomas, 2010). For example, a Scottish youth project with local, regional and national councils (McGinley and Grieve, 2010), a South African project informing its Children's Bill (Jamieson and Mukoma, 2010) and a project with young people in the United States that drew on Neill's 'General School Meeting' idea (1960) to engage children and staff in democratic partnership in 'Town Meetings', a '... major forum for shared decision-making in the areas of educational administration and educational policy' (Fielding and Moss, 2011: 100). Equally, in a more commercial context, advertisers in India target children, regarding them as decision-makers (Acharya, 2010). A common strand in these examples is the genuine respect and ownership afforded to the children and young people, but this is rare: adults often seem reluctant to share decision-making equally with children in their communities (Lansdown, 2010; Morrow, 2011; Foley, 2011; McGinley and Grieve, 2010; Invernizzi and Williams, 2008). When adults do share decision-

making about their communities with children, the focus is often relatively trivial (Lewars, 2010) so that children's voices can only have 'very limited real impact' (Lister, 2008:4). Feinstein *et al.* (2010) suggest there is much work to be done to engage children more in authentic decision-making.

Issues surrounding children's decision-making – and their participation generally – seem to cause confusion (Foley, 2011), which may explain why children's decision-making opportunities are afforded differentially. Lansdown (2005) posits that 'childhood is not an undifferentiated period' (p.vii) while Invernizzi and Williams (2008) suggest that '...contextualized different opinions, different decisions and different degrees of independence and interdependence of children have to be acknowledged' if children's participation is to be understood (p.82). Differentiated levels of children's participation have been widely acknowledged and reified in various models (Arnstein, 1969; Hart, 1992; Reddy and Ratna, 2002; Shier, 2001; Helm and Katz, 2001), though these do not necessarily embrace children as autonomous decision-makers (Ackermann *et al.*, 2003). Instead, they may include '*child-led participation*' when '...children are afforded the space and opportunity to identify issues of concern, initiate activities and advocate for themselves' (Lansdown, 2010:20). Children are often content to share decision-making with adults (Norwich and Kelly, 2006; Invernizzi and Williams, 2008; Morrow, 2008; Cox and Robinson-Pant, 2008; Mason and Balzan, 2010), but an inherent danger in this seems to lie in children's tendency to defer to adults' (Twum-Danso, 2010: 127). 'Children can engage with notions of rights, decision-making and being listened to...children would like to have a say' (Morrow, 2008: 122). This has happened in medical contexts (Alderson, 2010) and educational contexts (Cox and Robinson-Pant, 2008; 2010; Van Deth *et al.*, 2011) and there are numerous examples of children younger than seven years making their own decisions about matters affecting them in nurseries, schools, clinics and hospitals (Pugh and Selleck, 1996) . At the end of Cox and Robertson-Pant's project engaging children in decision-making in English schools (2010b), a teacher observed: '*I began to consider how many decisions I was needlessly making for the children*' (p.148) and a seven-year-old researcher reflected: '*I think [it is] good if children decide because we have lots of ideas and some are better than adults*' (2010:149). Cox and Robinson-Pant

(2010) concluded that ‘...children could easily understand, partake in, succeed in and benefit from their own effective decisions’ (p.149).

However, whilst there is some consensus regarding Cox and Robinson-Pant’s view (2010) (Knight, 2001; Rudduck and McIntyre, 2007), Harber (2010) describes some schools as ‘near-dictatorships’ (p.35). Adults may not always recognise or respect child-initiated processes and the evidence on which children base their decisions (Hardman, 1973): ‘...non-verbal forms of communication such as play, body language, facial expression, or drawing and painting, through which very young children make choices, express preferences and demonstrate understanding’ (Lansdown, 2010:12). Nutbrown (1996) surmises that children’s decision-making in their educational settings is predicated on ‘...the educator’s sense of purpose and curriculum knowledge’ as well as a ‘...respectful curriculum (which) means children being able to explore and experiment and make choices’ (p.103). Equally, Bae (2009) concurs that teachers’ responsiveness to children sets the tone for ‘democratic moments’ (p.395) and posits that play operates as a medium ‘of the child’s choice’ (p.396). In recent years, school councils have become a ‘vehicle for promoting and practising student participation in decision making at school’ (Yamashita and Davies, 2010:230; School Councils UK, 2006), though they have been linked to the rhetoric of ‘school effectiveness and school improvement’ (McCowan, 2010: 15): an adult agenda. Even so, many school councils focus on issues that adults regard as trivial, such as school uniform, toilets, playground issues, ‘paint pots and social areas’ (Rudduck and McIntyre, 2007: 120; Cox and Robertson-Pant, 2008; Lewars, 2010), placing ‘a serious question mark over the commitment to the active participation of pupils in the decision-making processes within schools’ (Shevlin and Rose, 2008: 428). Overall, there has been ‘little progress to enshrine Article 12 in education and policy’ (Davey, 2008:15): and ‘for the most part’, schools deny children opportunities for decision-making (Lansdown, 2006:57; Jones and Welch, 2010; Siraj-Blatchford and Manni, 2008; Richards, 2010; Alexander, 2000).

Adults commonly deny children and young people opportunities to make decisions in many areas affecting their lives (Russell, 1996; Mathew *et al.*, 2010; Jamieson and Mukoma, 2010; Lansdown, 2010). Acharya (2010) notes that ‘...involving

children in social sector development programmes is still at a rudimentary stage' (p.205). Particular barriers that seem to prevent children from making decisions in matters affecting them include school structures and teachers' attitudes (Iacofano, 1990; Rudduck and McIntyre, 2007; Shevlin and Rose, 2008; Norwich and Kelly, 2006; Wyness, 2009; Einarsdottir, 2010; Cox and Robinson-Pant, 2008; Yamashita and Davies, 2010). Schools are often '...places of unfreedoms' (Cox *et al.*, 2010b: 174). Reasons behind the exclusion of children from decision-making include external political pressures on school leaders (Cox and Robertson-Pant 2008), adults' primacy of child protection over children's participation (Norwich and Kelly, 2006; Alderson, 2010) and, in some countries, a view of children as adults' property (Twum-Danso, 2010). Furthermore, adults often see children as lacking competences, capacities and capabilities for decision-making (Lansdown, 1996; 2010; Caraveo *et al.*, 2010; Feinstein *et al.*, 2010). Denial of decision-making to children seems particularly prevalent in England (Morrow, 2008; Davey, 2008; Martin and Franklin, 2010), yet in parts of the 'majority World', children as young as ten years regularly take important decisions as the heads of their households (Pells, 2010).

8.10 Children's research spaces

In the twentieth century young children's epistemological engagements became a focus for study and discourse. In this context, the young child was viewed both as novice (Piaget, 1972) and expert (Isaacs, 1944). Piaget (1972) interrogates 'genetic epistemology...the origins of the various kinds of knowledge... starting with their most elementary forms... up to and including scientific thought' (p.15) while Isaacs (1944) notes that 'epistemic interest and inquiry...is in every respect the same in the child as in the adult' (p.322). Subsequently, child-related research with the academy's endorsement has focused on, with and about children (Woodhead and Faulkner, 2008), yet despite the emergence of 'new' sociology (Corsaro, 2005:3; Dahlberg and Lenz Taguchi, 1994; James and Prout, 1997; James *et al.*, 1998), there are still relatively few examples of research by children, particularly those aged 0-8 years. Children remain '...excluded by tradition, by authority and by dependency first from adult worlds...and then from the even more rarefied worlds of academia and policymaking' (Redmond, 2008b:9). However, prevailing views of young children's epistemic thinking and conceptualisations as inconsequential 'false

theories' reject children's potentially sophisticated 'theory building' and their applications of those theories as 'tools to think with' and 'powerful ideas that organise thinking and problem-solving' (Papert 1980: 132-133).

Research conducted by adults 'on' and 'about' children has been the dominant discourse. This situation has maintained – and been maintained by – the academy's hegemony as discussed in the first literature review, cleaving to protocols that fail to recognise the multiple modalities of meaning-making employed by young children (Gallas, 1994; Malaguzzi, 1993, 1998a; Lansdown, 2010; Bae, 2010; Murray, 2012). Many of the protocols that drive research on and about children objectify children, seeing them as 'curiosities' to be examined (Coady, 2010:73). Examples of such studies are represented in the fields of ECEC (*i.a.* Gillen *et al.*, 2007) and allied disciplines such as psychology (*i.a.* Ainsworth *et al.*, 1978; Liu *et al.*, 2003), sociology (*i.a.* Tobin *et al.*, 1989) and education (*i.a.* Sylva *et al.*, 1999). As a pre-cursor to new sociological approaches, studies seeking to find out more about children and their lives began to move away from objectifying children (Woodhead and Faulkner, 2008). This was achieved by shifting power a little further towards children to frame them as 'subjects' (Mandell, 1988), 'with all that entails about subjectivities' (Coady, 2010:73). As 'subjects', children become 'worthy of study in their own right rather than as the focus of research within an adult-led agenda' (Winter, 2006: 60).

Further power shifts between researcher and researched have been – and continue to be – explored. Woodhead and Faulkner (2008) suggest that the British Psychological Society's reframing of 'subjects' to 'participants' (1991) marked greater ethical account of people, including children, who are engaged by researchers. Subsequently, participatory research with children has developed exponentially (*i.a.* Christensen and James, 2008; Harcourt *et al.*, 2011). Much work has developed in this area in the fields of sociology, social geography, education and early childhood (*i.a.* Wyness, 2009; Percy-Smith and Thomas, 2010; Matthews *et al.*, 2000; Rose and Shevlin, 2004; Clark, 2007), Einarsdottir, 2005). Novel, 'imaginative' methods for gathering data have emerged from this movement, driven by adults' requirements to access and 'listen' to children's 'voices' (Clark, McQuail and Moss, 2003:5; Clark, 2010; Thomson, 2008; MacNaughton *et al.*,

2010). Such 'listening' has enjoyed a *zeitgeist* period in recent years. It is regarded as 'an active process of receiving, interpreting and responding' and involves multiple modalities, emotions and multiple senses 'conferencing', photography, tours, drawing, sensitivity, time, reciprocity and flexibility among its specialist methods (Pascal and Bertram, 2009: 255; Clark and Moss, 2011). However, although participatory 'listening' approaches and their specialist methods have been a significant step towards children's inclusion in the research process, as well as children's participation rights (OHCHR, 1989), those specialist methods have also served to highlight children as a marginalised group in need of 'special treatment'. Whilst the attempts of participatory researchers to equalise power align their work with indigenous research which 'purposefully acts on changing the power dynamics' (Coady, 2010:83; Kovach, 2005), many of the distinctive methods used continue to position children as 'othered' (Lahman, 2008).

Punch (2002) posits that it may not be possible for research with children to be the same as research with adults 'because children are inherently different' (p.321). Nevertheless, researchers continue to attempt to address children's alterity (Levinas, 1980:38). There is a particular energy for this in the early childhood field, driven by an aim to equalise power relationships to 'support the "silenced" and "domesticated" to "name their world" and so "shape their world" (Freire, 1972, cited in Pascal and Bertram, 2009: 255). Participatory rural appraisal (PAR) has developed as a significant model with 'high validity and reliability of information' (Chambers, 1994: 1253). This has proved useful with older children and young people (Ozer *et al.*, 2010; O'Kane, 2008). PAR begins with a problem identified by participants who are then located as co-researchers, enjoying a level of control that enables them to investigate and address the causes of the problem (Maglajlic, 2010). However, PAR assumes a problem exists and requires significant time for the relationship to develop sufficiently between the 'outsider facilitators' and the co-researchers in order that the research process can proceed smoothly (Chambers, 1994: 1253). Other types of research have engaged children as 'co-researchers' (Kirby, 1999; Fielding, 2001; Kellett, 2005), though, as discussed, these studies tend to be with older children and young people, resonating with notions of 'evolving capacities' (Lansdown, 2005). Also, they generally involve children being trained in

orthodox research methods so that agendas owned by adults and the academy prevail.

Cheminais (2012) regards children's 'lack of knowledge about research skills, due to them not having received any training in such skills' as 'the greatest barrier' they encounter to becoming effective researchers (p. 15). Cheminais' concern assumes that only that research which is pursued on 'adult terms' (Hardman, 1973:95) can be warranted. Conversely if, as Papert (1980) suggests, young children construct their own sophisticated theories and apply them as 'powerful ideas that organise thinking and problem-solving' (pp. 132-133), there may be no need for the imposition of adult constructions to reify children's enquiries. Children may already be engaging in their enquiries in ways that are no less valid than adults' research engagements, though they may present differently. Given freedom and opportunities to do so, children construct, co-construct and reveal their own meanings about their own lives – in which they are the 'experts' (Pascal and Bertram, 2009; Langsted 1994: 29). Therefore, 'starting from the child' (Fisher, 2008), by respectfully appreciating children's naturalistic enquiries as authentic research may be a way in which children can be empowered in the research process. This proposition 'challenges entrenched, inequitable practices' in order that 'silenced' children may 'name their world' and 'shape their world' (Freire 1972, cited in Pascal and Bertram, 2009: 255). If emancipatory research is about the 'facilitating of a politics of the possible by confronting social oppression' (Oliver, 1992: 110), then this may be a way to frame young children's emancipatory research.

8.11 Summary and consideration of the present empirical study

The literature indicates that studies of childhood and children have been characterised by research conducted by adults *on* and *about* children, evolving to include research *with* and *by* children (Woodhead and Faulkner, 2008; Christensen and James, 2008). Fielding (2001) presents this evolution as a continuum. At one end lies research *on* children (*i.a.* Watson and Rayner, 1920) followed by research *about* children (*i.a.* Pollard, 1985; Tizard and Hughes, 1984). Moving further along the continuum, engaging *with* children in research has recently gained popularity (*i.a.* Matthews *et al.*, 2000; O'Kane, 2008). Older children have tended to be

positioned as 'co-researchers', though with an assumption that only adult constructions of the research process are valuable (Kirby, 1999; Fielding, 2001; Kellett, 2005; Cheminais, 2012). Nevertheless, Clark and Moss (2001; 2011) developed methodology to engage nursery-aged children in research participation.

Yet these models are all predicated on adult agenda. Other than Isaacs' observation (1944) that the 'factor of epistemic interest and inquiry...is in every respect the same in the child as in the adult' (p.322), a virtual lacuna exists in valuing young children's own naturalistic enquiries as authentic research. This situation disregards children as competent (James and James, 2008), rights holders (OHCHR, 1989), 'expert' (Langsted 1994: 29), capable (Sen, 1993) and 'sophisticated' thinkers (Papert, 1980: 132). To address this anomaly, 'research and practice in England needs to fundamentally reshape' (Pascal and Bertram, 2009: 253). To this end, the present study reconceptualises and reveals young children's authentic, naturalistic behaviours as research on the academy's terms.

Chapter 9

Methodology (5) - Phase II - Children in their Settings

9.1 Introduction

As discussed, data constructed with PEYERs in Phase I indicated that children should be part of the study so children became major participants in Phases II and III. I planned to explore the study's themes in more than one location in order to facilitate constant comparison during analysis as part of the grounded theory approach (Glaser and Strauss, 1967). Additionally, in order to reveal perspectives from the full age range of 'early childhood' (United Nations Committee on the Rights of the Child (UNCRC), 2005:2), I originally intended to work with children aged 0-8 years. However, a very large amount of data was assembled from the first three settings, so I had to make the pragmatic decision to limit my doctoral study to children aged 4-8 years. From this process, I learned that relatively small amounts of collected data can translate to a great deal of analysed data.

In this chapter, I consider aspects of the methodological issues relating to constructing data with Phase II participants: PEYERs featured but the main focus was on children and practitioners in three ECEC settings: Ash Setting, Beech Setting and Cherry Setting. Each of the three ECEC settings was the location for an individual case study (Basse, 1999), building into a series. Here, I discuss the issue of piloting Phase II procedures, the participants in the setting contexts, specific ethical and access considerations relating to Phase II and the methods that were adopted for Phase II, together with my rationales for using them.

9.2 Piloting Phase II Procedures?

Procedures followed in Ash Setting might be described as a pilot: they provided opportunities to *explore* what might be methodologically and practically feasible (Yin, 2012). However, case study is a vehicle for exploring 'unique and dynamic' contexts (Cohen *et al.*, 2007: 254) so researching in Ash Setting was 'educative', rather than 'piloting', since what worked in Ash Setting could not be assumed to be transferable. Therefore, rather than presenting a discussion of piloting (Creswell, 2008), I embed the educative experiences encountered in Ash Setting as part of the reflective discussions that follow. Equally, I valued contributions participants made in Ash Setting so include them as integral to the study, rather than test-bed

results that were only of value in informing subsequent practices; I regard all three Phase II case studies as 'real' as it would be disrespectful to participants to do otherwise (Yin, 2012:30).

9.3 Phase II Participants and Locations

Aligning with established ethnographic practices (Mead, 1926; Geertz, 1973), I entered the research landscape already culturally and historically embedded to some extent (Graue and Walsh, 1995): I had spent considerable time in English primary schools as both a child and an early years' teacher prior to the study, so I entered the three Phase II primary schools with strong 'insider' understanding (Griffiths, 1998), contributing to Phase II data construction as a participant. However, each of the three individual contexts had their own distinctive qualities so I was also positioned as an 'outsider', gathering data during the Phase II fieldwork period (Griffiths, 1998).

I knew that to access children's perspectives, I needed to go to where children were; ethically, methodologically and practically, it seemed appropriate to begin with the relatively regulated environments that are ECEC settings – spaces with which I was culturally and historically familiar - rather than, for example, children's homes or play spaces. A large amount of data regarding participants was constructed, including thick description. Within the scope of the thesis, it is not possible to display this comprehensively. Therefore, here in the body of the thesis I include only the basic details; in relation to the participants and their locations, these are contextualised in thick description and reflections in Appendices 9, 10 and 11.

9.3.1 Phase II Location and Participants: Ash Setting

In the most recent inspection report ahead of fieldwork, Ofsted (2006) described Ash Setting as a: *'...larger-than-average primary school. Most of the pupils are from a White British background. The proportion of pupils who have learning difficulties and disabilities is above average.'* In a report undertaken the year following the fieldwork, Ofsted (2009) added: *'The proportion of pupils eligible for free school meals is below that of most schools'.*

Phase II Location and Participants: Ash Setting

Table 4: 'Ash Primary School': Numerical Data				
Whole School				
Children on Roll		Ages of Children	Number of classes	Ofsted Grade
423		4-11 years	12 + EYFS unit	2 (Good)
'Ash Setting' Specific Study Location				
Practitioners	Children	Ages of Children	Number of classes	Ofsted Grade
2 (+2 supply teachers)	32 (20 boys, 12 girls)	7-8 years	1	2 (Good)

In Ash Setting two practitioners – the headteacher and the class teacher - volunteered as participants; more detailed information about them is available at Appendix 9. Additionally, the class teacher volunteered her class for the project in the first instance, though the parents’ and children’s consent were also sought. Later in the data construction, two supply teachers also participated, because they were teaching the class. During an orientation period in Ash Setting, I took copious notes of everything I witnessed. I was observing the setting activity generally, the 32 children (20 boys and 12 girls), as well as beginning to focus on children who appeared particularly enthusiastic about the project and those who demonstrated research behaviours (identified by academy members – Chapter 12, Findings 1, Phase I). I shared my fieldnotes with Prac-A, then in discussion, using the practitioners’ knowledge of the children as well as my observations, together we selected six children for deeper involvement in the study according to their apparent enthusiasm for the project and demonstration of research behaviours :

Table 5: Ash Setting Prime Focus Children	
Annie	7 year old girl – became home focus Child A
Billy	8 year old boy - became home focus Child B
Costas	8 year old boy
Demi	8 year old girl
Edward	8 year old boy
Florence	8 year old girl

9.3.2 Phase II Location and Participants: Beech Setting

Ofsted (2006) described Beech Setting similarly to Ash Setting in its most recent report ahead of the fieldwork: *'...larger than most primary schools. All but a few pupils are of White British heritage. The number of pupils whose first language is not English is below average. Very few pupils are eligible for free school meals'*.

Table 6: 'Beech Primary School': Numerical Data					
Whole School: Numerical Data					
Children on Roll		Ages of Children	Number of classes	Ofsted Grade	
321		4-11 years	12 + EYFS unit	2 (Good)	
Within the whole school... 'Beech Setting' Specific Study Location					
Practitioners	Children	Ages of Children	Number of classes	Ofsted Grade	
7 (+ supply teachers)	46 (23 boys and 23 girls)	4-5 years	2	2 (Good)	

In Beech Setting seven practitioners - including the headteacher, teachers and teaching assistants - volunteered as participants; supply teachers volunteered later during the Beech Setting data construction. More detailed information about these participants is available at Appendix 10. During an orientation period in Beech Setting, I followed the same procedures I had followed in Ash Setting, as they had worked well. Again, the practitioners and I worked together to select six children for closer involvement in the study, according to the same criteria used in Ash Setting:

Table 7: Beech Setting Prime Focus Children	
Gemma	5 year old girl - became home focus Child G
Harry	5 year old boy - became home focus Child H
India	5 year old girl
Johnny	5 year old boy
Kelly	5 year old girl
Laura	5 year old girl

9.3.3 Phase II Location and Participants: Cherry Setting

Ofsted (2007) described Cherry Setting fairly similarly to the ways they described Ash Setting and Beech Setting in the most recent inspection report ahead of the fieldwork: *'The large majority of pupils are from White British backgrounds'* but also noted: *'An increasing minority of pupils join the school speaking little English'*.

Table 8: 'Cherry Primary School': Numerical Data				
Whole School: Numerical Data				
Children on Roll	Ages of Children		Number of classes	Ofsted Grade
226	4-10 years (2008-9) 4-11 years (2009-10)		10+ EYFS unit (2008-9) 12+ EYFS unit (2009-10 onwards)	2 (Good)
Within the whole school... 'Cherry Setting' Specific Study Location				
Practitioners	Children	Ages of Children	Number of classes	Ofsted Grade
6	60 (40 boys and 20 girls)	4-5 years	2	2 (Good)

In Cherry Setting six practitioners - including the headteacher, teachers and teaching assistants - volunteered as participants; more detailed information about these participants is available at Appendix 11. Once again, during an orientation period in Cherry Setting, I pursued the same procedures as I had done in Ash and Beech Settings and a group of children was selected for prime focus:

Table 9: Cherry Setting Prime Focus Children	
Martin	5 year old boy - became home focus Child M
Nora	5 year old girl
Oscar	5 year old boy
Pedro	5 year old boy
Querida	4 year old girl

We initially identified one other child in Cherry Setting but in the end, he was absent for the period of the fieldwork.

9.3.4 Phase II PEYERs

In addition to the children and practitioners, five of the PEYERs who were involved in Phase I returned to engage in a focus group during Phase II. This took place after data had been constructed in Ash Setting but before engagement with Beech and Cherry Settings. Their role was to watch the video footage with me, to compare the behaviour of one child in Ash Setting with the Research Behaviours Framework that had emerged from Phase I (See Chapter 12 and Appendix 28), identifying

research behaviours and other points to provide varied perspectives in the analysis of the data. This is discussed further in the 'Focus Group' and 'RBF Analysis Sheets' sections of this chapter and in *Chapter 11: Models of Analysis*.

9.3.5 Interim Summary

Within the confines of the thesis, it is not possible to include the 'thick description' (Ryle, 1949; Geertz, 1973) and complex deeper level reflections relating to participants that were appropriate to the methodology and that emerged throughout the fieldwork. Therefore, thick description and reflections are available at Appendices 9, 10 and 11.

Below is a table showing, at a glance, the profile of participants across the three case study settings:

	Number of children	Number of practitioners	Number of 'classes'	Ages of children	Gender share of children	Number and gender share of practitioners	Most recent Ofsted Inspection Grade
Ash Setting	32	2 (+ supply teachers)	1	7-8 years	20 boys, 12 girls	3 [1m, 2f]	2 (Good)
Beech Setting	46	7 (+ supply teachers)	2	4-5 years	23 boys, 23 girls	8 [8f]	2 (Good)
Cherry Setting	60	6	2	4-5 years	40 boys, 20 girls	6 [1m, 5f]	2 (Good)

9.4 Phase II Ethical and Access Considerations

Cohen *et al.* (2007) observe that: 'Investigators cannot expect access to a nursery, school, college or university as a matter of right' (p 55). Although, as ethnographic researchers, we locate ourselves at the research site (Creswell, 2008), access is about developing greater understanding of people and their ideas, behaviours and cultures (Siraj-Blatchford and Siraj-Blatchford, 2001). It involves both ethical and practical issues often predicated on each other.

As I was following BERA's *Ethical Guidelines* (2004), it was my responsibility to ensure that all participants understood and agreed to participating '...without any kind of duress, prior to the research getting underway' (p.6). I also had to ensure that participants were not deceived, knew that they could withdraw at any time, did

not receive undesirable incentives, did not experience detriment because of the research and had their confidentiality and anonymity preserved. Furthermore, it was my responsibility to ensure observance of specified ethical protocols closely in relation to participating children, as well as adherence to Articles 3 and 12 of the UNCRoC (OHCHR, 1989) in respect of their participation.

In this study, ethical and access issues were of paramount importance and they required due consideration. However, within the scope of the thesis, it is not possible to engage with this in authentic detail. Therefore, in this section, there is a brief overview of procedures undertaken to address ethical and access issues in respect of practitioners, primary carers and children; the detailed discussion, containing thick description and reflection is located at Appendix 135.

9.4.1 Practitioners' Voluntary, Written, Informed Consent

In all three settings, prior to their agreement to engaging in the study, I ensured practitioners had written information about the project (Appendices 12 and 13). For Cherry Setting, again, because I was explaining the project to several staff, I prepared a pack (Appendix 14) for an initial meeting. I also left Practitioner Consent Forms with each team (Appendix 16). Here, practitioners were acting implicitly as advocates for the children they worked with; had they had concerns about the project, they could have refused to sign the form which would have blocked my access. However, all the Practitioner Consent Forms were signed so the project could progress to the next stage in each setting.

9.4.2 Primary Carers' Voluntary, Written, Informed Consent

Once the practitioners had consented, a further set of consent forms was prepared for primary carers of the children in the study settings. I asked each headteacher to ensure they were happy with an explanatory letter (Appendix 17) I had written to primary carers. The headteachers each agreed to the letters and forms being copied and sent to primary carers. Practitioners disseminated these to primary carers and I placed a poster in each setting with a short explanation of the project (Appendix 15). All parents in Ash and Beech Settings completed forms so the fieldwork could go ahead there, but parents of two children in Cherry Setting did

not give consent so filming could not go ahead there, though other methods were used to construct data in ways that ensured these two children were excluded.

9.4.3 Children's Voluntary, Written, Informed Consent

Given that the study had to comply with required ethical protocols, it was fortunate that only two children out of 138 were denied participation by primary carers. In each of the three case study settings, the next stage was informing the other children about the study and seeking their informed consent, while recruiting practitioners to ensure the two non-participating children did not perceive they were being excluded. I communicated the information about the study in ways I believed the participating children could understand and in honest ways that would build further the children's trust in me (Alderson and Morrow, 2011) and empower them. I created a presentation using Microsoft PowerPoint that provided visual and auditory information (Appendix 18). I used photographs, very little text and focused it on the children so that it was meaningful to them and in a place that was familiar to them (Donaldson, 1978). I then invited the children to give their voluntary, informed consent in the same way as the adults in the research: on forms adapted so that children of 7-8 years and children of 4-5 years could access them (Appendices 19 and 20) which the practitioners and I helped the children to complete. I was concerned that the children did not feel coerced to complete these; they seemed happy to do so and the practitioners thought so. Moreover, throughout the fieldwork, I was alert to the possibility that children may show that they did not, in practice, consent but this did not happen.

9.5 Phase II Methods and their Rationales

Again, for this section, there is much thick description and reflection but given the scope of the thesis, it is not possible to engage with this fully here. Instead, I briefly outline the ways in which Phase II methods were implemented and a full script is located at Appendix 136. Methods were either selected in advance or identified as they emerged from the data in this inductive, participatory, emancipatory 'open' research, co-constructed by participants who were '...centrally involved in the broad and changing directions, the process of narrowing down the inquiry and of selecting the later main topics' (Alderson and Morrow, 2011:102).

Equally, methods were active – such as live observations – or used as tools for analysis – such as a focus group observing video footage of children in a setting.

Multi-modal methodologies are currently popular (Dicks *et al.*, 2011) and all the selected methods have been used in research framed by one or more of the selected methodologies - the Mosaic Approach (MA) (Clark and Moss, 2001; 2011) constructionist / constructivist grounded theory (CGT) (Charmaz, 2006); critical ethnography (CE) (Carspecken, 1996) and case study (CS) (Bassegy, 1999). Common to all the Phase II methodologies and methods is that each sits comfortably within the interpretive paradigm, embracing subjective, multiple realities as valuable processes and products of enquiry (Bassegy, 1999).

9.5.1 My Role as a Teaching Assistant: A foundation for co-constructing data

I wanted to encourage the children's thoughts, actions and words to shine through, so I was aiming for the most naturalistic approach possible (Pellegrini *et al.*, 2004) and to elicit 'richly detailed cultural descriptions...of contemporary children's lives' (Graue and Walsh, 1995:135). Therefore, during the orientation periods, I worked as a volunteer teaching assistant in the settings. This eased potential 'gatekeeping' issues (Cohen *et al.*, 2007; Corsaro and Molinari, 2008), supported equalisation of relationships and a move *towards* 'insider' status (Griffiths, 1998) and enabled me to gain trust, observe informally and plan with participants the direction of the enquiry based on emerging data. However, I was limited to four half days in each setting in this role, whilst orientating myself within the settings. The teachers allotted me small groups of children to work with but I was also beginning the complex ethnographic process (Jeffrey and Troman, 2004; Silverman, 2006; Buchbinder *et al.*, 2006) making 'thick' research fieldnotes (Carspecken, 1996: 46). This experience was an enjoyable but challenging aspect of building a foundation for constructing the data with the participants. I had to work hard to develop the mutual trust and respect that underpins inductive, emancipatory, participatory enquiry (Alderson and Morrow, 2011). Frustratingly, despite my experiences in ECEC settings over many years, and my efforts in the three study settings, I do not believe I ever attained full 'insider' status (Griffiths, 1998) in the latter.

However, at the end of the orientation periods my priorities in the settings I moved from predominantly helping the children and practitioners to managing the construction and co-construction of data with them, always mindful of children's research behaviours. This section now turns to discuss the Phase II methods.

9.5.2 Phase II Field notes

Field notes are common to the MA (Clark and Moss, 2011) as 'observation notes' (p.37), CGT (Charmaz, 2006), CE (Carspecken, 1996) and case study (CS) (Yin, 2012). I constructed and co-constructed different types of field notes throughout Phase II: 'descriptive' and 'reflective' (Creswell, 2008: 225). They comprised writing and drawing of events, contextual features and people's actions and words in the settings and I conflated Carspecken's 'journalistic record' and his 'thick primary record' (1996:45). Participants contributed by acting and speaking when notes were taken. Reflective field notes were recorded thoughts revealing 'insights, hunches, or broad ideas or themes' (Creswell, 2008: 225) but were not exclusively my own; other participants co-constructed reflective field notes in informal discussions with me, while watching video footage of events, on grids displaying research behaviours or, again, in informal discussion.

9.5.3 Phase II Interview Conversations

Social science research interviews are described as 'conversation with a purpose' (Webb and Webb, 1932: 130) and 'guided conversations' (Lofland and Lofland, 1995: 85). Participants were positioned as 'experts' in interview conversations (Charmaz, 2006:27), aligning with the principles of the present study. I adopted interview conversations for this study for a number of reasons. Firstly, they were indicated in Phase I when PEYER A – an experienced educational researcher – said during an interview: '*You want to know what people genuinely think and I think that involves asking*' (A60). Equally, there is precedent for the use of interviews in all four of the study's methodologies so this provided consistency. Semi-structured interview conversations provided 'open-ended but directed, shaped yet emergent' qualities (Charmaz, 2006: 28), empowering participants through reflexivity and reciprocity. They also enabled me to maintain focus (Lofland and Lofland, 1995; Carspecken, 1996; Charmaz, 2006).

Interview conversations revealed participants' views of research and engaged participants in 'reconstructive analysis' (Carspecken, 1996: 93), giving children and practitioners shared ownership of data construction. The children's schedule covered their observations and analyses of their setting behaviours as well as their perspectives on research (Appendix 21), while practitioners had two schedules: one for their research perspectives (Appendix 22) and one for their observations and analyses of children's behaviours in the settings (Appendix 23):

Settings: Interview Conversation Schedule Practitioners analysing children on video
<p>Practical Can you say your name for the tape recorder. I will put on the video now. Focus: Analysis - what is happening on the video?</p> <p>Deductive questions Look at what (the child) is doing – can you talk me through what is going on? FOCUS: Child as researcher</p> <p>Inferential questions How would you interpret his/her behaviour?</p> <p>Evaluative questions What are your views regarding the activity s/he is involved in? How does this footage relates to what you know about (child) from other sources?</p>
<p>Tag questions / prompts It's so interesting isn't it? What do you think? Yes, Yes... I agree with you but... Hmm... I agree, but I can't understand why... I know you said before... Does anything else occur to you?</p>

These schedules were based largely on Charmaz's approach to intensive interviewing (2006), but took into account guidance from Lofland and Lofland (1995), Carspecken (1996) and Clark and Moss (2001).

9.5.4 Phase II Observations

Participant observations were a major method for the present study, eliciting rich data in the physical spaces of the ECEC settings and enabling the capture of 'facets of everyday life that are unique to individuals and not to particular settings' (Lofland and Lofland, 1995: 20). I used naturalistic observation (Pellegrini *et al.*, 2004) to reveal children's authentic actions and voices and adopted 'multiple recording devices and multiple observers', 'prolonged engagement' and 'checks' (Carspecken, 1996: 88), as well as my own 'cultural and personal perspectives' (Yin, 2012: 22) and those of practitioners and children in reflexivity and shared analysis, providing inference. Equally, the observations were triangulated with

multiple methods (Clark and Moss, 2001; Charmaz, 2006). The unstructured live observation schedule was extremely flexible (Carspecken, 1996), but observations tended to be either snapshot or unstructured narratives (Sharman *et al.*, 2007), noted by me as participant observer.

9.5.5 Phase II Focus Groups

In Phase II, I set up four focus groups - 'collective interviews' (Cohen *et al.*, 2007: 376) to elicit analysis of primary data, practice resonating with Carspecken's notion of 'reconstructive analysis' (1996: 93) that facilitated shared ownership of data construction. This supported participants to 'reflect and recall experiences' and to 'spur memories and opinions in others' (Lofland and Lofland, 1995: 21). Phase II focus groups included five PEYERs who had been involved in Phase I, six staff at Beech Setting and children in Ash and Beech setting.

PEYERs watched video footage of Annie at school and related what they saw to the initial Research Behaviours Framework (RBF1) (Appendix 28) that emerged from their work and that of others in Phase I. This revealed PEYERs' 'perceptions, values and beliefs' (Stringer, 2004:6), and I was able to triangulate their views with analysis undertaken by practitioners and children to inform my own analysis judgements. Data were generated quickly as PEYERs observed, commented, reflected, qualified, discussed, contradicted one another and argued (Lofland and Lofland, 1995).

In Beech Setting staff room, a 'staggered' focus group took place throughout a morning: participants came and left at points during the event. Again, I asked the practitioners to analyse children's behaviours using RBF2 (Appendix 29) as they watched video footage, but I was also interested in their discussion. I audio-recorded this 'staggered focus group', then transcribed it later and included the data in the overall analysis process. The Beech Setting children's focus groups were also 'staggered focus groups' as a practical method to elicit the children's views with minimal intrusion on their everyday lives in the setting. I wanted to elicit the children's views naturally and this model enhanced their consent to participation because they came and went as they wished during the process. In the analysis

that I continued subsequently, I referred to the children’s comments in conjunction with the RBF3 (Appendix 30):

What do researchers do?	
<u>Research Behaviour Framework (RBF) 3 - Emerging from YCAR Academic Discussions [July 2009]</u>	
Researchers...	
1. Seek a solution	21. Investigate
2. Want to explore	22. Enquire
3. Explore with an aim	23. Test and check
4. Explore without an aim	24. Are systematic
5. Explore with an aim which changes during the process	25. Are objective
6. Explore with a fine focus	26. Base decisions on evidence
7. Explore broadly	27. Use processes that are fit for purpose
8. Find out why things happen	28. Can replicate process
9. Find out how things happen	29. Can replicate output
10. Examine problems	30. Use and apply findings in new contexts
11. Develop increasingly better understanding of the world through exploration	31. Believe what they are doing is good
12. Increase knowledge	32. Are focused on their chosen activity
13. Find a solution	33. Reflect on process
14. Go beyond instinct	34. Reflect on results
15. Gather data	35. Do no harm
16. Build on others’ work	36. Participate with others
17. Take account of context	37. Can communicate what they are attempting to do
18. Plan	38. Can communicate what they have achieved
19. Conceptualise	39. Make links
20. Question	40. ?

In Ash Setting, I left the camcorder running in playback mode at different times during the fieldwork and noted the children’s comments. In Beech Setting, where free flow play prevailed for the majority of the children’s days, I was able to stream the video footage through the computer for several hours continuously. Overall, whilst I would have preferred more analysis to have been conducted in focus groups and absence of video footage meant it was not possible at all with Cherry Setting participants, I did what was practically and ethically possible, balancing participants’ needs with the research process. Using focus groups enabled me to gather sufficient data from participants’ perspectives to lead me in further analysis. This focus group activity is discussed further in *Chapter 11 – Models of Analysis*.

9.5.6 Phase II Informal discussions

Throughout my time in the three settings, I engaged in informal discussions with children and practitioners for practical and methodological reasons – for example, explaining aspects of the study, filtering the main child participant group in discussion with practitioners, or attempting to achieve empathy with practitioners and children in the settings (Crossley,1996: 23). Each discussion informed participants’ and my own perspectives, judgements and the progress of the study, given its ‘open’ nature (Alderson and Morrow, 2011: 102) so each contributed to co-construction of data. In many ways these informal discussions were similar to ‘open-ended’ interviews described by Yin (2012: 12) but they were not lengthy because the active, complex environment of the ECEC setting does not lend itself to

lengthy discussions (Clark and Moss, 2011) . Informal discussions were written up as part of field notes and sometimes within observations (Appendix 24).

9.5.7 Phase II Documents

Clark and Moss (2011) suggest that documentation has a relationship with both communication and interpretation. In each case study setting, I was seeking 'detailed knowledge of the multiple dimensions of life' (Charmaz, 2006:21) and, as part of this, I collected documents (Appendix 25), common to ethnography and grounded theory (Charmaz, 2006) and an optional part of the 'primary record' in critical ethnography (Carspecken, 1996: 44). The documents provided 'hard' evidence of events and actions but also revealed aspects of the settings' cultures and assumptions and were co-constructed by participants and me.

9.5.8 Phase II Children's Artefacts

Equally, children created their own documents which contributed to the 'primary record' in CE (Carspecken, 1996:44): 'artefacts'. Reifel (2007) notes that children's artefacts 'such as student pictures or constructions' (p.36) are commonplace data in postmodern studies with children, while Yin (2012) regards artefacts as one category of 'multiple sources of evidence' in case studies (p.182). In the study, children's artefacts were distinct from 'Documents' because each artefact was individually crafted by children. These participatory instruments that children used to communicate their perspectives (Bitou and Waller, 2011) included pictures and craft items (Appendices 26 and 60); valuing children's artefacts as data was respectful of children as co-constructors of research and as competent agents.

9.5.9 Phase II Photographs

Again, although Charmaz (2006) includes photographs in one category of documents, in this study I treat them as a distinct category of their own. This is because they can fulfil diverse purposes that need to be considered carefully for research with children. Photographs can position children as agents revealing their preferences and interests (Clark and Moss, 2011) or they can objectify and subjugate children (Holland, 2004). In research, photographs can be used *by* children (Clark and Moss, 2011; Burke, 2005; Dockett *et al.*, 2011), *of* children (Meltzoff and Moore, 1977) and *with* children (Smith *et al.*, 2005). Young children's

uses of photography (Clark and Moss, 2011) resonate with Wang and Burris' 'photovoice' methodology (1994) in which marginalised people take, discuss and reveal photographs focused on their concerns as a medium to convey their perspectives so photographs seemed wholly appropriate to this study. In Phase II, children used digital cameras to take photographs of aspects of the setting that interested them and I did the same; these were all processed on the computer.

9.5.10 Phase II Video Recording

In this study, video was used *by* children (Haw, 2008; Pahl and Allan, 2011), *with* children (Dockett *et al.*, 2007; Sumison *et al.*, 2011) and *of* children (Watson and Rayner, 1920; Bowman, 1994). Video also supported other methods and facilitated events to be revisited for discussion, reflection and analysis by participants in Ash and Beech Settings. I used three Canon 2000X camcorders, set up on tripods around the settings, so that observations of children could be videoed alongside live observations. An emic approach was adopted, as the orientation of the data construction was naturalistic (Headland *et al.*, 1990), but this still positioned children as subjects, which was undesirable, though it was the only way to secure naturalistic footage. Even so, PEYER 2 noted on one occasion 'Child conscious of camera' (FGpB 49) when observing footage. However, during Ash Setting fieldwork the problem reduced as the novelty diminished. In Beech Setting, I worked on habituating the children to camcorders and reducing objectification by giving them children's camcorders (Tuffcams) as well as Canon 2000X camcorders to explore and film with themselves. This was easier in Beech Setting than Ash Setting because the children engaged in free flow play in Beech Setting, whereas they were directed by their teacher in Ash Setting (Bruce, 2005).

Additionally, video footage triangulated other methods, enabled events to be revisited for discussion, reflection and rigorous analysis and facilitated children's participation in capturing and analysing data. However, my own inexperience and ineptitude with video technology translated into the camcorders not running when I thought they were and poor positioning resulting in poor quality footage. Nevertheless, some useful video footage was captured in the end which proved particularly useful for analysis (Robson, 2011). Video footage was also used in conjunction with observational notes for transcription.

9.5.11 Phase II Audio recording

Audio recording is commonplace in qualitative studies (Patten, 2002); it is used in MA (Clark and Moss, 2011), in CE (Madison, 2012), in CS (Yin, 2012) and in GT (Cheers, 2009; Martin and Gynnild, 2011), so it was indicated for this study. To triangulate other methods further and enable events to be revisited for discussion, reflection and rigorous analysis, Phase II interview conversations with children, practitioners and the PEYERs' focus group were audio recorded (Bloor and Wood, 2006). I used audio-recording with note-taking to ensure participants' words were captured. For audio-recording, I used digital recorders, later transferred to computer. This proved fairly successful, although, the digital recorder did not always record, discussion was not always audible and I erased some material accidentally. However, because I could refer back to recordings, participants' authentic voices were prominent in the data.

