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An Investigation into children's geographical perceptions
of the wider world at Nursery and Key Stage One.

A thesis submitted to Middlesex University
in partial fulfilment of the requirements for the degree of
Master of Philosophy.

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ABSTRACT

This study attempts to investigate the extent of children's geographical knowledge about the wider world. It also seeks to find out whether the resulting perceptions that children hold appear to be constrained in any way by developmental milestones and maturity. Also whether or not there are indications that the current levels of media exposure have any influence on children's wider world place perceptions. The researcher was a teacher in the school where the study was conducted. The school was situated within the commuter belt north of London. The school's social catchment area was predominantly white and middle-class. The subjects of the study came in two groups. The first group comprised three girls and three boys aged four years and coming too the end of their nursery year. The second group comprised three girls and three boys aged seven coming to the end of key stage one. A mix of ability was represented across each group.

A case study was the chosen method of investigation providing some flexibility within what was otherwise a structured framework. Two research instruments were used. First a draw-and-write technique where the children drew a picture according to an instruction and then discussed it individually with the researcher. Secondly a photograph was presented to each group and discussed. Two places were investigated using both research instruments. These were merely referred to as a 'hot' place and a 'cold' place. All discussions were recorded, transcribed and the results analysed. The results were considered in conjunction with theories of child development and theories of how children make geographical sense of the world.

The findings suggest that traditional theories of child development can no longer be universally applied. Also that there are very strong associations between people and their interactions with a place and the degree of place knowledge gained. Finally the study suggests that the new technologies of the past few decades have yet to develop into meaningful and appropriate tools for developing wider world place knowledge.

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CHAPTER ONE

BACKGROUND TO RESEARCH

1.1 Introduction

“I wonder what they’re thinking?” is a phrase commonly used by adults about children. Adults wonder what a baby thinks as it looks back at them from the crib. They wonder what a child thinks about as it investigates the best way to prevent the encroaching sea from destroying their sand sculptures. Teachers frequently wonder what a child is thinking as a new concept is introduced. What pictures are conjured up in the minds of children by terms like ‘Egyptian pyramids’ or ‘Northern Lights’? Yet children, no less than adults do appear to hold mental pictures in their heads. Ask any child what Father Christmas looks like and each one would be able to supply a description presumably based on mental perception. How are these perceptions formed? Are facts, repeated seasonal sightings, and images depicted in magazines or on Christmas cards aids to perception? Or do parents have the greater influence on a child’s perception of Father Christmas? Does a blind child have a mental picture of this seasonal character? In reality there is rarely any reason to question a child about their perception of Father Christmas but in educational spheres there is a daily need to do just this to find out what a child knows and how to move him/her on in their learning.

As adults we learned that Father Christmas is more than just a person dressed in red. He could be tall, short, have dirty fingernails, a curly beard, a straight beard, a fur-fringed cape or no cape at all. In the same way, adults have learned that Tesco stores are of similar designs and have distinguishable features, which make recognition possible. Children too might have a mental picture of trolleys, automatic swing doors and shelves of food and understand this as being Tesco. If however they discover that Tesco sells a variety of different fish, might have money machines on the wall outside and that there is a small bump across the entrance called a sleeping policeman, the child’s learning has been increased and his/her perception has been refined just as our perceptions of Father Christmas were refined over time. So too, with distant place knowledge. As children’s exposure to information about distant places increases the more learning takes place and

the more perception is refined. However, with the wealth of potential information sources, especially technological ones, it would not be unreasonable to assume that children's perceptions of places are more frequently moulded outside the classroom and the teacher asks, "I wonder what they're thinking?"

This research grew out of a personal interest in trying to understand what perceptions young children have of distant places. When children think of a place far away, what they see in their minds and what has influenced the formation of these perceptions are questions which are important not only for teachers but also for anyone involved in the education of young minds. I shall give just one example of a classroom incident that led to this study. During a religious education lesson on 'special places', the class was shown a photograph of a typical beach scene with families engaged in all the usual beach activities. The faces in the photograph were evidence that people were having fun and enjoying themselves. The photograph had been taken on a beach in an African country. The revellers were all dark skinned. The picture was simply introduced with the words 'here is a special place we all enjoy'. One six-year old boy came back with the immediate response "They're all poor." What perceptions in his mind had led to such a statement? Had he realised the photograph was of a distant place and therefore associated people far away as being poor? Did he simply equate dark skinned people with poverty?

1.2 Distant Place Information

During any teaching week there are many such events. Often as a teacher it is easy to see a child's perception of a concept, where they are coming from with their understanding, but sometimes questions are left unanswered because it is too difficult to follow a train of thought and little curriculum time to explore such issues. In trying to understand 'why' children hold such perceptions I also became interested in the question 'how' can they hold them. How can inaccurate perceptions of distant places be held given the technological advances made in the last thirty years? Television is a standard piece of furniture in most homes if not in many rooms in some houses. It

presents ever-changing scenes from places around the globe. Computers increasingly provide information about people in other places. Advertisements in magazines, newspapers, books, brochures, billboards and comics assail our senses daily trying to tempt us to visit the far flung corners of the world. News is reported from any distant land where suffering, celebrating, fighting, striving and sometimes merely living occurs. From the breakfast cereal box to the evening dinner packaging, the whole world invades our lives all our waking hours. Children no less than adults live in this global community and teachers have a responsibility to help them understand the images presented about wider world places (Foley and Janikoum 1992 p.117).

1.3 Formulating the Research Question

Accepting the bias some information sources inevitably hold, scenes of distant landscapes at least must surely provide some influence on the formation of place perceptions. Or do they? Perhaps such snippets are transitory and consigned to the depths of cognition. If a person were asked to describe what they think California is like, how many would spontaneously recall the scenes of the 1997 floods? How many people will be any more able to recall in a year's time the type of terrain over which Kosovan refugees fled? If news items fail to inform adults about distant places perhaps they are liable to make even less geographical impact on children. Do children base their perceptions of places on advertisements for holidays instead? Parents planning a holiday abroad, and frequently their children, scour piles of holiday brochures, comparing locations and finding satisfactory reports from other sources before choosing a holiday. It is not unreasonable to assume that some of those images are retained and cognitively filed as 'distant places'. What therefore are the roles of holiday photographs, personal experience or school in the formation of place perception? This study attempts to explore some of these issues by addressing the research question:

“What are children's perceptions of the wider world at Nursery and end of Key Stage One?”