9.5.12 Phase II Research Behaviour Framework (RBF) Analysis Sheets:

Whilst the RBF categories emerged inductively from Phase I data, the RBF lent a deductive quality to the Phase II data: I developed it as two analysis sheets against which children's behaviours could be cross-referenced (Appendix 28; Appendix 29). In Phase II, I only used analysis sheets with the participating practitioners and PEYERs. I did not use analysis sheets directly with the children in settings because I was concerned that they would find them onerous and that they would disrupt their everyday lives in the settings. Instead I found ways to apply the RBFs indirectly to the children's perspectives. In interview conversations with children, I asked them questions relating to categories on the RBF and in my own analyses following both the children's focus groups and the interview conversations, I applied the RBF to the children's commentaries.

The analysis sheet that the PEYERs used in their Phase II focus group was the RBF that had emerged from Phase I: RBF1 (Appendix 28). The PEYERs completed RBF1 in their focus group, ticking categories while discussing the footage. I used the PEYERs' Phase II focus group output to refine the RBF further to create RBF2 (Appendix 29). Ash Setting practitioners were given RBF2 Analysis Sheets to refer to and tick off as they watched footage with me in their analysis interview

conversations; though they seemed to prefer to discuss the footage with me more inductively. Therefore, when Beech Setting practitioners engaged in their focus group, I asked the practitioners to focus solely on completing RBF 2 while watching footage, then they shared their findings and thoughts following each vignette. This worked far better, resulting in categories being completed more fully while rich commentary also emerged from the PEYERs' focus group and the interview conversations. Following Phase II, I was able to refine the RBF further to create RBF3 as an analysis sheet (Appendix 30) that I then applied to all the output I analysed following the fieldwork.

9.5.13 Interim Summary

This section has considered the multi-modal methods that were adopted to co-construct data with children, practitioners and PEYERs in Phase II. Some elicited primary data and some secondary data:

Table 11: Phase II Multi-modal Methods <i>(Clark and Moss, 2001; 2011)</i>	Field notes	Interview Conversations
Observations	Focus Groups	Informal discussions
Documents	Children's artefacts	Photographs
Video recordings	Audio recordings	Research Behaviour Framework (RBF) Analysis Sheets

9.6 Selecting Children for Phase III

During the process of co-constructing the Phase II data, the practitioners and I were conscious that Phase I data had indicated that data should be constructed in children's homes as well as their settings. The fieldwork experience in Ash Setting indicated to me that practically, it would be impossible to do this in many children's homes because of the project's time constraints as well as my own. During an informal discussion, Prac-A and I decided that filtering the 'main focus' children to two 'home' participants would be practically manageable and that, unlike Tizard and Hughes' study (1984) in which the participating children were all girls, they should be a boy and a girl, to provide equity and a balanced output. This model was

'piloted' successfully with Ash Setting 'main focus' children, so was adopted for Beech Setting and Cherry Setting 'main focus' children.

The criteria adopted for selecting the children were similar to those used for selecting the 'main focus' children in each setting. Practitioners' knowledge of the children and their families was crucial; by adding this to the data, the practitioners and I were able to select two children from each setting for even deeper involvement in the study according to their family situations and Phase II data's revelation of children's apparent enthusiasm for the project and demonstration of research behaviours (as identified by academy members – Chapter 12, Findings 1, Phase I). Further details of Phase III sampling are provided in the following chapter.

9.7 Summary

In this chapter, I have provided a short exposition of the Phase II methods and methodological issues, covering Phase II piloting, participants, methods and ethical and access considerations that were specific to Phase II. I have discussed how data were co-constructed with Phase II participants who included PEYERs as well as children and practitioners in three ECEC settings: Ash Setting, Beech Setting and Cherry Setting. Each of the three ECEC settings was an individual case study (Bassegy, 1999); together, the data emerging from them formed the Phase II case study series. In keeping with the study's methodology, more detailed thick description and reflection of these aspects of the study have been developed (Appendices 135 and 136).

Furthermore, Phase II data also indicated which children might become the Phase III participants. The thesis now turns to its final chapter concerned with methodology – *Methodology (6): Phase III - Children at Home*.

Chapter 10

Methodology (6) - Phase III - Children at Home

10.1 Introduction

This chapter considers how and why children and their families at home were included in the study. Further to PEYERs' indication of children as participants in Phase I, co-constructing data in children's own homes provided opportunities to reveal another rich layer of data with potential to lead to deeper understanding about research behaviours presenting in children aged 4-8 years. Equally, this additional strand of data would prove useful for constant comparison during CGT analysis (Glaser and Strauss, 1967; Charmaz, 2006). The chapter focuses on methodological issues relating to co-constructing data with Phase III participants: PEYERs featured but the main focus was on young children and their families in five homes; by the time Phase III fieldwork took place, the children were aged 5-8 years:

Table 12: Phase III 'Home' children
Annie at home with Family A
Billy at home with Family B
Gemma at home with Family C
Harry at home with Family D
Martin at home with Family E

Each of the children, with their families at home, formed an individual case study (Bassegy, 1999), building into a second case study series for the study. Again, within the scope of the thesis itself, it is not possible to include full discussion regarding the study's methodological issues relating to children at home. Thick description appears in Appendices 36-40 while the most salient points are discussed here. To that end, this chapter briefly discusses literature related to 'Homes' as locations for enquiry, before considering Phase III methodological decisions in respect of piloting issues, participants, specific ethical and access considerations and the methods that were adopted.

10.2 Homes as Locations for Enquiry: messages from the literature.

Although it is often less the case than it was a generation ago (NFPI, 2005; UNICEF IRC, 2008), many young children spend considerable time in their homes

(Christensen *et al.*, 2000). Pellegrini *et al.* (2004) note that ‘...we still know very little about children outside of their school settings’ (p.2), despite a number of studies having explored young children’s lives in both their settings and homes (Tizard and Hughes, 1984; Wells, 1986; Sylva *et al.*, 2004). Moreover, Pellegrini *et al.* (2004) suggest there may be value in enquiry with children in their own homes and Donaldson’s critique (1978) of Piaget’s decision to observe his own children in the laboratory (1955) suggests value in researching with children in their familiar domestic settings. Homes are diverse places, used in diverse ways (Mallett, 2004) yet ‘home’ is recognised as the site where humans develop trust (Miczo, 2008): an intimate place (Gabb, 2010). Therefore, gaining access ethically to children’s homes brings ‘messy...difficult’ issues (Wellington, 2001: 239).

10.3 Piloting Phase III Procedures?

The procedures that were followed in the first two home contexts of the present study – Annie’s and Billy’s - might be described as a ‘pilot’ in that they came first – a year ahead of the other ‘home’ case studies - and gave me opportunities to explore what might be methodologically and practically feasible (Yin, 2012). However, Cohen *et al.*’s view (2007) of case study as a vehicle for exploring ‘unique and dynamic’ contexts (p.254) was reified in these two early case studies. For example, whilst Annie and her family took video footage of Annie’s activity, Billy and his family did not. The most useful lesson I could take from these experiences in terms of piloting was that each family would manage the project in their own home, in their own way and my role was to initiate, respect and support this. Therefore, similarly to the Phase II experience regarding ‘piloting’, early processes in Phase III did not provide a pilot in the formal sense (Creswell, 2008; Yin, 2012), but were educative. Furthermore, lessons continued to emerge throughout Phase III so discussion about those experiences is embedded within the reflective discussions that follow.

10.4 Who were the Phase III participants and how did they join the project?

10.4.1 Engaging Phase III Children

Phase III ‘Home’ children were originally identified in their settings during Phase II. Selection criteria mirrored those adopted for selecting ‘main focus’ children in each

setting for Phase II. The practitioners' knowledge of the children and their families was crucial; by adding this to data constructed to date, the practitioners and I were able to select two children from each setting for even deeper involvement in the study according to their family situations and Phase II data's revelation of children's apparent enthusiasm for the project and demonstration of research behaviours (identified by academy members – Chapter 12, Findings 1, Phase I).

As discussed in the previous chapter, two children from each setting were identified as potential 'home' children towards the end of Phase II, through a process of informal discussion with the practitioners and data co-construction. During informal discussion in Phase II, Prac-A and I decided that filtering the 'main focus' children to two 'home' participants would be practically manageable and that, unlike Tizard and Hughes study (1984) in which the participating children were all girls, they should be a boy and a girl, to provide equity and a balanced output. This model was piloted successfully with Ash Setting 'main focus' children, so was adopted for Beech Setting and Cherry Setting 'main focus' children. Other criteria that we used were children's apparent enthusiasm for the project and demonstration of research behaviours (as identified by academy members – *Chapter 12, Findings 1, Phase I*) but the success of this selection process relied on practitioners' knowledge of the children and their families. For example, in Beech Setting, Kelly showed strong interest in the study and demonstrated varied research behaviours in her free flow activities so I identified her as a potential 'home' child to discuss with Prac-D. However, Prac-D explained that Kelly's parents had recently separated and there was a potential child protection issue. This alerted me to an understanding that, ethically and practically, it was not appropriate to pursue Kelly's involvement in Phase III. Equally, the model for selecting participants was not failsafe: in Cherry Setting, we identified Nora as a potential 'home' child, but subsequently her mother, acting as gatekeeper (Alderson, 2005), told the TA that they did not wish to participate. Naturally, her request was respected but this meant that we only had one 'home' child from Cherry Setting. This section now addresses who the Phase III participants were, their characteristics and how they joined the project. Selected key points are presented in three tables below; rich, thick description and reflection provide further detail at Appendices 36-40.

Table 13: Phase III Participant Profile	Annie and Family A	Billy and Family B	Gemma and Family C	Harry and Family D	Martin and Family E
ECEC Setting (Phase II)	Ash	Ash	Beech	Beech	Cherry
Gender	Girl	Boy	Girl	Boy	Boy
Age during home fieldwork	8 years	8 years	5 years	5 years	5 years
Living with	Mother (MTHR-A) Father (FTHR-A)	Mother (MTHR-B) Father (FTHR-B) Sister (SIS-B) – aged 9 yrs	Mother (MTHR-C) Father (FTHR-C) Brother (BRO- C) – aged 8 yrs	Mother (MTHR-D) Father (French) (FTHR-D) Brother (BRO- D) – aged 4 yrs	Mother (MTHR-E) Father (FTHR-E) Sister (SIS-B) – aged 4 yrs
Description of home	Modern, detached 4 bedrooms, on a development in an established large English Midlands town. Garden				
Home language	English	English	English	English and French (bilingual)	English
Social Class category (MRS,2012)	A	A/B	B	A	A/B
Parental employment Full-time=FT Part- time=PT Mother = M Father = F	F: FT IT Consultant M: PT IT Consultant	F: FT Professional M: FT Homemaker	F: FT Manager in local government M: PT Administrator	F: FT Commercial pilot M: PT Flying instructor	F: FT IT Executive for large national organisation MT: FT Homemaker, then became PT Teaching Assistant in Cherry Setting
Additional comments			When Gemma's parents worked in the holidays, her grandparents cared for her and her brother.		Martin's other had been a nurse prior to having children

Table 14: Rationale for Selection of Home Children	
Annie	'Intrinsically interested' engaging in 'exploration' (RBF: Appendix 28). Prac-B thought Annie would 'really enjoy' Phase III
Billy	Presented with 'flow' (Csikszentmihalyi, 1990) (SA PrB: Ch-B I-C[iv]41i) and curiosity: 'exploration' and personal enquiry' (e.g. Fieldnotes, Ash Setting, 5.6.08). Indicated interest in project (often came to speak to me in setting. Prac-B suggested Billy might enjoy participating and his family might be willing to be involved.
Gemma	Presented with 'flow' (Csikszentmihalyi, 1990) (Fieldnotes, Beech Setting, 14.5.09), (Appendix 35). (SO_B6 Ch_G 4i). Research behaviours on the second RBF observed early (Appendix 29) (Appendix 38). Prac-E agreed Gemma was likely to be a good choice in terms of her behaviours and her home life.
Harry	Research behaviours on the second RBF observed early (Fieldnotes, Beech Setting, 14.5.09) (Appendix 29). Indicated interest in project (Fieldnotes, Beech Setting, 2.7.09: 12.48pm) Prac-E reacted positively when I suggested that Harry might be a 'home' child and introduced me to his father one day at 'home time'
Martin	Research behaviours on the second RBF (Appendix 29) observed early (SO_C1 Ch_M27i); (SO_C7Ch_M13 - SO_C7Ch_M18). MTHR-E was a Cherry Setting helper and discussed the project with me, showing interest in Family E participating (Fieldnotes - Cherry Setting - 21.5.09). Prac-G suggested Martin as she believed his mother may be amenable.

Table 15: Characteristics of Home Children	
Annie	Slight, lively, light brown hair, Caucasian, inquisitive, tendency to bossiness. Keen to please adults; enjoy adults' attention
Billy	Average build in comparison with his peers, spectacles, thick dark hair, Caucasian. Prac-A noted that Billy was '...very focused, very lively (and) not appreciated by other children (SA PrB: Ch-B I-C[iv]12). (SA PrB: Ch-B I-C[iv]14); pleasing adults did not appear a priority for Billy. Often engaged in 'off task' behaviour. Seemed to enjoy craft work at school and construction activities at home.
Gemma	Seemed average height and slim build in comparison with peers and she had long dark hair. Caucasian. Set herself many tasks and enjoyed craft work. Usually quiet and watchful in ECEC setting
Harry	Tall compared with peers, brown hair, exuberant, apparently confident personality. Caucasian. Often chose to engage with adults in Beech setting although popular with peers and often played with them. Appeared intellectually able. Used own initiative in setting but also compliant when practitioners specifically asked something of him.
Martin	Slight build compared with peers, fair hair, Caucasian. Often appeared thoughtful. Tended to avoid adults in setting. Tended to choose to play with boys. Appeared popular with boys. Sometimes appeared to find some children irritating. Seemed to take risks in setting but generally complied with practitioners' expectations if he could see he would benefit. Appeared intellectually able and used own initiative in setting.

10.4.2 Phase III PEYERs

Just as I did for Phase II, I engaged with five of the PEYERs who were involved in Phase I in a focus group for Phase III, using the same procedure as that used on Phase II (See *Phase II PEYERs*, within *Chapter 9 - Methodology 5_Phase II_Settings*). Allusion is also made to this element of the research design in the 'Focus Group' and 'RBF Analysis Sheets' sections of this chapter and in the chapter on *Models of Analysis*.

10.4.3 Interim Summary

In this section, I have introduced and discussed details regarding the Phase III participants, including how they came to be selected for Phase III. Again, within the confines of the thesis, it is not possible to include the 'thick description' (Ryle, 1949; Geertz, 1973) and complex deeper level reflections relating to participants that emerged; extended discussion relating to case study participants is available in Appendices 36-40. Because the project was participatory and emancipatory, I intended that participants would self-select as much as possible, but practically, I did sometimes have to steer this, though I always tried to do so in collaboration with participants. Equally, though I was alert to minimising variables in this complex study, it was not my deliberate intention to create an homogeneous group of participants for Phase III, though a relatively homogeneous group of families did emerge in terms of class (MRS, 2012), members, dwelling, ethnicity and language. The chapter now focuses on Phase III ethical and access considerations as well as voluntary informed consent.

10.5 Phase III Ethical and Access Considerations

In order to move forward with Phase III, I planned two visits to each family, by prior arrangement with them: a preliminary visit (1 hour) followed by a second visit (2 hours). For both visits, I asked that all the family members be present if possible so that ethical and practical issues could be addressed. This happened with all the families except Billy's: Billy's father did not engage in either meeting.

10.5.1 My Position

Throughout the study, my own positioning affected its ethical progress and the nature of the data co-construction. In Phase I, I had been a 'relative insider'

(Griffiths, 1998: 138): assuming the bias of being on the inside of the academy with the PEYERs, albeit with the view to adopting 'new' sociological principles (i.a. James *et al.*, 1998; Corsaro, 2005) for the study. In Phase II, I had entered each setting with the 'tacit knowledge' (Polanyi, 1958) of an 'insider's' *generic* understanding: I had been a child of 4-8 years old and an early years teacher in English settings and my own personal and unique memories of those experiences lent bias. Yet I had also entered each of the Phase II settings with an 'outsider's' perspective, derived from the layers of research I had read about, experienced and planned prior to entering each setting; together with my day job at the university, I had, in many ways, 'gone over to the academy' (Griffiths, 1998:137). Equally, every ECEC setting is different, with individual temporal, cultural and social dynamics, so notwithstanding my volunteering as a teaching assistant, I was never fully privy to each Phase II setting's distinct characteristics, as discussed. Furthermore, my doctoral agenda set me apart from the ECEC curriculum and pedagogy agenda of the children and the practitioners in each setting.

Nevertheless, whilst I attempted to maximise what insider status as I could in Phases I and II, I deliberately set out on Phase III to remain an 'outsider' throughout. Firstly this was because homes are 'private' spaces and I wanted to intrude as little as possible (Nilson and Rogers, 2005:351; Yee and Andrews, 2006). Equally, I wanted to minimise disruption caused to the families' dynamics in their home environments by my presence in order to construct the most authentic, naturalistic data possible (Mayo, 1933). Furthermore, as had been the case throughout the study, I wanted to empower participants to co-construct naturalistic data and I could see that primary carers could do this in partnership with children far more effectively than I in their own home environments where they were already empowered and I was not (Nilson and Rogers, 2005) Moreover, the time it would have taken to habituate the families to my presence in their homes before moving to data construction would have been far more than I had at my disposal (Houser, 2008). Finally, I would have been unlikely to have secured either consent from primary carers or ethical consent from my own institution for intruding on families' homes during the time period it would have taken to construct all the primary data myself (Wellington, 2001; Druml *et al.*, 2009). Therefore, in Phase III,

I set up the families and children to co-construct the primary data, with a view to joining the co-construction myself at the analysis stage.

10.5.2 First Home Visits

The first 'Home' visits were opportunities to explain the project in detail to the families, secure their consent and participation and ensure they had the necessary resources to participate in Phase III. Selected key points relating to these visits are presented in Tables 16 and 17 below:

Table 16 - Phase III Ethical and Access Considerations for each home	
Action	Purpose
Potential Phase III 'Home' children and families discussed and agreed with Phase II Setting practitioners. Decisions also based on Phase II data co-construction.	Triangulation ensured Phase III participant selection was as ethically and practically secure as possible
Letter generated, asking Phase III 'Home' children's parents for an initial visit to their home to explain the project (Appendix 31)	Parental written, informed, voluntary consent for me to visit the family at home (Alderson, 2005).
University headed paper used and I included my qualifications	Reassurance provided that the study was <i>bona fide</i> .
Phase II Setting heads' consent secured to send out letters to Phase III parents	Courtesy, empowering headteachers in the research process and to ensure that this letters would not conflict with others the school may be sending
Completed, signed consent forms for Phase III initial visit returned to me via school	Arrangement of initial home visit
Initial meetings with 'Home' children and their families at home; I was mindful that I was a guest (Yee and Andrews, 2006). introduction to myself, the project and the potential for the family's participation at home explained. I emphasised the importance of naturalistic data (Pellegrini et al., 2004) and minimal disruption to the families' homes lives. Interactive social discussion and relationship building. (NB All family members were present at these meetings, except Billy's father who was at work)	Practical: information sharing Ethical: consent would be informed; families empowered and feeling comfortable in home environments (Nilson and Rogers, 2005); trust building ahead of participation.

Table 17 - Phase III Voluntary, Written, Informed Consent process with each 'Home' Family	
Action during the initial 'Home' visits	Purpose
Additional written information about Phase III provided for parents (Appendix 32); Parent Analysis Forms introduced, containing research behaviours that had emerged from data already processed (Appendices 41, 42 for Ash Setting families / Appendix 44 for Beech and Cherry Setting families – see below*)	Ethical: consent would be 'informed' (BERA, 2004)
Phase III written, informed consent secured from parents (Appendix 33). Billy's Father signed the form after the meeting	Ethical protocol observed (BERA, 2004)
Voluntary informed consent sought from 'Home' children.	Ethical protocol observed (BERA, 2004)
'Home' children's prior participation in Phase II ensured their familiarity with the project and with me. Phase III location and parent participation secured 'Home' children's confidence.	Key features securing children's participation and relative empowerment in the research process
'Home' children knew their parents well and also knew me, but their parents and I did not know each other at the initial Phase III meeting	Children located as relatively powerful in the Phase III research process
I explained the project to children and how they could participate at home, using language matched to their understanding. I gave children time to ask their own questions and / or comment.	Ethical: consent would be 'informed' (BERA, 2004)
I provided 'Home' children with their own named folders, containing paper for 'notes' / pictures and 'Child Analysis Forms' (Appendix 43).	Children located as relatively powerful and autonomous in the Phase III research process.
I asked children (including siblings) verbally if they would like to participate. All children agreed verbally.	Ethical protocol observed (BERA, 2004)
I asked children to complete and sign a consent form adapted with graphical images for participating in Phase III (Appendix 34). All five 'Home' children completed Appendix 34 at the initial Phase III meetings. All siblings completed forms.	Ethical: consent would be 'informed' (BERA, 2004) and secure: a) form was designed to be accessible to children b) children consented in two modes
I explained that if any other children were involved in the study, the voluntary, written, informed consent of their primary carers, then their children, would need to be secured before they could take part.	a) Ethical protocol observed (BERA, 2011) b) Ethical: consent would be 'informed' (BERA, 2011) c) Reification of families' participation and relative empowerment in the research process

Examples of Home Data - Parent Analysis Forms (see Table 17*)

VISIT 1 – Qualitative Research activity Matrix – Autumn 08 [parental completion] (Appendix 41)								
Day 1	2	3	4	5	6	7	[circle one]	
							Day no.	What was the activity? / Was anyone else involved? / What was the context? / What happened? / Why was it interesting? Other?
1. Investigate - please describe								
2. Plans and carries out OWN investigation -please describe								
3. Gains new insights from investigation - what and how?								
4. Invents or generates something new - what and how?								
5. Engages in enquiry with others - who?								
6. The enquiry is important to someone - who?								
7. Invents something or has an idea that makes life better for someone - what?								
8. Is demonstrably curious - how is this demonstrated?								
9. Talks about findings - what is said? In what contexts?								

Parents' Home Data Collection (3 rd model): Appendix 44							
Date.....		Time.....		Place.....			
The activity ^{xxxxx} engaged in was:							
Other people involved were:							
Tick ✓ as many as are appropriate and make any additional notes on the back of the sheet. Did ^{xxxxx} :							
1. Seek a solution?		11. Develop a better understanding?		21. Investigate?		31. Believe what he was doing was good?	
2. Choose to explore?		12. Increase his knowledge?		22. Enquire?		32. Focus on his chosen activity?	
3. Explore with an aim?		13. Find a solution		23. Test and check?		33. Reflect on the process?	
4. Explore without any aim?		14. Go beyond instinct?		24. Work systematically?		34. Reflect on the findings?	
5. Explore with an aim that changed?		15. Gather data?		25. Remain objective?		35. Do no harm?	
6. Explore with a fine focus?		16. Build on others' work?		26. Base decisions on evidence?		36. Participate with others?	
7. Explore in a broad way?		17. Take account of the context?		27. Use processes fit for purpose?		37. Communicate the process to others	
8. Try to find out <u>why</u> something happens?		18. Plan?		28. Replicate his process?		38. Communicate his findings to others?	
9. Try to find out <u>how</u> something happens?		19. Conceptualise?		29. Replicate his findings?		39. Make links?	
10. Examine a problem?		20. Question?		30. Use and apply findings in a different context?		40.	
							?

Despite being rather laborious, with its numerous stages, this ethical model for gaining access and voluntary, written, informed consent in Annie's 'home' context proved successful. It also gave me an opportunity to be able to build families' knowledge and trust in YCaR Phase III sufficiently that they agreed to participate actively and give their consent to the 'Home' children participating actively. Additionally, whilst an opportunity to gain voluntary, written, informed consent for the family's participation in Phase III, the initial meeting was also an opportunity to explain practical arrangements for the project and to ensure the family members

understood their roles in the study and how to use the camcorder, camera and analysis sheets.

10.5.3 Second Home Visits

I deliberately left the schedule for the second visits as unstructured as possible to empower the families. I invited families and children to share their data that they wished to share with me in whatever ways they wished to share it and allowed up to two hours for them to do so, though not all took the full two hours. I provided a very loosely structured schedule: purely focused on data the families had co-constructed, what they thought it might mean in terms of children researching (Appendices 41, 42, 44), as well as any issues they had encountered.

I had in mind these might be interview conversations (Charmaz, 2006) but all but Billy's family's second visits became focus groups (Lofland and Lofland, 1995) with all family members joining in. Each of the second home visits proved to be a rich, 'thick' combination of dissemination, analysis and additional primary data. I audio-taped these sessions and transcribed them later.

10.6 Phase III Methods and their Rationales

This final *Methodology* chapter now turns to the methods adopted for Phase III that were, similarly to Phase II, many and various, reflecting the complexities of 'real world' enquiry and resonant of the Mosaic Approach (Clark and Moss, 2001; 2011). Methods were either selected in advance or identified as they emerged, for the same reasons as for Phase II. Because most were the same as those used for Phase II, it can be assumed that each method's rationale and implementation aligned with those in Phase II, unless otherwise stated or additional notes are added.

10.6.1 Phase III Field notes

For Phase III, I invited primary carers and children to contribute field notes and I provided plain sheets for them to do so. These were not taken up though a number of the adults included brief one-line notes on their analysis sheets (Appendices 41, 42, 44).

10.6.2 Phase III Interview Conversations

Although these were intended for the second home visits in Phase III, only two families engaged with me in structured interview conversations. This worked successfully with Family B, because Billy's mother set up a one-to-one discussion with me at their home, where Billy's father was not present and Billy did not join until half-way through. Equally, although all Family C were present for the second home visit, they gave Gemma the space and time to share and discuss the data she had constructed, including particularly photographs, video footage and artefacts in an interview conversation before they joined in and this developed into a focus group. However, there was also evidence of interview conversations in the data the families had constructed. For example, Gemma engaged in a lengthy interview conversation with her Grandmother while baking (Ch-G Home Observation 5: *Kitchen*) and Martin did the same one bedtime with his mother (Ch-M Home Observation 12: *Bedtime Q + A*).

10.6.3 Phase III Observations

In Phase III, families and children constructed observations which they either recorded on analysis sheets (Appendices 34, 41, 42, 44) or as video footage or photographs. Some also used artefacts to support these observations. Home observations tended to be either narrative or snapshot (Sharman *et al.*, 2007), and were generally participant (Lofland and Lofland, 1995). Examples of observations include Gemma 'Making Jewellery' (Ch-G Home Observation 22) which was snapshot and undertaken by Gemma's mother and Annie 'Cooking an Omelette in the Kitchen' (Ch-A Home Observation 2) which was an unstructured narrative, undertaken on video by Annie's mother.

10.6.4 Phase III Focus Groups

In Phase III, focus groups characterised the second home visits with Families A, D and E and also some of Family C's second home visit. As discussed above, I provided a loose schedule but these occasions were very much the families' events to discuss with me the data they had been constructing. Additionally, as was the case in Phase II, a focus group of five PEYERs who had been involved in Phase I provided a broad template of opinions from some participants that I was able to take account of when I conducted subsequent analysis across all the footage. This

was conducted in exactly the same way as it was for Phase II (see *Methodology 5 - Phase II: Settings*). All the focus groups were audio recorded and transcribed.

10.6.5 Phase III Informal Discussions

Please refer to the previous chapter for discussion of informal discussions as a method. In Phase III, informal discussions tended to be scattered among other methods and they enabled me to piece together some of the 'tacit knowledge' (Polanyi, 1958) that each family shared and from which I was excluded. For example, within 'Ch-M Home Observation 3', Martin's mother was preparing to leave their house one Saturday and discussion ensues, while Martin continues filming throughout. Here, a domestic scene is revealed, indicating something of Family E's dynamics and relationships as well as Martin's capacity to focus on his selected task:

Figure 3: Family E Informal Discussion
<u>Ch-M Home Observation 3 (HVF E3-11i - HVF E3-15iv)</u> (In the conservatory at Family E's home) Martin: 'I'm recording!' MTHR-E>FTHR-E: 'There's a really.....pizza in the fridge for you.' FTHR-E>MTHR-E: 'Right - lovely.' SIS-E role-playing in toy kitchen. Turns to FTHR-E: 'Daddy have you been sitting on my lunch?' FTHR-E>SIS-E: 'Why would I sit on your lunch?' SIS-E>FTHR-E: 'Cos, 'cos, 'cos...' MTHR-E: 'Sarah's here - so I'll see you later.' FTHR-E: 'Bye! Bye!' SIS-E: 'Bye' FTHR-E>MTHR-E: 'All right then - have a nice time.' MTHR-E: 'Love you.' SIS-E>FTHR-E: 'Are you sitting on my lunch?' FTHR-E>MTHR-E: 'Love you! Bye! Bye!' MTHR-E: 'Bye kids!' Martin: 'Bye!' Continues filming

10.6.6 Phase III Children's Artefacts

A range of Phase III children's artefacts are presented in Appendices 26 and 60. In Phase III, Billy and Gemma presented with constructions and paintings they had made, while all children presented with toys they liked to play with and other objects they interacted with. These artefacts tended to triangulate other data provided in observations, rather than constituting 'stand alone' data.

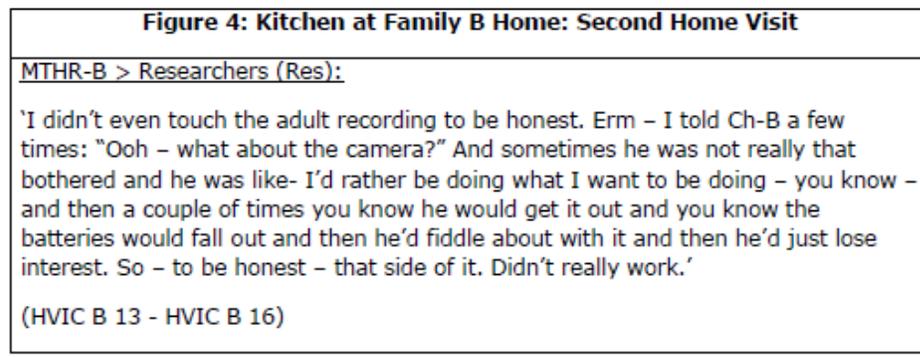
10.6.7 Phase III Photographs

In Phase III, there were some problems with this method. Firstly, the home focus children tended to favour the camcorders in preference to the digital cameras.

Secondly, even when the families did provide photographs, some technical problems occurred which led to loss of data.

10.6.8 Phase III Video recording

In Phase III, all the families, apart from Billy's, provided video footage, taken by children and adults. This provided a major source of useful primary data that could be reflected on and analysed by different groups, including the families, myself and PEYER colleagues. Billy's mother provided an explanation regarding their lack of engagement with cameras and camcorders:



10.6.9 Phase III Audio recording

In Phase III, all five second visits to families were audio recorded then transcribed.

10.6.10 Phase III RBF Analysis Sheets

For Phase III, children had one type of analysis sheet, that was amended to enable them to access it (Appendix 43); several children did use these, albeit some primary carers scribed. Primary carers had three different sheets: Ash Setting primary carers completed Appendices 41 and 42, while, following analysis of Ash Setting data collection, Beech and Cherry Setting primary carers completed Appendix 44. PEYERs engaging in the focus group analysis of Annie's home video footage completed the same RBF as the one they used for the parallel Phase II activity: RBF1 (Appendix 28).

10.6.11 Interim Summary

This section has considered the multi-modal methods that were adopted to co-construct data with children and their families at home as well as PEYERs in Phase III. Some elicited primary data and some secondary data:

Table 18: Phase III Multi-modal Methods (Clark and Moss, 2001; 2011)		Interview Conversations
Observations	Focus Groups	Informal discussions
Field notes	Children's artefacts	Photographs
Video recordings	Audio recordings	Research Behaviour Framework (RBF) Analysis Sheets

10.7 Summary

In this chapter, I have provided an exposition of the Phase III methods and methodological issues, covering discussion of some of the literature exemplifying 'Homes' as locations for enquiry, providing a basis for methodological decisions made during for Phase III of the present study in respect of piloting issues, participants, specific ethical and access considerations and the methods that were adopted, together with my reasons for using them. I have discussed briefly how data were co-constructed with Phase III participants who included PEYERs as well as five children and their families at home: Annie and Family A, Billy and Family B, Gemma and Family C, Harry and Family D and Martin and Family E. Each of these was an individual case study (Bassey, 1999); together, the data emerging from them formed the Phase III case study series.

This marks the end of the Methodology chapters in the thesis which now turns its focus to *Chapter 11: Models of Analysis*.

Chapter 11:

Models of Analysis and Interpretation

11.1 Introduction

This chapter considers the nature of analysis and interpretation in research and their rationales before introducing and briefly outlining the analysis and interpretation models adopted for the present study, which were conducted in two sections: Phase I, concerned predominantly with the academy's views of research and Phases II and III, concerned predominantly with young children's behaviours at home and in their settings. As is common to grounded theory approaches, the analysis and interpretation were significant elements; because this study was concerned with maintaining participatory, emancipatory and inductive approaches as far as was possible, and was constructed of four methodologies, the processes involved in analysis and interpretation were necessarily complex. However, for reasons of pragmatism and clarity, this chapter provides a brief overview of the processes, while directing the reader to Appendices 49 and 50, *inter alia*, for 'thick description' (Ryle, 1968) that is congruent with the methodological nature of the study.

11.2 Analysis: what is it and why do it?

Miles and Huberman (1994) regard analysis as a feature that elicits 'valid meaning' from data during the research process (p.1); whilst validity is regarded as 'a requirement' for research, it presents in different ways, dependent on how a given enquiry is conducted (Cohen *et al.*, 2007: 133). In regard to quantitative data, Oppenheim (1992) posits that 'any accumulation of measures will require some form of management and interpretation' and Cohen *et al.* (2007) emphasise that a selected instrument should be seen to 'measure what it purports to measure' in quantitative enquiry (p.133). Conversely, in qualitative enquiry, validity is secured when participants' perspectives are engaged, respected and represented as honestly as possible through models characterised by rich detail and depth (Winter, 2000). Lofland and Lofland (1995) argue that qualitative analysis is 'conceived as an emergent product of a process of gradual induction...the fieldworkers' derivative ordering of the data' (p.181), while Bogdan and Bicklen (2007) describe qualitative analysis as 'systematically searching and arranging' data, involving 'organising them, breaking them into manageable units, coding them, synthesising them and

searching for patterns' (p.159). Miles and Huberman (1994) ask: 'What methods of analysis can we use that are practical, communicable, and... will give us knowledge that that we and others can rely on' (p.1) and, in relation to the present study, this chapter attempts to address this question, with support from relevant appendices.

11.3 Interpretation: what is it and why do it?

It may be helpful at this point to distinguish analysis from interpretation: whilst analysis focuses on the operations of marshalling data (Bogdan and Bicklen (2007), interpretation is regarded as a step within the analysis procedure that attributes meaning to the data (Creswell, 2008). Interpretation elicits 'lessons to be learned' (Lincoln and Guba, 1985:362). A wealth of literature informs our understanding of 'hermeneutics': while empiricists and logical positivists seek to reduce its analytic value by aligning it as closely as possible to purely sensational information (Scruton, 2001; Ayer, 1940), Ryle's distinction between a 'blink' and a 'wink' (1968) illustrates the role that interpretation plays in human understanding of human action. Gadamer (2003) suggests that hermeneutics is 'not merely a concern of science, but obviously belongs to the human experience of the world in general' (p.xxi).

Creswell (2008) emphasises that interpretation is so important to qualitative research that the terms 'interpretive research' and 'qualitative research' are often used interchangeably. Thomas (1993) describes interpretation as a 'defamiliarisation process' during which 'we revise what we have seen and translate it into something new' (p.43), whereas Bogdan and Bicklen (2007) see interpretation as explaining the data that have emerged '...in relation to theory, other scholarship, and action, as well as showing why your findings are important and making them understandable' (p.157); in short, interpretation is the space in which sense and meaning are given to findings (Creswell, 2008). However, how this is done seems to depend on the approach used: Lincoln and Guba (1985) emphasise that interpretation of qualitative data provides 'working hypotheses' relevant to an emergent understanding of the research site, rather than evidence of 'what works' universally (p.362), whereas in quantitative analysis, generalisability is regarded as achievable and desirable so interpretation tends, therefore, to be attempted through access to large sampling cohorts and manipulation of numerical

data (Oppenheim, 1992). Equally, because interpretation, understanding and meaning in qualitative research are culturally – and individually – situated, ‘thick description’ of the study site and participants, as well as the revelation of personal assumptions, are acknowledged as key tenets of interpretivist enquiry (Geertz, 1973: 6; Hatch, 1995) and they characterise the present study.

11.4 Analysis and Interpretation Models adopted for the YCaR Study

In regard to the present study, as reported in the methodology chapters, I had originally intended some quantitative analysis from the responses to the Phase I survey, but the survey outcomes quickly indicated that this was unlikely to be fruitful. Therefore, other than the earliest stage, this enquiry was characterised by qualitative analysis and interpretation which were interwoven into its methodology. Primary data were analysed and from that process emerged ‘meta-data’ which was itself analysed. Knudson-Martin and Silverstein (2009) posit that where multiple perspectives inform ‘meta-data analysis’, new provocations and ideas may develop which enrich interpretations of primary data findings. Together, the present study’s primary data and meta-data collection, analysis and interpretation formed its data co-construction. In this ‘recursive’ process, analysis and interpretation were as participatory, emancipatory and inductive as possible, achieved by engaging participants as much as possible and imprinting their perspectives on the data, meta-data, analysis and interpretation. As data and meta-data were co-constructed with participants and codes and categories emerged, these were fed into subsequent stages and phases of the enquiry and decided new participants, research instruments and focus. Subsequent to the data co-construction, I discovered that this model resonates with research developed by Emmett and Rolfe (2009).

However, whilst a truly democratic ideal would have been for participants to analyse and interpret throughout the study as I did, this aim was neither realistic nor ethically sound: the project was conducted according to BERA (2004), which states that the researcher ‘must...seek to minimise the impact of their research on the normal working and workloads of participants’ (p.8). Key then, was the balancing of participation with manageability and, as Clark and Moss (2011) point out, analysis and interpretation are time consuming activities. To resolve this, I

engaged with 'symbolic interactionism' (Blumer, 1969). Through social interaction with other participants and familiarity with their contexts, I gained understanding of the thoughts and meanings that they communicated in their actions and words via primary data or meta-data. I endeavoured to respect these communications as 'guiding ideals' which I then 'handled...and modified through an interpretative process' (Blumer, 1969:2), initially with other participants, then alone, once it would have become too burdensome to ask participants to continue. Glaser and Strauss's development of grounded theory (1967) was influenced strongly by Blumer's work (1939; 1940; 1964), including symbolic interactionism, so this approach to managing the analysis and interpretation for the present study was congruent with its selected methodology.

Equally, bearing in mind Miles and Huberman's three criteria for selecting analysis methods (practical, communicable and reliable) (1994), features of five models of analysis and interpretation were adopted and adapted for the YCaR study. The first four reflect the study's 'jigsaw methodology': Constructivist Grounded Theory (CGT) analysis and interpretation (Charmaz, 2006) was the major analysis and interpretation model adopted, while particular features of Critical Ethnography (CE), Mosaic Approach and Case Study analysis and interpretation were also selected for specific purposes (Carspecken, 1996; Clark and Moss, 2001; Bassey, 1999). The fifth and final analysis and interpretation model adopted was Nominal Grouping Technique (NGT) (Delbecq and VandeVen, 1971); this served both practical and ethical purposes which are explained later. The nature and applications of each of these models are now outlined briefly.

11.4.1 Constructivist Grounded Theory (CGT) Analysis and Interpretation

Olesen (2007) notes that grounded theory approaches tend to focus heavily on analysis rather than data collection, and so it is with CGT (Charmaz, 2006). As outlined, qualities inherent in CGT analysis are congruent with the participatory, emancipatory and inductive approaches that guide the present study since it is grounded in the data co-constructed with participants. In the present study, every contribution made by Phase I participants was used to inform the study's subsequent content, research instruments and participant pool. For example, the sensitising concepts that informed the start of the study emerged from the pre-

study participants. During the present study, a Phase I participant then suggested that *'Interviews are good idea for open questions and for deriving quality data'* (A2) so I moved from a survey to interview conversations. Also, once Phase I participants had advocated: *'This research should empower children to communicate their needs and wants'* (H38) and *'I'd ask teachers, parents, end users (B6) ... I'd include children as end users de facto – they are part of the process – they should have more than a nod'* (B8, B9), I ensured Phases II and III included children, parents and teachers as participants and that the process – and content – of the study attempted to find ways to empower children in communicating *'their needs and wants'* (H38), each an example of theoretical sampling (Charmaz, 2006). Furthermore, Phase I participant contributions were combined, conflated and distilled to elicit new categories that informed the conduct, analysis and interpretation of Phase II, then Phase II contributions were similarly utilised to develop new categories that subsequently informed the conduct, analysis and interpretation of Phase III.

Similarly to grounded theory (GT), CGT analysis generally follows a basic process (Charmaz, 2006) (Appendix 48), involving the *'creation of conceptual frameworks...through building inductive analysis from the data'* (Charmaz, 2006: 187). However, CGT constructs *'plausible accounts'*, rather than the objectively grounded theories that characterise other GT approaches (Charmaz, 2006: 132). Equally, CGT analysis acknowledges the complexities that emerge from recognition of *'diverse local worlds and multiple realities and addresses how people's actions affect their local and larger social worlds'* (Charmaz, 2006: 132). Moreover, CGT analysis is often socially constructed in ways that reflect the complex processes of knowledge production, embodying *'time, space, culture and situation'* (Hildenbrand, 2007: 556). For the YCaR study, the basic GT process (Appendix 48) was adapted to become the main analysis model for Phase I (Appendix 49) and Phases II and III (Appendix 50) in an attempt to manage and re-use the multiple layers of data emerging from – and within – the different phases and their case studies.

11.4.2 Critical Ethnography (CE) Analysis and Interpretation

Empowering marginalised participants is a key rationale for critical ethnography (Carspecken, 1996) and analysis and interpretation are particularly important in its

uses of 'cultural critique' to 'focus on oppression, conflict, struggle, power, and praxis (Schwandt 1997: 22). Thomas (1993) emphasises the role of interpretation as a key tool that is used in CE to challenge cultural norms and suggest new constructions of cultural totems; he also advocates dialogue as participatory tool in CE. Additionally, Thomas (1993) suggests that CE interpretation requires continual reflection – 'repeated thinking' – about interactions and involvement with participants (p.46). These were considerations at each step of the present study. For example its original aim was to conceptualise ways in which research conducted by young children might be recognised, in a context where young children are excluded from – and by - the academy (Redmond, 2008b). Equally, rather than data being analysed and interpreted only by me as researcher once it was all 'gathered,' data were co-constructed at every stage and phase throughout the enquiry, involving participants as much as was manageably possible for us all.

Carspecken (1996) sees analysis and interpretation as a partially participatory process in CE. Firstly, Carspecken suggests that the transcription of participants' actions into language, lifts the participants' actions to meaningful reification and new 'awareness' that contribute to the research, even if this is done solely by the researcher; Carspecken (1996) terms this 'reconstructive analysis'. Secondly, as does Thomas (1993), Carspecken (1996) emphasises the role of dialogue with participants in CE analysis as a means of sharing power. Both reconstructive analysis and dialogue were adopted for the analysis and interpretation in the present study. However, the precise nature of their implementation differed from Carspecken's five-stage CE formula. Firstly, Carspecken's initial stage is primary data collection which he advocates should only be undertaken by the researcher. Because the present study was participatory and emancipatory, it was important that participants were involved in as many ways as could be managed so they contributed to data collection. This aspect developed particularly strongly in Phase III of the present study, when participants collected almost all the primary data themselves in their home settings. Secondly, participants contributed to reconstructive analysis by observing primary data such as video footage and photographs and commenting on it later on audio tape, as well as making written notes and completing analysis sheets in relation to observations of themselves and others. Thirdly, although Carspecken recommends that his 'dialogic data

generation' stage should be conducted in formal interviews and focus groups after all the primary data have been gathered, in this grounded study, data were constantly analysed and interpreted in participatory dialogue and a variety of techniques were used, including informal discussions, analysis sheets, photographs and artefacts, as well as more formal interview conversations and focus groups.

Equally, in the present study, rather than emerging at a late stage, as Carspecken advises, relationships between each of the sites where the study was located and other sites were developed throughout the study in the process of constant comparison common to grounded theory: 'A method of analysis that generates successively more abstract concepts and theories through inductive processes of comparing data with data, data with category, category with category and category with concept' (Bryant and Charmaz, 2007: 607). This process was focused completely on participants' contributions. Furthermore, the uses of these relationships to inform findings evolved as the study progressed; for example, a 'research behaviour framework' emerged from Phase I participants' views of research, was then applied to new data and was developed and redeveloped for further applications later in the enquiry, all in collaboration and / or consultation with participants (see Appendices 49 and 50).

In these ways, the present study employed CE analysis and interpretation techniques outlined by Carspecken (1996) but adapted them in an attempt to confer the greatest possible power in the research process to participants, whilst protecting them from burdensome bureaucracy (BERA, 2004). The issue of protecting participants from too much burden in the research process is addressed in Appendix 50.

11.4.3 Analysis and Interpretation Elements of the Mosaic Approach

Inasmuch as dialogue and reflection are key elements of CE analysis and interpretation, they are also characteristics of analysis and interpretation in the Mosaic Approach (MA), where they are framed through 'child conferencing' and 'listening' to children (Clark and Moss, 2001; 2011). Child conferencing is an 'active child-focused' way in which adults engage in dialogue with children to elicit their views (Clark and Moss, 2011: 18) and it is regarded as a way for children to reflect

on their preferences, experiences and feelings (Clark and Moss, 2011). In the MA, Clark and Moss (2011) claim that listening to children is regarded as 'important' (p.58) and that child conferencing is a way in which adults might convey that they 'believe they have something to learn from children' (Clark and Moss, 2011: 63) and 'value children's opinions' (p.66). Equally, Clark and Moss (2011) suggest that listening to children in a context of authentic participation is a 'way of discussing meanings' (p.65). However, although child conferencing allows a space for children to contribute in ways they consider important, for example by drawing, it is directed and structured by adults, so that children's opportunities for reflection and interpretation are dependent on and potentially limited by adults' influence and control. Despite attempts to maximise children's opportunities for analysis and interpretation through dialogue and reflection in the present study, the issue of adult hegemony was not wholly resolved: children only engaged because adults had consented to them doing so, the original study was devised by an adult, not children, and in children's settings and homes, the extent to which children had autonomy seemed to be decided by adults.

11.4.4 Analysis and Interpretation Elements of Case Study

Analytic statements (Bassey, 1999; Yin, 2012) are regarded as a key tool for analysis and interpretation in case study: Bassey (1999) describes them as a 'useful way of handling and trying to make sense of the data'. Analytic statements draw on raw data to develop 'tentative' or 'working hypotheses' (Bassey, 1999:71; Lincoln and Guba, 1985: 362) and may be developed in stages, by attempting to view the data through different lenses, for example, an exploration of different participants' views of the data or a view of an event from different points in time (Bassey, 1999). The model of 'analytic statements is congruent with CGT's 'codes' which 'capture patterns and themes and cluster them under an evocative title' (Lempert, 2007: 253) and memos: '...narrated records of a theorist's analytical conversations with him/herself' that 'provide particular ways of knowing' (Lempert, 2007: 247). The present study attempted to view data through the different lenses of various participants by engaging participating PEYERs, practitioners, parents and children to review primary data and to attribute their own meanings to that data. Equally, much of this was conducted in an iterative manner, common to both case

study analytic statement-making (Bassey, 1999), as well as coding and memo-writing in grounded theory (Hesse-Biber, 2007).

11.4.5 Nominal Grouping Technique (NGT): Supporting decision-making in analysis and interpretation

A significant amount of data and meta-data emerged from the fieldwork and this created a practical problem: it was too much to be analysed and interpreted in the context of this doctoral study. Therefore, a decision had to be made regarding which research behaviours should be prioritised for analysis and interpretation. Given the participatory, emancipatory, inductive approach of the study, it was ethically appropriate to seek participants' views to support this decision and because the PEYERs originally identified the research behaviours, engaging them for this activity was consistent with the overall study. The use of Nominal Grouping Technique (NGT) (Delbecq and VandeVen, 1971) presented a solution that answered both practical and ethical criteria. The NGT provided a structure for collecting and organising the thoughts of PEYERs and ordering them so that a shared, ordered response emerged which also maintained individuals' views (Sample, 1984; Cohen *et al.*, 2007).

Participating PEYERs voted for the research behaviours they considered the most important to reveal the research behaviours that would 'make the most analytical sense to (use to) categorise the data incisively and completely' (Charmaz, 2006: 57). NGT provided a vehicle for achieving a form of 'focused coding' which '...means using the most significant...codes to sift through large amounts of data (Charmaz, 2006: 57). Once the NGT was complete, it was possible to progress the study to raising four research behaviours that were selected as 'most important' to four major categories for which data could be analysed and interpreted 'incisively and completely' (Charmaz, 2006:58). More detail regarding the NGT is provided in Appendix 50.

11.5 Analysis and Interpretation in Practice: Phases I, II, III

This chapter has provided discussion and rationale for the ways in which analysis and interpretation of data were conducted for the present study. These processes were predominantly shaped by Charmaz's constructivist grounded theory model

(2006) but were also informed by selected elements advocated for analysis and interpretation in critical ethnography (Carspecken, 1996), the Mosaic Approach (Clark and Moss, 2001; 2011) and case study (Bassey, 1999; Yin, 2012).

In order to communicate concisely how these procedures were conducted, the final section in this chapter consists of a short overview of the study's analysis and interpretation processes, presented in Tables 19, 20 and 21 below. 'Thick description' and exemplification of the analysis and interpretation procedures adopted for each phase are provided in Appendices 49 and 50.

Table 19: Overview of Phase I Analysis and Interpretation Procedures
Pre-Analysis: Opening research aim, opening questions, sensitising concepts
Phase I, Stage 1 Analysis: 1a – Transcribe primary data (interview conversations and focus group interview) 1b – Initial coding 1c – Tabulate primary data 1d – Initial memos: raising codes to tentative substantive codes
Phase I, Stage 2 Analysis: 'Focused coding' to 'synthesise and explain' the data further (Charmaz, 2006: 57); categories developed.
Phase I, Stage 3 Analysis: Developing subcategories - Stage 2 categories were interrogated further to secure rigour. Underpinning ideas and relationships explored within and between the categories, as suggested by the codes themselves. Further constant comparison (Bryant and Charmaz, 2007) elicited a range of subcategories for each of the Stage 2 categories.
Phase I, Stage 4 Analysis: Developing theoretical sampling and questions for next steps
Phase 1, Stage 5 Analysis: Refining questions for next steps. In relation to each of the categories, ONE question was identified.
Phase I, Stage 6 Analysis: Further constant comparison (Bryant and Charmaz, 2007) until 1217 codes (units of meaning) were reduced to 106 codes. During this process, 12 new categories replaced previous tentative categories.

**Table 20: OVERVIEW:
Phase II and Phase III ANALYSIS AND INTERPRETATION PROCESS
PHASE II = Children in their Settings
PHASE III – Children in their Homes**

From Phase I: Research aim, research questions, Research Behaviour Framework (RBF) 1

PHASES II and III

Stage 1: Phase II Ash Setting Primary Data were captured.

Stage 2: Participant Analysis and Interpretation of Phase II Ash Setting Primary Data

- a) Ash Setting Key Focus Children analysing and interpreting Data of their Activity:
- b) Ash Setting practitioners discussing research
- c) Ash Setting practitioners analysing and interpreting Ash Setting Key Focus Children's Data:
- d) PEYERs analysing and interpreting Annie's Setting Data:

Stage 3: Participant Analysis and Interpretation of Phase III Primary Data: Family A and Family B

- a) Family A analysing and interpreting Family A Data
- b) PEYERs analysing and interpreting Annie's Home Data
- c) Family B analysing and interpreting Family B Data

Stage 4: Continuing the Phase II and Phase III Ash Setting Analysis and Interpretation.

Stage 5: Phase II Beech Setting Primary Data were captured.

Stage 6: Participant Analysis and Interpretation of Phase II Beech Setting Primary Data

- a) Beech Setting Children analysing and interpreting Data of their Activity:
- b) Beech Setting practitioners discussing research
- c) Beech Setting practitioners analysing and interpreting Beech Setting Key Focus Children's Data:

Stage 7: Participant Analysis and interpretation of Phase III Primary Data: Family C and Family D

- a) Family C analysing and interpreting Family C Data
- b) Family D analysing and interpreting Family D Data

Stage 8: Continuing the Phase II and Phase III Beech Setting Analysis and Interpretation.

Stage 9: Capturing, Analysing and Interpreting Phase II Cherry Setting Primary Data.

- a) Capturing Cherry Setting Data
- b) Analysing and Interpreting Phase II Cherry Setting Primary Data
- c) Cherry Setting practitioners discussing research

Stage 10: Participant Analysis and Interpretation of Phase III Primary Data: Family E

Stage 11: Continuing the Phase II and Phase III Cherry Setting Analysis and Interpretation.

Stage 12: Completing the Analysis and Interpretation.

- a) Selecting and deselecting observations
- b) The procedure for completing the analysis and interpretation
- c) Constant comparison
- d) Initial Coding
- e) Focused Coding through Nominal Grouping Technique
- f) Categories
- g) Axial coding
- h) Theoretical coding
- i) Memo-writing
- j) Table showing the Recursive Process of Completing Phase II and III Analysis and Interpretation*

Table 21: Overview: The Recursive Process of Completing Phase II and III Analysis and Interpretation

NB: The processes outlined below were not applied in a linear way; they interspersed data collection and took on a recursive pattern, being adopted and reapplied as indicated by the data.

Transcribe data and apply numerical codes					
Constructivist Grounded Theory Analysis and Interpretation Methods (Charmaz, 2006)		Critical Ethnography Analysis and Interpretation Methods (Carspecken, 1996)		Mosaic Approach (Clark and Moss, 2001)	Case Study (Bassey, 1999; Yin, 2012)
<p><u>Early Memo-writing:</u> To explore and fill out qualitative codes' and 'direct and focus' further data construction (Charmaz, 2006: 80) and I tended to apply 'early memos' on first reading of transcriptions of observations, interview conversations and focus groups, purely derived from my immediate thoughts as units of meaning and passages suggested points to me.</p>	Constant comparison	<p><u>Preliminary reconstructive analysis:</u> I wrote the early memos but they were informed by data from participants as well as participants' analytic contributions in the form of comments on audio tape, written notes and analysis sheets in relation to observations of themselves and others.</p>	'Repeated thinking' (Thomas, 1993: 46).	'Child conferencing'/'listening' (Clark and Moss, 2001)	'Analytic statements' Bassey (1999; Yin, 2012)
<p><u>Initial Coding:</u> Research behaviours identified by PEYERs were linked to each transcribed unit of meaning, 'remain(ing) open to what the material suggests and stay(ing) close to it, (keeping) codes short, simple, active and analytic' (Charmaz, 2006:50).</p>	Constant comparison	<p><u>Reconstructive analysis</u> Participants contributed analytic contributions in the form of comments on audio tape, written notes and analysis sheets in relation to observations of themselves and others. <u>Dialogic data generation</u> Data were analysed and interpreted in participatory dialogue using a variety of techniques, including informal discussions, analysis sheets, photographs and artefacts, as well as more formal interview conversations and focus groups</p>	'Repeated thinking' (Thomas, 1993: 46).	'Child conferencing'/'listening' (Clark and Moss, 2001)	'Analytic statements' Bassey (1999; Yin, 2012)

<p><u>Focused Coding through Nominal Grouping Technique:</u> Making decisions about how to reduce the research behaviours to a manageable number by prioritising those which would 'make the most analytical sense to categorise data incisively and completely' (Charmaz, 2006: 57). Four research behaviours were selected.</p>	Constant comparison	<p><u>Dialogic data generation</u> Data were analysed and interpreted in participatory dialogue Nominal Grouping Technique</p>	'Repeated thinking' (Thomas, 1993: 46).	'Listening' (Clark and Moss, 2001)	'Analytic statements' Bassegy (1999; Yin, 2012)
<p><u>Categories:</u> The four selected research behaviours were elevated to categories: 'the analytic step in GT of selecting certain codes as having overriding significance' (Bryant and Charmaz, 2007: 604).</p>	Constant comparison	<p><u>Discovering system relations:</u> Preparation for discovering system relations</p>	'Repeated thinking' (Thomas, 1993: 46).	'Listening' (Clark and Moss, 2001)	'Analytic statements' Bassegy (1999; Yin, 2012)
<p><u>Axial coding:</u> Coding to 'relate categories to subcategories and specify the properties and dimensions of each category' (Charmaz, 2006:57). I then interrogated each sub-category to find out as much as possible about it and its place in the category.</p>	Constant comparison	<p><u>Discovering system relations</u> Examining the relationships between the 'site of focused interest and other specific...sites bearing some relation to it' (Carspecken, 1996:42)</p>	'Repeated thinking' (Thomas, 1993: 46).	'Listening' (Clark and Moss, 2001)	'Analytic statements' Bassegy (1999; Yin, 2012)

<p><u>Advanced Memo-writing:</u> Continued interrogation of each sub-category to find out as much as possible about it and its place in its category. Detailed 'ideation' for the four categories. Includes critical narratives of several hundred words, including relevant literature, enabling exploration of each category in depth (Charmaz, 2006). Rich layers of reflection and emergent understanding about the nature and meanings of categories; triangulated sub-category development.</p>	<p>Constant comparison</p>	<p><u>Reconstructive analysis</u> I correlated the extant literature with the new empirical data and meta-data to derive patterns and embodied meanings for the four newly emerged main categories.</p>	<p>'Repeated thinking' (Thomas, 1993: 46).</p>		<p>'Analytic statements' Bassey (1999; Yin, 2012)</p>
<p><u>Theoretical coding:</u> Moved data beyond coding and categories into theory (Holton, 2007) – or at least 'plausible account' (Charmaz, 2006: 132). in a table, I set out the four main categories with their sub-categories underneath and identified similarities and differences between subcategories.</p>	<p>Constant comparison</p>	<p><u>Discovering system relations</u> Examining the relationships between the 'site of focused interest and other specific...sites bearing some relation to it' (Carspecken, 1996:42)</p> <p><u>Using system relations to explain findings</u> Newly evolved 'broad system features'...provide reasons for experiences and cultural forms having to do with... structures of society' (in this case, exclusion of children's own research from the academy)</p>	<p>'Repeated thinking' (Thomas, 1993: 46).</p>	<p>'Listening' (Clark and Moss, 2001)</p>	<p>'Analytic statements' Bassey (1999; Yin, 2012)</p>

11.6 Summary

Mindful of the doctoral thesis requirement regarding length, within this chapter I have attempted to provide a brief exposition of the study's analysis and interpretation procedure that is practical, communicable and reliable (Miles and Huberman, 1994). This chapter has briefly considered the nature of analysis and interpretation in research, together with their rationales before introducing and briefly outlining the analysis and interpretation models adopted for the YCaR study. Yet underpinning this brief overview was the development of 'thick description' (Ryle, 1968) embedded in multiple layers of complex analysis and interpretation processes that were congruent with the methodological – and ethical - nature of this interpretive study. These multiple layers are reported in their more authentic detailed state in Appendices 49 and 50, *inter alia*.

Chapter 12:

Findings (1) - Phase I - What is Research?

12.1 Introduction

This chapter presents findings for Phase I of the study, which focuses on the nature of research. The starting point for the present study was the set of 'sensitising concepts' (Blumer, 1969) which had emerged from a preliminary study (Murray, 2006) (Appendix 78) to influence this study's aim and research questions (Appendix 79). Three methods were adopted for Phase I, conducted with PEYERs: survey, interview conversation and focus group interview. Resulting findings are presented discretely below but were closely linked: uses and schedules for each were influenced by what preceded them, drawing on analysis and interpretation interwoven with data collection in a recursive model.

12.2 Phase I Survey Findings

In common with other qualitative studies, a pilot not only informed this study methodologically, it also its content (Sampson, 2004). The pilot survey in the present study was originally the final part of a preliminary mixed methodology study (Murray, 2006) (Appendix 5), providing sensitising concepts for the present study (Appendix 78). As a pilot for the present qualitative study though, the survey's content was also subject to 'constant comparison' within the analysis process (Charmaz, 2006) and responses from all three survey respondents were compared, eliciting similarities and differences (Appendix 47).

In the preliminary study the survey was sent to two highly experienced PEYERs who both responded. Following a few changes suggested by these responses, the survey for the present study was sent by e-mail to twenty PEYERs: an initial sample – in other words, where the project started (Charmaz, 2006). However, they were also a purposive sample (Robson, 1993), as selected PEYERs were knowledgeable and experienced regarding epistemological issues and English educational or ECEC research. Furthermore, selected PEYERs were a convenience sample (Robson, 1993) in that they were relatively accessible via e-mail. Yet only one response out of a potential twenty for the present study was returned (Appendix 80).

Emerging from the process of constant comparison, numerous similarities traversed the responses of that participant and the two pilot survey participants (Appendix 137). The poor response rate to the survey 'proper' (1/20), coupled with all three respondents suggesting there were problems with the survey design indicated that the survey itself may need to be addressed. PEYER A who responded to the present study's survey offered to meet to discuss the issue and this meeting became the first of the study's interview conversations.

12.3 Phase I Interview Conversation Findings

Following the poor response rate for the survey, PEYERs were invited to participate in interview conversations, forming a theoretical sample in the quest for theory, or at least a 'plausible account' (Charmaz, 2006: 96; 132). Again, they were also a purposive sample group (Robson, 1993), given they were knowledgeable and experienced regarding epistemological issues and English educational research. Furthermore, they also constituted a convenience sample group (Robson, 1993): they were relatively accessible and each willing to engage in an interview conversation for up to an hour.

For Phase I, nine interview conversations were planned and undertaken with PEYERs, focused on the study's first two research questions:

1. What is the nature of ECEC research?
2. How can a study be conducted to establish young children as researchers?

Planned	Undertaken
√√√√√√√√√	√√√√√√√√√

These were conducted, analysed and interpreted recursively, so that analyses and interpretations informed reflection shaping the dynamic i/c schedule and new analyses and interpretations revisited data already analysed and interpreted, to build a cumulative picture:

Table 23: Phase I Interview Conversation Data Co-construction
Interview with PEYER A
PEYER A interview data transcribed and checked by PEYER A; PEYER A offered opportunities to amend / add the data
PEYER A interview data analysed and interpreted
Interview conversation (i/c) with PEYERs B and C
PEYERs B and C i/c data transcribed and checked by PEYERs B and C; PEYERs B and C offered opportunities to amend / add to their data
PEYERs A, B and C data analysed and interpreted
I/c with PEYERs D, E, F, G, H, I
PEYERs D, E, F, G, H, I i/c data transcribed and checked by PEYERs D, E, F, G, H, I; PEYERs D, E, F, G, H, I offered opportunities to amend / add to their data
PEYERs A, B, C, D, E, F, G, H, I data analysed and interpreted

Findings for the Phase I i/cs are therefore discussed in three sections:

- PEYER A interview findings
- PEYERs A, B and C i/c findings
- PEYERs A, B, C, D, E, F, G, H, I i/c findings

12.3.1 PEYER A interview findings

I accepted PEYER A's invitation to meet but, as discussed in the methodology chapters, the meeting was a conversation led by PEYER A, rather than the planned interview (Appendix 7b). I transcribed and later verified the transcription with PEYER A, then coded the transcription, adding a few early memos (Appendix 82). Essentially, PEYER A's discourse served as advice regarding four key aspects: being clear and systematic in research, use of a questionnaire, use of interviews for this study and use of grounded theory (Appendix 81). PEYER A advised the use of clear aims which are shared with participants and a systematic approach for every aspect of the research. He advised against using a survey for this interpretative study as he indicated that 'People worry about committing their deeper thoughts to paper' (A6iii) and 'a questionnaire will not achieve extensive accounts from respondents' (A17). Instead, he advocated that I should 'Interview and observe to achieve extensive accounts from respondents' (A18). Additionally, PEYER A provided several reasons for using interviews instead of a survey:

Table 24: PEYER A's rationale for using interviews	
Interviews are a good idea for open questions and for deriving quality data	A2
People prefer to speak rather than write	A6ii
Interviews are needed to provide high quality discursive material	A10
Use interviews / discussions / conversations if you genuinely want to know what people think	A60
To find out what people think, a human context is best	A61
Interview offers respondents an opportunity to be heard	A64

Given the intention that the present study should be participatory, and PEYER A wide experience as a researcher, I treated his advice as data, abandoned questionnaires and adopted interviews for Phase I.

12.3.2 PEYERs A, B and C i/c findings

Building on PEYER A's advice, I adopted interview conversations (i/cs): 'in depth ... intensive interviews' with PEYERs to elicit their interpretations of their experiences in relation to research (Charmaz, 2006:25). To begin, I wanted to gain confidence so initially undertook just two i/cs with PEYER B and PEYER C, having developed a schedule to take account of PEYER A's suggestions (Appendix 8). Only undertaking two initially provided a natural break for the interweaving of analysis with data collection, congruent with GT (Glaser and Strauss, 1967). Each i/c took about an hour each and they were complete, I transcribed them and verified the transcriptions with participants before engaging in initial coding (Charmaz, 2006:47). To begin to move towards abstract concepts, I then applied the constant comparative method (Bryant and Charmaz, 2007: 607): I tabulated the three sets of initial codes and early memos from my discussions with PEYERs A, B and C and then was able to raise these to tentative 'substantive codes' which were based on PEYERs' A, B and C own words, correlated with 'sociological constructs' (Kelle, 2007:199):

Table 25: Tentative Substantive Codes emerging from Interview Conversations with PEYERs A, B and C	
Definitions	
People Doing Research	
Weaknesses in Early Childhood Research and Educational Research	
Emancipatory Elements	
Impact of Early Childhood Research and Educational Research	
Strengths of Early Childhood Research and Educational Research	
Interpretations/Critique	
Funding	
This Research [advice/design, etc.]	
Leftovers	

The full version is available at Appendix 84; examples of the initial codes correlated with tentative substantive codes include:

Table 26a: Interpretations/Critique	
PEYER	Comment
B	The interpretation of professional researchers is weak. B7ii
C	Interpretation may make a difference to findings C18ii

PEYER	Comment
A	Questionnaires asking open questions take up too much time for respondents - A6iv
B	Existing hierarchical structures in educational research are poor - B17ii
C	To become a professional educational academic requires conformity to an essentially flawed process - C42iv
C	Teachers' natural instinct to research issues in their practice lives has been damaged by too much top-down policy - C76

Equally, early memos were recorded (Appendix 84); these supported further exploration of codes as well as providing direction for next steps in data collection (Charmaz, 2006), for example:

Memo: 'The children and practitioners should have a significant role in interpreting the data' (B23iv)

Even at this early stage, data were already emerging, as Charmaz (2006) suggested they would; therefore I pursued this more successful model with PEYERs D, E, F, G, H and I.

12.3.3 PEYERs A, B, C, D, E, F, G, H, I i/c Findings

Interview conversations with PEYERs D-I followed the same pattern, framed round the adopted schedule (Appendix 8) and lasting up to an hour each. Again, these were transcribed then I verified the transcriptions with participants before engaging in initial coding (Charmaz, 2006:47), though adding a few early memos as they occurred (Charmaz, 2006: 80). The constant comparative method was used again (Bryant and Charmaz, 2007: 607). Although I worked inductively on the coding, as recommended for CGT (Charmaz, 2006), data from PEYERs D-I fit with the same tentative 'substantive codes' that had emerged from PEYERs' A, B and C data. Initial codes and tentative substantive codes emerging from interview conversations with PEYERs A-I were then tabulated together; the full set of these codes is available at Appendix 85; below is a small sample:

Table 27: Sample of initial codes correlated with Tentative Substantive Code: (D) Emancipatory Issues	
Interview offers respondents an opportunity to be heard	A64
Top-down infrastructure may militate against research culture	D4
Teachers will only become fully research active if they perceive research as a requirement of their role	E167
Much research investigating issues surrounding young children is focused on them as subjects / objects, rather than pro-actors	F49
Even if children have been given guidance in developing research, they can believe it is their own project of the project empowers them sufficiently	G30
Emancipatory research is about participating together	H17

Once again, early memos were recorded, this time for PEYERs A-I (Appendix 85).

12.4 Phase I PEYERs' Focus Group Interview Findings

The participants who engaged in the Phase I Focus Group were PEYERs J, K, L, M and N; for the same reasons as other participants, they formed a purposive sample group (Robson, 1993), a theoretical sample (Charmaz, 2006: 96; 132) and a convenience sample group (Robson, 1993). Equally, the decision to adopt a focus group was derived from data already gathered, for example, from PEYERs A, B and D:

<i>'What you want is an extensive account from your respondents.'</i> (A17)
<i>'I think if you genuinely want to know what people think you have to find the best way you can to ask them (A60)...in a very human context where you have opportunities to negotiate meaning and opportunities to clarify or to seek clarification or to probe what people are saying and to ask them to redefine what they mean or to explain what they mean and so on and to get them to talk to you and to create this purposeful conversation.'</i> (A61)
<i>'A community of researchers becomes the cornerstone of advancement.'</i> (B12)
<i>'Talk to different people.'</i> (D55)

Similarly to the Phase I interview conversations, the Phase I Focus Group was conducted, analysed and interpreted recursively, so that its analysis and interpretation informed and was informed by the study's extant data, building an accumulating picture. Moreover, Phase I Focus Group data shaped subsequent methods, protocol, analyses and interpretations.

The schedule that guided Phase I interview conversations with PEYERs B-I (Appendix 8) was adapted for the Phase I Focus Group (Appendix 86) but the main focus was to explore:

1. What is the nature of ECEC research?
2. How can a study be conducted to establish young children as researchers?

In the event, participants' responses to early questions about definitions of research lasted for the whole hour-long session. This meant that the study's main research questions were not posed, yet analysis revealed that the Focus Group addressed the same tentative substantive codes as other PEYERs who responded to all the questions in interview conversations (Appendices 85; 87).

Initial codes and tentative substantive codes emerging from the Phase I Focus Group with PEYERs J-N were then tabulated and added to interview conversation data constructed with PEYERs A-I (Appendix 85). The small sample here exemplifies coding of Focus Group data in respect of the tentative substantive code 'People Doing Research':

Table 28: Sample of initial codes correlated with Tentative Substantive Code: (B) People Doing Research	
Researchers in the ECEC field need to support each other	FGpA12
ECEC research is higher quality when the researcher has the ability to understand and 'read' children	FGpA76
ECEC researchers need to be able to manage the power relationships in ECEC research	FGpA77
We [6 ECEC professional researchers + SLs] do not do enough research	FGpA101
A focus group is helpful because participants 'bounce ideas off each other'	FGpA121
A research degree 'moulds' researchers into a narrow view of research	FGpA122
People new to research have much to offer as they bring new perspectives	FGpA124

12.5 How were Phase I data refined further?

At this point, the end of the first stage of analysis was complete. 1217 initial codes had emerged and these were now proving cumbersome to manage, suggesting the need for further refinement. As outlined in Chapter 11 and Appendix 49, this refinement was achieved through a process of 'focused coding', using constant comparison in order to 'synthesise and explain' further the data (Charmaz, 2006: 57; Bryant and Charmaz, 2007: 607). I took each of the 1217 Stage 1 codes (units of meaning) and compared them all with one another again, considering the position of each within the Stage 1 substantive codes. I repeated this through several stages (Appendix 49; Chapter 11) until tentative categories emerged:

Table 29: Tentative Categories
Belief
Connections
Enquiry / ideas
Impact
Interpretation
Money / funding issues
Positivist view
Postmodern view
Processes
'Real World' matters affecting children
Researcher identity
Social constructions

Each of these tentative categories contained a set of tentative sub-categories (n=105) and together, they formed the study's first Research Behaviours Framework (RBF1) (Appendix 28).

As discussed, Phase I findings provided direction for subsequent work through a recursive model. This co-constructed process provided a developing picture of the academy's views of the nature of research, for example, PEYER B advocated:

'I'd ask teachers, parents, end users...' (B6) *'I'd include children as end users de facto – they are part of the process.'* (B9)

Along with similar invocations in Phase I data, the study developed accordingly; consequently, further data collection stages were planned predominantly for participation with teachers, parents and children.

RBF1 seemed 'slimline' in comparison with its predecessor (Appendix 85), so provided a tool that participants could use without becoming overburdened (BERA, 2004). During Ash Setting data analysis, adult participants were provided with a copy of RBF1 while considering children's behaviours and words and I used RBF1 with participating children, adapting its language as necessary. RBF1 became an analysis tool for these data collection and analysis procedures:

- Ash Setting Observations
- Ash Setting Interview Conversations focused on children's behaviours and words
- Family A and Family B Primary Data Collection
- Family A Focus Group

- Family B Interview Conversations
- PEYERs' Focus Group

12.6 Summary

Phase I findings have been outlined in this chapter. In Phase I, PEYERs provided a strong indication of the academy's view of the nature of research, resulting in RBF1; this continued to be developed further in ways outlined in chapters that follow. Equally, Phase I findings provided indications for ways in which the present study should be conducted. To that end, the next chapter shares findings that were co-constructed with participating teachers, parents and children and indicates how further decisions were made regarding the management of copious data as it emerged.

Chapter 13:
Findings (2) - Phase II - Children in their Settings and
Phase III - Children in their Homes

13.1 Introduction

Building on Phase I findings, this chapter presents findings co-constructed during Phases II and III. The recursive model of analysis and interpretation interwoven with data collection continued into Phases II and III, congruent with the study's approaches and methodology. As was the case for Phase I, Phases II and III addressed the study's first two research questions:

1. What is the nature of ECEC research?
2. How can a study be conducted to establish young children as researchers?

Phases II and III also focused on the study's third and fourth research questions:

3. What enquiries are important to young children and how can they engage in them?
4. What support structures might encourage young children to participate in research in ways which could enable them to influence policy in matters affecting them? What barriers might prevent this?

Equally, Phase I data indicated that the study should engage the participation of young children, their practitioners and parents so this features in Phases II and III.

In the chapter, details and examples of findings are provided for each method; through the analysis and interpretation process indicated in Chapter 11 (and Appendices 49 and 50), meanings were derived from the findings. Whilst the findings are qualitative, a little quantitative information emerges concerning marshalling of the data during analysis though this does not necessarily relate to their meaning. Moreover, the chapter takes account of the evolution of the Research Behaviour Framework (Appendices 28, 29, 30) and the effect of the Nominal Grouping Exercise implemented to manage the volume of data.

13.2 The Research Behaviour Framework

Findings emerged from Phase I to suggest that participants encountered problems with Research Behaviour Framework 1 (RBF1) (Appendix 28). Having observed video footage of Annie at home while attempting to match her behaviours to codes on RBF1, PEYER ZZ noted: 'Blimey – that was hard' (FGpB395). Equally, Billy's

mother seemed to find the adult Analysis Sheets based on RBF1 (Appendices 41, 42) difficult to understand and work with:

MTHR-B > Res: ...as I said I didn't find the categories very easy (HVIC B 73)...I think they were more complicated that they needed to be' (HVIC B 109).

Therefore, once data had been co-constructed in Ash Setting and Annie's and Billy's homes, I redeveloped RBF1 using constant comparison and focused coding (Appendix 49), relating to new data (for example, Appendix 90). RBF2 (Appendix 29), used in Beech Setting, was the first reiteration; RBF2 was later developed into RBF3 (Appendix 30) by including Beech Setting data (for example, Appendix 89).

13.3 Nominal Grouping Exercise

The Nominal Grouping Technique (NGT) (Delbecq and VandeVen, 1971) (see Chapter 11 and Appendix 50) resulted in four focused codes that made 'the most analytical sense to categorise (the) data incisively and completely' (Charmaz, 2006:57). Consequently, as the analysis and interpretation process progressed, focus refined to four 'prime research behaviours' which PEYERs voted as 'most important' (Appendices 54 and 55):

Table 30: 'Prime' research behaviours
(2-7) Explore
(13) Find a Solution
(19) Conceptualise
(26) Base Decisions on Evidence

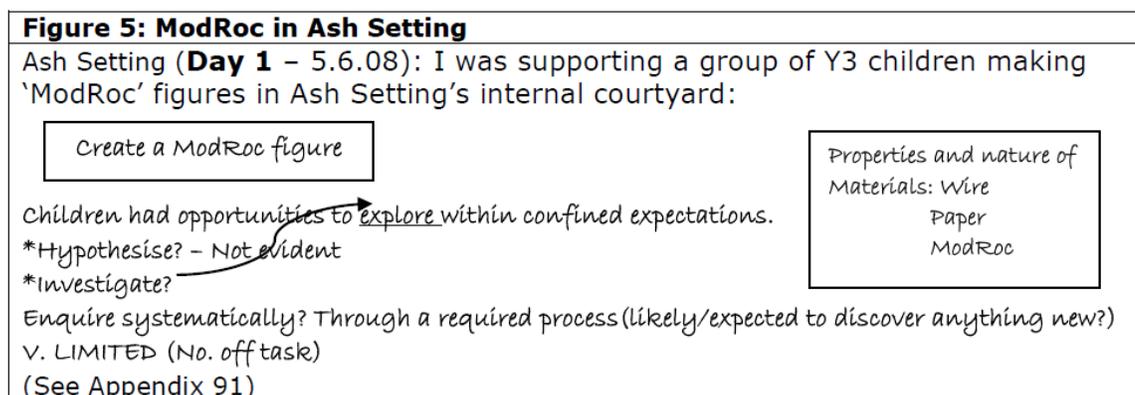
13.4 Phases II and III: Methods

Once Phase II and III primary data were captured using multiple methods (Clark and Moss, 2001; 2011), findings emerged.

13.4.1 Findings from Phase II and III Fieldnotes

Given that fieldnotes are common to the study's four selected methodologies (Charmaz, 2006; Carspecken, 1996; Yin, 2012; Clark and Moss, 2011), they featured significantly in the present study. A large volume of 'thick' data resulted, so this chapter gives a flavour of the findings with exemplification, while further detail is available in the appendices.

The study's fieldnotes not only provided secondary data comprising an organised record of facts, details, responses, sensory impressions and questions (Chiseri-Strater and Sunstein, 1997), but also constituted primary data as the fieldnotes exist as a 'hard' document. Writing my fieldnotes, I conflated Carspecken's models of a 'journalistic record' - objective notes regarding prosaic issues - and a 'thick primary record' - detailed description together with evaluative judgements that provide a critical element - (1996:45):



Equally, fieldnotes were 'descriptive' as well as 'reflective' (Creswell, 2008: 225):

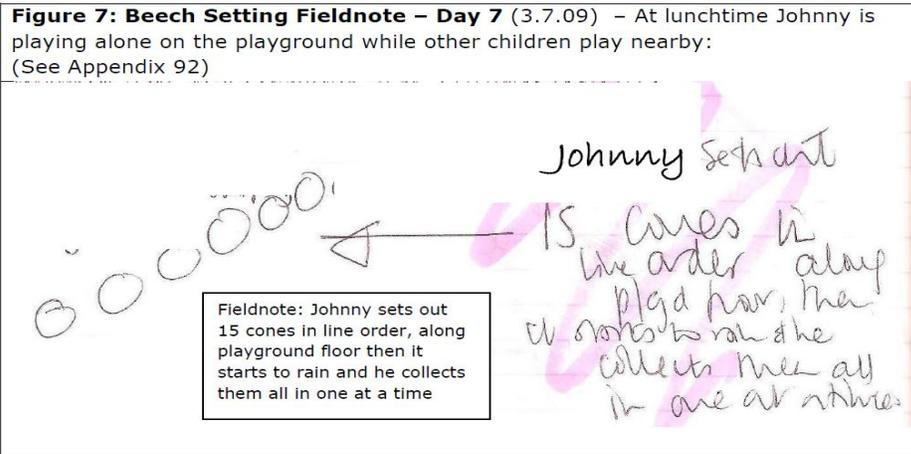
Figure 6: Cherry Setting PE

Cherry Setting, Day 2 - 14.5.09. During the orientation period, I was in the role of voluntary teaching assistant. The children had just come in from morning playtime and it was now time for P.E.

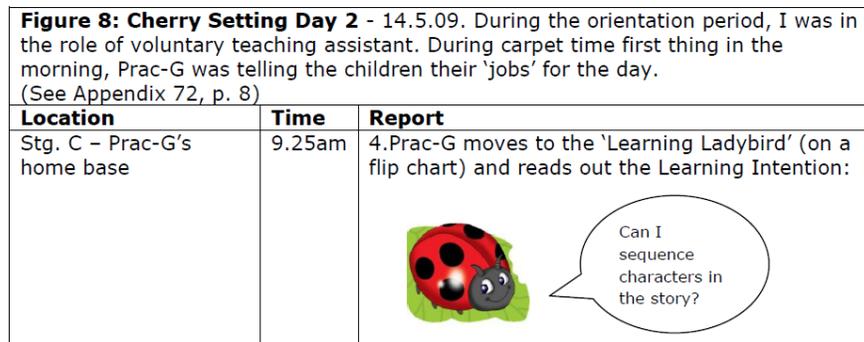
Location	Time	Report	(In vivo) Memo
Stg. C - Prac-G's home base	11.05am	20.Prac-G tells children to get changed - TA gives out PE bags to children who get changed and go to PE in the hall	16. Little opportunity for children's independence

(See Appendix 72, p.10)

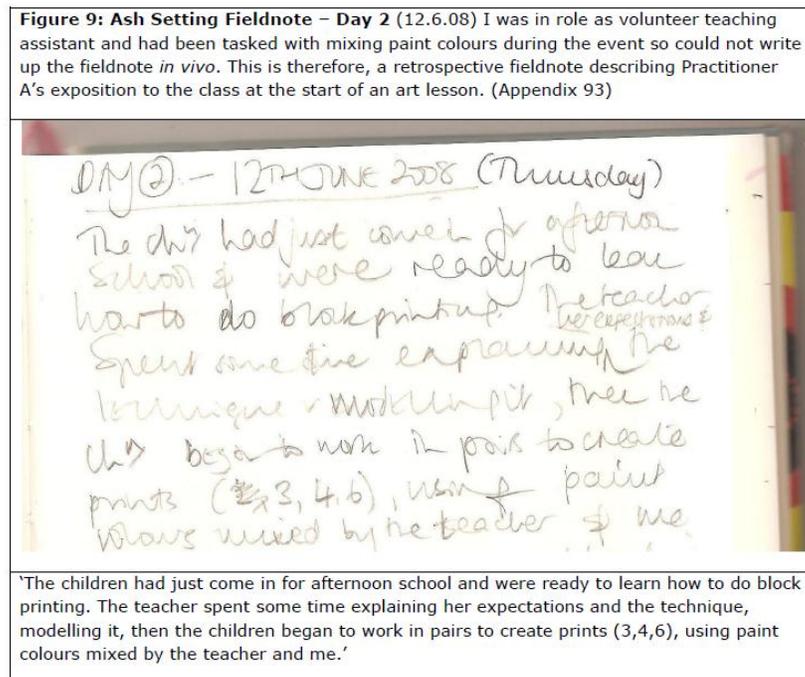
Descriptive fieldnotes comprised writing and drawing relating to events (Creswell, 2008: 225) and these sometimes doubled up as observations (see over):



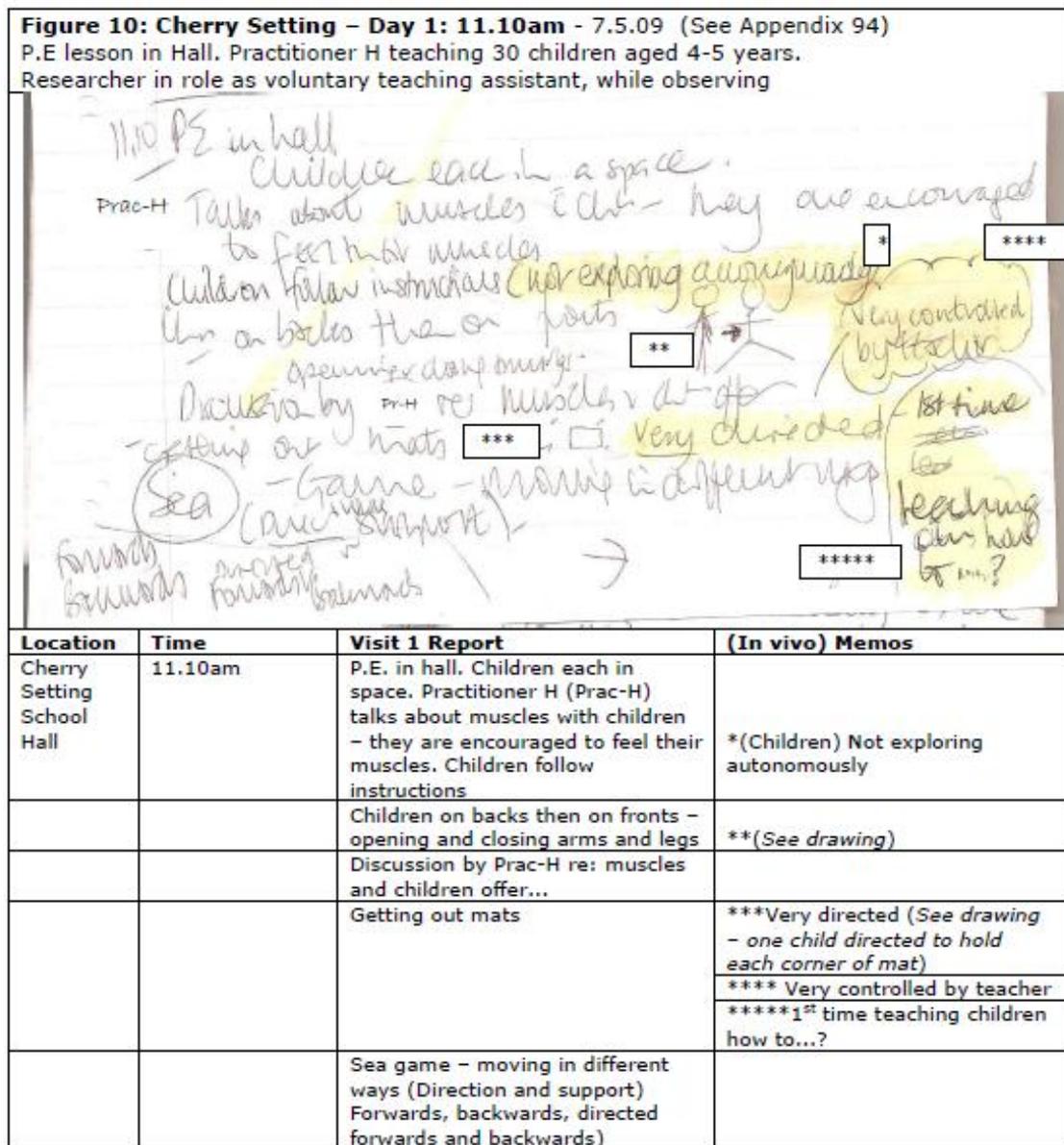
Descriptive fieldnotes also conveyed contextual features of study locations:



Furthermore, descriptive fieldnotes were made of people's actions and words in the settings:



Equally, reflective fieldnotes were recorded thoughts that revealed 'insights, hunches, or broad ideas or themes' (Creswell, 2008: 225). Again, I tended to write or draw when making these fieldnotes and they often translated to 'early memos' (Charmaz, 2006:80):



Other participants co-constructed reflective field notes after events in informal discussions with me (transcribed by me) - see over:

Figure 11: Beech Setting- Day 5 - 10.6.09 - (See Appendix 95) Following a free-flow play session, during which India and Boy-H had been playing in Beech Setting, this dyad between Practitioner K and me took place at morning playtime when the children had gone outside to play.