If children are presented with the opportunity to discuss places they know their responses would reveal a wealth of knowledge from places near to home, special places or routes followed. Given the level of media saturation depicting or describing places more distant than their own neighbourhoods it would not be unreasonable to assume these children also have varying levels of knowledge about wider world places as well. Yet it would appear that traditionally held theories of child development (Chapter 2) would suggest this is not possible since most of these places are liable to be beyond the child's own personal experiences. This raises the question that perhaps there is indeed a link between a child's knowledge and his/her development. This study therefore set out the following two propositions:

1. **That children come to school aged four with some geographical knowledge of the wider world.**
2. **That there may be a link between a child's geographical perceptions and his/her development.**

However, these propositions subsume within them the notion that parental influence, media exposure and formal curriculum opportunities could all contribute to the resulting perceptions children hold. From this many further avenues of investigation are opened up. For instance, how far do children's television programmes help to inform young minds about wider world places? Is the school curriculum more important as an influencing factor than the media? To what extent can children differentiate between the real and the imagined given most television viewing for the young child is imaginary or pretend? These in turn would produce further questions such as which programmes provide the greatest information about wider world places and why? How far is the language of the different media presentation appropriate for young children's learning? What is the most effective pedagogic practice for extending children's knowledge of places?

While these remain interesting questions addressing all of them would dilute the focus of the study and detract from the mainly geographical interest behind it. Therefore, in order to maintain the geographical nature of the study many of these possible avenues

for research were acknowledged as being potentially interesting and possibly worthwhile but beyond the aims of this study. While the question of fantasy versus real may have become an issue arising out of the children's responses, in fact only a few of the responses across both techniques indicated the child was thinking about an imagined place. The majority of the responses did indicate that the children themselves thought about the tasks and questions posed in geographical terms. Given that only a small proportion of all the responses were related to imagined places it was therefore felt that the study was justified in not entering a debate about the division between the real and the imagined. It was decided not to pursue this avenue of investigation.

1.4 Research Chronology

The research was approached by focussing on a specific area of study, where and with whom. Different types of research methodologies were considered but given that it was to be carried out by a full time teacher of very young children, an exploratory case study was judged the most appropriate method. The subsequent literature review fell into two discreet areas, theories of child development (chapter two) and geographical theories of place perception (chapter three). A pilot study was undertaken to refine the methodology (chapter four). The chosen research instruments, units of analysis and schedule of questions were decided upon. The main study (chapter five) followed the pilot study. (Individual case studies are contained in Appendix 1).

1.5 Geographical Education

At this point it would be useful to set out a brief summary of geographical education for England and Wales. At the time this study was begun, geography had been given a relatively high curriculum profile in the wake of previous 'generally unsatisfactory and disappointing' standards and the 'almost total absence of a national and world dimension' to geographical study as observed during 1978 (DES 1989 p7,12) and an HMI (DES 1986 p.1) report had proposed a curriculum aimed at improving standards and broadening knowledge of the world.

In 1991, the resulting National Curriculum Order for Geography (DES 1991 p.7) promoted place awareness at local, national and global levels:

Pupils should demonstrate their increasing knowledge and understanding of places in the local, regional, national, international and global contexts particularly:

- (i) a knowledge of places
- (ii) an understanding of the distinctive features that give a place its identity
- (iii) an understanding of the similarities and differences between places; and
- (iv) an understanding of the relationships between themes and issues in particular locations.

By 1998, the National Orders had been altered and while a broad and balanced curriculum was still advocated, the resulting geographical curriculum order became a document unlikely to inspire non-specialist teachers to attempt conceptually difficult areas such as distant place teaching (DES 1998).

Therefore between the beginning of this research and its near completion, geographical education has seen many changes. What may be the significance of these changes is not yet known. However, the level of influence education has on informing children's place perceptions may be revealed as a result of this study. It is only through research and evaluation of practice that curriculum changes may be assessed. Perhaps children's perceptions of distant places will remain immune to the changes or perhaps they will suffer as a consequence.

As society increasingly pursues membership of a global community and as technological advancements are made, educational change should acknowledge current findings and re-evaluate traditionally held theories about children in the new millennium. Just over 150 years ago it was inconceivable that horse drawn transport would be relegated to nothing more than a leisure activity. As Europe emerged from a second World War, the thought of man walking on the moon in less than 30 years was probably not even speculation. Ten years ago the idea of many homes having global Internet communication was idealistic. As today's children enter the new millennium it is the responsibility of education to prepare them for their citizenship in the global

community. In order for education to do this it is paramount that a more accurate picture of children's learning and in particular knowledge of distant places, be ascertained to ensure provision of a curriculum that is still appropriate to their needs.

1.6 Research Terminology

The study uses two terms 'knowing' and 'perception' and their meaning as applied to this study should be explained.

'Knowing'

Wertsch and Tulviste (1996 p.68) interpret work by Vygotsky and suggest that some cognitive functioning is linked to 'institutionally situated activities'. This could infer that there are two types of knowing, 'experiential' and 'institutional'. However, this suggests personal knowledge and knowledge from all other sources balance each other rather than inferring that a hierarchy of knowledge exists. Knowledge from parents would rank alongside knowledge gained from a comic according to Tulviste's suggestion. This is supported by Relph (1976 cited in Wiegand 1992 p.31) who details how we know places as either 'insiders' or 'outsiders'.

Roth and Frisby (1986 p.25) on the other hand do set a hierarchy for information, which in turn suggests a hierarchy of knowledge and work by Rosch (1975 p.69) proposes a working level of knowledge exists which is both 'informative' and 'economical'. For instance, knowing that cars pose a danger when crossing the road is both informative and economical yet other levels of knowledge may well exist. A Porsche is known to be faster than a Metro, or a people carrier can transport more passengers than a saloon car. Yet perhaps knowledge is dependent upon context. Dangers crossing the road may recall one type of knowledge and a desire to buy a car may recall another.