Playtime - I asked the TA which she would select - Boy-H or India - India - 'concentrates so well'

She agreed that Harry & Gemma 'would be great' - she said that Gemma had made herself a whole wardrobe from paper & card the day before!

Playtime: I asked the TA (Practitioner K) which child she would select for deeper focus for the project - Boy-H or India. She thought India because India 'concentrates so well'. She agreed that Harry and Gemma 'would be great' (as main focus children). She said that Gemma had '...made herself a whole wardrobe from paper and card' the day before.

Participants also co-constructed reflective field notes while watching video footage of events, for example, on grids displaying children's research behaviours; these were later transcribed; see over:

Figure 12: Transcribed notes from PEYERs while watching video footage of Annie (Family A - Home Vignette 2: *Cooking in the Kitchen*)

Context	Camera action	Video footage action	Video footage sound	Reflective fieldnotes from PEYERs	Code Nos.
MTHR-A filming. Annie: wearing an apron. Annie: in corner of kitchen. Recipe book open at omelette recipe. Cooker to left of Annie. Bowl on counter in front of Annie.	MTHR-A filming. Camera focused on Annie. Cooker to left of screen.	Annie: stirring in bowl with fork in right hand, intently looking down into bowl, stops stirring and puts left hand in bowl	Annie: 'Mum - there's a kind of white bit - can I take it out?'	PEYER ZZ: Shows understanding - shell shouldn't be in mix.	FGpB361
				PEYER I: Verification with mother	FGpB362
			MTHR-A: 'Pardon?'		
			Annie: 'There's a white bit - shall I take it out?'	PER B: Asks direct questions	FGpB363
			MTHR-A: 'If you want to.'		
			Annie: 'Where shall I put it?'		
		Annie begins to stir vigorously.	MTHR-A: 'It's only the shell you need to take out darling - the rest is going to be egg - it's probably the bit that joins the shell to the...erm - the egg to the yolk darling - you don't need to worry about that.'	PER B: Asks direct questions	FGpB364
		Annie stops stirring, puts down fork and rubs hands. Looks around. Reads recipe under her breath.	Annie: <i>Sighs</i> Oh right - now where?	PEYER B: Interested / engaged	FGpB365
		Annie picks up salt with left hand [LH].	Annie: 'How much salt does it mean by seasoning?'	PEYER ZZ: Seeking information	FGpB366

Furthermore, participants co-constructed reflective field notes while watching video footage of events, in informal discussion that I later recorded as notes or as part of more formal methods that were audio-taped and transcribed:

Figure 13: Family D's Reflective Fieldnotes
while observing video footage of Harry engaging in research behaviour

These reflective fieldnotes were contributed by Family D during their Home Focus Group beginning at 10am on 12.8.09. The vignette was recorded in Family D's kitchen around their table, with Harry and Bro-D playing in and out of the kitchen and dipping in and out of the conversation.

	Code #
Harry [PLAYING] 'Here we go - Ahhh!'	HVIC H1
GENERAL LAUGHTER	HVIC H2
Father D: 'Quietly!'	HVIC H3
Harry: 'Oh man!'	HVIC H4
Researcher: 'So how did you get on with it all?'	
Mother D: 'I don't know if we - I hope we've done enough!'	HVIC H5
Researcher: 'I'm sure you have. Everything's good, so...'	
Mother D: We've done some bits of videoing and we've done some of these.'	HVIC H6
Father D: 'We've had to find out when it's actually appropriate and when it's not. We've got about a full tape of videoing.'	HVIC H7

Equally, participants contributed to field notes by acting and speaking while notes were taken - again sometimes during informal discussions or at other times embedded in more formal methods such as focus groups or interview conversations:

Figure 14: Billy's Oral Fieldnotes during an interview conversation, while observing video footage of himself in an art lesson at school (Setting A SI-C Ch-B [iia])	
<i>19.3.09: In the library at Ash Setting. Billy and researcher are watching DVDT 5, Scene C on the laptop: footage of an Aboriginal Art session – practical- children are working on their own with teacher in attendance to create a painting derivative of:</i>	
	
Billy's Reflective Fieldnotes (oral, recorded, transcribed)	Code #
Billy: 'I'm doing that thing when you have one of those ear things and you do it red white and yellow and you draw the thing on a black piece of paper and we do round it in dots. I did white.'	SA Ch-B: Ch-B I-C[iia] 1
Billy: 'I don't know – well – I was interested in the camera.'	SA Ch-B: Ch-B I-C[iia]28
Billy: 'Looking at people's work to see what they've done.'	SA Ch-B: Ch-B I-C[iia]30i
Billy: 'I kept doing my work.'	SA Ch-B: Ch-B I-C[iia]32
Billy: 'And I don't go to the camera.'	SA Ch-B: Ch-B I-C[iia]37
Billy: 'I will use the force to move myself.'	SA Ch-B: Ch-B I-C[iia]38
Billy: 'I'm getting paint.'	SA Ch-B: Ch-B I-C[iia]39
Billy: 'That's Prac-A.'	SA Ch-B: Ch-B I-C[iia]41
She's looking at people's work and she's helping them	SA Ch-B: Ch-B I-C[iia]42i
Billy: 'I've still got glasses.'	SA Ch-B: Ch-B I-C[iia]50
Billy: 'I'm listening to Ch-F and L-Boy but I forgot what they said.'	SA Ch-B: Ch-B I-C[iia]54

13.4.2 Findings from Phase II and III Interview Conversations

Similarly to fieldnotes, social science interviews are common to all four of the qualitative methodologies framing this study and they proved an important method. Phase II and III i-cs were either focused on the study's first research question:

- 1) What is the nature of ECEC research?

or the study's third and fourth research questions:

- 3) What enquiries are important to young children and how can they engage in them?

- 4) What support structures might encourage young children to participate in research in ways which could enable them to influence policy in matters affecting them? What barriers might prevent this?

Therefore, Phase II and III interview conversations either continued exploring perspectives on the nature of research or engaged participants in analysis and interpretation of young children's behaviours. Interview conversations focused on research *per se* yielded data, whereas those undertaken for analysis of children's behaviour provided data as well as meta-data (Knudson-Martin and Silverstein, 2009).

As in Phase I, interview conversations in Phases II and III were 'in-depth' and capable of 'eliciting each participant's interpretation of his or her experiences' (Charmaz, 2006: 25). However, sometimes, these interview conversations were planned but replaced by another method in response to circumstances arising during fieldwork. For example, the second home visits for Phase III were originally planned as interview conversations but most developed into focus group interviews, because several family members joined in contemporaneously. Equally, because consent could not be secured for video recording in Cherry Setting, interview conversations focused on analysis and interpretation were not useful without video footage as a 'third object' (Mitchell, 1981). In the limited time available for fieldwork, it was more useful to adopt alternative methods to support analysis and interpretation of observations focused on children's behaviours, such as informal discussion, artefacts and documents. This approach was congruent with the reflexive nature of the study's 'jigsaw' methodology as well as its adherence to symbolic interactionism in which 'meanings arise out of actions and in turn, influence actions' (Charmaz, 2006:189). In practice, then, although thirty-two i-cs were originally planned for Phases II and III, seventeen were undertaken - see over:

Table 31 : Phase II and Phase III Interview Conversations					
Study Site	Participant	Planned		Undertaken	
		Focus: What is research ?	Focus: Analysing children's behaviours	Focus: What is research?	Focus: Analysing children's behaviours
Ash Setting	Practitioner A	√	√	√	√ (corrupted file)
	Practitioner B	√	√√	√	√√√
	Annie	√	√	√	√
	Billy	√	√	X	√
Beech Setting	Practitioner C	√	√	√	X (focus group (FGp))
	Practitioner D	√	√	√	X (FGp)
	Practitioner E	√	√	√	X (FGp)
Cherry Setting	Practitioner F	√	√	√	X(no video: other methods)
	Practitioner G	√	√	√	X(no video: other methods)
	Practitioner H	√	√	√	X(no video: other methods)
HOME A	Family member	√	√	X (FGp)	X (Family focus group)
HOME B	Family member	√	√	√	√
HOME C	Family member	√	√	X (FGp)	√ (Gemma, albeit within the Family C Focus Group)
HOME D	Family member	√	√	X (FGp)	X (FGp)
HOME E	Family member	√	√	X (FGp)	X (FGp)
	N=	15	16	10	8

13.4.2i 'What is Research?' Findings from Phase II and III interview conversations

Perspectives regarding the nature of research were co-constructed with practitioners, children and primary carers. Participating adults were provided with a semi-structured schedule (Appendix 22) which was adapted *in vivo* as required, while I planned to adapt 'What is Research?' interview conversation questions to be accessible for participating children, for example, posing them orally. However, for ethical and practical reasons, Annie was the only child who engaged with this element of the data co-construction: Billy's behaviour suggested that he did not want to sit any longer by the time this part of his setting i-c was scheduled, and because this element was not wholly successful in Ash Setting, this seemed an indication that it may not be a successful model for finding out about young children's views of research. Nevertheless, a wealth of alternative data replaced this method for eliciting young children's views of research, for example, their willingness to engage in the project, observations indicating their research behaviours and perspectives emerging in informal discussions.

Practitioners' interview conversations focused on the nature of research generally took around an hour. Data were audio-recorded, notes taken and transcriptions written up then verified by practitioners. Examples of units of meaning within these transcripts included:

Table 32: Examples of units of meaning in practitioners' interview conversations
Research is ' <i>finding out, in a nutshell</i> ' (Practitioner C)
' <i>I think research is finding things out and also...having a curiosity about something</i> ' (Practitioner G)
' <i>I think research is sort of watching, seeing what's happening and then commenting on it.</i> ' (Practitioner H)
' <i>...ultimately we have to keep looking, we have to keep learning, we have to keep reflecting on our practice.</i> ' (Practitioner B)
Research processes include ' <i>Asking questions – you asking questions, the children asking questions.</i> ' (Practitioner E)
' <i>...if one has done a lot of research, you know, why not share it with others so that they can get the benefit of the learning that you've had...</i> ' (Practitioner F)
' <i>In schools... there's lots of boxes on your Ofsted and your SEF but there's no box for research.</i> ' (Practitioner B)
After a science day at school, ' <i>My daughter came home, she wanted to immediately put all of her coppers in tomato ketchup...To find out what would happen.</i> ' (Practitioner G)
On children researching: ' <i>It's the children finding out for themselves. They find out for themselves. Or they find out collaboratively.</i> ' (Practitioner C)
' <i>We're all researchers in a way aren't we? Kind of trying to do something, trying to find something out.</i> ' (Practitioner E)

These data were coded (Appendices 96; 98) and results informed the development of the RBF (Appendices 29, 30). Co-constructed in settings, findings from the practitioners' interview conversations on the nature of research resulted in twenty four codes – see over:

Table 33: Codes emerging from practitioners' views on the nature of research (interview conversations), matched to RBF3 Categories (see Appendices 96 and 98 for more detail)	
Codes emerging from practitioners' views on the nature of research (interview conversations)	Research Behaviour Framework 3: Category Numbers
Understanding	8, 11, 19
Outcomes / impact	9, 13, 29
Finding out	3-7, 12, 21
Questioning	20, 22
Focus	1, 10, 32
Observing	15, 17, 27
Processes	2-7, 15, 18, 23, 24, 25, 26, 28
Reflecting	33, 34, 39
Learning	8, 9, 11, 12, 16
Impact of this Research	16, 19, 30, 36, 37, 39
Comparing	16, 30, 39
People	16, 36, 37, 38
Ethics	31, 35
Government	X
Educational Research	30
Context	17, 30
Confidence	2
Time / Money	X
Barriers	X
Support mechanisms for research	2-7, 15, 17, 24, 31, 36
Children Researching	1, 2-7, 8, 9, 10, 11, 12, 13, 15, 17, 19, 20, 21, 22, 27, 31, 32, 36, 37, 39
What do practitioners regard as research?	X (training / derivative)
Practitioners' own engagements in research	X
Additional points	1-39

Data from Annie's setting interview conversation focused on research (Appendix 97) included the following units of meaning:

Table 34: Examples of units of meaning in Annie's interview conversation focused on research
<i>'...on Brownie camp holiday I used to like exploring in my tree...'</i>
<i>'Lots of different things – foot holds and hand holds.'</i>

These data were also coded and seven codes emerged that aligned with those suggested by the practitioners; again, these correlated with RBF codes:

Table 35: Coding Annie's Setting Interview Conversation: What Is Research? (See Appendix 97 for full transcript)	
Tentative Codes	Feasible Links to RBF3 (Appendix 30)
Finding out	2-7, 12, 21
Children Researching	1, 2-7, 8, 9, 10, 11, 12, 15, 17, 21, 22, 27, 31, 32, 36, 37, 39
Learning	8, 9, 11, 12, 16
Outcomes / impact	9, 13, 29
Context	17, 30
Processes	2-7, 15, 28
People	16, 36, 37

Data emerging from home interview conversations concerning families' views of research were analysed together with the Family Focus Group data to give a coherent picture of perspectives on research.

13.4.2ii 'Analysing Children's Behaviours': Findings from Phase II and III interview conversations

Because methods other than interview conversations (i-cs) often proved more appropriate for analysing and interpreting children's behaviours, eight were undertaken, although sixteen were originally planned:

Table 36: Focus of Analytic Interview Conversations
Annie analysing and interpreting Annie's behaviours in Ash Setting
Practitioner A analysing and interpreting Annie's behaviours in Ash Setting (file corrupted)
Practitioner B analysing and interpreting Annie's behaviours in Ash Setting
2x Practitioner B analysing and interpreting Billy's behaviours in Ash Setting
Billy analysing and interpreting Billy's behaviours in Ash Setting
Mother B analysing and interpreting Billy's behaviours at home
Gemma analysing and interpreting her own behaviours at home

RBF 1 (Appendix 28) and the study's research aim and questions were adopted as the schedules for the setting i-cs, adapted for accessibility with Annie and Billy as they observed footage of their own behaviours on the laptop. In homes, Gemma's family allowed her time and space to engage in a lengthy dyad with me within the Family C Focus Group, while Billy's mother was the only adult who engaged in a home interview conversation focused on children's behaviours. Successful interview conversations concerned with analysis of children's behaviours were audio-taped and transcribed. Home i-c data were conflated with Family Focus Group data to provide a coherent overview of the families' views of children's behaviours at home; these are discussed further in this chapter. Sadly, the file containing an interview conversation with Practitioner A about children's behaviour became corrupted before transcription so data were lost.

The emergent meta-data provided 'guiding ideals' (Blumer, 1969:2) that I adopted to support full analysis and interpretation as part of the study's recursive analysis model. Primary data that were the focus of these interview conversations were retrospectively re-analysed by taking into account the i-cs' meta-analysis and

combining it with participants' views of research. This process focused on the four 'prime' research behaviours from RBF3 (Appendix 30) (Table 30) that were elicited through the Nominal Grouping Exercise (Delbecq and VandeVen, 1971).

An issue with setting interview conversations was that the children's behaviours on video sometimes became a catalyst for practitioner reflection on school practice, rather than focusing on the children's research behaviours *per se*; for example:

Figure 15: Prac-B discussing the teacher
<i>'She's very good with drawing them in - in the classroom.'</i> (SA I-C[iii] 104)

However, this was a *quid pro quo* for the generous access the headteacher allowed me in the school, coupled with the study's commitment to participation and emancipation. Equally, Practitioner B's reflective approach led to highly relevant insights for the study, for example, he noted his own 'insider' challenge of remaining focused on evidence during the interview conversation (Griffiths, 1998):

Figure 16: Practitioner B reflecting
Practitioner B: <i>'It's very difficult to separate what you know and what your perceptions are from what you're seeing.'</i> (SA I-C[iii] 126)

This comment followed others in which he drew on his prior knowledge of the children:

Figure 17: Practitioner B drawing on prior knowledge
Practitioner B (on Annie): <i>'I know more about Annie than I do about a lot of children and that's not because she has a behaviour issue or a learning issue. It's because she has been a challenge in the past to get her to perform. Is it about learning, is it about experiences - it's almost an emotional need that she has.'</i> (SA I-C[iii] 35)
Practitioner B (on Billy): <i>'It's interesting what mum once said to me that she thinks he's a boy boy: 'He's a boy boy and he will get into trouble and he will get distracted...'</i> (SA PrB: Ch-B I-C[iv]114)

Conversely, the children observing video footage tended to adhere closely to the evidence in front of them, for example (see over):

Figure 18: Children observing video footage
<p>Billy: <i>'I'm still doing my work and I'm still doing it... and I'm still doing it.'</i></p> <p>(SA Ch-B: Ch-B I-C[iia]45) - (SA Ch-B: Ch-B I-C[iia]48)</p>
<p>Annie (just after video footage shows her sucking her thumb then taking it out of her mouth and looking at it): <i>'I do this...'</i> [at this point in the i-c, Annie took her thumb out of her mouth and looked at it] (SA IC [i]75)</p>

Sometimes the children's focus was wholly located in the 'here and now' (Graue and Walsh, 1995) so that they turned the interview conversation to discussing an issue that was taking place during the interview conversation:

Figure 19: Children in the 'here and now'
<p>Annie is operating the laptop. Researcher (Res.): <i>'What are you doing?'</i> (SA IC [i]34) Annie: <i>'I can't hear it.'</i> (SA IC [i]35) Res: <i>'The settings are all on the highest they can be I think - we'll just check they are shall we - we'll have a little look.'</i> STOPS DVDT. (SA IC [i]36) Annie (pointing at the screen): <i>'Aha - if you go on that.'</i> (SA IC [i]37) Annie: <i>'If you - you might be able to down here somewhere...'</i> (SA IC [i]39) Res: <i>'That's the wireless connection there.'</i> (SA IC [i]40) - Annie: <i>'There is this one down here - it says it.'</i> (SA IC [i]41)</p>
<p>Annie: <i>'I think I'll shut that - I know how to shut that door - shall I shut it?'</i> (SA IC [i]65) Res: <i>'Oh - that's very kind of you!'</i> (SA IC [i]66)</p>

Whilst fewer interview conversations were undertaken for analysis and interpretation of children's behaviours than had been intended, practitioners, primary carers and children conveyed their analyses and interpretations of children's behaviours using different methods; these are discussed below.

13.4.3 Findings from Phase II and III Observations

Phase II and III observations provided strong primary data that were recorded on video or in writing before a selection was transcribed. Informal general observations were logged as part of fieldnotes during orientation periods in settings (five half-days in each), and subsequently, more formal observations focused on individual children were constructed over three days in each setting. In children's own homes, observations were conducted by primary carers, grandparents and the children and families had around a month to collect observational data. A key tenet of the study was that children's naturalistic behaviour would be captured (Pellegrini *et al.*, 2004); in settings, the orientation periods helped to facilitate this as children

seemed fairly habituated to my presence by the time formal observations began. The effects of capturing observations by camcorder are discussed in a later section on video recording.

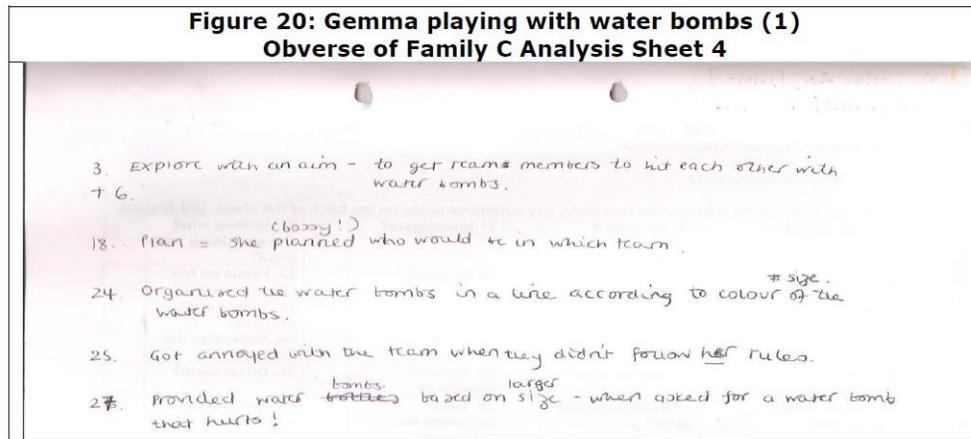
In all, 163 observations were fully processed for the study: they were captured, transcribed, analysed and interpreted, amounting to 129 in settings and 33 in homes. These were either unstructured narratives or snapshot observations (Sharman *et al.*, 2007). Whilst all the observations originally recorded in writing were included, only a selection was processed from the video footage because the amount of data would have proved unmanageable in the context of the thesis had every piece of video footage been converted to formal observations and only a selection was required to address the research aims and questions. Setting observations were selected on the basis that they displayed clear evidence, were reasonably representative and provided a balance across the seventeen focus children and the main focus children who later became 'home' children:

Table 37: Settings: Observations captured, transcribed, analysed and interpreted

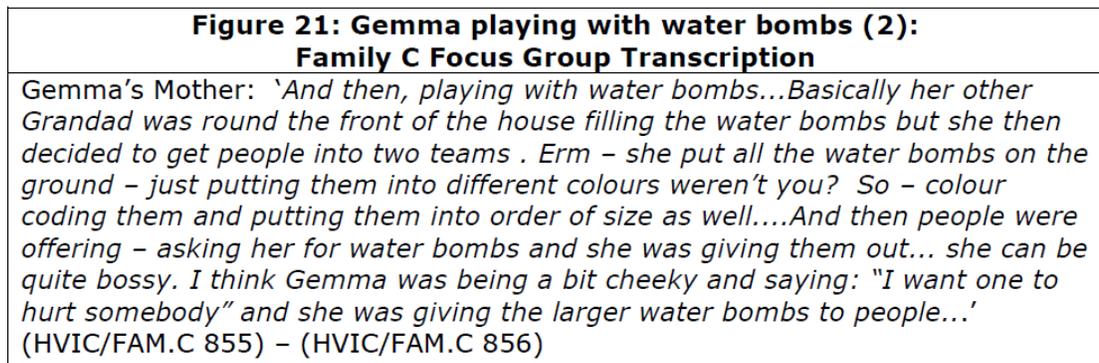
Ash Setting		Beech Setting		Cherry Setting		
Child	# of Obs	Child	# of Obs	Child	# of Obs	
Annie	14	Gemma	20	Martin	14	
Billy	13	Harry	11	Nora	10	
Costas	4	India	5	Oscar	7	
Demi	4	Johnny	4	Pedro	6	
Edward	3	Kelly	2	Querida	5	
Florence	4	Laura	3			
TOTAL	42		46		42	129

Home observations were selected on the basis of what families provided. These were sometimes embedded in other data collection methods and included 'snapshot' observations (Sharman *et al.*, 2007), such as Billy's observation: '*I made a Star Wars figure*' (HVIC B 136i).

Observations were also included in reports from primary carers (see over):



Additionally, full video observations were part of the data co-construction and I transcribed a selection retrospectively (e.g. Appendix 100). Analysis sheets (e.g. Appendices 68 and 69) and family focus groups (e.g. see below) triangulated the observations, for example the excerpt below from the Family C Focus Group (Figure 17) triangulates the observation made by Gemma's mother (Figure 16):



All home observations provided evidence, but the nature and quality of observations were diverse. Yet since all came from participant families, a quality of validity derived from their authentic voices (Hughes, 2010). Because many of the observations were embedded within other methods such as the analysis sheets and focus groups, they are not all enumerated discretely; however the list below shows the numbers of 'Home' observations that were captured by families, then transcribed, analysed and interpreted as discrete observations:

Table 37: Homes – number of observations captured from video, transcribed, analysed and interpreted	
Annie in Home A	4
Billy in Home B	5
Gemma in Home C	7
Harry in Home D	7
Martin in Home E	10
TOTAL	33

A variety of methods was used to analyse and interpret setting and home observations:

Table 38: Models used to analyse / interpret observations	Undertaken by...				
	PEYERs	Primary Carers	Practitioners	Children	Researcher
Focus Groups	√	√	√	√	√
Interview Conversations	√	√ (1)	√	√	√
Informal Discussions		√	√	√	√
Analysis Sheets / Grids	√	√	√	√	√
Research Behaviour Framework	√	√	√	√	√
Continued recursive analysis until saturation					√

Data were coded, analysed and interpreted as indicated in Chapter 11. The full range of RBF research behaviours was observed across the setting observations (Appendix 101). Because it became evident that this would build to an unmanageable volume of data if all were analysed, the Nominal Grouping Exercise was adopted (Delbecq and VandeVen, 1971) (Chapter 11 and Appendices 50, 54 and 55). This refined focus to the four 'prime' research behaviours that PEYERs considered 'most important':

Table 39: Incidences of 4 Prime Research Behaviours in Setting Observations																		
SETTING >	Ash Setting						Beech Setting						Cherry Setting					TOTAL
CHILD >	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
2-7. Explore	13	11	0	4	3	2	23	15	10	4	0	0	31	21	14	11	7	169
13. Find a solution	6	2	2	2	2	3	9	4	1	1	1	0	4	2	4	2	4	49
19. Conceptualise	2	4	0	2	3	1	3	3	1	1	0	1	3	4	4	3	5	40
26. Base decisions on evidence	4	4	0	2	3	0	2	3	2	2	1	0	10	4	5	3	2	47

The four prime research behaviours also became the main focus for home observation analysis (Appendix 102):

CHILD >	Annie	Billy	Gemma	Harry	Martin	TOTAL
2-7 Explore	2	4	6	5	9	26
13. Find a solution	3	1	4	6	4	18
19. Conceptualise	1	3	7	4	5	20
26. Base decisions on evidence	3	4	6	5	6	24

These analyses were laid out in grids (examples in Appendix 103).

13.4.4 Findings from Phase II and III Focus Groups

Seven focus groups took place in Phases II and III:

Phase II	PEYERs Focus Group B: Annie in Ash Setting
	Beech Setting Practitioners' staggered Focus Group
	Beech Setting Children's staggered Focus Group
Phase III	PEYERs Focus Group B: Annie at home
	Family A Focus Group
	Family C Focus Group
	Family D Focus Group
	Family E Focus Group

The success of these focus groups varied but all were audio-taped and transcribed with a view to facilitating analysis and meta-analysis. Findings from each are briefly outlined below, with the locations of further detail indicated.

13.4.4i PEYERs Focus Group B focused on Annie in Ash Setting and at home:

In Focus Group B, PEYERs and I watched segments of video footage of Annie at home and at school over two hours (Appendix 50, Sections 2c and 3b). During this time, PEYERs engaged in 'reconstructive analysis' by suggesting meanings or raising points regarding interactions, power relations and roles either verbally or writing on transcripts, for example (see over):

Figure 22: Focus Group B notes on watching Annie in a Literacy Lesson

While watching setting footage, notes made on transcripts):

On video footage of a whole class literacy lesson in Ash Setting, Annie is sitting at a table, with three other children, facing the Interactive Whiteboard (IWB). Other children are sitting on the carpet, facing the IWB.

PEYER ZZ: Responding to teacher questions / Giving a reasoned response / Giving visual attention to another child on the table who answers a question. (SA O5/ 1) (SA O5/ 1i)

PEYER B: Why is Annie sat at desk, not on carpet? / Annie engaged in teacher exposition. (SA O5/ 1ii)

PEYER I: The child waves her hand to? (SA O5/ 1iv)

PEYER D: Annie interacts / Annie responds – tries to draw attention to [from?] teacher (SA O5/ 1v)

Equally, PEYERs engaged in ‘dialogic data generation’ during this focus group (Carspecken, 1996: 42):

Figure 23: Focus Group B notes on watching Annie cook at home

Focus Group B (Home Footage) – PEYERs have watched video footage of Annie cooking (Annie Home Observation 2)

PEYER ZZ: *‘...looking at her as a researcher there were some quite interesting things happening I thought...what she was doing that all researchers do ... she’s using text for information, she was asking questions, she was observing what was happening and making observations on that – like – should this white bit of the shell be in here?’* (FGpB413)

PEYER W: *‘I think this was more how we’d see research’* (FGpB414)

PEYER D: *‘Kind of applying theory to practice’* (FGpB415)

Full transcripts are available at Appendices 106 and 107. These data triangulated the raw observation footage and data from interview conversations with Annie and Practitioner B as well as Family A’s focus group. Equally, data emerging from PEYERs Focus Group B provided further ‘guiding ideals’ (Blumer, 1969:2), for example, how questioning may be interpreted, supporting me in making analysis and interpretation decisions informed by participants once they could no longer be involved.

Table 42: Incidences of 4 prime Research Behaviours in Phase II and Phase III PEYERs Focus Groups	2-7 Explore	(13) Find a Solution	(19) Conceptualise	(26) Base Decisions on Evidence
PEYERs Phase II FGp	24	9	4	10
PEYERs Phase III FGp	22	21	7	12

13.4.4ii Beech Setting Practitioners' staggered Focus Group:

Practitioners C, E, I, J and K analysed and interpreted two hours of footage of Beech Setting children's activity captured on video. Practitioners C, E and I completed grids displaying RBF2 (Appendices 29, 58) and all contributed to discussion captured on audio-tape:

Table 43: Number of RBF2 grids completed by Beech Setting Practitioners during a Focus Group		
	# of Grids completed	FGp Discussion
Practitioner C	11	√
Practitioner E	15	√
Practitioner I	5	√
Practitioner J	0	√
Practitioner K	0	√

Data from this focus group informed development of the third and final Research Behaviours Framework (Appendix 30), as discussed. The footage Beech Setting practitioners watched included a range of Beech Setting children, featuring Gemma, Harry, India and Johnny. Equally, the range of RBF2 research behaviours was addressed but subsequently, the data for the four prime research behaviours that emerged from this focus group was emphasised (see over):

Table 44: Beech Setting - Practitioners' Focus Group Interpretations on RBF2: Incidence of 4 prime research behaviours identified on video footage		
4 Research Behaviours (RBF 2)	# of times Beech Setting Practitioners identified RB on video footage	
9. Base decisions on evidence	3	
13. Find solutions	8	
14. Find answers to questions	5	
28. Conceptualise	2	
29. Explore without an aim	Explore	6
30. Explore with an aim		12
31. Explore with an aim which changes during the process		2
32. Explore broadly		4
33. Explore with a fine focus		4
34. Critique explorations		2
35. Want to explore		11

Further detail of these outcomes is provided in Appendix 104 and translated to RBF3 as follows:

Table 45: Beech Setting - Practitioners' Focus Group Interpretations translated to RBF3: Incidence of 4 prime research behaviours identified on video footage			
2-7 Explore	(13) Find a Solution	(19) Conceptualise	(26) Base Decisions on Evidence
41	13	2	3

13.4.4iii Beech Setting Children's staggered Focus Group:

The Beech Setting children's staggered focus group did not work particularly well, because it proved difficult to capture the children discussing their activity; even when we did, it was difficult to discern between their interest in their activity and their interest in being 'on camera'! A little footage of their meta-analysis was captured and transcribed but the extent to which the children really engaged in meta-analysis of their prior activity seemed limited – possibly due to the focus young children tend to give to the 'here and now' (Graue and Walsh, 1995), for example (see over):

Primary Data: Original video footage (DVDT1) Setting B Home base – afternoon of Day 1	Meta-Data: Chn’s Interpretation of DVDT1 footage (on audio tape) DVDT set up on computer during free-flow play in Setting B home base	Interpretations / analysis / Codes	Code #
Harry focuses camcorder on India sitting on chair, drawing on small whiteboard on her lap.	India: ‘I’m there too – look!’	26. Base decisions on evidence	SB Interp_9
Researcher helps Harry to focus: ‘Can you see? Tilt it to India like this’			
Harry moves camcorder and pans India and A-girl	A-girl: ‘Ha – it’s me, it’s me!’	26. Base decisions on evidence	SB Interp_10
Harry (panning camcorder): ‘That’s India and A-girl!’	India: ‘It’s us look!’	26. Base decisions on evidence	SB Interp_11
Harry > Res: ‘How do you take a picture?’	India: ‘We were doing our pictures!’	26. Base decisions on evidence	SB Interp_12
	S-girl: ‘What are you doing?’	2 – 7 Explore	SB Interp_13
Researcher: ‘Well you’re doing it now!’			
Harry continues to film India while India is ‘la-la-ing’ into the lens.	India: ‘We’re looking at us doing our pictures.’	26. Base decisions on evidence	SB Interp_14
		19. Conceptualise	SB Interp_14i

(See appendix 105 for full transcript). Technical issues caused problems with securing the outcomes from this focus group: in a busy classroom the audio tape recording the meta-data did not capture the children’s voices effectively: it was difficult to identify which children spoke and what they said. However, each of the prime research behaviours was indicated within the few data available:

2-7 Explore	(13) Find a Solution	(19) Conceptualise	(26) Base Decisions on Evidence
2	1	3	16

13.4.4iv Family Focus Groups:

Whilst Billy and his mother provided an interview conversation series during their second visit to their home by me - first Billy’s mother spoke to me then he did - the second visits with Families A, C, D and E quickly developed into communal discussions so became focus groups. These focus groups and Family B’s interview conversations concerned data the families had collected over the period of a month

focused on Annie’s, Billy’s, Gemma’s, Harry’s and Martin’s naturalistic activity, providing meta-data, for example:

Figure 24: Martin’s Meta-data example

During the Family E focus group, Family E and the researcher are watching video footage of Martin drinking milk through a straw.

Martin tells the focus group: ‘I think I’m going to get down and say: “Mummy I finished my milk!”’ (HVIC M164)

As well as providing meta-data, the families provided their own primary data using these methods, for example:

Figure 25: Harry’s Data Example

During the Family D focus group, Harry takes a picture (HVIC H202)

Harry’s mother says to Harry: ‘Did you just take a picture?’ (HVIC H203)

Harry responds: ‘Yes but I will delete that one because it isn’t very good.’ (HVIC H204)

All were audio-taped and transcribed; full transcriptions with initial coding are available at Appendices 108, 109, 110, 111, 112). Each of the four prime research behaviours was indicated in meta-data and data that emerged from these methods of data co-construction with the families:

Table 48: Incidences of 4 prime Research Behaviours in Family Focus Groups / I-C	2-7 Explore	(13) Find a Solution	(19) Conceptualise	(26) Base Decisions on Evidence
Family A (FGp)	5	7	2	10
Family B (I-C)	6	8	9	7
Family C (FGp)	29	23	23	96
Family D (FGp)	8	6	1	2
Family E (FGp)	21	3	7	11

13.4.5 Findings from Phase II and III Informal discussions

Informal discussions took place naturally during both the orientation periods and the data construction periods in settings; these always included participants and were either separate from other methods or embedded within them. In settings they tended to present naturally but in the children’s homes, where my time with participants was limited, I deliberately built informal discussion into the focus groups to set participants at their ease and gain deeper understanding of their

perspectives. For example, I took along photographs of my own children to share with families because I wanted parents in the study to see me as their equal and therefore feel empowered in the research process. Equally such discussion had other functional benefits, such as enabling me to gain important information regarding the families' socio-economic status. For example:

Figure 26: Informal Discussion with Family D - example
Researcher: 'I should have said to you when I was showing you the pictures - he (my son) wants to be a pilot'...
FTHR-D: 'Does he want to be in the air force?'
Researcher: 'Yes.'
FTHR-D: '...it's a good start...'initially I wanted to be a fighter pilot but we haven't got the army - the air corps...in France...'
FTHR-D: '... we both do teaching at work' (HVIC H69)
Researcher >MTHR-D: 'Do you work for the airline... as well?'
MTHR-D: 'No I'm a flying instructor.' (HVIC H71)

Moreover, informal discussions were often prompts for memos which directed the research, for example:

Figure 27: Memo - Beech Setting - Day 7
While I am observing the children, Girl-A says to me: 'Mrs. Murray, stop looking at me!'
MEMO: indication that Girl-A may not wish to be a focus child.

The study's informal discussions often occurred serendipitously (Merton, 1968; Merton and Barber, 2004): they made 'unanticipated, anomalous and strategic' contributions to 'supplementary data' (Merton, 1968: 157; Charmaz, 2006: 21) enabling me to develop more 'guiding ideals' (Blumer, 1969:2) to move the study forward. Because informal discussions were often embedded in other methods, the units of meaning within them tended not to be allocated separate code numbers or codes purely as 'informal discussion' elements. They were generally analysed and interpreted as part of other methods, or their memos informed the study's trajectory purely qualitatively. For this reason, numerical data linking informal discussions to research behaviours were not generated systematically. Instead, the meanings these informal discussions conveyed fed into more formalised aspects of the study and informed its analysis and interpretations, for example, by revealing

'attitude as an explanation' of the ways in which people behaved (Blumer, 1969: 93). Examples of informal discussions are available in Appendix 113.

13.4.6 Findings from Phase II and III Documents

'Documents' were collected in the three settings, but not in homes, because they tended to have been generated by professionals and include planning, timetables, school prospectuses, inspection reports and website access. They also include floor plans of the three settings (Appendices 75, 76 and 77). They do not include children's artefacts which were treated as a separate data collection method. It would have been a relatively easy task to undertake a comparative study of the settings purely on the strength of documents, for example, Ofsted reports and prospectuses. However, given the study's focus on children as researchers, this was not how they were used. Essentially, they were applied in two ways. Firstly, they qualitatively 'thickened' descriptions of the settings (Geertz, 1973), providing supplementary data to evidence the events, actions, cultures and assumptions of the settings and those within them (Blumer, 1969; Charmaz, 2006:21). Secondly, the data from these documents complemented other methods by embedding information and meaning throughout the analysis and interpretation process. For example, the Ofsted inspection reports for the three settings provide evidence that all three settings had the same grading ('Good') at the time of the fieldwork, so variability regarding the settings' quality was minimal according to the nationally recognised model. Conversely each setting's distinctive ethos is indicated in prospectus comments:

Figure 28: Documents – Setting Prospectus Examples
<i>'Our school has a calm atmosphere that is creative, purposeful, industrious, courteous and disciplined'</i> (Ash Setting Prospectus, p.2)
<i>'The staff believe that the outside environment is as important as the classrooms themselves to help children learn...Relationships with parents are highly valued as we believe that children thrive best when school and home works in partnership.'</i> (Beech Setting Prospectus, p. 1)
<i>'You can be confident that we will strive to ensure your child is safe, happy and learning at all times.'</i> (Cherry Setting Prospectus, p.1)

Because of their complementary role, the documents were not coded discretely. A selection of these documents is available at Appendix 25, revealing *prima facie* other aspects of the settings' characteristics and cultures.

13.4.7 Findings from Phase II and III Children's Artefacts

Artefacts that children used or created as part of their daily lives formed part of the 'primary record' (Carspecken, 1996:44). Types of artefact that children interacted with included stationery, PE equipment, animals, toys, food, body parts, tools, technological objects and children's own creations; Appendix 26 provides a more detailed indicative list. Artefacts often constituted media for the children's communication and participation (Bitou and Waller, 2011) so a challenge was identifying their meanings. Again, given that the artefacts tended to supplement or complement other methods, additional ways to establish meanings as the children had intended were built into the study; elements of this process are shown in Appendix 26. The artefacts were a valuable way of respecting the children's contributions as they often reflected the children's own interests. All the RBF3 research behaviours were indicated in relation to the children's artefacts, including the four prime research behaviours.