Wiegand (1992 Chapter 1) explores knowledge of places under various headings such as international understanding, development education and multicultural education. This suggests that knowledge has a duty to inform individuals about these and other issues. In this, 'knowing' has gone beyond the economical, beyond the 'what can knowing do for me' to a more reciprocal use, 'what can knowing do for others?'

Kosslyn (1994 p.150) suggests that images (the evidence of knowing) fade quickly as new information from a stimulus is received. Knowledge is therefore continually updated. This is supported by Furth (1981 p19) who suggests that 'knowledge is not a static quality but a dynamic relation'. In other words, something is not known until the 'knower' interacts with it. Furthermore, he suggests that knowledge is 'subjective and a copy of something in the external world'.

As can be seen, 'knowing' is a difficult concept to define. It can be argued that it is a hierarchical body of knowledge, that it is individualistic and that it comes from a variety of sources and does not remain constant. However, 'knowing' appears to be a complex state of being, operating at various levels and dependent upon the type and purpose of the request to recall and the method and rationale for initial commitment to cognition. For the purpose of this study it is therefore taken in its simplest form as merely knowing a place name or a deeper level by knowing factual or affective information about places.

Perception

Perception, like 'knowing', is not used with universal agreement. The Concise Oxford Dictionary (1997) describes perception as the 'act or faculty of perceiving', while the Encyclopaedia Britannica (1993 p.481) describes it as 'the process whereby sensory stimulation is translated into organized experience'. It therefore appears to be a process rather than a form. However, Gombrich (1988 p.12) states, 'the distinction between what we really see and what we infer through the intellect is as old as human thought on perception'. He goes on to say that perception is always an active process, conditioned

by our expectations and adapted to situations'. For this study the word has therefore been used in its accepted manner since perception is a process of constant change as consciously or not, the visual field (and other sensory modes) are examined to discover any changes which render the precept out dated and in need of refinement. As Gibson (1969 p.216) states 'perceptual learning involves differentiation of distinctive features'. Furth (1981 p.134) supports this idea suggesting 'perception has to do with the appearance of the external world in its momentary yet always changing characteristics'. No landscape can therefore be static and no perception final. As the eye scans the visual field some element(s) will have already changed and the resulting precept be out of date albeit only fractions of seconds might have elapsed.

Gombrich (1988 p.51) talks about the 'image on the retina' and the 'image in the mind'. In trying to explain how Cezanne produced his landscape paintings Gombrich notes how even a retinal image is an incomplete truth. He describes how for the artist there never was one image but 'an endless succession of innumerable images as the painter scanned the landscape in front of him, and these images sent a complex pattern of impulses through the optic nerves to his brain' (p.57). This suggests that if Cezanne had been asked about his perceptions of Mont Sainte-Victoire in 1905, his verbal description might well have acknowledged differences in the landscape as each visual scan occurred (a bird flying over or a tree momentarily shaded by cloud for instance). Even more probably it would have been the differences not the similarities which registered on the image in the retina.

Hence to try to ascertain what 'images' children hold about distant places is almost to accept something that is static and captured in a millisecond of time as well suggesting a visual, photographic quality. The term image was therefore not considered appropriate for this study although it has been used occasionally when a more picture like concept is being discussed.

On the other hand, if perception is a process that is constantly being refined, can there ever be a complete and final version end product? To use the Cezanne analogy again, if

the artist had been asked years afterwards what the landscape had been like he might well have remembered differences which each successive retinal scan had noticed but to which his consciousness at that time had paid little heed. Cezanne's painting is therefore a summary of his perception.

For this study, 'perception' therefore refers to pictorial, linguistic, symbolic or graphic representations, cognitively held while also acknowledging the changing nature of these both consciously and otherwise and includes reflections, thoughts and emotions.

Wider World

The term 'wider world' has been used in the title. It refers to places which are more distant to the child's own local area. Acknowledging that a shopping mall ten miles from the child's own area might be to the child 'distant' this study attempts to define the term 'wider world'. The term is defined as:

'a place beyond the United Kingdom which is liable to be far enough away that the place may well have physical, cultural and social differences to the child's own immediate location'.

Implied within this are two distinct ideas relating to places. Firstly the notion of distance and secondly the notion of 'differentness' between places and 'distance' may not always equate with 'different'. It may be that children think of places a long way away in terms of distance from their home or alternatively in terms of how the place differs to their own. Therefore this study accepted that children's responses may reflect both or either one of these and both would be acceptable avenues of study. Chapter four describes the distinct categories of place study as being 'hot' or 'cold' places. Within this questions try to obtain responses in terms of not only the physical, human and cultural make up of the place but also the feelings the children may have towards it. Scoffham (1998 p23) states:

'What a place is like is not simply a matter of fact. It depends equally on how we perceive it. What we feel about it.'

However, although the study hoped to have responses indicating places which exist further across the globe than the United Kingdom, it may be that the child's own knowledge, or preference for a hot or cold place may not involve 'distance' or 'differentness' and that these would be accepted and valuable in their own right.

Where terms such as 'distant place' or 'global' are used they too are intended to specify places within the definition. Like 'wider world' these too are generic terms and their interpretation should also lie within the focus of the definition. The term 'spatial knowledge', the awareness of space, is intended to infer the degree of egocentric place knowledge (what places are known into relation to the child) and how far that knowledge extends.

1.7 Use of Pronouns

Throughout the study both the feminine and masculine pronouns have been used (Guidelines on Anti-sexist Language. British Sociological Association cited in Robson 1993 Appendix C).

CHAPTER TWO

CHILD DEVELOPMENT THEORIES

2.1 Review of Chapter One

Chapter one surveyed current pedagogic practices and attempted to provide an overview of the changes which have taken place in sociological and technological terms and how continuing acceptance of traditional theories may be an inappropriate approach for education as it moves into a new millennium.

2.2 The Role of Chapter Two

The role of this chapter is to provide an overview of some of the theories of child development against which the second research proposition (and to some extent the first) can be tested. It would be useful at this point to therefore re-state the two propositions namely:

1. That children come to school aged four with some geographical knowledge of the wider world.
2. That there may be a link between a child's geographical perceptions and his/her development.

As the first chapter explained, this research was conceived and developed in the classroom and pedagogic practice has been influenced by theories of child development. In light of questions that arise during the course of teaching and especially the concepts of distant places, it was deemed appropriate to examine some of theories more closely.

Since there exists a wealth of documentation in this broad body of knowledge, and since this study is rooted in classroom practice, this chapter will attempt to review the more traditionally accepted educational theories and viewpoints. Initially it will present an overview of theories of intellectual development before exploring information processing. The role of the media is brought into the discourse as appropriate as is the role of language.

The exploration of child development theories will focus on work by Baldwin, Piaget, Bruner, Case and Vygotsky with additional contributions from other theoretical viewpoints such as Donaldson and Whitehead. Case (1985) made a critical appraisal of the leading theories and his exposition is used as a general basis for this study's critique but applying it to the research focus of distant place perception.

2.3 Theories of Intellectual Development

2.3.1 Baldwin

Case's (1985 Chapter 2) evaluation of intellectual development begins by discussing Baldwin's theory (1894) and in particular his ideas of 'habitformation' and 'accommodation'. While the former is rooted on neurological and motor reactions as responses to stimulation, the second, 'accommodation' appears more relevant to this study. Accommodation is the cognitive process which allows information to be stored in the memory where a concept match and assimilation with other information was not possible. It is this notion of accommodating new information that appears particularly relevant to this study. As children grow older their world becomes wider as they visit other places and gain knowledge about them. Presumably as they encounter information possibly more global in nature than previously met the new information will need to be accommodated alongside, though not integrated with, other knowledge of places. It would follow therefore that children's perceptions of places could fall into at least two categories, those places nearby and those more distant. For the child's understanding this may be simplified into 'places I know' and 'places that seem different from those I know'. Therefore a photograph of the child's local area would be assimilated into the first category and a photograph of a tropical rainforest would not find a match in that category so would be accommodated into a second, places that seem different or are not known.

Therefore it could be suggested that children's perceptions of places (what they know about them) could fall into different categories. As Chapter one outlined, children are increasingly exposed to images of distant places through the media, CD ROM information and more widely travelled family and friends who pass on information to the child. The two suggested perceptual categories might also hold only a slight imbalance in quantity of information. If adult perceptions of places are considered in the same way, information about the local area is probably balanced by an almost equal total quantity of knowledge about other places in the world albeit that the latter is much broader. As Baldwin suggests, new information is cognitively accommodated but what is unclear is how far the new categories take on a generic structure as suggested by this study. After all, it is not unreasonable to expect anyone to be able to give a quite detailed description of a familiar place yet discuss unfamiliar places in broad, generic terms.

Stages of Development

Baldwin's work also suggested that children go through stages of development. He proposed that after infancy children enter a stage where play is important for developing thought, then the ability to reason is achieved and finally advanced moral and judgmental thinking is possible (cited in Case 1985,p.12). If this is so, it would appear inappropriate to expect a child of four to appreciate what another place is like when presumably they are still unable to apply reasoned thinking about their own locality. The question then arises whether or not the distant place image was accommodated into the category 'places I do not know' or whether it was perhaps assimilated into a very broad generic category 'places' including local ones. How far, therefore, do children realise similarities and differences exist between places? Certainly concrete evidence is needed to answer this question and establish whether children make such distinctions. If the four-year-old does not make this differentiation, and all place information is generically assimilated, it could suggest a developmental barrier exists preventing further clarity of cognition.

2.3.2 Piaget's Stages of Development

One such theory came from Jean Piaget who based much of his work on Baldwin's and not surprisingly therefore he proposed a similar staged theory of development. Piaget maintained that between birth and adulthood everyone passes through a chronological sequence of developmental stages (see table 2.3a)

AGE	STAGE
0-2 years	Sensorimotor (6 substages) Internal representation begun
2-6 years	Preoperational Thought Egocentrism (centred on self) Primitive reasoning
6-12 years	Concrete Operational Thought Reversibility of actions, inductive reasoning (own experience - general principle)
12 years +	Formal Operational Thought Deductive logic

(Adapted from: The Developing Child, Helen Bee, 1981)

Though the timing of movement through the stages may vary, the chronological sequence will not. However, Piaget's theory does not differ too greatly from Baldwin's. Piaget believed children of four were incapable of reciprocal thought about other people and certainly people in other lands. He maintained their lives revolve around their own small worlds usually stage managed by close family members. Further, children appear not to be interested in anything that does not involve them. For the four year old, life beyond 'self' has no meaning, if it is acknowledged to even exist. This may have been true when Piaget proposed his theory but today's four-year-old lives in a completely contrasting environment. Today, parental control over a child actively seeks exposure for that child to all available information. However, for Piaget it would appear the plethora of today's media images of distant places has no place in the intellectual thought of children of nursery age. If Piaget is correct, children develop awareness of

other places as they move through the concrete operational stage and prior to this they are presumably immune to such exposure in the environment.

Factors Influencing Development

For Piaget, developmental progress was linear and unaffected by degrees of experience or environmental factors. However, the issue of influencing factors deserves closer consideration. The extent to which the child's environment or personal experiences may or may not accelerate movement to the next developmental stage has already been questioned. Piaget (cited in Case 1985 p.21) acknowledged that physical experience was a necessity for intellectual development but since it was felt this experience was liable to be universal he attributed little importance to this or indeed maturation as influencing factors of development. However, it should be remembered that universal experience at the time Piaget was writing and universal experiences now are liable to be different. Many children are now more widely travelled and the information imparted from well-travelled relatives and friends is probably greater too. Also, experience among children today cannot be termed universal since an imbalance of opportunity invariably exists according to socio-economic and culturally determined factors.

If Piaget's theory were applied to children today it would mean that no knowledge of distant place travel would be gained. In short, such experiences for children that do have extensive travel opportunities would mean nothing and no distinction would be made between places near and far. However, evidence from Wiegand (1992 p.154) proves otherwise. He found children with travel experiences beyond their own locality or country, provided richer responses about places. By contrast Piaget suggests the perceptions of children of a similar age remain very egocentric. Given the more global nature of individual lives now compared to when Piaget proposed his theory, this seems difficult to accept. Theories are rooted in time and should be viewed with that in mind.

Piaget did, however, place more importance on socialising as an influencing factor on development but even this would not have envisaged the degree of child centred social

interaction which occurs today. When applied to children in the 1990s it appears children receive more encouragement to question and engage in conversation than even two decades ago. Therefore interaction with a relative recently returned from a distant place could be quite important for the formation of the child's perception of that place. Furthermore, this role of indirect educator may be more important than that of the teacher in class where one to one conversations are limited and questions possibly remain quite general.