13.4.8 Findings from Phase II and III Photographs

Photographs offered another window on children's daily experiences. Some of the photographs included in the study captured features of the study's environments, for example, photographs taken of Ash Setting (Appendix 27). These provided 'supplementary data' (Charmaz, 2006:21) to enhance the study's 'thick description'. Conversely, photographs taken by the children on digital cameras provided an indication of the things that interested them or were important to them, at least at the moment the image was captured (Wang and Burris, 1994; Clark and Moss, 2011). Gemma provided 170 photographs of this nature, taken in her home environment (Appendix 114). Furthermore, she elected to interpret them for me during the Family C Focus Group (Appendix 109), using them as a 'third object' (Mitchell, 1981) to reveal her perspective regarding her own activities in the preceding weeks. In this way, it was possible to attribute the four prime research behaviours to Gemma's behaviours, indicated in Appendix 109.

No photographs were taken in Cherry Setting because of the ethical constraints discussed. Ash and Beech Setting photographs taken by children on Tuffcams and by me were processed electronically, but a later computer malfunction meant that

many were lost. In short, Gemma’s ‘home’ photographs (Appendix 114) and some that I took of Ash Setting (Appendix 27) were the only photographs that emerged successfully. This indicated lessons to be learned regarding my management of photographic data during research in the future. No photographs were taken in children’s homes by Annie, Billy, Martin and their families, though I provided digital cameras for them all.

13.4.9 Findings from Phase II and III Video Recording

05.52.00 hours of video footage were recorded via two camcorders in Ash Setting and 10.44.00 hours of video footage were recorded via three camcorders in Beech Setting. Since camcorders recorded over three days in each setting, the reasons why there was more footage in Beech Setting was the additional camera and the fact that Beech Setting was larger than Ash Setting: filming was conducted in four spaces in Beech Setting, whereas in Ash Setting, it was only conducted in two. As discussed, ethical considerations prohibited video recording in Cherry Setting. All the home families apart from Billy’s provided video footage, as follows:

Table 49: Video Footage Data	
Families	Home Video Footage: Hours / minutes / seconds
Family A	00.14.39
Family B	00.00.00
Family C	02.51.08
Family D	00.43.27
Family E	01.46.36

Material captured on video was treated as primary observational data; as discussed, selected elements were transcribed as observations. The principle value of these data was that they enabled participants to engage in their collection as well as their analysis.

Some of the data appeared to be highly naturalistic, for example, Johnny making a wristwatch from paper in Beech Setting (Johnny – Setting Observation 1; Appendix 115); conversely, other footage suffered from the ‘Hawthorne effect’ (Mayo, 1933), for example, Annie’s home footage (Appendix 116). It may be argued that the more ‘staged’ occurrences skewed the data but even the most extreme examples were treated as naturalistic data: given its ethnographic nature, it was appropriate to

acknowledge my own participation and its effects embedded in the 'round of life' (Charmaz, 2006:21) and to respectfully acknowledge whatever ways the participants responded to my intrusion into their lives.

13.4.10 Findings from Phase II and III Audio Recording

As indicated, audio recording was used to complement the Phase II and III interview conversations and focus groups, reflecting work undertaken in Phase I. In general, audio recording was also useful as an analysis tool. However, it did not work well when it was used to record Beech Setting children's analyses of their pre-recorded behaviours: it was difficult to distinguish the children's voices. Otherwise, audio recording served as valuable reference material for transcriptions and to ensure participants' authentic voices were prominent in the data. The success of this was borne out by Phase II and III participants' verification of interview conversation and focus group transcripts.

13.4.11 Findings from Phase II and III Analysis Sheets

The following analysis sheets were completed for Phases II and III:

Completed by>>	PEYERs	Practitioners	Primary Carers	Focus Children	Researcher
RBF 1 Appendix 28	✓			✓ via researcher: settings	
RBF 2 Appendix 29		✓		✓ via researcher: settings	
RBF3 Appendix 30					✓
Family <u>Adult</u> Analysis Sheets (based on RBFs) Appendices 41, 42, 65, 63, 62, 69, 73, 101			✓		
Family <u>Child</u> Analysis Sheets (based on RBFs) Appendices 43, 44, 66, 64, 68, 70, 74				✓ (homes)	

The analysis sheets framed participants' analysis and interpretation of children's behaviours observed in their settings and at home, some of which had been video recorded. The analysis sheets indicated that all research behaviours presented in RBF3 were observed in children's behaviours, including the four prime research behaviours.

13.5 Findings emerging from Continued Analysis and Interpretation of the Four Prime Research Behaviours

13.5.1 Categories

Once data collection, analysis and interpretation had been completed with participants as far as possible, I continued alone according to the procedure outlined in Chapter 11 and Appendix 50, pursuing analysis and interpretation under the influence of the 'guiding ideals' provided by the participants at earlier stages (Blumer, 1969:2). Having ensured that all the data were transcribed, I continued the initial coding and early memo-writing that I had begun with participants. As, indicated, the Nominal Grouping Exercise was invoked with PEYERs (Delbecq and VandeVen, 1971), resulting in 'categories': codes of 'overriding significance' (Charmaz, 2006: 186) which were, in practice, the four prime research behaviours:

(2-7) Explore
(13) Find a Solution
(19) Conceptualise
(26) Base Decisions on Evidence

Another method for reducing the large volume of data was exclusive focus on the seventeen 'main focus' children in Phase II and the five selected 'Home' children in Phase III. Furthermore, the potential range of observations was limited by criteria that included an even representation across participants and diversity of focus across the data.

13.5.2 Axial Codes

Taking the four prime research behaviours one at a time, the next task was to isolate each occurrence of each category within the data and then to induce axial codes from these occurrences. The axial codes were evolved through constant comparison of '...phenomena, contexts, causal and intervening conditions and consequences' and consideration of their relevance for this study of young children as researchers (Kelle, 2005: 8). In these ways, axial coding provided definition of each category by 'explicating its properties or characteristics' (Charmaz, 2006: 82). For example, Martin's small world play with toy polar animals was given the following treatment:

Figure 29: Example of Axial Coding					
(19) CONCEPTUALISE					
SETTING C / CHILD M / OBSERVATION 8					
Context: Setting C outdoor area. A very hot day. Free-flow play and adult focused activities. Ch-M has been playing in the safari in Setting C's outdoor area. He interrupted his play to go to the loo and is just now returning to play					
SUMMARY: Incidence of (19) Conceptualise: x1					
AXIAL CODES: 8. Developing own idea[s] from external stimulus x1 10. Linking prior knowledge to new application x1 11. Creating an imagined space / persona x1 12. Using imagination x1 13. Using language to support thinking process x1 14. Engaged in symbolic representation x1 17. Making links x1					
OTHER ACTIVITY	CHILD M	19. Conceptualise	CODE	AXIAL CODE	
	Playing with Chilly Polar Regions small world play				
	Puts owl figure behind steering wheel: 'I'm steering, I'm steering!'	19. Conceptualise	SO_C8 Ch_M20i	8.	Developing own idea[s] from external stimulus
				10.	Linking prior knowledge to new application
				11.	Creating an imagined space / persona
				12.	Using imagination
				13.	Using language to support thinking process
				14.	Engaged in symbolic representation
			17.	Making links	

Often, single vignettes were reported and analysed using several methods implemented at different stages of the study by different participants. In these cases, all the axial codes identified across all the methods were accumulated. For example, four methods indicating the research behaviour '26: Base Decisions on Evidence' focused on a vignette of Harry working out how to set up a camera tripod. The first two methods were video footage captured by Harry's father at home and an unstructured narrative, transcribed and coded by me from the footage. A third method was Harry's own analysis sheet relating to the vignette which I analysed later against RBF3 for evidence of '26. Base Decisions on Evidence'. Finally, the vignette was alluded to during the Family D Focus Group and coded with the research behaviour '26. Base Decisions on Evidence'. For each occurrence of '26. Base Decisions on Evidence' in these methods, axial codes were elicited and applied, contributing to the shaping of the category '26: Base Decisions on Evidence':

Figure 30: Tripod (1/2)

**Basic Naturalistic Observation
and Researcher 1 Interpretation of
Ch-H Home [HV-F D] OBSERVATION 5 [DVD]**

Tripod

SUMMARY:

- Incidences of (26) Base decisions on evidence x2

AXIAL CODES:

- 1. Applies prior experience x1
- 4. Acts on adult opinion x1
- 5. Meta-cognition x1
- 6. Applies mental model x1
- 10. Extrapolates x1

Setting B

Live Naturalistic observation

Date: 3.8.09

HOME D/FAMILY D

- MTHR-D
- FTHR-D
- BRO-D [age 4]

KEY FOCUS CHILD H [Ch-H] [age 5]

Timing	Report of 'other' activity in context	Location of Focus Child	Report of Focus Child Activity	RESEARCHER Interpretation	Code	Axial Code	Code No.
3.8.09 13.54 - 20.24	<i>FTHR-D, then BRO-D are videoing. FTHR-D is also guiding when necessary to support Ch-H to achieve his aim. FTHR-D records his judgements about CH-H's research behaviours onto a provided checklist</i>	<i>Kitchen at Family D's home</i>	<ul style="list-style-type: none"> • <i>Ch-H</i> • <i>FTHR-D: OBSERVER</i> • <i>BRO-D</i> <i>Ch-H is working out – with help of FTHR-D and BRO-D how to unpack and set up the tripod</i>				
	FTHR-D: 'OK So how are you going to get it out of the bag?						
			'Well my brother's going to pull and I'm going to pull so we can try to get it out.'				
	BRO-D making a noise like a car engine		'Once, when I was at primary school, we <i>did</i> get it out and I think we'll probably be able to do it'	26. Base decisions on evidence	HVF D5-4	1 5 6 10	Applies prior experience Meta-cognition Applies mental model Extrapolates Ch_H /HoO bs5/1 Ch_H /HoO bs5/2 Ch_H /HoO bs5/3 Ch_H /HoO bs5/4

	FTHR-D: 'Always hold with one hand above so it doesn't fall on your head.' That's it – and unfold the legs. You see these ones are already in.'							
			Looks where his father suggests and pushes the legs in	26. Base decisions on evidence	HVF D5-42ii	4	Acts on adult opinion	Ch_H /HoO bs5/5

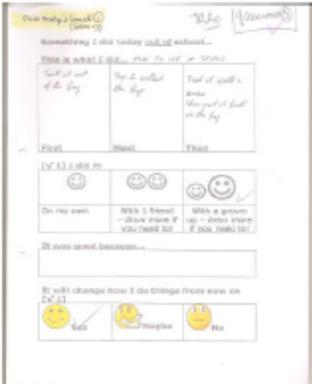
Figure 31: Tripod (3)				
Ch-H Child Analysis Sheet 1 of Observation 5 Ch-H Home [HV-F D] OBSERVATION 5 [DVD] 26. Base Decisions on Evidence <i>Tripod</i>				
Ch-H's own report of Observation 5 [reported on provided pro-forma and scribed by MTHR-D]. See Naturalistic Observation 5 for broader detail.				
SUMMARY: <ul style="list-style-type: none"> Incidences of (26) Base decisions on evidence x3 AXIAL CODES: <ul style="list-style-type: none"> 1. Applies prior experience x1 3. Senses provide evidence for action x1 5. Meta-cognition x1 		Harry's original analysis sheet: 		
Utterance / Action	CHILD Interpretation	Code	Axial Code	Code No.
This is what I did: How to use a Tripod				
First: Took it out of the bag	26. Base decisions on evidence	Ch_H_An/Obs5/1	3	Senses provide evidence for action
Next: Try to extend the legs	26. Base decisions on evidence	Ch_H_An/Obs5/	1	Applies prior experience
Then: Tried it with a camera. Put it back in bag				
I did it: With a grown up				
It was good because: -				
It will change how I do things from now on: YES/ MAYBE NO	26. Base decisions on evidence	Ch_H_An/Obs5/	5	Meta-cognition

Figure 32: Tripod (4)					
Child H					
Family D Focus Group					
Audio-recorded + transcribed / Informed by: Photographs, Video footage					
26. Base Decisions on Evidence					
SUMMARY:					
<ul style="list-style-type: none"> • Incidences of (26) Base decisions on evidence x2 					
AXIAL CODES:					
<ul style="list-style-type: none"> • 1. Applies prior experience x1 • 3. Senses provide evidence for action x1 • 4. Acts on adult opinion x1 					
Strand 5b –					
Child H - Home D Interview Conversation / August 2009					
Researcher					
Father D = FTHR-D					
Mother D = MTHR-D					
Child H = Ch-H					
Brother D = BRO-D					
Beginning at 10am on 12.8.09, this I-C was conducted in Family D's kitchen around their table, with Ch-H and Bro-D playing in and out of the kitchen and dipping in and out of the conversation. The boys' play was quite loud and was inevitably picked up by the tape recorder, making it relatively difficult to discern all the discussion when played back.					
Utterance / Action	Interpretations / 1 st analysis	CODE NO.	Axial Code		Code No.
Harry: 'Oh no – the bubble is not in the middle.' [Ref: spirit level in the tripod]	26. Base decisions on evidence	HVIC H173iii	1	Applies prior experience	FamD/ChH I.C./1
			3	Senses provide evidence for action	FamD/ChH I.C./2
			4	Acts on adult opinion	FamD/ChH I.C./3

This process led to a set of axial codes – or sub-categories - for each of the four prime research behaviours:

Figure 33: Axial Codes (sub-categories) for 4 Prime Research Behaviours			
[2-7] Explore	(13) Find a solution	(19) Conceptualise	(26) Base Decisions on Evidence
E1. Interested in context	FaS 1. Gives up	C1. Invents a process / method	BDoE1. Applies prior experience
E2. Social encounter	FaS 2. Has become disinterested	C2. Creates a new use for object[s]	BDoE2. Values peer perspectives
E3. Focused on task	FaS 3. Unmotivated	C3. Thinking through a problem by applying concepts	BDoE3. Senses provide evidence for action
E4. Shows interest in materials	FaS 4. Following adult's direction	C4. Thinking tangentially	BDoE4. Acts on adult opinion
E5. Curious	FaS 5. Responding to adult's closed questions	C5. Predicts	BDoE5. Meta-cognition
E6. Seeking	FaS 6. Responding to adult's semi-open questions	C6. Creating a problem	BDoE6. Applies mental model
E7. Develops own agenda	FaS 7. Reproducing knowledge s/he already had	C7. Synthesising concepts	BDoE7. Trial and error
E8. Cause and effect	FaS 8. Believes s/he has failed	C8. Developing own idea[s] from external stimulus	BDoE8. Thinks strategically
E9. Experiment	FaS 9. Denied opportunity to share solution	C9. Involved in pursuing a train of thought	BDoE9. Enacts personal preference
E10. Patterned behaviour	FaS 10. Solution not shared with or witnessed by others: unconfirmed	C10. Linking prior knowledge to new application	BDoE10. Extrapolates
	FaS 11. Solution not shared with or witnessed by others	C11. Creating an imagined space / persona	BDoE11. Methodological issue
	FaS 12. Solution unconfirmed	C12. Using imagination	BDoE12. Sampling issue
	FaS 13. Self-regulates	C13. Using language to	BDoE13. Applies

		support thinking process	Humean 'reason'
	FaS 14. Creates a problem to solve	C14. Engaged in symbolic representation	BDoE14. 26.BDoE = Research
	FaS 15. Time and freedom to explore, investigate, experiment with something of personal interest	C15. Planning	
	FaS 16. Focused on something of personal interest	C16. Works with others to develop conceptualisation	
	FaS 17. Exploring properties	C17. Making links - ANALOGY	
	FaS 18. Perseveres to resolve problem	C18. Autonomously deciding what needs to be done and doing it	
	FaS 19. Devises practical method to create solution	C19. Identifies anomaly	
	FaS 20. Applying rule to create solution	C20. Applies anthropomorphism	
	FaS 21. Deductive reasoning	C21. Recalling instructions	
	FaS 22. Inductive reasoning	C22. Following adult's direction	
	FaS 23. Finds own solution	C23. Makes decisions based on own criteria	
	FaS 24. Finds practical use for solution	C24. Adult stops conceptualisation	
	FaS 25. Resolves another person's problem		
	FaS 26. Shares solution		
	FaS 27. Motivated by finding solution		
	FaS 28. Excited by finding solution		
	FaS 29. Wants to preserve what s/he is doing		
	FaS 30. Employs others to help with finding a solution		
	FaS 31. Able reader		
	FaS 32. Theory of mind		

The numbers of axial codes in settings and homes were also identified (Appendix 117 and below), indicating a substantial volume of data, notwithstanding the limit within the study to four categories (see over):

Figure 34: Numerical Data across 4 Prime Research Behaviours	
[2-7] Explore	
Setting Data	<u>361</u> incidences of <u>(2-7) Explore</u> in setting data/meta-data <u>1349</u> incidences of various axial codes for <u>(2-7) Explore</u> in setting data/meta-data <u>88</u> setting analyses contain <u>(2-7) Explore</u>
Home Data	<u>275</u> incidences of <u>(2-7) Explore</u> in home data/meta-data <u>1484</u> incidences of various axial codes for <u>(2-7) Explore</u> in home data/meta-data <u>53</u> home analyses containing <u>(2-7) Explore</u>
(13) Find a solution	
Setting Data	<u>179</u> incidences of <u>(13) Find a solution</u> in setting data/meta-data <u>499</u> incidences of various axial codes for <u>(13) Find a solution</u> in setting data/meta-data <u>56</u> setting analyses contain <u>(13) Find a solution</u>
Home Data	<u>126</u> incidences of <u>(13) Find a solution</u> in home data/meta-data <u>584</u> incidences of various axial codes for <u>(13) Find a solution</u> in home data/meta-data <u>36</u> home analyses contain <u>(13) Find a Solution</u>
(19) Conceptualise	
Setting Data	<u>157</u> incidences of <u>(19) Conceptualise</u> in setting data/meta-data <u>833</u> incidences of various axial codes for <u>(19) Conceptualise</u> in setting data/meta-data <u>44</u> setting analyses contain <u>(19) Conceptualise</u>
Home Data	<u>111</u> incidences of <u>(19) Conceptualise</u> in home data/meta-data <u>769</u> incidences of various axial codes for <u>(19) Conceptualise</u> in home data/meta-data <u>31</u> home analyses contain <u>(19) Conceptualise</u>
(26) Base Decisions on Evidence	
Setting Data	<u>181</u> incidences of <u>(26) Base Decisions on Evidence</u> in setting data/meta-data <u>442</u> incidences of various axial codes for <u>(26) Base Decisions on Evidence</u> in setting data/meta-data <u>50</u> setting analyses contain <u>(26) Base Decisions on Evidence</u>
Home Data	<u>211</u> incidences of <u>(26) Base Decisions on Evidence</u> in home data/meta-data <u>333</u> incidences of various axial codes for <u>(26) Base Decisions on Evidence</u> in home data/meta-data <u>34</u> home analyses contain <u>(26) Base Decisions on Evidence</u>

By this point in the analysis and interpretation process, early memo-writing, initial coding, focused coding (NGT) resulting in four categories and axial coding had taken place. The remainder of the analysis and interpretation was devoted to advanced memo-writing and theoretical coding (Charmaz, 2006).

13.5.3 Advanced Memo-writing

The development of advanced memo-writing was addressed inductively, addressing the second of the study's research questions: *2) How can a study be conducted to establish young children as researchers?* As I pursued this process, Charmaz's advice prevailed: *'...do what works for you...keep writing memos...in whatever way advances your thinking'* (2006:80). A number of different styles of memo writing were developed.

13.5.3i Substantive advanced memos

Firstly, a 'substantive advanced memo' was developed for each of the four categories (Appendix 118). Congruent with Charmaz's rubric for developing advanced memos, these memos focused strongly on the literature in order to identify extant values, beliefs and assumptions relating to each category and to explore each 'from various vantage points' (2006:81). In themselves, these memos remained distant from the empirical data but they provided a foundation of understanding and 'ideation' against which empirical data could later be compared. In the context of this CGT study, it is important to note that this interaction with the literature occurred only after the four core categories and their sub-categories had emerged purely from the empirical data so that conceptual development framed around the empirical data was already well progressed (Holton, 2007). This set of memos was also developed immediately prior to the study's second and third literature reviews being written; relevant elements from those reviews were later included as addenda. In addition to being part of the CGT analysis and interpretation these memos also provided a secure basis for engagement in critical ethnography's processes including 'reconstructive analysis' (Carspecken, 1996) and 'repeated thinking' (Thomas, 1993:46) as well as a foundation for analytic statements common to case study (Basse, 1999; Yin, 2012). This process is exemplified at Appendix 138. It operated very much as a literature review, but retrospectively to data collection. For a given category (research behaviour) that had emerged from empirical data, relevant sources from the literature were accessed and themes identified and conclusions drawn, with reference to empirical data. Subsequently, these were interwoven with empirical data with a view to developing theory or a plausible account.

13.5.3ii Comparative memos

Another set of memos was developed (Appendix 119), which were initially intended as theoretical coding but in practice provided a 'stepping stone' towards theoretical coding. I termed these 'comparative memos'. Taking one category at a time, each individual child's empirical data for that category were juxtaposed against the original study questions, particularly the fourth (4: *What support structures might encourage young children to participate in research in ways which could enable*

them to influence policy in matters affecting them? What barriers might prevent this?), which was developed into key points:

- Provocations for 'Explore'
- Barriers to 'Explore'
- What is important for this child?
- Other notes
- Questions...

During this process, the empirical data were the principle focus, but the literature revealed during the previous set of memos was also an influence. Taking into account Charmaz's advice to keep memo-writing 'spontaneous, not mechanical' and to write memos 'in whatever way advances your thinking' (2006:80), models for this process were adapted as it progressed, enabling me to consider the second of the study's research questions empirically: 2) *How can a study be conducted to establish young children as researchers?* Initially, I took one category at a time and moved quickly through each child's observations within the category, to elicit a summary of key points in relation to provocations, barriers, what was important for the child and other relevant points and questions. I did this for settings, then homes in each of the four categories, initially noting key points:

Figure 35: Example of Comparative Memos
(2-7) Explore Comparative memos - ASH SETTING - Demi
<p><u>Provocations for 'Explore':</u> Interest in activity other than directed task Interested in materials Wants to prolong time inside at break Enjoys engaging in associative play - watching others (Broadhead, 2001)</p> <p><u>Barriers to 'Explore':</u> Has adopted stereotypical gender-specific behaviour ['good girl', 'helpful girl', girl not playing football]</p> <p><u>What is important for this child?</u> To do the 'right' things [wants to stay inside at playtime but goes outside when told to]</p> <p><u>Other notes:</u> Seems very much an onlooker and a conformer - missing out on experiential activity</p>
<p>QUESTIONS ARISING - SETTING A - CHILD D</p> <p>Is this conforming quiet child the one who will succeed? She does her work as expected and conforms but rarely engages autonomously in exploration of her own</p>

However, part-way into this process, I identified that noting only the key points without showing precisely which data I had drawn them from might be problematic later in developing the theoretical element of the work. Therefore, as the process progressed, I added the data code numbers to show precisely where points had emerged from, for example:

Figure 36: Example of Detail in Comparative Memos
(2-7) Explore Comparative memos - HOME E - Martin
<p><u>Provocations for 'Explore':</u></p> <ul style="list-style-type: none"> • Objects, tools, media (HVF E1 - 1 / HVF E2-14i / HVF E3-3i / HVF E3-8ii / HVF E4i + HVF E4ii / HVF E5-1i / HVF E6-1i / HVF E6-3i / HVF E6-4i / HVF E6-5i / HVF E6-9i / HVF E6-10i + HVF E6-10ii / HVF E6-12i / HVF E6-16i / <u>HVF E12-102 - HVF E12-104</u> / HVF E27-22 / HVF E27-23 / HVF E27-30 / HVF E27-32 / HVF E27-34 / HVIC M43 / HVIC M60ii / HVIC M71 / HVIC M334 / HVIC M336) • Interest in world outside home (HVF E12-3 / HVF E12-5i / HVF E12-9 / HVF E12-20 / HVF E12-22 / HVF E12-42 / HVF E12-44 / HVF E12-69 / HVF E12-71 / HVF E12-75 / HVF E12-80 / Parent Analysis sheet 30 (Qs about moon and sun) • Home context (HVF E3-21ii / HVF E4i + HVF E4ii / HVF E6-2i / HVF E6-10i + HVF E6-10ii / HVF E6-20i / HVF E12-38 / HVF E12-40 / HVIC M43) • Other people (HVF E1 - 1 / HVF E3-3i / HVF E3-4i / HVF E5-1i / HVF E6-1i / HVF E6-3i / HVF E6-5i / HVF E6-9i / Naturalistic Observation 12 (<i>Attention of MTHR-E</i>) / <u>HVF E12-46 - HVF E12-50 / HVF E12-52 - HVF E12-58 / HVF E12-69 / Parent</u>

Analysis sheet 28a (grandparents) /

- **Popular culture** (HVF E27-22 / HVF E27-23 / HVF E27-30 / HVF E27-32 / HVF E27-34 / Parent Analysis sheet 28a / Child Analysis sheet 28 / HVIC M6 / HVIC M43 / HVIC M308 / HVIC M223)
- **Delays bedtime** (Naturalistic Observation 12 / Parent Analysis sheet 30 (Qs about moon and sun) / HVIC M100 / HVIC M340)
- **Desire to test (ideas and objects)** (HVF E6-6i / HVF E12-46 - HVF E12-50 / HVF E12-52 - HVF E12-58 / HVF E12-82 / Parent Analysis sheet 30 (Qs about moon and sun) / HVIC M71 / HVIC M100 / HVIC M113 / HVIC M331 / HVIC M340)

Barriers to 'Explore':

- **Lack of technical expertise** (HVF E1 - 1 / HVF E3-3i / HVF E3-8)
- **Rehearsing processes already learned or undertaken** (HVF E3-9 > HVF E3-15 / HVIC M133 > HVIC M192)
- **Other people** (HVF E2-3ii > HVF E2-4 / HVF E2-6i + HVF E2-6ii / HVF E2-8 / HVF E2-11 / HVF E2-12 / HVF E3-23 > HVF E3-24 (*FTHR-E removes camcorder*) / HVF E5-2 / HVF E6-14 / HVF E6-15 / HVF E12-11 > HVF E12-19 / HVF E12-23 > HVF E12-37 / HVIC M60i (*MTHR-E suggests Ch-M did not want to explore with video camera, but other evidence disputes this*))
- **Pro-forma or instruction provided** (HVF E2-5 / HVF E2-7 / HVF E2-11 / HVF E2-12ii / HVF E2-12iv / HVF E2-16 / HVF E27-1 > HVF E27-21 / Child Analysis sheet 29b (Tennis Club) / Adult Analysis sheet 29a / HVIC M2 > HVIC M6 / HVIC M8 / HVIC M10 > HVIC M42 / HVIC M87 > HVIC M91 / HVIC M127 - HVIC M129)
- **Interruption to chosen activity** (HVF E3-23 > HVF E3-24 (*FTHR-E removes camcorder*) / HVF E4-3 / HVF E5-2)

What is important for this child?

- **Other people** (HVF E14-5i + HVF E14-5ii)
- **Meta-analysis** (HVF E2-14i / HVF E2-18 / HVF E-4 -5i + HVF E-4 -5ii / HVF E6-5i / HVF E6-9i / HVF E6-12i / HVF E6-16i / HVF E12-46 - HVF E12-50 / HVF E12-52 - HVF E12-58 / Child Analysis sheet 28 / HVIC M113 / Child Analysis sheet 28b / Child Analysis sheet 29b)
- **Popular culture (Ben 10 & Star Wars)** (HVF E27-22 / HVF E27-23 / HVF E27-30 / HVF E27-32 / HVF E27-34 / Parent Analysis sheet 28a / Child Analysis sheet 28 / HVIC M6 / HVIC M43 / HVIC M308)
- **Autonomy, including ability to read** (HVF E3-21i / HVF E-4 -5i + HVF E-4 -5ii / HVF E12-102 - HVF E12-104 / Ch-M Natural Observation 27 / HVIC M6 / HVIC M71)

Other notes:

- Some features act as both provocation and barrier ('Other people' / Star Wars cards)
- Camcorder provide a significant provocation
- Adults (esp. MTHR-E) sometimes undermine CH-M's exploration by requiring verbal interaction and verbal exposition of his actions.
- Popular culture assumes an important role in Ch-M's home experiences

QUESTIONS...

- Does language impair exploration / opportunities for exploration?
- Does Ch-M's meta-analysis relate to Whitebread's work on self-regulation?

13.5.3iii Theoretical coding

Because of the present study's commitment to participatory, emancipatory and inductive approaches, at this point in the analysis I rejected the use of pre-formed theoretical coding 'families' (Glaser, 1978; 1998) in favour of constructing theoretical codes as they emerged from continued analysis and interpretation of the

data at hand. This was a priority given that pre-formed research questions as well as literature had already influenced the analysis and interpretation process: I was concerned to minimise 'framing' with prefabricated material so that the study's character of openness was maintained. The selected method for theoretical coding was planned to ensure that preceding analysis and interpretations informed the emergent theoretical codes, providing rigour and integrity within the findings.

Having already spent time and energy analysing and interpreting data, as I moved to this stage I believed I could elevate the comparative memos to theoretical codes fairly speedily. I sought to do this by making further comparisons of the data quickly: child with child, memo with memo, sub-category with sub-category and category with category, with outcomes conflated to shape discursive accounts for each setting and home within each category (Theoretical Coding (i)). Once I had undertaken this process with setting data for '(2-7) Explore', '(13) Find a Solution' and '(19) Conceptualise', I reflected. Whilst theoretical codes had begun to emerge authentically from the data (Appendix 120) and my experience of following through the whole study provided confidence that output was robust, I could not be certain that others would share my confidence, given only discursive accounts as evidence. I believed that the process could – and should - be improved to *demonstrate* with 'precision and clarity' the rigour involved (Charmaz, 2006: 82). Therefore, I developed a model that showed more explicitly how this element of the analysis and interpretation was implemented. Individual vignettes were interrogated in detailed ways that drew overtly on previous stages of coding and memos as 'guiding ideals' (Blumer, 1969: 2) (Theoretical Coding (ii): see Appendix 121 for an example).

Figure 37: Demonstrating Theoretical Coding

Theoretical Coding (i) and (ii)		Discursive accounts	Interrogation of individual vignettes
(2-7) Explore	Settings	√	
	Homes		√
(13) Find a Solution	Settings	√	
	Homes		√
(19) Conceptualise	Settings	√	
	Homes		√
(26) Base Decisions on Evidence	Settings		√
	Homes		√

Drawing further on the intelligence co-constructed throughout the study's entire analysis and interpretation process, it was then possible to compare categories and

sub-categories in another strand of theoretical coding (Theoretical Coding (iii): Appendix 122). This strand indicated correlations between sub-categories, specifying possible relationships between categories. Furthermore, viewing these theoretical coding stages through the study's different methodological lenses, processes of 'discovering system relations' (Carspecken, 1996:42), 'repeated thinking' (Thomas, 1993: 46), 'listening' (Clark and Moss, 2001) and analytic statement-making (Bassegy, 1999; Yin, 2012) were simultaneously occurring.

One last stage of theoretical coding was undertaken to capture the embodied meanings of each set of correlations in a descriptor:

Table 52: Theoretical Coding (iv)
a) Applications of prior experience
b) Innovation
c) Social domains
d) Autonomy
e) Material contexts
f) Cognitive domains
g) Dispositions
h) Methodological issues
i) Outliers

13.6 Summary

Notwithstanding significant efforts to limit the volume of data and meta-data, the study's analysis and interpretation elicited a substantial body of material:

Table 53: Volume of Material in the Study			
Prime Research Behaviour	Sections	Number of pages	Number of words
(2-7) Explore	1	190	29,376
	2	181	42,144
	3	65	20,813
	Sub-total	436	92,333
(13) Find a Solution	1	162	20,769
	2	208	62,758
	Sub-total	370	83,527
(19) Conceptualise	1	100	19,597
	2	177	31,393
	3	84	33,255
	Sub-total	361	84,245
(26) Base Decisions on Evidence	1	225	48,235
	2	252	88,921
	3	166	49,202
	Sub-total	643	186,358
4 Prime Research Behaviours:	Total	1810	446,463

The table above provides evidence of the levels of complexity that emerged during this study, notwithstanding attempts to reduce the data. Within the constraints of the thesis, it is not possible to present comprehensively the data and meta-data; instead, examples are presented in its body and appendices to illustrate the process. The thesis now turns to discussing these findings in terms of their potential meanings.

Chapter 14:

Discussion - Provocations for Young Children's Research Behaviours

14.1 Introduction

This 'Discussion' chapter focuses on the findings in terms of their potential meanings; in the context of this doctoral thesis, this has regard to the study's original aim and research questions. It is concerned with the study's findings regarding enquiries that seem important to young children and the support structures that might encourage them to participate in research; in other words, provocations for young children's research engagements.

In the study, academy members identified thirty-nine research behaviours, indicating four of particular importance: exploration, problem-solving, conceptualisation and the basing of decisions on evidence. The data contained many examples of children's behaviours and the analysis and interpretation process elicited meanings that became interwoven with these behaviours. As is the nature of scientific enquiry, meanings relating to individual episodes remain tentative (Popper, 1953), yet together they build to a fuller picture supporting a claim that children aged 4-8 years engage in research behaviours. Consequently, a level of confidence can be secured that children aged 4-8 years may be considered researchers. There are too many examples of children's behaviours to include all in the Discussion chapter, so a representative selection is showcased. That representative selection covers the range of focus, settings, homes, participating children, and theoretical codes (Charmaz, 2006). This chapter is framed by the nine factors which were illuminated by the study's theoretical coding as effecting and affecting young children's research behaviours:

Table 54: Theoretical Coding (iv)
a) Applications of prior experience
b) Innovation
c) Social domains
d) Autonomy
e) Material contexts
f) Cognitive domains
g) Dispositions
h) Methodological issues
i) Outliers

14.2 Applications of prior experience (a)

Applications of prior experiences resonate with a key philosophical idea that informs the academy's research activity and esteem: *a posteriori* conceptualisation (Scruton, 2001). Kant (1787) argued that sensation *per se* provides no basis for judgement; rather it is mental activity that leads to judgement. Furthermore, Kant (1787) suggested that such mental activity falls into two conceptual categories: *a priori* (analytic) propositions which have no basis in first-hand experience and *a posteriori* (synthetic) propositions which are predicated on experience but can only lead to judgement in combination with mental activity. Bridges (2003) describes *a priori* concepts as 'philosophical' and *a posteriori* concepts as 'empirical / scientific' (p.21), suggesting that 'philosophising in educational research' includes both. *A posteriori* conceptualisations seemed easier to identify in the present study's data co-construction than were *a priori* conceptualisations and children's applications of prior experiences that were identified included:

Table 55: a) Applications of prior experience	
E10. Patterned behaviour	
FaS 7. Reproducing knowledge s/he already had	
FaS 20. Applying rule to create solution	
FaS 24. Finds practical use for solution	
FaS 29. Wants to preserve what s/he is doing	
FaS 31. Able reader	
C3. Thinking through a problem by applying concepts	
C4. Thinking tangentially	
<i>Barrier</i>	<i>C7. Synthesising concepts</i>
C10. Linking prior knowledge to new application	
C21. Recalling instructions	
BDoE1. Applies prior experience	
BDoE6. Applies mental model	
BDoE10. Extrapolates	

One sub-category within 'Applications of prior experience' – '*FaS 7. Reproducing knowledge they already had*' acted as a barrier to children's research behaviours (Appendix 127).

Applications of prior experiences relating to **children's explorations** were manifested through patterned behaviour (E10).

Children's explorations through **patterned behaviours** presented in various ways: conforming to adult expectations, applying skills acquired from adults and engaging in exploratory research behaviours such as testing, experimenting, studying or

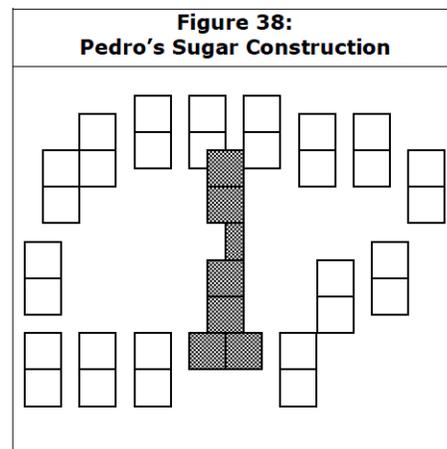
examining (Stebbins, 2001). In their settings, children were often expected by practitioners to conform to socio-cultural conventions (Cannella, 2002), aligning with socio-cultural transmission theories (Durkheim, 1893; Parsons 1951; Bourdieu and Passeron, 1977) and reflecting economically driven policies of preparation for lifetime outcomes (Becker, 1964; Qvortrup, 1994; Mayall, 2008; DfE, 2010b). In this context, one day, Martin raised and lowered his hand five times in response to the teacher's questioning, without receiving a response (SO_C2 Ch_M2i SO_C2 Ch_M11i); here, an 'ethics of encounter' characterised by *mutual* respect was sidelined by the practitioner (Dahlberg and Moss, 2005). Another time, Annie repeatedly listened to other children and her teacher during an Ash Setting literacy lesson, apparently to acquire information (Stebbins, 2001) (SA O5/ 6; SA O5/ 7; SA O5/ 8i). However, Annie's reasons for this seemed less about her own rights, abilities and interests (New, 2000) than a moral development stage she seemed to be at which bound her into the maintenance of rules, adult authority and being seen as 'good' (Kohlberg, 1984:174-175).

Applications of prior experiences relating to **children finding solutions** occurred when children applied rules to create solutions (FaS 20), found practical uses for solutions (FaS 24), wanted to preserve what they are doing (FaS 29) and showed their ability to read (FaS 31).

Children **applied rules to create solutions** (FaS 20), often seeming to employ experimental approaches with an '...idea of generality – the single, universally correct method that will work for all problems and for all people' (Papert, 1993:143-144). This tended to present as a 'what works' rubric: children seemed to perceive that what they had learned previously could 'be translated into rules for action...' (Biesta, 2007:11). Many examples seemed focused on literacy and numeracy, indicating this as a current emphasis within young children's lives in England (West, 2010, DfE, 2010b). This was exemplified by Gemma who applied analogy (Goswami, 1992), phonological knowledge (Johnston and Watson, 2005) and complex grapho-phonetic cues (Goouch and Lambirth, 2011) to attempt to spell as her grandmother directed her to complete a literacy task at home (HVF C4-19).

Sometimes children discovered **practical uses for the solutions** they had found (FaS 24): some were quite mundane. For example, when Gemma was baking at home, she had found her cookie dough too sticky to work with and solved this problem by using flour; she then used her solution by creating a cookie shape, slowly sliding the dough onto her hands and lifting it onto a tray ready for baking and eating, saying to her grandmother and brother: 'I'm doing it easily. It's easy for me' (HVF C5-104). This is characteristic of pragmatism (Bridges, 2003) - 'practical knowledge' that recognises 'we are always part of the world we study' (Griffiths and MacLeod, 2008:128-9; Siraj-Blatchford, 1994: 18).

On other occasions, children wanted to **preserve their solutions** (FaS 29), suggesting they valued them. This resonates with the 'Capabilities Approach' (Sen, 1985; Nussbaum, 2000; Alkire and Deneulin, 2009) as well as the 'new sociology of children' (Corsaro, 2005:3), in which children's agency is recognised (Moss and Petrie, 2002; James and James 2008). When Pedro built an 'igloo' from sugar cubes - a teacher-directed task - he warned another child not to nudge the table, saying: 'That's going to break it'. When his prediction was reified, Pedro began constructing again, though this time, he designed and built a sturdy tower surrounded by a protective wall instead (SO_C4 Ch_P21). Here, Pedro directed his own play (Moyles, 2010a), establishing agency (Moss and Petrie, 2002; James and James 2008) and indicating he valued his own solutions (Alkire and Deneulin, 2009):

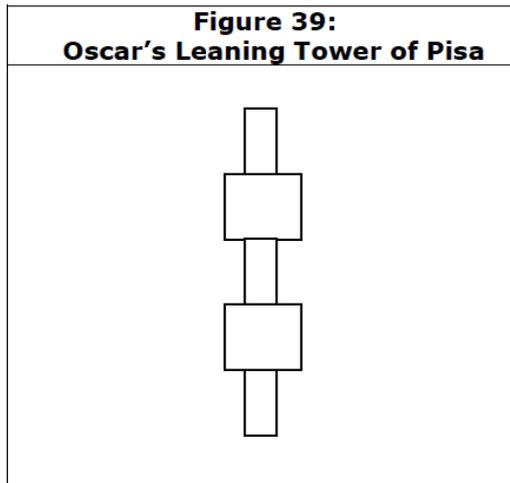


Another time, at home one day, Martin showed himself an able reader (FaS 31) by adopting decoding and semantic reading skills and knowledge to engage in an activity he had chosen (Rose, 2006; Goswami, 1992; Graham and Kelly, 2008; Johnston and Watson, 2005; Goouch and Lambirth, 2011). He read 'Ben Ten Top

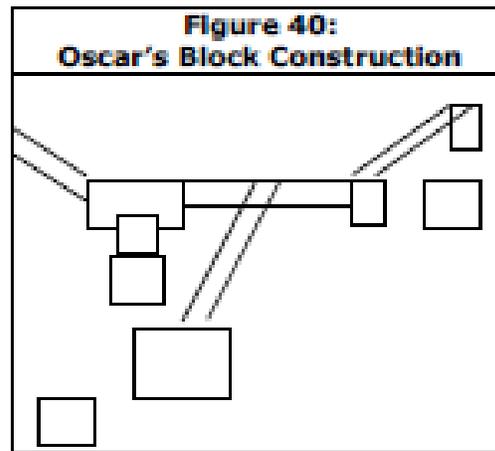
Trump' cards to his mother, apparently empowering him in a socially constructed context (Schaffer, 1992; Rogoff, 1995; Alexander, 2008; Siraj-Blatchford *et al.* 2002), as he led the agenda. His achievement of conventional reading skills at five years old (DfE, 2012a) constituted a step towards 'adultification' (Jenks 2005; Postman 1994:124). Martin's capacity to read was a 'functioning' that enabled him to find the solution for why 'Ben (Ten) just needs to be careful never to transform into Waybig indoors' (HVF E27-36): 'Cos he's nearly one hundred feet from head to toe' (HVF E27-40).