The Notion of 'Readiness'

Piaget's theory further proposed that there is a time of readiness to absorb new information. Subsequent research (Lefebvre and Pinard cited in Case 1985 p.28) has questioned this and found that children could be taught about a new concept before they were 'ready' and the new knowledge could be applied to other tasks. It would be interesting to determine how this readiness is judged for those in charge of setting a national curriculum. It could be that distant place study under the age of five or six would be considered inappropriate since the child may not be ready. To apply a national curriculum to all children whose levels of readiness may vary would seem inappropriate. That, and given the different levels of exposure to information about places, it appears that the validity of Piagetian theories of child development should be questioned, certainly in terms of distant place knowledge.

2.3.3 Vygotsky and the Zone of Proximal Development

By contrast, Vygotsky's idea of a zone of proximal development discussed by Daniels (1996 p.4) seems to refute Piaget's notion of readiness. Vygotsky maintained that different levels of functioning exist between children. They learn at different rates depending on the guidance and instruction offered to one child over another. The

differing rate of learning is the zone of proximal development. This suggests that distant place concepts could be taught to children whom Piaget might have considered not ready for such instruction. Most teachers recognise smaller class sizes and extra adult support in class as valuable means to achieving more learning for the children.

2.3.4 Pascual-Leone and M-Power

Case (ibid. p.31) later explores work by Pascual-Leone (1969) which attempts to repudiate Piaget's work by explaining discrepancies highlighted by Lefebvre. Pascual-Leone stated that other cues exist and act together to activate schemes and move cognition on. These are the cues from the schema itself, the effects of the surrounding field, logical cues and lastly the amount of 'Mental, M-power' which increases with age. (M.power is the number of mental elements a child attends to at one time.) Applied to this research it would mean that if a distant place image were presented to a child, the image itself would present cues as to what is being represented. For instance, palm trees or beaches may suggest to the child a scene or place that is different from anything locally. The surrounding field cue could be the fact that the distant place image is in a holiday brochure which contains images of places that are far away. The logical cues of say a distant place image presented on the television could mean that the exotic palm tree lined beach is not the same as anything the child has seen locally and it therefore equates with a faraway place.

However, it is probably in the idea of M-power that Pascual-Leone's theory has most application to this research. The greater the number of mental elements that can be given to an image the more that image will be assimilated or accommodated into the child's cognition. In order for this to happen the child must focus upon the distant place image in the most appropriate way. Pascual-Leone's theory was later refined to acknowledge the demand on M-power from other processes operating simultaneously, for example, visual and tactile. Therefore, according to Pascual-Leone's theory, developmental differences will exist because of individual differences in M-power. Case (ibid p49) further elaborates by suggesting that global attentional demands should

be acknowledged as well. By this is meant not only the cognitive process demands but also demands from say motor schemes. Klahr (cited in Case 1985 p.49) calls this the 'grain' of analysis. The finer grain of analysis reveals an increase in required M-power.

In terms of this study it could be suggested that distant place perceptions are formed in varying detail depending on the M-power available at the time of cognition. A child in a classroom with 29 other children, each possibly making his/her own distracting signals, may not learn about a distant place as well as a child sharing time in a smaller family unit looking at photographs taken by grandma while on holiday. However, if the television were on at the same time, the M-power would be reduced and diverted away from the learning experience to acknowledge the stimuli from the television. Where the idea of M-power appears unclear in pedagogic terms is by the deliberate application of other methods of perceiving say through the sense of touch. It might be that M-power is diverted away from the visual as the child learns more about the experience of touch rather than the concept being studied. Conversely, when a range of sensory stimuli are employed it could be that the degree of available M-power actually increases thereby increasing knowledge.

Logically, it would be correct to assume that the child's own participation in a place, possibly through activities engaged in (e.g. playing on the beach) will create the greatest knowledge. Play being a child-orientated activity may therefore result in greater enhancement of his/her distant place perception. Wiegand (1992 p.29) also suggests a child is more interested in some information than others and perhaps the method of information transmission is vital in harnessing the M-power. Certainly, interaction with artefacts or other visual aids are well known tools for increasing a child's attention and motivating them and extending learning.

Media and M-Power

The type of images displayed on holiday programmes or in holiday brochures are aimed at adult audiences and appear not to hold any appropriate content or provide opportunities for interaction that would otherwise focus a child's attention. Perhaps

therefore the images presented through the media do not have any significance on the formation of children's distant place perceptions. Cullingford (1990 p.82) supports this view by suggesting children 'focus far more easily on those things they find easiest to understand'. It could be that distant place images on television for instance are too difficult or abstract for a young child to understand and therefore do not feature in the child's perception of distant places.

'Chunking' Information

Pascual-Leone also suggests that chunking information reduces the demands on mental power. By chunking palm trees, blue skies, sandy beaches, sunshine and sea together as a far away place, information about a distant place image can be more quickly processed! However, it is easy to see how such chunking may contribute to stereotypical perceptions of some places being held if the information remains unchallenged. Perhaps it is for just this reason that Cullingford (1990 p.101) warns against oversimplification of information or applying knowledge universally. (Stereotyping is explained in more depth in Chapter 3.)

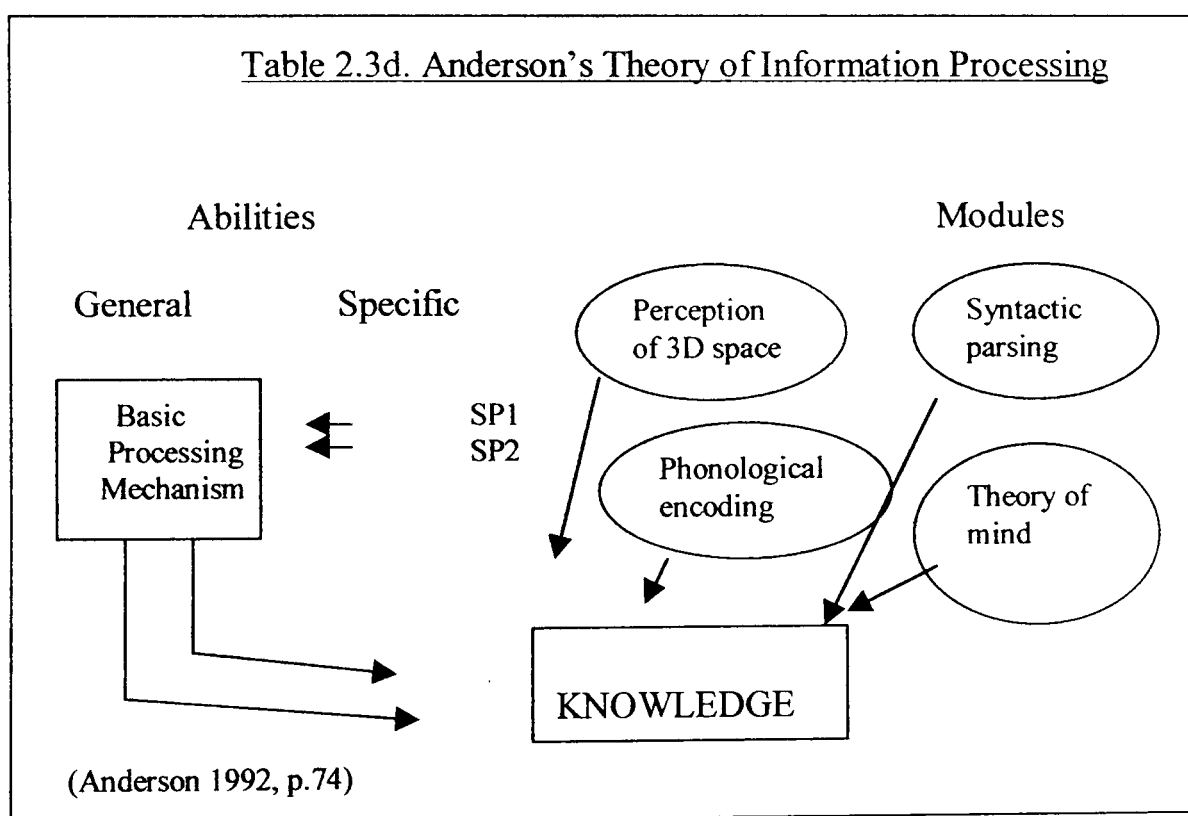
2.3.5 Information Processing

Anderson: Modular Systems

Having mentioned chunking as a cognitive process that occurs when information is received it may be useful at this point to reflect upon the process of cognition itself before continuing with developmental theories.

Anderson (1992 p.64) proposes information is in fact processed differently according to its type. He suggests some information is modular and of evolutionary importance, for instance observance of a lion about to spring requires an immediate defence response. Such information is not subject to the basic system of processing which is often slower

in response. (See table 2.3c.) Some information relies on context, for instance a solitary walk past a pub might present no problems unless the walk were at night and near closing time. The process of evaluation often relies on the context and general information processing is slower than for immediate response situations. Anderson further states that other forms of information also have modular status and by pass the basic processing system. These modular domains become automatic rather like the ability to segment speech. As maturation of one domain occurs there is an enhanced maturation in other modular domains. Hence maturation in the language domain would initiate maturation in other domains. Therefore language would appear to empower greater distant place learning.

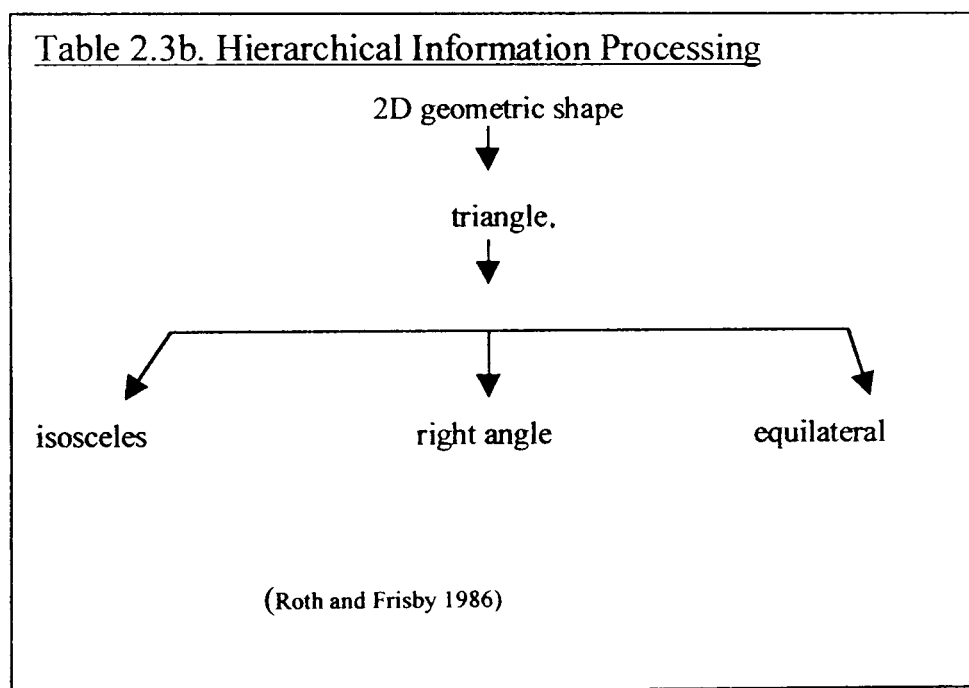


Anderson further elaborates his theory by suggesting that specific processors exist. One is more suited to processing verbal and propositional information (SP1) and the other for visuo-spatial information (SP2) (See table 2.3d.). Anderson's theory highlights the possibly individual nature of knowledge. Two children visiting the same place at the same time might have significantly different learning outcomes in terms of knowledge gained since maturation of particular modules say language could have occurred

previously at different rates. If child 'A' has more knowledge of language and perception of space than child 'B' does, he/she is liable to extend their knowledge of the place more than child 'B' is. (This presupposes each child was given the same exposure to information perhaps through conversation.)