Definitions of concepts have long been a focus for philosophical debate. Scruton (2001) notes Kant's argument that sensation *per se* provides no basis for judgement; rather it is mental activity that leads to judgement (1787), while Kant (1787) suggests that such mental activity falls into two conceptual categories: *a priori* (analytic) propositions which have no basis in first-hand experience and *a posteriori* (synthetic) propositions which are predicated on experience but can only lead to judgement in combination with mental activity. Bridges (2003) describes *a priori* concepts as 'philosophical' and *a posteriori* concepts as 'empirical / scientific' (p.21), suggesting that 'philosophising in educational research' includes both. Silverman (2006) sees concepts as 'clearly specified ideas deriving from a particular model' (p. 400) while Metcalfe (2007) claims that even very young children ably engage in '...a process of thinking about a problem situation through particular "concepts"' (p. 149). In the present study, it appeared easier to identify *a posteriori* conceptualisations in children's behaviours than it did *a priori* conceptualisations. Children sometimes **conceptualised** by applying prior experiences to new situations, thinking through problems by applying concepts (C3), tangential thought (C4), synthesising concepts (C7), making links from their prior knowledge to new applications (C10) and recalling instructions (C21).

During a free-flow play session in Cherry Setting, Oscar **thought through a problem by applying concepts** (C3). He had piled up Community blocks and gave meaning to his construction: 'The leaning tower of tyres!' (SO_C6 Ch_O21i), apparently applying prior experience of 'The Leaning Tower of Pisa' to this new context:



Oscar continued building then shouted: 'It's a climbing frame!' He walked along the blocks and said: 'I'm going down the slide!'



Oscar then walked and balanced on the blocks (SO_C6 Ch_O31i). Here, he recalled one or more climbing frames and he applied that experience to create a new 'climbing frame' in form and function, adopting *a posteriori* conceptualisation (Kant, 1787; Bridges, 2003).

On occasions, the children **thought tangentially** (C4); they sometimes linked intuition or serendipity to their conceptualisations, resonating with the literature (Simon, 1983; Thomas, 2007:27; Merton and Barber, 2004). Einstein notes that 'There is no logical path but only intuition' (cited in Holton, 1995:168), while intuition seems congruent with postmodernism, where '...assumptions and certainties should be questioned' (Foucault, 1981: 4). Equally, Kant (1787)

perceives time and space as intuitions (Scruton, 2001; Pannenberg, 2005); furthermore, Kant (1787) suggests that judgement derived from concepts affects imagination: 'the very condition of possibility for all knowledge and experience' (Norris, 2000: 384). Alternatively, Merton (1948) sees serendipity as social action with potentially unintended consequences. These perspectives reflect ongoing debate regarding what constitutes sound basis for judgement (Feuer *et al.*, 2002; Biesta, 2007; Thomas, 2007; Bridges *et al.*, 2009; Smith, 2011).

At home one day, Harry **thought tangentially** when playing. He put on a goat mask, announcing: 'I'm being a goat and I'm going to sleep with this blanket on' (HVF D8_14). Here, Harry developed a *posteriori* conceptualisation: he conceived one 'clearly specified idea' by juxtaposing two disparate '*models*' (Silverman, 2006: 400). Harry considered his experiences of goats and his own bedtime and combined these separate premises through mental activity to elicit '...a goat going to sleep with a blanket on' (HVF D8_14). Harry's new concept emerged from his imagination (Kant, 1787; Norris, 2000): his conceptualisation questioned '...assumptions and certainties' (Foucault 1981:4). Conversely, serendipity may have played its part in Harry's conceptualisation (Merton and Barber, 2004): the blanket had been lying near Harry; having seen it, he used it, so, equally, his actions may have been purely intuitive (Einstein, cited in Holton, 1995).

Bloom (1956) regards synthesis as a higher order cognitive skill, yet children in the present study sometimes **synthesised two or more concepts** (C7). Annie exemplified this one day during an interview conversation with me in Ash Setting, when she analysed and interpreted her own actions during a literacy lesson on video. On the footage, Annie frequently put up her hand to respond to the teacher's questions but other children were selected to respond. When I asked how she felt about not being chosen during the interview conversation, Annie answered: 'Well I feel I'm kind of happy because somebody else gets a chance but I'm a bit disappointed that I don't get a chance because I know it' (SA IC [i]56i). Annie's response juxtaposes several concepts and combines experience and mental activity (Kant, 1787). Her comment 'somebody else gets a chance' indicates a *code of morality* (Kohlberg, 1984; Johansson, 2009), yet this is balanced with her *justification* that she should 'get a chance because I know it'. Embedded in her

recollection of the primary event, Annie acknowledged her own conceptualisations of two emotional states: happiness and disappointment. Yet, Annie seemed to articulate an ethical encounter: a 'conjuncture of the same and other' (Levinas, 1980:80).

Building on definitions of concepts already discussed (Kant, 1787; Scruton, 2001; Bridges, 2003; Silverman, 2006), **linking 'familiar old' knowledge with 'strange new' applications** (Klentschy, 2008:32) (C10) is regarded as important for prediction. Background information also seems important for children's causal reasoning (Koslowski and Masnick, 2004), in which children engage particularly effectively in familiar contexts (Wellman *et al.*, 2000). The ability to attribute 'prior intentions' to others is important for identity, agency and 'theory of mind' (Meltzoff, 1995; Gergely, 2004); infants as young as 11 months apply prior knowledge to causal explanations through physical engagement (Baillargeon, 2004). In 'Socio-dramatic' (SD) play young children often revisit and develop prior experiences to create and recreate their own meanings and discourses in new situations (Hendy and Toon, 2001; Gussin Paley, 2004; Johnson, 2006; Kalliala, 2006; Cobb-Moore *et al.*, 2010; Corsaro, 2003). Nora exemplified this one day in Cherry Setting. She developed a narrative with her friend in which she linked 'familiar old' knowledge with 'strange new' information (Klentschy, 2008:32):

Figure 41: Nora, Setting Observation 2
Nora said to her friend: 'Shall we play Mum and Dad in our little flat and that's our flat?' (pointing to igloo). [<i>Inside igloo</i>] 'And we were scared of dogs weren't we?' '...in real life my Dad actually cried. Pretend I was the mum and I was kissing him all night'. 'Pretend that I was Elana's boyfriend'. 'Pretend I was laying on you'. 'Pretend you get sick on you - all over you'. 'Pretend you had a shower - ugh - that's disgusting - go and get a shower.'

Here, Nora synthesises her prior experiences of seeing and hearing her family with mental activity to develop *a posteriori* conceptualisation in socio-dramatic role play (Scruton, 2001; Kant, 1787; Gussin Paley, 2004). Interwoven in her conceptualisation is causal reasoning (Koslowski and Masnick, 2004; Wellman, Phillips and Rodriguez, 2000) - a shower is indicated to clean away vomit - and theory of mind (Meltzoff, 1995) - '...in real life my Dad actually cried. Pretend I was the mum and I was kissing him all night' (SO_C2 Ch_N20i).

Children **recalled instructions** (C21) during the present study, indicating that they drew on build 'layers of history and memory' (Creates, 1997, cited in Fleet and Britt, 2011: 147): personal 'temporal spaces', comprising deeply embedded features of human experience (Heidegger, 1962; Lyotard, 1992; Merleau-Ponty, 2002). Equally, children's recall of instructions required them to draw on memory, processed in different parts of their brains for different purposes (Ashcraft, 2006). For example, long-term memory is '...well rehearsed...and connected to existing knowledge' (Woolfolk and Perry, 2012:46), while short term memory relates to information in the long-term memory that is activated through cognitive processing (Cowan, 1988). Yet memory is also recognised as disjointed, inconsistent and often unreliable (Conway, 2010): 'working memory' (Baddeley and Hitch, 1974; Baddeley, 1992) - an 'executive function' facilitating 'recall of past events and planning for the future' (Whitebread, 2012: 145) stores and processes information. Baddeley (1992) seems particularly limited (Miller, 1956; Whitebread, 2012). Observing himself on video footage of an art lesson in Ash Setting, Billy recollected: 'I'm doing that thing when you have one of those ear things (cotton bud) and you do it red white and yellow and you draw the thing on a black piece of paper and we do round it in dots. I did white' (SA Ch-B: Ch-B I-C[iia]1). In his analysis, Billy recalled his teacher's exposition at the start of the lesson, apparently building 'layers of history and memory' (Creates, 1997, cited in Fleet and Britt, 2011: 147). and drawing on 'temporal spaces' to do so (Heidegger, 1962; Lyotard, 1992; Merleau-Ponty, 2002). Another time, after I had explained how the camcorder works, Harry filmed alone, whispering: 'What next? Hmm - "Power"' (HVF D1-18v). Harry appeared to use his working memory to store and manipulate information for operating the camcorder (Baddeley and Hitch, 1974; Baddeley, 1992). He then recalled information about the camcorder's operation as well as how to read 'Power' (HVF D1-18v). Equally, Harry had been given a 'particular model' (Silverman 2006: 400) - reading strategies - from which he derived his own 'clearly specified ideas' (Silverman 2006: 400): reading the 'Power' sign on the camcorder (HVF D1-18v). In this way, Harry engaged in '...a process of thinking about a problem situation through particular "concepts"' (Metcalf, 2007: 149).

Children also appeared to **base their decisions on evidence** when applying their prior experiences to new situations. As well as pure applications of their prior experiences (BDoE1), children's behaviours indicated that they applied mental models (BDoE6) and extrapolated from prior experience (BDoE10).

Whilst children in this study may sometimes have made decisions intuitively (Damasio, 2006), their **applications of prior experiences** for decision-making seemed (BDoE1) to require them to employ memory (Cowan, 1988; Baddeley, 1992; Ashcraft, 2006; Conway, 2010; Woolfolk and Perry, 2012) as well as deductive reasoning (Johnson-Laird and Byrne, 1991; Johnson-Laird and Shafir, 1993). Deductive reasoning is regarded as: '...an inference in which one or more propositions are true, given that other propositions are true. The propositions that are taken for granted are called premises. The propositions that are deduced from the premises are referred to as conclusions' (Knauff, 2007: 21). Scientific, mathematical and linguistic rubrics may amount to 'premises' and in some of the vignettes in the study, children presented with applications of such 'premises', drawn from their experiences, then proceeded to assimilate them into new decision making: 'conclusions' (Knauff, 2007). For example, during free-flow play in Beech Setting, Gemma adopted a mathematical rubric to write on a whiteboard:

$$5-5=1$$

then she counted, using her fingers and consequently erased the first '5' and wrote '6' instead:

$$6-5=1$$

(SO_B8 Ch_G 8ix). Equally though, Knauff (2007) suggests that deductive thinking is commonplace in daily life and can include 'very simple inferences'. During the Family C Home Focus Group, Gemma shared photographs and discussed each with me, drawing on her memories of the occasions when each was taken. One example included a photograph of Gemma on a merry-go-round at a fair (see over):

**Figure 42:
Gemma
Photograph 51**



When she showed it to me, Gemma said: 'I was on a horse that time' (HVIC/FAM.C366) + (FamC/ChG I.C./60). She drew on her long-term memory of when the photograph was taken (Woolfolk and Perry, 2012:46) and employed her short-term memory to activate the information in her long-term memory in order to explain the photograph to me (Cowan, 1988).

Children's behaviours sometimes indicated their uses of evidence from prior experiences to develop and **apply mental models** (BDoE6): cognitive representations of the tangible world (Forrester, 1975; Johnson-Laird, 1983; Klein and D'Esposito, 2007) that are manifested in three stages: translating external processes into symbols, reasoning to elicit new symbols and retranslating the new symbols into external processes (Craik, 1943). Mental modelling may support the inductive reasoning required to manage 'ill-defined, complex strategic situations' (Klein and D'Esposito, 2007: 163): the 'messy' 'real world' (Robson, 1993: 3). Johnson-Laird (1995) recognises that high order thinking may occur in various modalities (Edwards *et al.*, 1998; Lansdown, 2010; Bae, 2010) in his observation that '...deduction...is not a purely verbal process' (p.999) and visualisation seems a prominent medium for thinking. Moreover, whilst Luquet (1927) notes the communicative potential of children's drawings, Wittgenstein (1922) sees the 'picture' as an expression of cognitive processing: 'a model of the reality as we think it is' (p.45). One day at home, Gemma completed an analysis sheet focused on her making lunch (Appendix 68): Her analysis exemplified mental modelling: it was '...analogous to the structure of the corresponding state of affairs in the world (making lunch)' (Johnson-Laird, 1983:156), so representative of fact (making

lunch) (Craik (1943; Forrester, 1975; Johnson-Laird, 1983). Furthermore, Gemma's analysis indicated a 'dynamic' creative process and represented 'a sequence of events' (Johnson-Laird, 1983:156); it translated external processes (making lunch) into words... through a process of 'reasoning' (Craik, 1943:50).

As a 'means to extend data' (Magnussen and Palinscar, 2006: 41), **extrapolation** from prior experience (BDoE10) may serve as a valuable tool for researchers. A higher order cognitive process (Gray *et al.*, 2004; Schleicher, 2007), extrapolation is also recognised as a 'natural tendency' (Stavy and Tirosh, 2000: 87) and a functioning of infants as young as six months (von Hofsten *et al.*, 2000). The perception of extrapolation as a universal cognitive process is promoted by Jaques (1986) who considers it one of four cognitive states which develop concurrently through the life course. One lunchtime in Cherry Setting playground, Oscar exemplified extrapolation. He complained that his eyes were hurting; they appeared red and sore. (SO_C7Ch_O1ii). When I asked Oscar: 'Do you have medicine?' he replied: 'No my Mum's skint at the moment. Well she's not skint but she doesn't want to spend money on that.' (SO_C7 Ch_O2i). Oscar extrapolated in his response: he moved beyond answering my question, extending the data he had about his mother's financial affairs to suggest that she did not sufficiently value medicine for his poorly eye to 'want to spend money on that' (Magnussen and Palinscar, 2006: 41).

Summary of 'applications of prior experience'

Children's applications of their prior experiences were indicated in the study's four main research behaviours that they exhibited. Children explored through patterned behaviours: testing, experimenting, studying or examining (Stebbins, 2001), often in socio-cultural contexts. They also found solutions by applying their prior experiences, sometimes by applying experimental 'what works' rubrics (Biesta, 2007:11) and these were strongly evident in numeracy and literacy tasks, both at home and at school. At other times, children adopted pragmatism to solve problems occurring in their everyday lives (Bridges, 2003). Equally, children indicated that they valued their own solutions by attempting to preserve them (Alkire and Deneulin, 2009). Children often appeared to conceptualise in *a posteriori* form when applying their prior experiences, during play such as block play and role play and

also during dyads with adults. When doing so, children thought through problems, thought tangentially, synthesised concepts, made links from their prior knowledge to new applications and recalled instructions. Furthermore, children based decisions on evidence in applications of their prior experiences to new situations by employing different types of memory, deductive reasoning (Knauff, 2007), mental modelling (Johnson-Laird, 1983) and extrapolation (Jaques, 1986; Magnussen and Palinscar, 2006; Gray, *et al.*, 2004).

14.3 Innovation (b)

Innovation is regarded as the development of new ideas into something valued (Department for Business, Innovation and Skills, 2011; 2012). Data indicated that children developed ideas new to them that they valued for various reasons. The data also resulted in the following sub-categories relating to *b) Innovation*:

Table 56: b) Innovation
E9. Experiment
FaS 14. Creates a problem to solve
FaS 19. Devises practical method to create solution
FaS 23. Finds own solution
C1. Invents a process / method
C8. Developing own idea[s] from external stimulus
C11. Creating an imagined space / persona
C19. Identifies anomaly

Empirical data relating to each subcategory within 'Innovation' are now discussed critically, drawing on relevant literature.

Examples of 'innovation' relating to **children exploring** sometimes emerged when they experimented (E9).

Children sometimes combined **experimentation** with exploration (E9) and on occasion, this behaviour included Humean 'reason' (Hume, 1748), defined in the present study's first literature review. Hume's 'principle of verification' presents in this study as an element within the research behaviour 'basing decisions on evidence'. Given that 'basing decisions on evidence' does not feature discretely as a research behaviour within this category - 'Innovation' - its links to the subcategory

'Experiment' (E9) may appear anomalous, *prima facie*. However, whilst children may have explored by experimenting: 'testing...ideas, practices or procedures' (Stebbins, 2001; Creswell, 2008:299) and by doing so, may have elicited 'evidence' based on 'matter of fact and existence' (Hume, 1748:123) this did not automatically result in them making decisions.

One day, during free-flow play at Cherry Setting, Pedro combined **experimentation** with exploration (E9): having chosen to go to the Safari role play area in the outdoor area, he collected a pair of binoculars then used them to look at pictures of animals placed on the fence. Pedro then lowered the binoculars to survey a rock within a mound of earth on the ground (SO_C2 Ch_P15i) (SO_C2 Ch_P15ii). Subsequently he lifted the rock and studied it very closely through the binoculars (SO_C2 Ch_P17i). Here, Pedro indicated his intention to look through the binoculars by going deliberately to collect them first: a 'central feature (of an experiment) is that you need to know what you are doing before you do it' (Robson'1993: 78). He then tested the rock by submitting it to a procedure of exploration: he examined its physical properties through the binoculars (Stebbins, 2001; Creswell (2008). By developing this procedure that was new to him and extending the method in stages, Pedro indicated that he valued what he was doing; this satisfied published criteria for innovation (DBIS) 2011; 2012).

Examples of 'innovation' relating to **children finding solutions** emerged from the data when children created problems to solve (FaS 14), devised practical methods to create solutions (FaS 19) and found their own solutions (FaS 23). These examples were congruent with established definitions of what it may mean to find solutions (Appendix 118), as well as innovation (DBIS) 2011; 2012).

At home, during the Family G Focus Group, Gemma indicated that she had **created a problem which she solved** (FaS.14). She shared a photograph of herself: 'That's me':

**Figure 43:
Gemma
Photograph 14**



She went on to explain: 'I was playing with that ball and that thing and I was writing down my scores... That's making the score (HVIC/FAM.C 125). Gemma's mother asked her to tell me more:

Figure 44: Gemma keeps score

Gemma: 'I did that ball in the thing that the ball sticks on ...'
Gemma's mother: 'So it was a chart wasn't it? Like a target wasn't it?'
Gemma: 'Yes'
Gemma's mother: 'With a...sticky ball that you threw. And you decided to...'
Gemma: 'They're all the scores that I got.'
Gemma's father: 'So you put in all the scores.' (HVIC/FAM.C 772 - 786)

Here, when playing a game with a Velcro ball and numbered target, Gemma identified a need to make a chart to record her scores. Gemma's planning, her development of strategy and resources and her evaluation of her activity resonated with established definitions of problem-setting and problem-solving (DeLoache, Miller and Pierroutsakos, 1998; Tarini and White, 1998). Equally, Gemma exhibited agency by posing *and* resolving her own problem in this context that seemed genuinely meaningful to her (Helm and Katz, 2001; Lowrie, 2002). That she developed an idea that was new to her, took a photograph of her activity, retained the scoring card to show me (Appendix 60:5) and her mother was keen to present this vignette as data all indicate that Gemma's idea was valued and might be regarded as innovative (DBIS, 2011; 2012).

Aligning with pragmatism (Siraj-Blatchford, 1994; Bridges, 2003; Griffiths and MacLeod, 2008), children sometimes **devised practical methods to create solutions** (FaS 19). In Ash Setting, the teacher had set the children work and Demi

was sitting with three other children when she noticed that her output was not the same as theirs. She said: '*I thought we were supposed to...*' then went to find an eraser near to Practitioner A, asking her: '*Can I borrow your rubber?*' (SO_A1 Ch_D34). Demi devised a practical method to create a solution: she erased her work. Another time, Costas was working at a table with other children in Ash Setting, as directed by the teacher. He drew a pattern, similar to one that the teacher had modelled earlier. However, he then turned over his sheet and began again (SO_A2Ch_C3i), indicating his dissatisfaction with his first attempt and devising a practical method to create a solution. In these small vignettes, Demi and Costas adopted 'practical knowledge' reliant on understandings that they had assimilated by being in Ash Setting for almost a year: theirs were pragmatic responses (Siraj-Blatchford, 1994; Bridges, 2003; Griffiths and MacLeod, 2008:128-9) interwoven with themes of peer culture, social constructivism and morality (Vygotsky, 1978; Kohlberg, 1984; Corsaro, 2005). In response to problems that Demi and Costas identified, each devised new solutions that they valued more than allowing the problems to persist: each behaved in an innovative way (DBIS, 2011; 2012).

The data indicated that **children found their own solutions** (FaS 23) (Edwards, 1998; Helm and Katz, 2001), often within social contexts (Goleman, 1994; Ashley and Tomasello, 1998; Denham *et al.*, 2003; Eisenberg *et al.*, 2000). Sometimes, they also created their own problems to solve before finding their solutions (Pintrich and Zusho, 2002; Brown and Campione, 2002; Lowrie, 2002). One day, Gemma and her brother were baking cookies at home with their grandmother while their grandfather filmed. Gemma's grandmother read aloud from the recipe but Gemma interrupted: 'No - do it like this - I'll show you. Two for you, two for me. Two for you, two for me' (HVF C5-192). Although sharing - and valuing - her Grandma's goal, Gemma devised a novel way to achieve it (DBIS, 2011; 2012): she engaged in 'important cognitive activity', working towards a goal but not in a 'routine way' (Meadows, 2006:127). While Gemma was autonomous in finding her own solution (Lowrie, 2002) it emerged in a social context, widely recognised as beneficial for problem-solving (Goleman, 1994; Ashley and Tomasello, 1998; Denham *et al.*, 2003).

Examples of 'innovation' relating to **children conceptualising** occurred when they invented processes or methods (C1), developed their own ideas from external stimuli (C8), created imagined spaces or personae (C11) or identified anomalies (C19). As indicated earlier, discussion surrounding concepts relates to relevant literature (*i.a.* Kant, 1787; Scruton, 2001; Silverman, 2006; Metcalfe, 2007; Palmquist, 2012), whilst the definition of innovation is taken from DBIS (2011; 2012): the development of new ideas into something valued.

In Beech Setting, Johnny exemplified the **invention of a process or method** (C1) which other children also indicated (*i.a.* Annie as she cooked an omelette (FGpB361i); Billy as he constructed a Star Wars figure (HVIC B 135); Gemma as she played 'Secret Spies' (HVIC/FAM.C 659). Johnny's invented method used paper, glue and scissors to create a 'wristwatch': he took strips of paper, measured one strip around his wrist and cut a bit off the end. He then scrunched another paper strip and stuck it on the first strip. He wrapped the strip around his arm, then unwrapped it and glued it, then readjusted it four times until he was happy that his creation resembled a wristwatch that fitted his wrist (SO_B1 Ch_J5iii). Here, Johnny adopted a 'concept' – a wristwatch: a 'clearly specified idea deriving from a particular *model*' (Silverman, 2006: 400). Johnny then engaged in '...a process of thinking about a problem situation through a particular "concept"' (Metcalfe, 2007: 149): while conceptualising the wristwatch, Johnny innovated to create his own version. Johnny indicated that he valued his wristwatch by spending time creating it; later, Johnny's wristwatch came unstuck and he mended it (SO_B1 Ch_J11i). He then left the making table and showed his wristwatch to a friend, saying: 'Look at this!', indicating that he valued his own novel development of the wristwatch concept (SO_B1 Ch_J14i) (DBIS, 2011; 2012).

Children sometimes engaged in *a posteriori* conceptualisation by **developing their own ideas from external stimuli** (C8) (Kant, 1787; Scruton, 2001). One day in an art lesson in Ash Setting, Edward and his class had been tasked with making African designs. The teacher's objective was 'To be able to understand features of African designs' and at the start of the lesson she had modelled African designs for the class. However, Edward moved 'off task' to develop his own idea that was novel in this context: he mimed a dog impression (SO_A3 Ch_E14i) then later pretended

to scratch like a dog (SO_A3 Ch_E22i). Edward's behaviour was innovative: his development of miming a dog was a new idea in this context and his reiteration of the mime indicated he valued it (DBIS, 2011; 2012).

Children **created imagined spaces and imagined personae** (C11) which were innovative (DBIS, 2011; 2012) and presented as conceptualisation (Kant, 1787; Scruton, 2001; Silverman, 2006). During the Family C Focus Group, Gemma told me about a game of 'Secret Spies' she had played with her friend in an old stately home they visited: 'We had to – we had to have nobody seeing us and we made a little den.' (HVIC/FAM.C 655) '...when we had to go home that's when we had a game of spies and we came upstairs and... it was like a little thing in the... bit where you could go through – the secret door' (HVIC/FAM.C 659). Gemma's 'clearly specified idea deriving from a particular *model*' (Silverman, 2006: 400): a little den for spies accessed through a secret door (HVIC/FAM.C 655) (HVIC/FAM.C 659) - is an exemplification of imagination derived from her conceptualisation: 'the very condition of possibility for all knowledge and experience' (Kant, 1787, cited in Norris, 2000: 384; Newson and Newson, 1979; Malaguzzi, cited in Kaufman, 1998). Gemma's creation of imagined spaces and personae in this context also aligns with literature on children's 'secret spaces' (Clark and Moss, 2005; Clark, 2010; Kyrönlampi-Kylmänen and Määttä, 2011) and SDTF play in which young children create and recreate their own meanings and discourses (Hendy and Toon, 2001; Gussin Paley, 2004; Johnson, 2006; Kalliala, 2006; Cobb-Moore *et al.*, 2010).

Whilst 'patterned behaviour' is characteristic of the 'traditional scientific way of seeing the world (in which) the world is logical and obeys rational scientific laws' (Roberts-Holmes, 2011:70), Popper (1953) proposes that '...the acceptance by science of a law or of a theory is tentative only' (IX), so anomalies are regarded as important in research. Kuhn (1970) even posits that 'Discovery commences with the awareness of anomaly' (p.52). Data indicated that children sometimes appeared to **identify anomalies** (C19) in their everyday experiences.

One day in Family E's sitting room, Martin and his sister engaged in construction play with 'Cogs and Gears' while Martin's mother filmed. Martin repeatedly referred to the picture on the 'Cogs and Gears' box:

Figure 45: Cogs and Gears



Having expected that all the pieces pictured on the box would be available for him to make the model pictured on the box, Martin observed an anomaly (Kuhn, 1970): 'There's none of these for me' (HVF E2-8i). Following this, Martin took another direction: he picked up a piece that was different from the picture on the box and continued making his model with other, different pieces (HVF E2-9) (HVF E2-10). Martin identified a 'particular *model*' (Silverman, 2006: 400): the picture on the box. From this he derived a 'clearly specified idea' (Silverman, 2006: 400): to build an exact facsimile. However, he had to adapt his original 'clearly specified idea' (Silverman, 2006: 400), developing in the 'here and now' (Graue and Walsh, 1995) a different construction that did not require the missing piece. In this way, Martin engaged in '...a process of thinking about a problem situation through particular "concepts"' (Metcalf, 2007: 149) and he developed a new idea. His persistence indicated that his construction was something he valued (DBIS, 2011; 2012): his development of a new idea into something he valued could be regarded as innovation (DBIS, 2011; 2012).

Summary of 'Innovation'

Children's innovation appeared to present sometimes when they explored, when they found solutions and when they engaged in conceptualisation. Innovation - the development of new ideas into something valued (DBIS, 2011; 2012) - presented in children's play as self-initiated exploration of natural materials, posing and solving a problem to develop new features for a game, conceptualising role play and in construction play. Children also presented with innovative practical methods to

solve problems that enabled them to avoid being seen as deviant in teacher-directed contexts. Indeed, children often found their own solutions in social contexts. Equally, the children displayed innovative conceptualisations when they had sufficient time and resources to reify their own ideas.

14.4 Social domains (c)

An eclectic range of social domains relating to children’s research behaviours emerged from the data. These included children’s spaces, play, children problem-solving in social contexts, ‘ethics of encounter’, intersubjectivity, social constructivism and social constructionism, Theory of Mind, children sharing decision-making, children’s peers and adult hegemonies. The data resulted in the following sub-categories relating to c) *Social Domains*:

Table 57: c) Social Domains	
E2. Social encounter	
<i>Barriers</i>	<i>FaS 4. Following adult’s direction</i>
	<i>FaS 5. Responding to adult’s closed questions</i>
	<i>FaS 6. Responding to adult’s semi-open questions</i>
	<i>FaS 9. Denied opportunity to share solution</i>
	<i>FaS 10. Solution not shared with or witnessed by others: unconfirmed</i>
	<i>FaS 11. Solution not shared with or witnessed by others</i>
FaS 25. Resolves another person’s problem	
FaS 26. Shares solution	
FaS 30. Employs others to help with finding a solution	
FaS 32. Theory of mind	
C16. Works with others to develop conceptualisation	
C22. Following adult’s direction	
C24. Adult stops conceptualisation	
BDoE2. Values peer perspectives	
BDoE4. Acts on adult opinion	

As indicated above, some of the ‘social domains’ sub-categories proved barriers to children’s research behaviours (see Appendix 127). Empirical data relating to the ‘social domains’ subcategories appearing to support children’s research behaviours are discussed critically here, drawing on relevant literature.

Examples of ‘social domains’ relating to **children’s explorations** were manifested through their social encounters (E2).

The literature indicates that **social encounters** (E2) can be important contexts for children’s epistemic behaviour (Vygotsky, 1978; Corsaro 1985; 2003; De Vries,

2006; Lash, 2008) and the present study's data have reiterated this. Equally, physical spaces and objects the children encountered in the present study seemed to be important factors in both their exploration and social encounters (NPFA, CPA and Playlink, 2000; Garvey, 1991). Furthermore, spaces where children could communicate using varied modalities seemed to relate to their explorations (Dahlberg and Lenz Taguchi, 1994; Moss and Petrie, 2002; Wetherell, 2007; Bae, 2010). One day in Ash Setting, children engaged in semi-independent literacy work with the learning objective '*To be able to understand character behaviour*'. They worked at tables of four or more children and Florence sat next to her friend. After 25 minutes Florence's friend asked me if my ears were pierced. She got up to come to look for herself and Florence joined her (SO_A3 Ch_F11i). Florence was moved to 'examine' my ears for a 'specific diagnostic purpose' (Stebbins (2001:2) through social encounter with her friend: behaviour congruent with exploration in the field of social sciences research (Stebbins, 2001). Florence's behaviour resonates with a view that infants and young children appear 'programmed' to explore (Hutt *et al.*, 1989; Gopnik *et al.*, 1999; Hughes, 2002; Athey, 2007) and may be particularly drawn to exploring objects (Garner and Bergen, 2006). Equally, by reflecting her actions, Florence expressed a desire to be socially aligned with her friend (Corsaro, 2003), resonating with further literature that suggests young children express and communicate their views through non-verbal media (Malaguzzi, 1993; 1998a; Gallas, 1994; Bae 2010) which they use as tools for epistemic activity (Bruner and Olson, 1978). By making her own 'space' to explore a focus of personal interest alongside the teacher's intended purpose, Florence began to develop her own epistemology in a socially democratic micro-context (Hoyuelos, 2004), giving her agency through her construction of her own understanding of the world (Dahlberg and Lenz Taguchi 1994; Dahlberg *et al.*, 1999).

Examples of 'social domains' relating to **children finding solutions** were manifested when children resolved other people's problems (FaS 25), shared solutions (FaS 26), employed others to help with finding solutions (FaS 30) and engaged in theory of mind (TOM) (FaS 32).

Resolving other people's problems (FaS 25) emerged from the present study's data as an 'effect' of finding solutions. For example, during a whole class carpet

time in Cherry Setting, Practitioner G was discussing 'hot and cold' with the children and she asked: 'What could you use if you are hot?' Oscar responded: 'Use a snow machine!' (SO_C5 Ch_O9i). Oscar perceived Practitioner G's question as inductive: an open possibility question presenting a problem that he felt ready, willing and able to resolve. Inherent in the meaning and action of his response seems to be a further assumption that he and Practitioner G shared common language and meanings as well as a 'joint focus of attention': key features of intersubjectivity (Göncü, 1993:188). However, what followed indicated that their paths were not aligned. Practitioner G replied to Oscar's 'snow machine' proposal: 'Great idea if you could have everything you want but if you were hot then what would you do?' Unabashed, Oscar provided a further solution, taking account of the newly implied limitations: 'Take my shirt off' (SO_C5 Ch_O10). Oscar foregrounded social interaction to resolve the practitioner's 'problem', an approach regarded as key for pragmatic enquiry (Biesta, 1999), yet his practitioner began to 'shut down' his solutions by adding limiters. However, even Practitioner G's limited second question was semi-open, whereas most adults' questions in English ECEC settings are closed (Siraj-Blatchford and Manni, 2008).

Children often seemed to **share their solutions** (FaS 26) in the present study. For example, one day in Cherry Setting, during a whole class carpet time focused on the Michael Rosen story 'We're going on a Bear Hunt', Practitioner H unpacked a bag as the children watched and took out ten items they might 'need for a bear hunt', for example, a map, hat and binoculars. A few at a time, Practitioner H removed objects and asked children to tell their partners how many were left, engaging them solving subtraction problems. At each opportunity, Querida shared her solutions with her partner by telling them to her (*i.a.* SO_C1 Ch-Q41i). In this context of guided participation (Rogoff, 1995), Querida's teacher required her to '...interpret, organize, and use information from the environment and in the process acquire or construct increasingly complex skills, knowledge, and intelligence' (Lash, 2008: 34) and she did so. Equally, the teacher encouraged the children to adopt rational thinking strategies, characteristic of social constructivism (Vygotsky, 1978), while Querida and her partner engaged in a process of joint problem-solving (Ashley and Tomasello, 1998; Topping *et al.*, 2011) and sharing language (Opie and Opie, 1959; Wang and Hyun, 2009).

As well as sharing their own solutions with others, children sometimes **employed others to help with finding solutions** (FaS 30). For example, at one bedtime in Family E's home, Martin and his mother engaged in a question-and-answer dyad:

Figure 46: Martin's Question
Martin said: 'Mummy – I've got a question.' (HVF E12-1)
Martin asked: 'How did babies grow in the tummy with the seed?' (HVF E12-3)
MTHR-E responded: 'Well once the seed is in the mummy's tummy – yeah? Mummy's tummy is lovely and warm and safe isn't it?' (HVF E12-4)
Martin asks: 'Mmm...but how do they grow?' (HVF E12-5)
MTHR-E replies: 'How do they grow? Well – the seed attaches itself to the mummy's tummy and you know all the blood that goes round your body?'
Martin is wriggling around on the bed. (HVF E12-6)

Here, Martin exercised 'power and autonomy' (Lowrie, 2002: 355) by employing his mother to provide solutions to his questions. Because they were his own questions and the dyad took place at home, it is likely that the context was genuinely meaningful for Martin, considered most successful for social problem solving (Lowrie, 2002). Equally, Martin found his solutions in a social-constructivist context, conducive to problem-solving (Goleman, 1994; Ashley and Tomasello, 1998; Denham *et al.*, 2003). Martin mirrored the elements that Rogoff (1990) identifies for problem-solving in social contexts: firstly, when he said 'Mummy – I've got a question.' (HVF E12-1), he verbalised a plan. When he asked: 'How did babies grow in the tummy with the seed?' (HVF E12-3), he recalled how babies grow prenatally. He also sequenced his questions coherently, building each on the previous response, consciously constructing his questions to elicit solutions (his aim) and employing his mother to provide those solutions. Additionally, Martin's sequence of questions, each building on the last, aligns with Vygotsky's theory that cognitive structures are transformed when a learner approaches a challenging task in social interaction with an 'expert' partner (1978). Furthermore, this dyad aligns with socially constructed learning models such as Schaffer's 'joint involvement episodes' (1992), Alexander's 'dialogic teaching' (2008) and Siraj-Blatchford *et al.*'s 'sustained, shared thinking' (2002:8).

Given the study's main focus on young children's research behaviours, **theory of mind** (TOM) (FaS 32) - '...the understanding of others as psychological beings

having mental states such as beliefs, desires, emotions and intentions' (Meltzoff, 1995: 838) - could only be acknowledged as one minor element that sometimes presented in social contexts. Yet a substantial psychological and neuroscientific literature relating to TOM exists (*i.a.* (Astington *et al.*, 1988; Davies and Stone, 1995; Meltzoff, 1995; Meltzoff, 2011), which has increasingly recognised that 'children are far more capable...than was thought even two or three decades ago' (Whitebread, 2012:137) in relation to their ability to '...attribute perception and consequent beliefs to other people' (Senju *et al.*, 2011: 878). Gemma provided one example in the present study, indicating acquired TOM one day in her sitting room at home. Gemma's mother was trying on new shoes at home, and said to Gemma's grandmother: 'I don't think the 5 would fit because I need the size for the width'. Gemma suggested: 'Why don't you put an extra heel?' (HVF C4-7i). Here, Gemma appears to empathise with her mother's discomfort when trying the new shoes: her suggestion indicates an '...understanding of others as psychological beings having mental states such as beliefs, desires, emotions and intentions', congruent with theory of mind (Meltzoff, 1995: 838).

Examples of 'social domains' relating to **children's conceptualisations** sometimes presented in the data when children worked with others to develop conceptualisation (C16), followed adults' direction (C22) and, apparently paradoxically, when adults stopped children's conceptualisations (C24). Again, discussion surrounding concepts relates to relevant literature (*i.a.* Kant, 1787; Scruton, 2001; Silverman, 2006; Metcalfe, 2007; Palmquist, 2012).

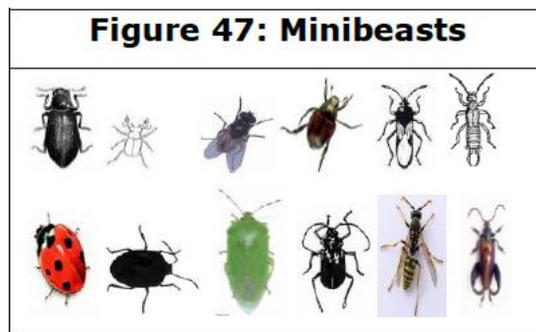
In Beech Setting during free-flow play, Laura provided an example of children **working with others to develop conceptualisation** (C16) though there were over 100 examples altogether. Laura had chosen to go into the 'space rocket' role play area with a friend. Inside, she held up a silver rectangle (1m.x0.5m) and said to her friend: 'Pretend this was our door' (SO_B2Ch_L2ii), followed by: 'Pretend we are taking off' (SO_B2Ch_L4i). Laura and her friend then got under the table in the 'space rocket' and pretended they were 'taking off' (SO_B2Ch_L5i). Several themes emerge in relation to social domains and conceptualisation. Firstly, Laura appeared to engage in *a posteriori* conceptualisation: she indicated that she imagined a 'particular model' (Silverman, 2006: 400) - that the old cardboard box covered in

aluminium foil was a space rocket and that she and her friend were astronauts. She then developed a 'clearly specified idea' from this (Silverman, 2006: 400): that she and her friend were 'taking off' (SO_B2Ch_L4i). To have an idea of what this entailed, for example the phrase 'taking off', Laura had had some experience of rockets on film or in books, which she synthesised with her imaginative ideas, demonstrating *a posteriori* conceptualisation (Kant, 1787; Scruton, 2001). A second theme was Laura's engagement in socio-dramatic thematic-fantasy (SDTF) play and symbolic representation. Leading play in this social context gave Laura 'agency' (Marsh, 2000; Edmiston, 2008; James and James 2008: 9): she was able to create and recreate her own meanings and discourses (Gussin Paley, 2004; Johnson, 2006; Kalliala, 2006; Cobb-Moore *et al.*, 2010), offering her opportunities to develop higher order cognitive skills (Huizinga, 1944; Smilansky and Sheftaya, 1990). In a third theme, Laura engaged in social constructivism by strategising, interpreting and 'forming the world and culture' (Lash, 2008: 34) and social constructionism in the 'meaning making relationship' she developed with her friend (Moss and Petrie, 2002:19). Finally, Laura's play provides a window into a peer culture: '...a stable set of activities or routines, artefacts, values, and concerns that kids (*sic*) produce and share in interaction with each other' (Corsaro,1985; 2003:37): '...the informal world of the children themselves (Valentine, 2000: 259).

A few observable data suggested that children **followed adults' directions** to conceptualise (C22): ten examples presented in settings but none in children's homes. Florence provided an example during a whole class mathematics lesson in Ash Setting. Following the teacher's exposition, the children were sitting on chairs or the carpet and had whiteboards and pens; the teacher had written some mathematical problems on the board for the children to work through. Florence sat on the carpet amongst other children and had a small whiteboard and a pen. Practitioner A (Prac-A) asked Florence and a boy - Jolyon - to sit together at a table; they did so but Florence did not interact with Jolyon. She copied the teacher's writing from the board onto her own small whiteboard and mouthed the numbers (SO_A1 Ch_F50). Florence then paused with the end of her pen in her mouth. She then appeared to work out the answer: she spoke to Jolyon, saying '10'. In this vignette, the teacher directed the children, in respect of both organisation and 'scaffolding' their development of an aspect of mathematical conceptualisation (Wood *et al.*,

1976) through 'guided participation' (Rogoff, 1995). Florence followed '...a process of thinking about a problem situation through particular "concepts"' (Metcalf, 2007: 149), pursuing 'clearly specified ideas deriving from (the teacher's) particular *model*' (Silverman, 2006: 400) and building an *a posteriori* proposition through experience combined with mental activity (Kant, 1787; Scruton, 2001).

One example presented of a child conceptualising despite an **adult stopping conceptualisation** (C24). A supply teacher was working with the children in Beech Setting and had organised a semi-free-flow play session with some directed activities. One of these was a table top activity requiring children to 'Draw *round* a mini-beast and label it'. As soon as the free-flow session began, Harry and his friend Arthur chose to play with the mini-beasts. They took them onto the floor and began to engage in socio-dramatic thematic fantasy play with them. However, the teacher quickly intervened and said: 'No not on the floor – those are to stay on the table.' (SO_B9 Ch_H1v). This inhibited the conceptualisation that Harry and Arthur had begun to develop but they complied. Subsequently, on the table top, Harry and Arthur lined up twelve mini-beasts in two straight lines (SO_B9 Ch_H3ix; SO_B9 Ch_H3i; SO_B9 Ch_H3ii; SO_B9 Ch_H3iii):



The teacher stopped Harry and Arthur developing their first concept - socio-dramatic thematic fantasy play with the minibeasts that was their own 'clearly specified idea deriving from a particular *model*' that the minibeasts suggested to them (Silverman, 2006: 400). Consequently, Harry and Arthur developed a second concept: they lined up the minibeasts on the table top. It seems likely that Harry and Arthur had had previous experiences of objects arranged in orderly lines and this was the 'particular *model*' that informed their second 'clearly specified idea' (Silverman, 2006: 400): an *a posteriori* proposition in which Harry and Arthur combined experience with mental activity (Kant, 1787; Scruton, 2001). Furthermore, Harry and Arthur engaged in

social constructivism in this vignette, through the 'meaning making relationship' they confirmed with each other (Moss and Petrie, 2002:19) and the '...learning, reorganizing, strategizing, risk taking...experimenting, interpreting, and form(ing) the world and culture' they shared with each other (Lash, 2008: 34).