Roth and Frisby: Hierarchical Systems

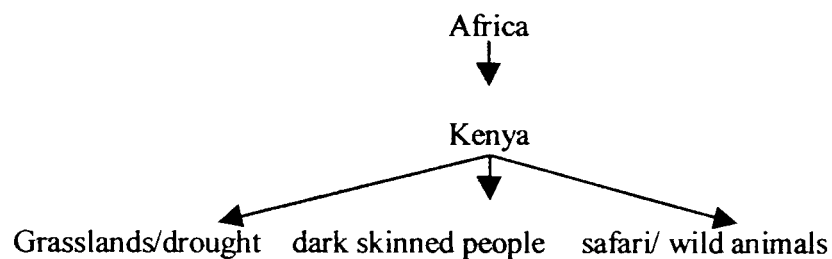
By contrast, Roth and Frisby (1986 p. p.25) suggest information is ordered hierarchically with lower levels in the hierarchy holding more precise information. They provide an example related to 2D shapes (see table 2.3b.)



Information regarding distant places could be ordered similarly as shown in table 2.3c. below.

Table 2.3c. Hierarchical Information Processing

And Distant Place Concepts



(The hierarchy could continue with more specific detail in even lower levels.)

Roth and Frisby further suggest that individual concepts be identified by lists of properties. A palm tree for instance might be tall, bent, have rough patterned bark, long leaves or fronds, coconuts and is often found near a beach. However, this degree of information is rarely processed as a whole and certainly not on first acquaintance. Rosch (cited by Roth and Frisby 1986 p.69) proposes that there exists an economic level of processing within the hierarchy which is used mostly. He states, 'the basic level reflects those aspects of perceived world structure which are most obviously distinctive for a given culture or expert group'. Therefore given the above table, someone from a European country might operate economically at the level of 'Africa' since precise details of life in Kenya are not of paramount importance to them. However, a Kenyan might operate at a lower level of processing more economically focusing on important details such as a walk through the grassland will involve being watchful for wild animals. Similarly someone from London might operate at a more detailed cognitive level about the city than a person visiting it from France for whom London might just mean shopping and tourism. Children's perceptions of distant places may be equally economical and a perception of a hot country might consist of only a beach and a palm

tree while his/her perception of somewhere local might show far greater detail for instance landmarks past on the way to school.

Roth and Frisby: Re-presentational Influences

Discussion of Anderson's theory of processing (above) considered how the degree of language interaction might affect information processing and therefore knowledge. Such conversational interaction is also considered important by Roth and Frisby (ibid. p.71) who suggest that 'anecdotal and experimental evidence...may be represented in different ways, depending on an individual's knowledge and the purposes of the representation'. In other words information about distant places will be processed and assimilated differently. This depends whether a presented image is enhanced by meaningful interactive evidence and whether or not the individual will be required to actively re-present the information or merely to passively absorb it. This appears to suggest that distant place information, perhaps gained through discussion with a relative, with the use of photographic or other visual material, may perhaps be assimilated with more precision than if the child had merely sat back and listened to a teacher impart the information. Furthermore, if that child knew he/she would have to be prepared to share the information with others in some way, the information would be processed in an even more accurate form.

Interestingly, Roth and Frisby (ibid. p.71) continue by suggesting that two modes of representation exist for concepts, general and precise. When this is applied to distant place concepts it is easy to understand how perceptions may become stereotypical. For instance, in general terms hot places could be represented by palm trees, beaches and perhaps poverty. However, a hot holiday location which has been visited might include far more detail such as the route the beach path took, the type of sand on the beach or what happened when the tide went out. Since children rarely need to have all place concepts defined so precisely it could be that all images of hot places become blurred and generalised unless they have actually been there. Images on television of distant

places are not liable to conflict with the child's generalised representation and therefore are mostly ignored as 'more of the same'. Alternatively, children could close in gaps in perception as proposed by Gestalt theories. Gestalt psychologists suggest that the perception A B C or $\left| \begin{array}{c} \text{---} \\ \text{---} \end{array} \right|$ is closed in during the processing system to represent A B C and $\left[\begin{array}{c} \text{---} \\ \text{---} \end{array} \right]$. When applied to this study it could mean that gaps in distant place perceptions become diminished, probably from knowledge of other, possibly more local places. Hence a child seeing an image of a sandy beach, palm trees and blue sky might not make a correct concept match with a tropical location and fill in gaps in the perceptual field with other knowledge. For instance a glimpse of a building behind the trees could become a caravan site and small distant objects on the beach could become pedaloes. In short the child is trying to close the gaps and match the image to one they do know about, somewhere they have been on holiday. (This fine-tuning of perceptions is referred to in Chapter three as 'augmentation', Downs and Stea 1973).

However, images of distant places seen on the television are usually full of overt reference to the fact that they are in more exotic or faraway locations. Reports from Rwanda or Ethiopia contain information which clearly indicates the scenes or landscape are not of a child's immediate locality. It could therefore be assumed that such images are accommodated as more global concepts without the closure or augmentation process occurring. Saloman (1987 p.255) suggests that since television presents images in pictorial form little recoding or mental effort is required and as a result learning is minimal since few refinements are made to the original schemata. This could mean that such images are cognitively processed and perhaps subject to decay within a short space of time. In effect, they cease to exist. This could infer that school based education is more effective than television presentation. Cullingford (1990 p.172) maintains that the important factor remains, 'conversations with others'. Although he tentatively supports television, books, magazines and advertisements as a learning tools he later appears to suggest that children 'learn to pay indifferent attention to the material of television' presumably because of the lack of conversation they offer. If Cullingford is right, it can only be assumed that it is the way in which such learning aids are used which are

important and images promoting distant places during ordinary television time at home therefore have little power to increase knowledge.

Newby: Meaningful Presentations

Alternatively, perhaps it is not passive processing (Salomon) or indifferent attention (Cullingford) which results in less refined distant place perceptions but rather a question of what the landscape or image presented means to the child. Newby (1979 p.348) states 'landscape is the embodiment of a cultural heritage and of social values'. He asks the question 'why do people find some landscapes more attractive than others?' This question will be addressed more fully in Chapter three. However, still thinking about information processing in more general terms, the answer could be that it depends on what the landscape has to offer the individual or how the landscape can best serve that person. The visual image of the landscape is perhaps processed in terms of its benefit. To person 'A', a scene of rolling hills, pastures, a lake and a river could represent a place of beauty to be visited someday. To person 'B', the same scene may represent desolation and boredom and a place to be avoided. Person 'A' therefore stores the information away for possible future use while person 'B' will almost totally ignore and dismiss the information presented. The two mental processing pathways would therefore appear to be different. Alternatively, Scoffham (1998 p23) suggests place attachment results from interactions we have with it as a child and it is these interactions which make places meaningful. However, this is not always the case. When a child has a relative living in another country and may never have visited it, the child may have a lot of knowledge about the place and it may hold a lot of meaning for them. In this instance people are important in relation to places and not interaction with them.