In their everyday lives children in the study synthesised their 'social domains' with **basing decisions on evidence** and this presented in two ways: children sometimes appeared to value their peers' perspectives (BDoE2) and sometimes acted on adult opinion (BDoE4).

There were numerous examples of children **valuing peers' perspectives** though these tended to prevail in their settings (BDoE2). For example, during a whole class art session one afternoon in Ash Setting, the children were tasked with making an undersea scene that had previously been modelled by Practitioner A (Prac-A). However, Annie left her art work to join a group of eight children who had found something behind the class bookcase: a spider (SO_A11). Here, Annie and her peers rejected the adult's attempt to guide them '... into being competent users of the cultural tools of their society' (Anning and Edwards 2010:14). She appeared to value more highly her peers' view that the spider behind the bookcase is more interesting. By acting in response to social cues provided by others, Annie engaged in social referencing: a skill likely to have developed prior to her first birthday (Campos and Sternberg, 1981; Striano and Rochat, 2000). Equally, Annie's foregrounding of her peers' perspectives aligns with both Smidt's view (2006) that children invent ways to develop and maintain their own cultures within settings where adults sideline them and observations by Löfdahl and Hägglund (2006) and Markström and Halldén (2009) that young children in ECEC settings sometimes reject practitioners' plans for them in favour of developing autonomous cultures.

One day at Harry's home, he demonstrated that he **acted on adults' opinion** (BDoE4). Harry and his brother were on the bottom stair and, under his father's instruction, Harry was practising doing up his laces. His father (FTHR-D) was videoing while giving guidance and encouragement. FTHR-D said: 'Voilà avec tes mains, petit boucle, tourne a tours. Voila! Tu l'as trappé – voici.' Harry made a loop, held it with his left hand and wrapped the lace around it (HVF D2-5vi);

(Ch_H/HoObs2/3) (Appendix 26, Home Artefact 14: Harry's Laces). This dyad exemplifies adult:child interactions which include features of 'sustained, shared thinking' (Siraj-Blatchford *et al.*, 2002), 'scaffolding' (Wood *et al.*, 1976) and 'guided participation' or 'apprenticeship' (Rogoff, 1995). It was not, however, an equal discourse: FTHR-D instructed and Harry acted on this instruction; he based his decision regarding what to do on evidence provided by his father. The interaction demonstrated here was, though, some way from the egalitarian 'meeting place' advocated by Dahlberg and Lenz Taguchi (1994): '...a way of relating (that) starts from the view of the child as a competent and capable child, a rich child, who participates in the creation of themselves and their knowledge' (1994:2). Equally, it exemplifies the observation that '...children are often the most silenced participants in the educative process' (Fleet and Britt 2011: 143).

Summary of 'social domains'

Children's social encounters linked with their epistemic behaviours and these presented in various modalities. Children in the study linked cognitive and social domains while problem-solving: they resolved other people's problems, shared solutions, employed others to help with finding solutions and demonstrated theory of mind. They also conceptualised in various social contexts that included working with others, following adults' direction and even pursuing new ways to conceptualise when adults prevented their other attempts to do so. Moreover, children based decisions they made on evidence that emerged in social contexts when they valued their peers' perspectives and acted on adults' opinion.

14.5 Autonomy (d)

Autonomy is regarded as congruent with intrinsic motivation, creativity, enhanced conceptualisation, empowerment and 'intentional behaviour' where choice is promoted; equally, autonomy is seen as oppositional to 'control behaviour' which exerts pressure to achieve extrinsic specified outcomes (Deci and Ryan, 1987:1024; Lowrie, 2002). Furthermore, Stern (1985) posits 'sense of agency' and 'having intentions in mind' as *senses of self* (p. 6). In the present study, autonomy relating to children's research behaviours emerged from the data to include examples of children's discursive and temporal spaces, agency and participation, care and well-being, resilience, flow, home, play, social interactions, adult hegemonies, definitions

of concepts, theory of mind, prediction, perception, mental modelling, decision-making, subjectivity and risk. The data resulted in the following sub-categories relating to *d) Autonomy*:

Table 58: d) Autonomy
E7. Develops own agenda
FaS 13. Self-regulates
FaS 15. Time and freedom to explore, investigate, experiment with something of personal interest
FaS 16. Focused on something of personal interest
C6. Creating a problem
C18. Autonomously deciding what needs to be done and doing it
C23. Makes decisions based on own criteria
BDoE9. Enacts personal preference

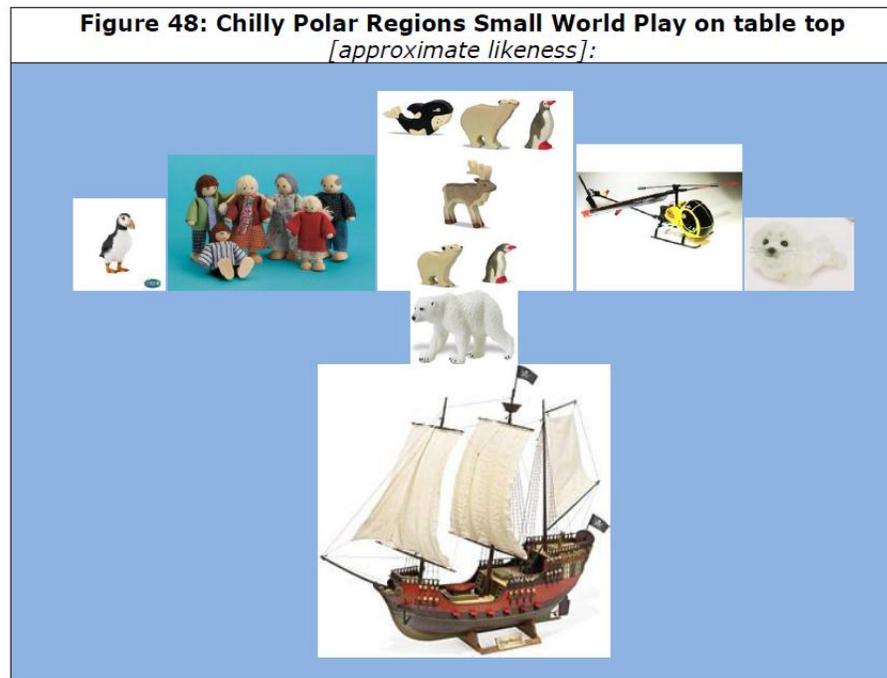
Empirical data relating to the 'Autonomy' subcategories and appearing to support children's research behaviours are discussed critically here, drawing on relevant literature.

Examples of 'autonomy' relating to **children's explorations** were manifested when children developed their own agenda (E7).

One day at home, Gemma **developed her own agenda** (E7) when she explored autonomously how to make a measuring stick from two wrapping paper card tubes (HVF C27-1ii); (Ch_G_HoObs27/4). At the outset, Gemma asked her mother if she could use two tubes and sellotape (HVF C27-2i). She then sellotaped the tubes together to make the measuring stick (HVF C27-3i) and used pens to add the measuring units. Gemma then tested her measuring stick by asking her brother to stand next to the tube to gauge his height and finally, she told her mother what she had done (HVF C27-6iii). During this experience, Gemma developed her own agenda by examining materials and combining them to construct a measuring stick (HVF C27-1v); (Ch_G_HoObs27/4), aligning with Stebbins' (2001) criteria for exploration in social sciences research. To pursue her agenda, Gemma had 'space' to operate as an agent, whilst maintaining interdependence with her family (Moss and Petrie, 2002). This activity is congruent with Piaget's view of children as active agents who combine perception and activity to construct new understanding (1969). A number of studies suggest that play can provide a context for children's social agency, provided that the play is 'owned' by the children who construct and engage in it (*i.a.* Marsh, 2000; Markström and Halldén, 2009); Gemma's activity here appears to resonate with these findings.

Children's 'autonomy' combined with them **finding solutions** presented in the present study when children self-regulated (FaS 13), had time and freedom to explore, investigate, experiment with something of personal interest (FaS 15) and focused on something of personal interest (FaS 16). For example, while Annie was cooking an omelette at home with her mother looking on and filming, she exemplified self-regulation (FaS 13). Annie was stirring the omelette mixture, but stopped and read the recipe under her breath. Then she sighed and said to herself: 'Oh right – now where?' When observing the video footage of this vignette, PEYER 2 noted at this point that that Annie was 'interested' and 'engaged' (FGpB365i). Annie indicated that she was actively and constructively attempting to set herself a goal by reading the recipe (Pintrich and Zusho, 2002: 250); focus on developing an aim and planning are considered part of problem-solving (Eisenberg *et al.*, 2000). Here, Annie experiences key elements to support her self-regulation: she enjoys the 'emotional warmth and security' provided by her mother's presence, whilst experiencing 'feelings of control' and 'cognitive challenge' resulting from 'space' to read the recipe herself and consider the next steps herself, articulating her progress (Whitebread, 2012: 7-13). Annie monitored and regulated her progress towards her goal by engaging in meta-communication (Garvey, 1990:134; Whitebread, 2010): a widely recognised device that combines speech with rational thinking (Flavell *et al.*, 1997) and is similar to 'inner speech' (Vygotsky 1986: 35), 'egocentric speech' Piaget (1926:40) and 'private speech' (Berk and Landau, 1993).

Sometimes **children had time and freedom to explore, investigate and experiment with something of personal interest** (FaS 15). Kant (1787) saw 'time' as an intuition, rather than a concept. Equally, time is regarded ontologically: it is linked with 'being' (Heidegger, 1962), 'consciousness' (Merleau-Ponty, 2002:481) and identity (Lyotard, 1992). Conversely, Markström and Halldén (2009) suggest that time frames 'the teacher's social order' in ECEC settings so that children's freedom is often diminished by adult hegemonies (*i.a.* Matthews and Limb, 1999; Lyon, 2007; Redmond, 2008). However, during a free-flow play session in Cherry Setting, Nora had time and freedom to explore, investigate, experiment with something of personal interest (FaS 15). She and her friend chose to play with the 'Chilly Polar Regions small world play (SWP)':



Nora decided to put a 'lifebelt' over a SWP 'person's head'. This presented a problem but Nora persisted, becoming red in the face with effort as she tried to force on the lifebelt. Eventually, Nora managed to push the 'lifebelt' onto the SWP 'person' (SO_C10 Ch_N12), solving her problem. She then put the 'person' into a toy 'boat' in the 'Chilly Polar Regions SWP' area. In this small vignette, Nora had time and freedom to pursue her play focus for as long as it took her to achieve her goal. In this way she had agency (Heidegger, 1962; Lyotard, 1992), to plan and enact consciously what she wanted to do (Merleau-Ponty, 2002:481). Nora was able to pursue her own agenda in a context where her experience was not limited by time constraints imposed by her teacher (Markström and Halldén, 2009). In this way, Nora had 'space' of her own that provided a context for her emancipation (Moss and Petrie, 2002).

The data indicated that children sometimes engaged in a **focus of personal interest** (FaS 16), but that this presented more in their homes (n=40) than in their settings (n=13) during the study. This sub-category aligns with literature emphasising time and freedom to engage in self-chosen activity with strong involvement (Csíkszentmihályi, 1990; Laevers, 1994; Pascal *et al.*, 1996) and objects (Rubin, 2001; Morgenthaler, 2006). Billy exemplified children focusing on something of personal interest (FaS 16) in a vignette discussed earlier for recalling

instructions (C21). Observing himself on video footage during an interview conversation with me, Billy explained: 'I'm doing that thing when you have one of those ear things (cotton bud) and you do it red white and yellow and you draw the thing on a black piece of paper and we do round it in dots. I did white'. This was a practical session requiring children to work semi-independently on creating their own pictures in the style of African art. Yet a recurring theme in the interview conversation was Billy's focus on the camcorder that had been in the setting to gather data for the present study:

Figure 49: Pinching the camera
'That's Howard looking at the camera. Now he's getting up.' (SA Ch-B: Ch-B I-C[iia]12)
'I'm back. I'm just so interested in the camera.' (SA Ch-B: Ch-B I-C[iia]16ii)
'I was giving the camera a pinch.' (SA Ch-B: Ch-B I-C[iia]18i)
'I don't know – well – I was interested in the camera.' (SA Ch-B: Ch-B I-C[iia]28i)

Billy's repeated reference to the camera during his art lesson as well as the subsequent interview conversation suggests he was absorbed by his interest in it: he appeared fascinated by the camera and wanted to understand it better (Laevers, 2000). Billy was in a state of 'flow' (Csikszentmihayli, 1990), focusing his attention 'to one limited circle' (Laevers, 2000: 24).

In the present study, synthesis of children's 'autonomy' with **children conceptualising** was manifested when children created a problem (C6), autonomously decided what needed to be done and did it (C18) and also when they made decisions based on their own criteria (C23).

During a free-flow play session in Cherry Setting one day, Querida provided an example of children **creating a problem** (C6): Querida and her friend had found some seeds and Querida said to me 'We're planting the seeds'. Querida and her friend Sally found some pots and began planting the seeds. However, they could not find watering cans to begin with though subsequently found two (SO_C3 Ch-Q10ii). Practitioner M asked me to help the children to get water from taps indoors which I did with Querida and Sally. Querida said to me: 'I've saved one [seed] to take home to my mummy'. Querida and Sally watered the seeds then Querida said to me:

'There – they're all watered now: they're all done – come and look!' I looked at the pots where the seeds were planted and watered. In this vignette, Querida and Sally set themselves a 'a challenge...a task, which stimulated...a push in their thinking' (Tarini and White, 1998:379): their problem was to plant seeds and water them. In their activity, seeds acted as a provocation that encouraged Querida and Sally to set and solve their own problem (Katz, 1994:1). At the beginning of this activity, Querida had decided what she and Sally were going to do and she seemed to draw on a prior experience of planting seeds – when she found them, she knew what they were, what is usually done with them and how it is done. Therefore Querida adopted a 'clearly specified idea deriving from a particular *model*' (Silverman, 2006: 400) and in doing so, she combined sensation with mental activity to present with a *posteriori* conceptualisation (Kant, 1787; Scruton, 2001).

Whilst the study is qualitative, it is interesting to note that there were fifty examples in the home data of five children **autonomously deciding what needed to be done and doing it** (C18), whereas there were only nine examples in the setting data of three children engaging similarly. One day at Family C's home, Gemma provided an example of autonomously deciding what needed to be done and doing it (C18). She was baking cookies with her Grandma and brother. Gemma's brother (Bro-C) was placing Smarties on his cookies but had problems embedding them in the dough. He noted: 'That won't work!' (HVF C5-213). Gemma responded: 'I'll show you what I do! I'll show you how I do it' and she reached to the left for a Smartie (HVF C5-217). Gemma manipulated the Smartie into the dough and said: 'I squeeze it – I...' (HVF C5-222)...'Putting it on then I turn, turn' (HVF C5-227). Gemma's grandmother confirmed the success of Gemma's method, saying to Bro-C: 'That's a good idea – like Gemma – she's sort of putting it and turning it' (HVF C5-225). Here, Gemma autonomously decided that she needed to show her brother how to apply Smarties to cookies and she did so (HVF C5-217). It may be argued that her offer - 'I'll show you what I do! I'll show you how I do it' (HVF C5-217) – was a 'clearly specified idea deriving from a particular *model*' (Silverman, 2006: 400): the 'pressing and turning' method. Moreover, it may be argued that her reaching to the left for a Smartie (HVF C5-217) was the start of another 'clearly specified idea' - showing her brother how to place the Smarties on the cookies - 'deriving from a particular *model*' (Silverman, 2006: 400), that being her offer: 'I'll

show you what I do! I'll show you how I do it' (HVF C5-217). In the vignette, Gemma '...infused her own intentions – her own meanings – into objects and actions' (Dyson, 1997:14); in 'tutoring' her brother, (Wood *et al.*, 1976) she indicated that she combined experience and mental activity, developing a *posteriori* conceptualisation (Kant, 1787; Scruton, 2001). Gemma seemed to be 'acting out of concern' for her brother: a key characteristic of a young child's agency (Roberts, 2010: 47). Equally, Rinaldi (1998b) notes that children can '...become active agents in their own socialization and knowledge building with peers' (p.115): in the vignette, Gemma had agency - 'the capacity of individuals to act independently' (James and James, 2008: 9) and acted on that agency (Deci and Ryan, 1987). Moreover, Gemma showed herself to be a 'competent thinker' (Bancroft *et al.*, 2008:27): she had 'time and space' to have an idea - to show her brother how to apply Smarties to cookies (HVF C5-217) (Bancroft *et al.*, 2008:19).

Again, notwithstanding the study's qualitative nature, it is noteworthy that there were far more examples in the home data of children **making decisions based on their own criteria** (C23) than there were in the setting data (41 / 7). Harry provided an example at home. At home one day, Harry was holding the digital camera and his mother (Mthr-D) asked him: 'Did you just take a picture?' (HVIC H203). Harry responded: 'Yes but I will delete that one because it isn't very good' (HVIC H204i). In this short dyad, Harry engaged in 'goal-directed behaviour in the presence of options' (Hansson, 2005:6) to be able to decide to delete a photograph, based on his own criterion: '...it isn't very good' (HVIC H204i). Harry's response was congruent with decision theory (Anand, 1993; Kahneman and Tversky, 1979; Kahneman *et al.*, 1982) as well as an indication of 'intentional behaviour', strongly indicated for autonomy (Deci and Ryan, 1987:1024). Equally, Harry made an individual – rather than socially situated – decision (Levin and Hart, 2003; Eisele, 2003). Whilst Johnson-Laird and Shafir (1993) argue that decision-making and reasoning are correlated mental processes, Harry's reasoning for his decision seemed to be based on a subjective perspective: '...it isn't very good' (HVIC H204i). In this regard, Harry's decision and the criterion he provided for it were congruent with Damasio's assertion that it would be unmanageable for all human action to be decided exclusively as the result of rational thought processes (2006). Harry's response to his mother indicated a *posteriori* conceptualisation (Kant, 1787;

Scruton, 2001): he established a 'particular model' (Silverman, 2006: 400) – a criterion about whether or not a photograph is 'good' (HVIC H204i) from which he derived a 'clearly specified idea': to delete the photograph that 'isn't very good' (HVIC H204i). In this way, Harry engages in '...a process of thinking about a problem situation through particular "concepts"' (Metcalf, 2007: 149).

Examples of 'autonomy' relating to **children basing decisions on evidence** occurred sometimes when children enacted their personal preferences (BDoE9).

Oscar's free-flow play in Cherry Setting's undercover outdoor area provided one example of children **enacting a personal preference** (BDoE9). Oscar held a toy elephant at one end of a tube (an old drainpipe) and asked children at other end of the tube to see what was there. Subsequently, Oscar watched other children playing with tube. Oscar then returned to the tube with a toy zebra (SO_C6 Ch_O16ii), indicating his preference for this activity and for engaging with his peers. Oscar located himself 'flexibly and strategically within a particular social context' (James and Prout, 1995: 78) by returning to the tube game having watched his peers; equally, he enacted his personal play preference and asserts his 'sense of being in the world' (O'Loughlin, 2001:49). The vignette indicated 'peer culture' (Corsaro, 1985; 2003:37) through which the children established their preference for 'togetherness' (Van Oers and Hännikäinen (2001: 187). Oscar and his friends had the freedom to choose to be '...active agents in their own socialization and knowledge building' (Rinaldi 1998b:115) and 'successful members of their own intricate social worlds' (Brooker, 2002:1). Equally, Oscar acted within this context to develop and maintain social patterns with his peers during...'free play' (Löfdahl and Hägglund, 2006; Markström and Halldén, 2009). Oscar's preference for playing with his peers seemed guided by his need for cognitive and an emotional need to engage with others (Johnson-Laird and Shafir, 1993; Damasio, 2006). Equally, his play with his peers is 'goal-directed behaviour in the presence of options' (Hansson, 2005:6): behaviour congruent with decision theory (Kahneman *et al.*, 1982; Eisele, 2003). Such 'intentional behaviour' indicates autonomy (Deci and Ryan, 1987:1024).

Summary of 'Autonomy'

Children synthesised autonomy with exploring (Stebbins, 2001), finding solutions (Eisenberg *et al.*, 2000), conceptualising (Kant, 1787) and basing decisions on evidence (Johnson-Laird and Shafir, 1993). They explored autonomously by developing their own agenda (Moss and Petrie, 2002), found solutions autonomously by engaging in self regulation (Whitebread, 2012: 7-13) and having time and freedom to explore, investigate, experiment and focus on issues of personal interest (Csíkszentmihályi, 1990). Children conceptualised freely when they had opportunities to create a problem (Tarini and White, 1998), autonomously decided what needed to be done and had opportunities to do it (Deci and Ryan, 1987) and when they made decisions based on their own criteria (Eisele, 2003), particularly when they enacted their own personal preferences (O'Loughlin, 2001).

14.6 Material contexts (e)

In the present study, material contexts relating to children's research behaviours emerged from the data which included examples of exploration, children's development, autonomy, discursive spaces, mental modelling, spaces, objects, tools and gestures, symbolic play, problem-seeking, finding solutions, pragmatism, senses, perceptions, reasoning, concepts and intuitions. The data resulted in the following sub-categories relating to *e) Material contexts*:

Table 59: e) Material contexts
E1. Interested in context
E4. Shows interest in materials
FaS 17. Exploring properties
FaS 21. Deductive reasoning
FaS 22. Inductive reasoning
C2. Creates a new use for object[s]
BDoE3. Senses provide evidence for action

Empirical data relating to the 'material contexts' subcategories and appearing to support children's research behaviours are discussed critically here, drawing on relevant literature.

In the study, children seemed to combine their experiences of material contexts with their **explorations** when they were interested in their contexts (E1) and showed interest in materials (E4).

Children's **interests in their contexts** (E1) related to their explorations that were congruent with social sciences research Stebbins (2001), physical spaces (Dudek, 2005) exploratory play (Hutt *et al.*, 1989), flow (Csikszentmihalyi, 1990) and their global development (Garner and Bergen, 2006; Meadows, 2006).

Hutt *et al.* (1989) define epistemic behaviour as '...the acquisition of knowledge and information' (p.222), while Hughes (1979) identifies that young children's exploration is characterised by predictable sequences, which lead to enhanced problem-solving capabilities (Hutt *et al.*, 1989; Dweck and Legett, 1988). At home, Gemma acquired knowledge and information as she learned how to operate a camcorder to create a sequenced 'guided tour' of her home. Gemma focused the camcorder on different features she was familiar with, verbally annotating each feature. She was familiar with the names of the features, indicating she had encountered them previously, for example: 'Bin', 'Breakfast bar', 'Suncream', 'Cooker', 'Spicy things' (spice rack), 'Sugar', 'These are the stairs', 'There's about 1,2,3,4,5,6,7,8,9,10,11,12,13 steps so you can do it whenever you want.' (HVF C2-12iv); (Axial Code No: Ch_G_HoObs2/3); (HVF C2-9i). Here, Gemma trialled her use of a camcorder at home (HVF C2-9i), a space she knew well and to which she may have had an attachment (Spencer 2004; Dudek, 2005): a physical context in which '...relations, options, and emotional and cognitive situations... produced (in her) a sense of well-being and security' (Malaguzzi, 1996:40). Gemma seemed to value her home for how she could use it (Bailey and Barnes, 2009) and her interest in her context translated to her explorations of the camcorder, her home and the synthesis of the two as she explored as a researcher, travelling through the house to discover more about filming, gathering data and operating the camcorder, examining each physical object or space for the purpose of data gathering (Stebbins, 2001: 2).

Examples in the literature suggest that Gemma's behaviour is not unusual: young children aged 0-8 years do explore (Hutt *et al.*, 1989; Gopnik *et al.*, 1999; Hughes, 2002; Athey, 2007); they do so to actively construct their own epistemologies (Isaacs, 1944; Piaget, 1970; Hoyuelos, 2004). Moreover, Gemma's 'tour' appeared to exhibit 'flow' in her thinking - an indicator for young children's optimal

development (Laevers, 2000). Gemma had a goal (to use the camcorder to film her home), she was fully involved in filming her home and she personally controlled the process (Csikszentmihalyi, 1990). Gemma's opportunity to explore with a high level of autonomy was likely to be beneficial for her development across physical, cognitive, social and emotional domains (Laevers, 2000; Broadhead, 2001; Garner and Bergen, 2006; Meadows, 2006).

Inasmuch as children indicated interest in their contexts, they also **showed interest in materials** and objects (E4). India exemplified this one day in Beech Setting's under-cover outdoor area. Two hollow plastic black cylinders, approx 2m x 0.5m, were on the floor adjacent to each other in the undercover area. They were offcuts from industrial water pipes (Appendix 26, Setting Artefacts 14: India's Cylinders). India and her friend played exclusively with the cylinders for almost 12 minutes. India's play included her walking to the cylinders (SO_B5Ch_I11), rolling a cylinder forwards while on top of it on her tummy (SO_B5 Ch_I41) and, with her friend, creating one long 'tube' (SO_B5 Ch_I105ii) then, inside one cylinder each, rolling the cylinders at the same pace several times to and fro (SO_B5 Ch_I148i) (see Appendix 124 for the full observation). Young children appear programmed to explore objects (Garner and Bergen, 2006) and during this experience, India engaged in functional, realistic object play (Morgenthaler, 2006:65). She interacted with the cylinders inductively, constructing and problem-solving (Piaget, 1945) and travelled over and through the cylinders, indicating through her actions that she was asking herself 'What can and does it do?' (Abbott and Langston, 2005:153). Her apparent intention to discover more about the cylinders' properties indicated behaviour aligning with Stebbins' definition of exploration as an aspect of social sciences research (2001). The cylinders were simple objects that proved fascinating for India and her friend, endorsing a view that children often sideline sophisticated resources in favour of everyday objects (Rasmussen, 2004; Veitch *et al.*, 2007; Waller, 2006; 2007; 2010; Hart, 1976; Clark, 2010; Gura, 1992; Einarsdottir, 2005; Vig, 2007; Huleatt *et al.*, 2008). Such objects have been shown to enhance young children's cognitive mastery (DeLoache, 1989; Nelissen and Tomic, 1996; Karpov, 2005; Worthington, 2010); elements of India's cylinder play, such as creating one long 'tube' from the two cylinders (SO_B5 Ch_I105ii) may have resulted from representational thinking (Forman, 1982) or mental modelling (Craik,

1943; Johnson-Laird, 1983:x). Furthermore, India and her friend appeared to invest personal meanings and value in the cylinders, seeing them as contexts for socio-cultural interaction (Vygotsky, 1978; Garvey, 1991) and a locus for 'communicative power' (Gura, 1992:43). India and her friend seemed to make both cognitive and socio-emotional connections during their object play with the cylinders (Axline, 1964; Garner and Bergen, 2006).

Children's explorations of properties (FaS 17) and engagements in deductive and inductive reasoning (FaS 21; FaS 22) seemed to support them in **finding solutions** in their interactions with material contexts.

One day at home Gemma exemplified how children in the study sometimes **explored properties** of materials when they were problem-solving (FaS 17). When she was making cookies with her grandmother and brother, Gemma and her brother had found the dough became sticky and difficult to shape (HVF C5-28). Gemma squashed a large piece of dough in her left hand and dipped it into flour (HVF C5-66), remarking: 'My flour's helping mine' (HVF C5-80). Gemma had found a solution by exploring properties of the dough and the flour with her hands; she found the dough sticky at first but easier to shape once additional flour had been added. Gemma's sense of touch was mediated by nerve endings just below the surface of her skin as she responded to pressure of movement on the surface of her skin (Keenan and Evans, 2009; Goddard Blythe, 2011). Her manipulation of the dough, as she explored its properties, provided '...a motor solution to a cognitive problem' (Keen, 2011: 4), enabling her to craft her dough into cookies (shown later in the observation). Gemma appeared to be thinking and interacting with the world through her senses and perceptions (James, 1890; Stern, 1985). Her reasoning - 'My flour's helping mine' (HVF C5-80) - is experimental; it emerges from 'matter of fact or existence' (Hume, 1748:123) so may be considered 'robust' (Thomas, 2007).

Children's engagements in **deductive reasoning** (FaS 21) tended to present in practical and material contexts. For example, during a free-flow play session in Cherry Setting, Querida joined two friends - Iris and Tilly - outside on the wheeled toys. Iris and Tilly were sitting on a tricycle and Querida decided to move them around the outdoor area on the tricycle. She tried to push them on their tricycle but

could not move it. Querida pushed again and managed to move the tricycle forwards (SO_C2 Ch-Q28). Querida appeared to apply syllogistic reasoning to rationalise her actions (Hume, 1739; Bonjour, 1998):

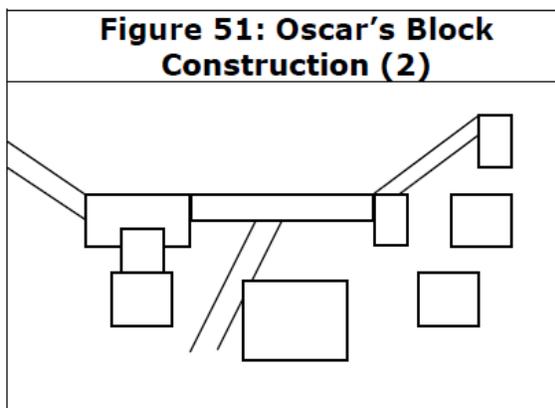
Figure 50: Querida's reasoning
Pushing results in forward movement
Querida pushes the tricycle
The tricycle moves forward

Querida's reasoning and actions were congruent with Johnson-Laird and Byrne's definition of 'a valid deduction', which, they argue, '...yields a conclusion that must be true given that its premises are true' (1991: 2). This notion of validity frames much of the academy's view of research and, correlated with this, many policymakers' perspectives on research (Bridges *et al.*, 2009). It may also be argued that Querida's activity was derived through praxis - 'practical knowledge' - requiring 'personal wisdom and understanding, not expertise' (Griffiths and MacLeod, 2008:128-9): Querida had had experience of pushing resulting in forward motion so based her reasoning on that experience.

Similarly to children's presentations of deductive reasoning, their engagements with **inductive reasoning** (FaS 22) in material contexts tended to present practically. During the Family D Focus Group at Harry's home, as he explained how he solved the problem of how to erect the camcorder tripod, Harry said to me: 'I know why we use the tripod. Mrs. Murray...so we can stand the camera up. And we can get the legs higher. We can get the tripod up so you can see it. It took one or two years to get it up' (HVIC H163). Here, Harry indicated that he believed the tripod took time to set up. He had learned that 'years' are a measurement of time and he inferred that the time period for setting up the tripod was 'one or two years' (HVIC H163); Here, Harry drew on the relevant evidence he was aware of to infer the time span, to elicit a 'best estimate' based on his knowledge. He did not use *de facto* evidence to make his proposition 'formally demonstrable', but drew on his 'past experience' (Ayer, 1940: 190-191). However, Harry did not know that the video footage timer showed that the time period was 5.06 minutes. Harry developed the premises for his claim, but some of this was inferred and was inaccurate, according

to alternative evidence from the video recorder timer. Harry reasoned inductively (Ayer, 1940; Smeyers, 2008).

Children's conceptualisation in 'material contexts' appeared to lead to them **creating new uses for objects** (C2). For example, returning to the example of Oscar creating a construction with the Community Blocks during a Cherry Setting free-flow play session: Oscar announced 'It's a climbing frame!' (SO_C6 Ch_O31i). Oscar then walked along the blocks and said 'I'm going down the slide!', going on to walk and balance on his construction. Oscar had created a new use for Community blocks: a climbing frame:



Here, Oscar engaged in symbolic play, infusing new symbolic meanings into the wooden blocks: activity likely to support his cognitive development (Manning-Morton and Thorp, 2003; Vygotsky (1976). He reconceptualised the blocks, based on his previous experiences of climbing frames. It can be argued that Oscar's 'climbing frame' resulted from *a posteriori* conceptualisation in which he combined his experience with mental activity (Kant, 1787; Scruton, 2001). Oscar's climbing frame was a 'clearly specified idea deriving from a particular *model*' (Silverman 2006: 400).

Children's **senses often provided them with evidence for action** (BDoE3), enabling them to base their decisions on evidence in 'material contexts'. Martin exemplified this when he was filming with the camcorder one day at home. He said to his mother 'Pause. How do you record?' Martin panned round with the camcorder but the camera work was shaky. He said 'Oh yeah – you press the white button'

(HVF E3-9v) + (Axial Code No: Ch_M/HoObs3/1). At five years old, Martin reified Hume's principle of verification here, engaging in '...experimental reasoning concerning matter of fact and existence' (Hume, 1748:123). Also, he coordinated his senses of sight and touch intermodally (Marks, 1978) to work out how to operate the camcorder: he engaged in 'visual perception (which) includes attention and processing of visual information' (Woolfolk and Perry, 2012:140) and his sense of touch, mediated by nerve endings just below the surface of his skin in response to pressure of movement on his skin's surface enabled him to find and 'press the white button.' (HVF E3-9v) (Keenan and Evans, 2009; Goddard Blythe, 2011).

Summary of 'material contexts'

Children showed interest in their own contexts and the materials and objects they encountered in them through epistemic engagements (i.a. Hutt *et al.*, 1989; Morgenthaler, 2006), which often presented in ways that appeared congruent with exploration in social sciences research Stebbins (2001). Children explored properties of materials when they were problem-solving sometimes, engaging their cognitive and physical domains contemporaneously (Keen, 2011). Equally, to problem solve in material contexts, they engaged in deductive and inductive reasoning (Johnson-Laird and Byrne, 1991), often applying their reasoning practically. Additionally children conceptualised within material contexts to create new uses for objects (Kant, 1787; Scruton, 2001) and this often presented as symbolic play (Manning-Morton and Thorp, 2003; Vygotsky (1976). Children's senses often provided them with evidence for action (BDoE3), enabling them to base their decisions on evidence in material contexts (Hume, 1748).

14.7 Cognitive domains (f)

In the present study, cognitive domains relating to children's research behaviours emerged from the data which included examples of causality, definitions of concepts, theory of mind, prediction, perception, mental modelling, 'flow', imagination, modes of representation, modes of communication, temporal spaces, play, analogy, metacognition, trial and error, strategic thinking, deductive and inductive reasoning. The data resulted in the following sub-categories relating to *f*) *Cognitive domains*:

Table 60: f) Cognitive domains
E8. Cause and effect
C5. Predicts
C9. Involved in pursuing a train of thought
C12. Using imagination
C13. Using language to support thinking process
C14. Engaged in symbolic representation
C15. Planning
C17. Making links – ANALOGY
BDoE5. Meta-cognition
BDoE7. Trial and error
BDoE8. Thinks strategically
BDoE13. Applies Humean 'reason'

Empirical data relating to the 'cognitive domains' subcategories and appearing to support children's research behaviours are discussed critically here, drawing on relevant literature.

Causality has been redefined significantly in the past century in the physical sciences (Born, 1949) but Hume's definition of causality (1739) prevails in the social sciences.

Cause and effect (E8) seemed to characterise **children's explorations** in juxtaposition with their cognitive domains. One day during school playtime in Cherry Setting, Martin stood in the middle of the playground, wearing a sunhat and two boys joined him. Martin bent over and said: 'I'm seeing if my hat falls off! Watch this dudes!' (SO_C5 Ch_M3i) (SO_C5 Ch_M6i) then he jumped up and down until his hat came off (SO_C5 Ch_M7i). Here, Martin's behaviour aligns with Hume's definition of causality (1739):

Figure 52: Martin and the hat
'1. The cause and effect must be contiguous in space and time' (Hume, 1739: III:xv): Martin jumped and within seconds, his hat fell off.
'2. The cause must be prior to the effect' (Hume, 1739: III:xv): Martin jumped (cause) then his hat fell off (effect)
'3. There must be a constant union betwixt the cause and effect' (Hume, 1739: III:xv). Martin articulated his perception of the correlation: 'I'm seeing if my hat falls off!' (SO_C5 Ch_M3i)... 'Watch this dudes!' (SO_C5 Ch_M6i). The 'union' is reified when his hat falls off as he jumps: the hat falling off seems to result from Martin jumping. Furthermore, Martin indicates that he had developed a causal theory in advance of testing it (Gopnik, 2009): he says prior to the event: 'I'm seeing if my hat falls off! Watch this dudes!' (SO_C5 Ch_M3i) (SO_C5 Ch_M6i).

Martin's apparent adoption of causality seemed to indicate some 'intellectual understanding of physical systems and living organisms' and a capacity to explore congruent with professional researchers operating within the academy's structure (Smeyers, 2008: 64; Stebbins, 2001).

When children's 'cognitive domains' linked to their **conceptualisations** they predicted (C5), became involved in pursuing a train of thought (C9), used their imagination (C12), used language to support their thinking processes (C13), engaged in symbolic representation (C14), planned (C15) and made links (analogy) (C17).

During the Family C Focus Group, Gemma provided one of several examples in the study of children **predicting** (C5). She shared a photograph of herself at an open farm which she and her family had visited (HVIC/FAM.C 629):



Gemma said: 'That's when we were looking for gold and I found loads!' (HVIC/FAM.C 631): '...fool's gold' (HVIC/FAM.C 633). 'Mummy's going to get it so you can see it... how precious' (HVIC/FAM.C 635). Gemma's mother brought the fool's gold and I said to Gemma: 'That looks like the sort of thing you might make!' Gemma replied: 'I'm going to stick it on - that would be shiny' (HVIC/FAM.C 642). Here, Gemma appeared to engage in mental modelling (Craik, 1943): she reasoned to construct an idea for using her fool's gold nugget in a picture she would make. In doing so, Gemma correlated 'familiar old' knowledge with 'strange new information' to make 'a statement about something that would occur in the future' (Klentschy, 2008:32). She developed prediction through *a posteriori* conceptualisation (Kant,

1787; Scruton, 2001; Bridges, 2003) indicating her thinking was more than 'common sense' (Popper, 1972:83).

Sometimes, children became **involved in pursuing a train of thought** (C9), resonating with literature addressing 'flow' and 'involvement' (Csíkszentmihályi, 1990; Laevers, 2000; Pascal *et al.*, 1996). For example, during a free-flow play session in Cherry Setting, Martin played with three other boys in the *Chilly Polar Regions Small World Play* (SWP) area (Appendix 26 – Setting Artefact 21). Martin picked up a polar bear and put it in boat then on the helicopter. Martin walked the polar bear along the table top with his hand, put the polar bear in the boat hull and put the lid on. Martin put the polar bear down on the boat with a lifebelt around it. In role as the polar bear, Martin said in a squeaky voice: 'I'm in a boat. Eh, eh, eh'. He put the polar bear against the steering wheel and said: 'I never sit him on a seat...the boat is sinking!' Then he said to the polar bear: 'There you are – get in the helicopter' (SO_C3 Ch_M2i) - (SO_C3 Ch_M20i). In his narrative, Martin's appeared to engage in *a posteriori* conceptualisation, linking prior experiences with mental activity (Kant, 1787; Scruton, 2001). His exclusive focus on the SWP, exemplified 'flow' (Csíkszentmihályi, 1990; Göncü, 1998; Laevers, 2000; Bruce, 2005) - '...concentration... attention to one limited circle... strong motivation (and) fascination' (Laevers, 2000:24) – a condition correlated with cognitive mastery (Laevers, 2000; Pascal *et al.*, 1996).

The data often revealed young children **using their imagination** (C12): Newson and Newson (1979) note '...the human imagination is...extensive and complex' (p.12). During his Home Interview Conversation, Billy's recount of an experience exemplified this: '...we had crafting and I made a train bank...it's like you make a train, you put a little thing there and ...you have to pull it a little bit like the bit like that and then you pull the thing like that and then it opens' (HVIC B 165). Billy's 'clearly specified idea deriving from a particular *model*' (Silverman, 2006: 400) - a train (HVIC B 165) – seemed to combine *a posteriori* conceptualisation with imagination: '...the very condition of possibility for all knowledge and experience' (Kant, 1787, cited in Norris, 2000: 384). Billy's 'train' emerged from his 'imagination': the 'fruit of the harmony of (his) ideas' (Malaguzzi, cited in Kaufman, 1998: 288). Equally, Billy's own meanings and discourses emerged in 'symbolic play' (Gussin Paley, 2004; Johnson, 2006;

Kalliala, 2006; Cobb-Moore *et al.*, 2010; Manning-Morton and Thorp, 2003): again this is indicated as important for cognitive mastery (Vygotsky, 1976).

In the study, children often seemed to **use language to support their thinking processes** (C13), including conceptualisation. For example, in Beech Setting during a free-flow play session Harry and his friend Allan had elected to do a writing activity on the computer. Harry had called Practitioner E and was showing her his work so far. Practitioner E said: “Bath” – you did “bath”. Harry responded: ‘I want “Barf”...I want “barf”’ (SO_B10 Ch_H47iii). Harry appeared to adopt oral language as a vehicle for – an expression of – his thinking (Vygotsky, 1962); he articulated the phonemes in ‘bath’ as he had heard them although this did not translate to accurate spelling: an issue for young children acquiring English literacy (Suggate, 2011). Harry’s use of language supported and demonstrated his understanding of complex decoding skills (Rose, 2006), phonological knowledge (Johnston and Watson, 2005) and grapho-phonetic cues (Goouch and Lambirth, 2011): reading strategies. Harry linked previous experiences with mental activity: an indicator for *a posteriori* conceptualisation (Kant, 1787; Scruton, 2001). Equally, the dyad reveals ‘discourse’ – dialogue combined with rational thinking (Habermas, 1984): ‘...acts that people accomplish within conversations’ (Weinfurt 2004, 195) ‘...signifying practices and meaning-making’ (Wetherell, 2007: 662-3).

Data revealed children **engaging in symbolic representation** (C14), regarded as indicative of cognitive mastery (Bruner, 1966; Vygotsky, 1976). In her bedroom at home one day, Annie fiddled with bear ornaments on the windowsill and said: ‘They’re usually in twos’ (HVF_A1_12). Annie’s mother asked: ‘Why do they need to be in twos?’ Annie said: ‘I was – it’s just I saw them and thought – ohh...’ and her mother said: ‘Mmm? Pardon?’ and Annie responded: ‘I just saw them and thought – ohh...’ (HVF_A1_12). Later, during the Family A Focus Group, Annie, her parents and I were watching the video of this vignette and I asked Annie: ‘...why do they have to be in twos?’ She replied ‘Because they’re dance partners!’ (HVIC A27), combining past experiences with mental activity to indicate *a posteriori* conceptualisation. Annie also engaged in socio-dramatic and thematic fantasy (SDTF) play, ‘...the ability to separate meaning from object’ (Manning-Morton and Thorp, 2003:75): she created her own meaning (Gussin Paley, 2004; Johnson, 2006; Kalliala, 2006; Cobb-Moore *et*

al., 2010) during a period when the television programme 'Strictly Come Dancing' was broadcast by the BBC, Annie's bear ornaments symbolised 'dance partners' for her (HVIC A27). Bruner (1966) identified symbolic representation as 'a symbolic system...governed by rules or laws forming and transforming propositions' (p.45). Annie ruled that her bear ornaments had to be in pairs, symbolising a desire for order and her understanding of a mathematical concept and of a social convention. Furthermore, Annie's dyad with her mother exemplified symbolic interactionism – inherent meaning in communication (Blumer, 1969). Annie's reticence to answer her mother (HVF_A1_12) seemed responsive to her mother's irritation - 'Why do they need to be in twos?' 'Mmm? Pardon?' - and indicated Annie's realisation that her mother did not share her own understanding regarding the bear ornaments.

Children sometimes seemed to **plan** (C15). For example, one day during free-flow play in Beech Setting, Johnny appeared passive as he watched another child who wore a watch. Subsequently, he collected a strip of paper (2.5cm x 12cm), glue and scissors which he took to the writing table (SO_B1 Ch_J1iii) and Johnny went on to create a facsimile of a wristwatch made from paper, '...infusing (his) own intentions – (his) own meanings – into objects and actions' (Dyson, 1997:14). Young children often plan their solutions '*in action*' (Cox and Smitsman, 2006): in the 'here and now' (Graue and Walsh, 1995). However, here, Johnny appeared to plan *ahead* of action; following apparent inactivity, which later appeared to be observation, he autonomously engaged his '... initiative, involvement and relative control' (Helm and Katz, 2001:2). Johnny appeared to combine his prior experience of a wristwatch in combination with mental activity to create his facsimile watch, suggesting *a posteriori* conceptualisation (Kant, 1787; Scruton, 2001).

Following their video observation of Annie at home, the PEYERs' Focus Group reflected that Annie seemed to **make links – to analogise** - in her activities (C17):

Figure 54: PEYERs' reflections

PEYER ZZ said: '...she's using text for information, she was asking questions, she was observing what was happening and making observations on that - like - "should this white bit of the shell be in here?"' (FGpB413)

PEYER D says: 'Kind of applying theory to practice' (FGpB415)

PEYER W says: 'And she was able to do three things at once' (FGpB417) '...she was able to read at the same time as watching' (FGpB419).

Annie's activity that the PEYERs had watched included her discussing bear ornaments as 'dance partners', using her prior knowledge to find words beginning with particular letters and transferring her reading of a recipe to cooking (FGpB419). The PEYERs' remarks indicate they recognise an ability in Annie to analogise: to identify 'an equality of proportions' (Goswami, 1992:4) through 'recognition, clarification and learning... (and) discovery' (Vosniadou and Ortony, 1989:1) . Annie's synthesis of prior experience and mental activity may also be interpreted as *a posteriori* conceptualisation (Kant, 1787; Scruton, 2001).

Data indicated that children sometimes seemed to **base their decision-making on evidence** when engaging cognitive domains including meta-cognition (BDoE5), trial and error (BDoE7), strategic thinking (BDoE8) and Humean reasoning (BDoE13).

Children sometimes appeared to engage in **meta-cognition** (BDoE5) during the study. For example, during the Family C Focus Group, Gemma shared a photograph and based her decision regarding what to discuss on the evidence of the image she saw, combined with her memory of the event photographed:

**Figure 55:
Gemma
Photograph 34**



Gemma explained: 'We were playing a game and...he (her brother) was banging a thing – going like that at everybody.' I asked: 'Was he scaring everybody?' and Gemma responded: 'He didn't scare me though – because I know he was going to do it because he did it to Grandma and Grandad.' (HVIC/FAM.C 273). Gemma's 'surveyed' her personal behaviours and feelings in her analysis (Flavell, 1979: 909), engaging in meta-cognition to assert that her brother did not scare her '...because I know he was going to do it'. Annie's 'feeling' of not being scared appeared to express 'meta-cognitive experience'. Equally, Annie recounted a strategy – a 'cognitive and behavioural action taken to achieve (a) goal' (Flavell, 1979, cited in Kolb and Kolb, 2009:302): she recognised that her experience of her brother attempting to scare their grandparents served as her warning (Flavell, 1979). Gemma's ability to 'study (her) mind from within' (James, 1890: 225) and to articulate her thoughts regarding her thinking seemed to help her to gain knowledge and understanding (Magnussen and Palincsar, 2006) and, given Lillard's point that '...mental states are unobservable entities' (2001: 174), also proved a valuable tool for the present study.

There were some examples in the empirical data of children engaging in '**trial and error-elimination**' (Popper (1972 / 1979) (BDoE7). Whilst Hájiček (2009) proposes that trial-and-error is a way to 'cope with unforeseen events' (p.276), Popper (1972 / 1979) posits that 'deliberation always works by trial and error...by tentatively proposing various possibilities and eliminating those which are not adequate... new reactions, new forms, new organs, new modes of behaviour, new hypotheses, are tentatively put forward and controlled by error-elimination' (Popper, 1972 / 1979: 242-3). One day in Beech Setting, Gemma stood tidying the books in the book box. She attempted to slide a book in sideways; the book would not slide in to begin with so Gemma tried another way round – the book still would not go in so Gemma tried another space (SO_B14b Ch_G22ii). Gemma engaged in trial and error-elimination: she tried to fit books into the book box but if a book did not fit, she used that experience as a basis of evidence for trying to fit the book into the box in a different way. Gemma proposed 'new forms' of arranging the books and 'new hypotheses' about how she might fit books into the book box, moving onto the next 'form' and 'hypothesis' when she finds one that does not work: error-

elimination' (Popper (1972 / 1979: 242). Gemma's behaviour is congruent with the following schema:

$$\underline{P \square > TS > EE > P \square}$$

where 'P' represents a problem, *TS* a trial solution applied to the problem, and *EE* stands for error-elimination' (Swann, 2009: 260). Swann (2009) observes that children rarely have opportunities to engage in trial and error at school. In the present study, only seven examples presented in settings and eight examples in children's homes, resonating with literature highlighting increases in risk aversion regarding children's activity (Foley and Leverett, 2011).

Given that 'mental states are unobservable entities' (Lillard, 2001: 174), examples of children's **strategic thinking** (BDoE8) emerged as an interesting finding. However, as for the rest of the study, children's multi-modal expressions of their thinking were externalised in their behaviours and a challenge was to identify, analyse and interpret these. One day, Harry was sitting on his drive at home with a cable reel (Appendix 26, Home Artefact 17 – Harry's Cable Reel). Harry's mother had just been filming him learning to reel in the cable then she asked him: 'Are you going to pick it up and put it away for me?' (HVFD10_33). Harry stood, picked up the cable reel and began walking. He walked into the garage, saying to his mother: 'You come and help me', then put down the cable reel and said to her: 'I'll just put it down then you can sort it out' (HVF D10_46). Here, Harry's task to put away the cable reel was a goal; goal-centred behaviour is identified as characteristic of strategic thinking (Bjorklund, 1990; Flavell, 1979; Siegler and Jenkins, 1989). Bjorklund (1990) also lists intention, planning and a procedure resulting in task completion as characteristics of strategic thinking. Harry's behaviour exemplified these criteria: he demonstrated intention to put away the cable reel by walking into the garage. However, he did not put it away immediately, indicating uncertainty but he devised a plan, saying to his mother: 'You come and help me' (HVFD10_37). Finally, Harry achieved his goal by employing his mother: '...you can sort it out.' (HVF D10_46).

Children's behaviours sometimes indicated they **applied Humean reason** (BDoE 13): '...abstract reasoning concerning number or quantity' or '...experimental

reasoning concerning matter of fact and existence' (Hume, 1748:123). In identifying these incidents, Creswell's definition of an experiment is adopted for the present study – '...you test an idea (or practice or procedure)' (2008:299) was adopted and 'reasoning' refers to deductive or inductive approaches, as discussed, though Hume favoured deductive approaches (Bonjour, 1998). During an interview conversation with me in Ash Setting, Annie watched video footage of herself engaging in everyday, naturalistic activity in her class; I had asked Annie to talk about what she thought was happening on the video footage. Annie observed a literacy session focused on the digitext *Fergal Fly, Private Eye*, during which she sucked her thumb, took it out of her mouth and looked at it. In the interview conversation, Annie said: 'I do this...' she was sucked her thumb then took it out of her mouth and looked at it (SA IC [i]74i). She interpreted footage of herself sucking her thumb, taking it from her mouth and looking at it as 'matter of fact and existence' (Hume, 1748:123) and she used her observation as a basis to decide to re-enact the event for me. Annie tested two practices (Creswell, 2008:123): recounting the thumb-sucking event talking about what she perceived by observing the footage. In this way, Annie engaged in '...experimental reasoning concerning matter of fact and existence' (Hume, 1748:123).

Summary of 'cognitive domains'

Children displayed many examples of causality at the juxtaposition of their explorations and cognitive engagements (Hume, 1739; Stebbins, 2001) . When children's 'cognitive domains' linked with their conceptualisations *a posteriori* concepts seemed to prevail (Kant, 1787; Scruton, 2001) as they engaged in prediction (i.a Klentschy, 2008), flow (Csíkszentmihályi, 1990), imagination (Kant, 1787), discourse (Habermas, 1984), symbolic representation (Bruner, 1966), planning (Cox and Smitsman, 2006) and analogy (Goswami, 1992), usually in contexts where the children had autonomy. Furthermore, children sometimes seemed to base their decision-making on evidence when engaging cognitive domains including meta-cognition (Flavell, 1979), trial and error-elimination (Popper (1972 / 1979), strategic thinking (Bjorklund, 1990) and Humean reasoning (Hume, 1748). There were no examples of children finding solutions in relation to their 'cognitive domains'.

14.8 Dispositions (g)

In the ECEC field, dispositions are recognised indicators for lifelong learning, identified in the literature as involvement, well-being, independence, resilience, creativity and self-motivation (Laevers, 1994; Bertram and Pascal, 2006; Centre for Research in Early Childhood, 2012). In the present study, certain 'dispositions' emerged in correlation with some young children's research behaviours. Related factors included epistemic behaviour, cognitive mastery, 'flow', children's spaces, agency, curiosity, play, theory of mind, autonomy, problem-solving, dialogue, excitement and 'schoolification'. Analysed data relating to *g) Dispositions* elicited the following sub-categories:

Table 61: g) Dispositions	
E3. Focused on task	
E5. Curious	
E6. Seeking	
<i>Barriers</i>	<i>FaS 1. Gives up</i>
	<i>FaS 2. Has become disinterested</i>
	<i>FaS 3. Unmotivated</i>
	<i>FaS 8. Believes s/he has failed</i>
FaS 18. Perseveres to resolve problem	
FaS 27. Motivated by finding solution	
FaS 28. Excited by finding solution	

These subcategories appeared to support children's research behaviours and are discussed critically here, drawing on relevant literature. No 'Dispositions' subcategories presented in relation to children conceptualising and, as indicated, some seemed to present barriers to children's research behaviours (see Appendix 127).

Examples of 'Dispositions' relating to **children's explorations** presented when children were focused on their tasks (E3), appeared curious (E5) and were engaged in seeking (E6).

Children seemed to **focus on tasks** (E3) when they were engaged in epistemic behaviour. For example, one day in Ash Setting, When Billy was sitting on the carpet listening to a teacher giving them instructions for an art activity he developed his own new focus. He looked down at his sandal and began fiddling with it (SO_A7 Ch_B93i). Then he put his face almost onto his sandal while fiddling and

looking at it (SO_A7 Ch_B94). When the teacher had finished her exposition and said 'Let's see who's sitting beautifully then', Billy raised his head a little but continued to fiddle with his sandal (SO_A7 Ch_B95i). Billy's behaviour exemplifies 'flow' (Csíkszentmihályi, 1990): his '...attention was completely absorbed by the activity' (p. 53). As he explored his sandal by looking at it and fiddling with it, Billy exhibited '...concentration... strong motivation, fascination and total implication' while focusing 'attention to one limited circle' (Laevers, 2000: 24-25). Furthermore, Billy's close examination his sandal is behaviour congruent with exploration in social sciences research Stebbins (2001:2).

The data revealed many incidents of children demonstrating **curiosity** (E5) correlated with epistemic behaviour: a finding congruent with the literature (Berlyne, 1954; Laevers (2000; Perry, 2001; Chak, 2007). Gemma's mother reported one example: '(Gemma was) playing with a bracelet. (She) tried and managed to open and close bracelet (then) decided to use (the) bracelet on her ankle as it was too big for her wrist' (Appendix 62 - Family C Adult Analysis Sheet 6). Gemma's mother developed this report further during the Family C Focus Group: '...she was basically playing around with it, asking how to open the bracelet...'. (HVIC/FAM.C 859). Laevers (2000) categorises curiosity as a disposition, describing it as 'the exploratory drive' (p. 21) and Gemma exemplified Chak's bipartite definition of curiosity: 'motivational force' and 'behavioural manifestation in the form of exploration' (2007:142). Gemma 'encounter(ed) new things' (Fontanesi *et al.*, 1998:155): asking how to open the bracelet...' (HVIC/FAM.C 859) and she 'decided to use (the) bracelet on her ankle as it was too big for her wrist' (Fam-C_Parent An_Sht_6). In doing so, Gemma presented with 'epistemic curiosity': 'a drive which is reduced by the reception and subsequent rehearsal of knowledge' (Berlyne, 1954: 180). While playing with the bracelet (HVIC/FAM.C 859) (Fam-C_Parent An_Sht_6), Gemma studied, examined and investigated it, diagnosed 'it was too big for her wrist' (Fam-C_Parent An_Sht_6), then adopted the bracelet as an anklet. Her behaviour aligned with Stebbins' definition for exploration in social sciences research (2001). Furthermore, Gemma's behaviour indicated higher order thinking that may be considered deduction (Johnson-Laird and Byrne, 1991).

Data revealed numerous examples of children **seeking** (E6), although whilst this presented consistently in children's homes, only eleven of the seventeen children closely observed in settings provided examples. One of these examples occurred during a whole class history lesson in Ash Setting. The children were all facing the white board on which the teacher had written the learning objective: 'To be able to understand what it was like for people in South Africa in the 1960s'. Billy was sitting quietly on a chair at a table but while the teacher was talking he looked out of the window (SO_A2 Ch_B5). Katz (1994) posits that children 'propose questions they will seek to answer through investigation... rather than to seek right answers to questions posed by the teacher' (p.1). Here, Billy seemed to sideline the teacher's agenda in favour of seeking something for himself though it is not clear what this was. Equally, he seemed to be 'locating' and possibly 'selecting' while seeking that information (Oliver and Oliver, 1997:519): his eyes 'travelled over or through a particular space for the purposes of discovery': an indicator for exploration in the field of social sciences research (Stebbins, 2001:2).

Children in the study combined their 'dispositions' with **finding solutions** when they persevered to resolve problems (FaS 18) and were motivated (FaS 27) and excited (FaS 28) by finding solutions.

Several examples of children's **perseverance to solve problems** (FaS 18) presented in the data, although, again, these tended to present more readily in children's homes than in their settings. This was indicated in the vignette introduced earlier of Harry learning to set up the camcorder tripod at home. Harry's brother said: 'I'll hold it!' and stood and held the tripod; Harry's father said: 'That's it – good team work!' Harry completed the task (HVF D5-33) and his brother said: 'You've done it!' Harry's father also reported the incident during the Family D Focus Group: '...he's been practising the tripod – learning how to set up the tripod... He learned to set it up', and Harry said: '- I'm going to show you how I did it!' (HVIC H42). Later he said: 'It took one or two years to get it up' (HVIC H163). Additionally, Harry's father ticked '13. Find a solution' on Family D's Analysis Sheet 2 (Appendix 69) and finally, Harry recounted on his Child Analysis Sheet 1 (Appendix 70):

Figure 56: Harry's Child Analysis Sheet 1

'First: Took it out of the bag

Next: Try to extend the legs

Then: Tried it with a camera. Put it back in bag.'

Harry seemed to persevere to resolve the problem he set himself: to set up the tripod for the camcorder. He suggested he had to focus for 'one or two years to get it up' (HVIC H163); although the video footage timer indicating that the time taken was 5.06 minutes, Harry's perception was that he persisted and he did complete the task (McClelland *et al.*, 2012). Equally, this process included problem-solving characteristics: a goal, obstacles, strategies, resources and an evaluation of the process (DeLoache *et al.*, 1998).

Motivation is linked to curiosity in the literature (Berlyne, 1954; Gammage, 1999; Chak, 2007); in this context **motivation from finding solutions** is the focus (FaS 27). Only a few examples emerged: one during an interview conversation with Billy's mother at home. Billy's mother reported a discussion between herself and Billy in Covent Garden during a family daytrip to London. Billy had asked why one of the street entertainers had put out a hat. His mother had responded: '...they're collecting money for their performance' and her response motivated Billy to ask another question: 'Is that all that they get to live on?' (HVIC B 98iii). A component of Dahlberg and Lenz Taguchi's 'meeting place' (1994) is the view of a child who participates in the creation of their knowledge (p.2), Here, Billy asks his second question (HVIC B 98iii) because he is 'motivated and involved in a context of 'reflexive "co-construction"' (Siraj-Blatchford, *et al.*, 2002: 10): a 'meeting place' with his mother (Dahlberg and Lenz Taguchi, 1994). Billy's new question indicates his accumulating knowledge in a context of 'observation...curiosity...stimulation' and 'attachment' (Gammage, 1999:107).

Sometimes children in the study appeared **excited by finding solutions** (FaS 28), though this was not necessarily the same purely becoming motivated. The word 'excited' is linked to motivation, but its meaning is not quite the same. The etymology of 'excite' derives from the Latin 'ex' (out) and 'citare' (to move) so 'ex

citare' means 'to set in motion': motivated. Children's excitement is correlated with happiness (Tsai *et al.*, 2007), which may not be the case if they are only motivated. An example presented during the Family A Focus Group: Annie, her parents and I observed Annie on video sitting at the kitchen table doing literacy homework, looking up words in the dictionary. In the Focus Group, Annie's mother explained: '...she's looking up words herself'. Then, on video, Annie shouted: 'I'm starting at the beginning...Oh - found one!' (HVIC A140i). Whilst this vignette exemplifies 'scholarisation' of English childhoods (Mayall, 2000; Matthes, 2007; Kaga *et al.*, 2010; Alexander, 2010:64), the expression that Annie brings to her statement - 'Oh - found one!' (HVIC A140i) - indicates her excitement at finding a solution to her problem (locating words beginning with each letter of the alphabet) (Sherman and MacDonald, 2006; Nutbrown and Clough, 2009).

Summary of 'dispositions'

Dispositions presenting as factors supporting children's research behaviours in this study aligned with dispositions recognised in the literature as indicators for lifelong learning, particularly involvement, independence, resilience and self-motivation (Laevers, 1994; Bertram and Pascal, 2006; Centre for Research in Early Childhood, 2012). Children's exploratory behaviour that also indicated dispositions presented in their focus on tasks (Csíkszentmihályi, 1990), epistemic curiosity (Berlyne, 1954) and seeking (Katz, 1994). Their behaviours that seemed to combine their dispositions with finding solutions included persevering to resolve problems (McClelland *et al.*, 2012), being motivated by finding solutions (Gammage, 1999) and being excited by finding solutions (Sherman and MacDonald, 2006).

14.9 Methodological issues (h)

A few methodological issues relating to children's research behaviours presented within the primary data and through the analysis and interpretation process. These emerged as the following sub-categories:

Table 62: h) Methodological issues
BD0E11. Methodological issue
BD0E12. Sampling issue
BD0E14. 26.BD0E =Research

Empirical data relating to the 'methodological issues' subcategories as well as appearing to support children's research behaviours are discussed critically here, drawing on relevant literature. None of the 'methodological issues' sub-categories seemed to inhibit children's research behaviours, but, given the nature of the focus, only the category '26. Base Decisions on Evidence' is represented.

Very few examples of **methodological issues** *per se* presented as factors in children's research behaviours (n=3) (BDoE 11). Annie provided one: having watched video footage of herself, her class and her practitioners during an interview conversation with me in Ash Setting, she was invited to watch more. However, she said: 'I can't hear it (the DVD on the laptop)' (SA IC [i]35i). In doing so, Annie exposed a methodological issue: the technology – specifically the lap top sound – was not working. Shrum *et al.* (2005) acknowledge the challenges of using video technology in research, including the need for researchers to acquire a technological skill set; nonetheless Shrum *et al.* (2005) argue that its 'advantages are marked' (p.17).

A **sampling issue** (BDoE 12) originally contained one example of a factor in children's research behaviours. It presented early in the analysis process in relation to identifying children to take forward from Phase II to Phase III of the research. A child who was selected could not be taken forward for ethical reasons which emerged later in the data. This decision went forward into the analysis and interpretation process but was filtered out, partly because it was anomalous in any case, but also because of the potential ethical issues it would have raised. The subcategory has, however, been maintained to retain integrity in the presentation of the data.

Just one example emerged from the data of a child **basing decisions on evidence that was part of the research itself** (BDoE14). During an interview conversation Practitioner B and I were watching footage of Annie in a literacy session in Ash Setting. Practitioner B observed: '...Annie learns best when she gets a teacher who is very indulgent of her needs' then noted that: 'Indeed she loved doing this project' (SA I-C[iii] 31). Here Practitioner B suggested that Annie made the decision that

she liked the research project based on the evidence that her engagement in it indulged her 'needs', 'to get attention', as he remarked (SA I-C[iii] 62). Her decision to engage was based on evidence she recognised as her own enjoyment derived from participation (Lansdown, 2005; 2010; Invernizzi and Williams, 2008).

Summary of 'methodological issues'

Very few methodological issues relating to children's research behaviours emerged from the study. One related to uses of technology for gathering data (Shrum et al., 2005) and another regarding children basing decisions evidence that was part of the research itself (Lansdown, 2005; 2010; Invernizzi and Williams, 2008). A sampling issue had to be discounted, predominantly for ethical reasons.

14.10 Outliers (i)

Two 'Outliers' subcategories relating to children's research behaviours presented within the data:

Table 63: i) Outliers	
Barrier	FaS 12. Solution unconfirmed
	C20. Applies anthropomorphism

Relevant empirical data are discussed critically here, drawing on relevant literature. The subcategory 'FaS 12) Solution unconfirmed' seemed to be a barrier to children's research behaviours so is addressed in Appendix 127. Therefore, only the research behaviour '19. Conceptualise' is represented here.

A few examples of 'Outliers' relating to **children conceptualising** emerged when children engaged in **applying anthropomorphism** (C20) (n=3). One occurred in Ash Setting when Billy and I engaged in an interview conversation during which he observed himself, his peers and his teacher on video engaging in naturalistic activity in his setting. In the original footage, a water bottle appeared in the bottom of the camcorder shot: someone from behind the camcorder drank from the bottle, but that person was not visible. In the interview conversation, Billy observed: 'The camera is drinking!' (SO_A7 Ch_B41iv), attributing human behaviour – drinking – to the camcorder (SO_A7 Ch_B41iv). In devising and making his comment, Billy's synthesised his prior experience of drinking with new mental activity so it may be

argued that he engaged in *a posteriori* conceptualisation (Kant, 1787; Scruton, 2001). Equally, anthropomorphic conceptualisation seems to present normatively in humans: Guthrie (1993) and Gray *et al.* (2007) suggest that anthropomorphism – the attribution of human traits to non-human objects or animals – presents commonly across the human life course in various cultures. Moreover, Piaget (1929) and Lane *et al.* (2010) note that anthropomorphism is particularly prevalent in children aged 2-7 years, suggesting a predilection in humans to adopt the behaviour of other humans as a point of reference.

Summary of Outliers:

Children applying anthropomorphism emerged from the data as a factor supporting children’s research behaviour. Anthropomorphism is recognised as normative human behaviour (Gray *et al.* 2007) and provided another example of children conceptualising (Kant, 1787; Scruton, 2001).

14.11 Discussion Chapter Summary

Nine categories framed this chapter:

Table 64: Theoretical Coding (iv)
a) Applications of prior experience
b) Innovation
c) Social domains
d) Autonomy
e) Material contexts
f) Cognitive domains
g) Dispositions
h) Methodological issues
i) Outliers

These were factors positively affecting and effecting young children’s engagements in four ‘important’ research behaviours that presented naturalistically in their everyday lives in their settings and at home. Barriers inhibiting young children’s research behaviours also emerged but the scope of the doctoral study meant that most discussion regarding barriers to young children’s research behaviours appears in Appendices 126 and 127. Quite a number of barriers appeared to emerge part way through the analysis. However, few persisted to the end. The main reason that I can indentify for this was that during analysis, the main focus was on research behaviours presenting rather than research behaviours not presenting.

The positive factors affecting and effecting young children's research behaviours in the study are congruent with Robson's taxonomy of 'young children's thinking and understanding' (2012), which includes cognitive development, social, cultural and emotional contexts, brain development, self-regulation, metacognition and conceptual development. The factors also resonate with Galinsky's 'essential life skills: 'focus and self-control, perspective taking, communicating, making connections, critical thinking, taking on challenges and self-directed, engaged learning' (2010: 5-11). However, the factors emerging from the present study are not only about 'how children develop' (Robson, 2012: i) nor just about how children 'learn for life' (Galinsky, 2010:11). Discussion in this chapter has focused on 68 ways in which nine factors have affected or effected children's research behaviours; these factors are the provocations for young children's epistemological engagements that have parity with academy members' four most highly esteemed research behaviours. According to academy members, these are the 'most important' research behaviours exhibited by adults.

Chapter 15:

Conclusion, Reflections, Recommendations

15.1 Introduction

This study has explored young children's research engagements. On a relatively small-scale, it has generated a 'plausible account' (Charmaz, 2006: 149) that is a conceptualisation of ways in which young children aged 4-8 years behave as researchers and may be considered to be researchers in terms identified by the academy. Four questions framed the study (Appendix 79); the responses to these are considered here. Methodological issues and a range of further reflections and recommendations are also discussed.

15.2 Did the study establish the nature of research?

A key element of the study has been the empirical exploration of the nature of research, achieved in two ways. Firstly, because literature (i.a Redmond, 2008a) and my own anecdotal experiences indicated children's exclusion from the academy, a definition of research was sought from the academy's members. Rather than a definition of research *per se*, a taxonomy of 39 research behaviours was constructed by academy members (Appendix 30), corroborated by other participants. The taxonomy was adopted by participants as a framework for observing young children's naturalistic behaviours and participants identified young children engaging in all 39 behaviours. Academy members identified the 'most important' – prime - research behaviours, which subsequently became the major focus for the study:

Table 30: 'Prime' research behaviours
(2-7) Explore
(13) Find a Solution
(19) Conceptualise
(26) Base Decisions on Evidence

A second way in which the nature of research was explored empirically in this study was its own 'jigsaw' methodology which unfolded in response to data co-constructed with participants. It is discussed briefly here and in more detail later in the chapter. In its attempts to pursue participatory, emancipatory and inductive approaches,

congruent with grounded theory (Glaser and Strauss, 1967), the 'jigsaw' methodology was responsive to data 'in vivo'. This led to a novel, though complex design combining grounded theory, critical ethnography, case study and the Mosaic Approach. Since rich copious data were co-constructed with participants and the study's aim was achieved, the 'jigsaw' methodology seemed appropriate for this study. Its success owed much to commonalities identified across the four constituent methodologies (Table 21) and was also due to consistent attempts to match both form and function. The study was concerned with an issue of social justice and addressed it by adopting a model which promoted *de facto* – at least to some extent – social justice. However, as identified in the opening chapter, a factor that mitigated this somewhat was the study's original aim and questions, which were mine, rather than participating children's.

Yet the project accorded with participatory principles: it engaged children in social interaction with mutual respect, attempted to equalise relationships and communicated with everyone involved (Habermas, 1987; Kovach, 2005; Letherby, 2006). Equally, children's engagements in research behaviours were largely emancipatory; when they had time, freedom and opportunity to engage in them, they moved beyond being 'subjects of social enquiry' (Letherby, 2006: 88); rather they were empowered as researchers and injustice was reduced (Wilson, 2001). Furthermore, the project itself has been one of 'shared ownership' (Kemmis and McTaggart (2005: 560). The project's constructivist grounded theory strand ensured it has remained largely inductive: whilst I began with aims, questions and 'ontological and epistemological assumptions' (Hatch, 1995:9) derived from my experiences as an early years teacher and researcher, the enquiry proceeded as an 'exploration' that used participants' empirical data to inform subsequent steps and outcomes (Charmaz, 2006).

15.3 Did the study establish young children as researchers?

This study has established that young children aged 4-8 years participating in the study engaged in research behaviours. Given the study's inductive approach, paradoxically the argument for this is based on deductive logic (Bonjour, 1998; Johnson-Laird and Byrne, 1991), the academy's dominant methodology (Hanna, 2006):

Table 65: Young Children as Researchers	
The research behaviour framework (RBF) is populated with behaviours that academy members identified as research.	<i>(Major premise)</i>
Children engaged in behaviours on the RBF.	<i>(Minor premise)</i>
Children engaged in research.	<i>(Conclusion)</i>

A 'valid deduction yields a conclusion that must be true given that its premises are true' (Johnson-Laird and Byrne, 1991:2). The study's triangulated data provided confidence that the premises were 'true' so it can be argued that participating young children engaged in research. To accord further with the academy's preferred model, next steps would include implementing Phase I with a wider group of academy members and implementing the resulting RBF with more children. Returning to participants to ask their views regarding this deduction would have been an enhancement for the present study.

15.4 What enquiries were important to young children? How did they engage in them? What supported or prevented the children's participation in those enquiries?

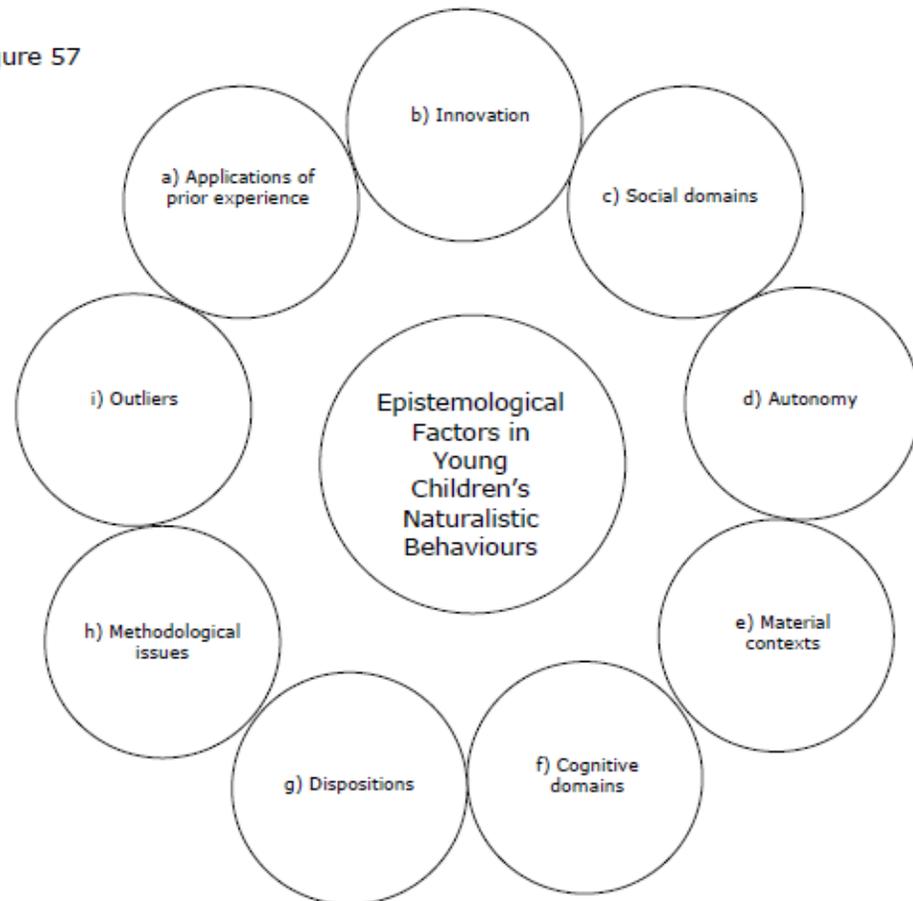
During the study, participating children engaged in many diverse enquiries. To ensure a manageable and worthwhile study, focus was reduced to four prime research behaviours that academy members deemed 'most important'.

Nevertheless, children engaged in hundreds of enquiries even within the limitation of the four prime research behaviours (Table 53: Appendix 117). Sub-categories of children's research engagements are also identified in Appendix 122, together with factors supporting or hindering children's participation in those enquiries. Examples of support factors are discussed in the previous chapter, while barriers are discussed in Appendix 127; barriers included adults' requirements to follow directions, adults' closed questions, giving up and believing they had failed.

Final analysis and interpretation stages (Charmaz, 2006) constructed nine epistemological factors from participating children's naturalistic behaviours (Figure 57). These were factors that effect and affect the children's research behaviours that appeared to act as tools to enable them to construct their own knowledge, meanings and understanding; many of the children's research behaviours could be

linked to substantial extant evidence indicating higher order cognitive processing. The children's research behaviours appeared to be an explicit expression of their 'philosoph(ies) of what counts as knowledge and truth'; in other words, epistemology (Strega, 2005:201). In a sense, this contemporary study revisits old themes. However, far from Piaget's view (1972) that the origins of knowledge are only in 'their most elementary forms' in young children (p.15), this study appears to corroborate Isaacs' view that the 'factor of epistemic interest and inquiry...is in every respect the same in the child as in the adult' (1944:322).

Figure 57



15.5 The 'Jigsaw' Methodology

Methodologies within the 'jigsaw' assumed different emphasis at points during the research process. From the start, constructivist grounded theory (CGT) Charmaz, 2006) was important for steering the project inductively; as the study progressed, CGT was the prominent methodology for shaping the study's analysis. Yet while Charmaz (2006) stresses the freedom that qualitative researchers, particularly grounded theorists, have to 'add new pieces to the research puzzle...while we

gather data' (p.16), CGT did not provide strong guidance for methods: Charmaz (2006) suggests a wide variety of methods may be used and advocates the use of ethnography alongside CGT. I followed this advice but the strong strand of social justice inherent in the study indicated critical ethnography (CE) (Carspecken, 1996) though I had concerns that this may jar with CGT's inductive qualities. In the event, CE slotted smoothly into the 'jigsaw'; though whilst some of its analysis procedures share common features with CGT (see Table 21), CE is more prescriptive so I used only those aspects of CE that fitted with CGT. CE criticality was particularly helpful in guiding participant selection processes to ensure they were as influenced by participants as possible. However, one disadvantage of using ethnography was that its necessarily 'thick' description (Geertz, 1973) raises a question regarding its use in the contemporary doctoral study, constrained in terms of time and size.

I followed Carspecken's advice to use 'observation of natural behaviour' (1996: 88) as the primary instrument but realised that using only observation would hinder recognition of the multi-modal ways young children operate and communicate (Bae, 2010). Clark and Moss' Mosaic Approach (MA) (2001) was particularly helpful in guiding the project's methods to reflect the complex realities of working with young children. Finally, case study's primary function in this study was organisational: it facilitated co-construction of data at different sites, allowed data to be marshalled systematically and highlighted characteristics of participants and locations during the study's progress. Case study and the MA were less prominent than CGT and CE in guiding analysis.

In the context of this inductive study, following Charmaz's guidance for CGT, I aligned with Strauss and Corbin's view (1990) that literature can be interwoven into the GT process. In addition to analyses and meta-analyses with participants, I consulted literature before and during the research process to support meaning-making in relation to the empirical data. Engagements with the literature are evident in the thesis reviews and Discussion chapter as well as the substantive advanced memos which were part of the analysis process (Appendix 118).

Overall, the jigsaw methodology worked well because aspects of each methodology were adopted for different purposes in the study and decisions regarding this were

made as the study progressed. This flexibility facilitated enhanced equalisation of power in the research process because the participants had primacy, rather than a rigid methodological rubric.

15.6 Further Reflections

Here, I reflect briefly on further aspects of the research process with a view to moving forward. I will focus on challenges initially then move onto discussing positive experiences of the project. The study has been a significant undertaking: it has been lengthy, large and complex; I discovered part-way through that too many data were being generated for a project of this size. I learned that relatively small amounts of collected data can translate to a great deal of analysis. Despite the study's ambition for social justice, as it was my doctorate I had 'sold out to the norms and forms of...research' from the start (Griffiths, 1998: 139); there was little I could do about this other than retain my commitment to maximising participants' emancipation and participation. I worked hard in this regard but it proved time consuming and was a reason for the copious data. My commitment to reciprocity and a recursive approach (Charmaz, 2006; Carspecken, 1996; Clark and Moss, 2001) elicited significant complexities in terms of time, organisation, sampling and data generation. This has resulted in an unusually large Appendices section yet I am confident that the process was as ethically and methodologically sound as it could be given 'real world' constraints. Another issue was my dynamic positioning along the 'insider' / 'outsider' continuum (Griffiths, 1998); this was most challenging in settings and my attempts to assume 'insider' status were never fully successful there. Moreover, as I was mindful of ethical requirements including non-maleficence and minimisation of burden to participants, there was much reliance on 'guiding ideals' (Blumer, 1969: 2) at the cost of first-hand mutual reflection on primary data. Issues with technology provided further challenge, but these were relatively minor.

Positive experiences of the project included the quality of participation, especially at Phase III when children and parents assumed responsibility for data gathering in their homes. Equally, I was able to negotiate successfully with most gatekeepers; a few parents, most particularly in Cherry Setting, proved the greatest challenge, possibly due to a news story breaking while I was in the school of a nursery nurse

posting photographs of nursery children online without consent. The project extended respect to children in a research context (Kovach, 2005) by focusing on their naturalistic behaviours rather than forcing adult behaviours and agendas on them. Attuning to children's body language, apparent enthusiasm and research behaviours, alongside discussion with practitioners who knew the children worked well as indicators that children may wish to engage more in the project. Almost all the children identified became more involved subsequently. Moreover, the project provided me with opportunities to learn more about qualitative enquiry, for example, the role and importance of my own biased perspective and the recognition of subtle and subliminal nuances through symbolic interactionism (Blumer, 1969) and intersubjectivity (Crossley, 1996; Göncü, 1993).

15.7 What does this study contribute to the field?

The study provides a new taxonomy of research behaviours constructed by academics; this may have applications for other studies as well as practice in the fields of education and early years. Moreover, mirroring the realities of early years practice (Gammage, 2002; Waller, 2009), this study has drawn together an exceptionally wide range of disciplines and literature to construct meanings from its data. Additionally, Pellegrini *et al.* (2004) note that relatively few studies concerning children venture into children's own homes; this study has done so and has empowered children and their families to research in those spaces. The project has provided new and authentic insights into children's lives.

Furthermore, this study has shown ways that children naturally adopt research behaviours as modes of knowledge construction: it indicates ways in which research behaviours may be interpreted to inform us about children's cognitive processes. This may be valuable for practitioners in ECEC settings wishing to gain deeper understanding when they observe children's activity. As I outlined early in this chapter, the study's questions were addressed strongly. Equally, the study's aim has been addressed: the research behaviour framework provides a model for conceptualising young children aged 4-8 years as researchers so the project has indicated ways that children can be positioned more powerfully in research. Young children in this study presented with research behaviours the academy holds in esteem; given the supporting evidence, this argument may be sufficiently powerful

to persuade the academy to notice and respect aspects of young children's activity as research behaviour equal to - albeit different from - that of adult researchers.

Given the relatively small scale of this study, I do not consider it appropriate to claim that 'theory' has been generated (Glaser and Strauss, 1967). However, I do posit that a 'plausible account' (Charmaz 2006:149) has emerged to suggest that children aged 4-8 years are researchers and, on academy members' own terms, may be considered to be researchers. Furthermore, there is potential to carry this work forward to develop theory; ways in which this might be done are discussed below.

15.6 Recommendations

Firstly, data will be shared, as promised, with the participating settings and families.

Secondly, for the findings to be of wider use in practice, they should be disseminated in formats that are accessible to practitioners and parents. I have a chapter forthcoming in a book aimed at early childhood practitioners and students (Murray, 2013, forthcoming) and will seek further ways to share findings with these groups.

Thirdly, the process of working on this study has indicated to me that the use of ethnography and grounded theory should be approached with caution in the context of the contemporary English doctoral study. Whilst I have learned much from this experience about managing a qualitative research project and a range of methodologies, I have emerged questioning whether I was wise to adopt this complex topic and aspects of the methodology for my doctoral study. A tension exists between the generation of 'thick' description and participatory enquiry on the one hand and the time and volume constraints of the doctorate on the other.

Fourth, the wealth of data that has been constructed indicates that opportunities for new findings could emerge through further analysis and interpretation. For example, I plan to analyse more fully the research behaviours that were sidelined when the study focus was necessarily narrowed to four. Moreover, I believe there may be value in interrogating case study comparisons more than was possible in this study.

A fifth recommendation is that the project should extend to include infants and children aged 0-3 years, as was originally planned. This may provide further insights in terms of content and method.

Finally, for the project to have any chance of redressing the social injustice that is young children's exclusion from the academy, its findings should be disseminated in forms that the academy recognises. To that end, I have already had two papers published from the study (Murray, 2011; 2012) and I intend to write further papers on other aspects of the study in the forthcoming months. I hope that this dissemination may lead to wider recognition that young children can make valuable contributions as researchers in the course of their natural daily lives in ways that are equal to - albeit different from - professional adult researchers operating within the 'academy'.

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