Perhaps Cullingford and Salomon are both right in part. That television images are paid indifferent attention or processed passively but the important point is that this is only in some cases. From a child's point of view the rolling hillside scene will be passively received since it could be assumed few children would view the image in the same way as person 'A' above. On the other hand an image of sandcastles, boat rides, ice-cream

kiosks and beach trampolines or even of Disney structures, offers far greater potential for use and enjoyment. These images are liable to be processed more accurately and contribute to place knowledge.

Technological Techniques and Information Processing

Alternatively, perhaps children's perceptions of distant places are not attributable to any of these ideas but rather to the technology of television itself. Rice, Huston and Wright (1987 p267) suggest that techniques used on television, for instance the zoom-in shot often distorts information. Whereas an adult can still appreciate the whole image the child may be unable to do so and fail to comprehend the context of the zoom-in shot. The whole picture is lost to the child and information contained in the image is not processed accurately because it was presented too quickly. If an exotic beach location had a zoom-in to someone swimming in the sea, the child might assimilate this information as a place they have been on holiday. The whole picture and zoom-in become two different concepts. Kosslyn (1992 p92) also proposes time is important to information processing, he suggests that images 'depict' rather than 'describe' and the time needed to scan an image for information is 'related to the size and other spatial qualities of the objects being imaged'. Television images can often be quite complex in terms of their represented size and spatial qualities. A young child scanning a distant place image presented on the television may have insufficient time to process the information especially where special techniques such as zoom-ins are employed which are intended to focus adult cognition. For the child the context of the distant place image is lost. However, the argument for technological techniques forming perceptions of distant places would appear to fall down when it is noted that even young children are capable of observing details from zoom-in images from say an animated adventure story. Providing the zoom-in is in context with the whole story four-year-olds are quite adept at grasping the meaning behind such techniques.

2.3.6 Bruner: Linguistic Influences

To pursue the idea of context it would be useful at this point to return to the exploration of development theories and in particular to Margaret Donaldson (1978). Although an advocate of Piagetian theory, Donaldson challenged some areas of his work. She maintains that context is very important and refers to cognition as embedded or disembedded thought. Children's learning must be in context if knowledge is to be extended. (Disembedded thought is when thinking is no longer within the 'supportive context of meaning events'. p.76.) From the previous paragraph it is therefore seen that a distant place image is often out of context and little learning occurs as a result of exposure to the image. However, a child being shown a photograph of a holiday event is likely to recall other significant details of the location. This is especially true where the child had interacted with the location in some way (for example playing on a beach or sailing a boat on the river) The presentation of the photograph, a de-contextualised act, is of enough significance to become contextualised within an event within which the child had participated. Therefore presentation of images is important and should be within context but the images should also be meaningful for the child and meaning is culturally influenced.

Bruner's theory (cited in Case_1985 p40) would support the notion of cultural determination. His early propositions were in contrast to Piaget's staged development theory. He maintained that culture and language also play vital roles in intellectual development. The perceptions a child holds of a distant place may or may not be culturally determined or be the result of significant language exchange. Bruner suggested that children represent concepts in different modes, enactive, iconic and symbolic. However, culture is a strong influence on these representations. Media sources enhance these cultural or neighbourhood perceptions (Gould 1972 cited in Bale

1987 p.18, Bale 1987 p.21). If a child had a preference for or a particular view of a place the resulting perception would contain traces of the child's own culture. Children drawing a picture of a hot place (as required by this study) could include elements of the distant location such as palm trees but might also include things from their own culture such as European houses, Tesco supermarket or a scene from their local swing park. Similarly, according to Bruner (1986 p.47), children viewing an image of a distant place would be liable to apply their own cultural understanding to it. Case (1992 p.364) supports this idea and states:

‘development cannot be understood without studying the cultural milieu into which children are born...the human infant is innately pre-attuned.’

Bruner takes the idea of cultural influence one stage further and states, ‘human perceivers take whatever scraps they can extract from the stimulus input, and if these conform to expectancy, to read the rest from the model in their head.’ If therefore a child already has a model of a specific place in his/her head, say of a beach location, Bruner suggests certain aspects of the image are scanned and matched according to what the child expects. This expectation is liable to be culturally determined. Even if the image presented is an exotic location the child's expectations override what is actually seen and the image is visually perceived according to his/her expectation. The distant beach may become synonymous with a beach in Newquay the child had previously visited. What is not clear however, is how the input from an image previously unmet is cognitively processed. For instance if a child saw an image of deforestation would the child process the visual facts and then ignore the image? Or process the information and understand the scene as a local building site? Or accommodate the information in a new schema albeit as a jumble of concepts that need sorting out?

It is difficult to understand how the first action could repeatedly occur as this would result in no new knowledge and not just as far as distant places are concerned. It is possible that the second option might be quickly dismissed if further scenes are observed. The third option seems the most likely, that information is categorised into a

schema of 'places' albeit 'unknown places'. In this way the information is categorised or sorted out. However, if a Piagetian theory is acknowledged, such complex unknown concepts would perhaps be ignored as developmentally they have no meaning and the child would not have the mental ability to process them.

2.3.7 Case: Staged Theories of Development

However, Case highlighted work by Gelman 1972, 1978; Nelson 1978; Flavell et.al. 1968 and others (cited in Case 1985 p.53)) which suggested that pre-school children revealed greater competence at tasks than suggested by Piaget. These studies showed how pre-school children were capable of dealing with quite complex concepts and how during the 2 – 5 year range the children made as much progress as during the preceding or subsequent age stages (as defined by Piaget) This competence would presumably extend beyond mechanical tasks to include other cognitive abilities, for instance the ability to understand how life in another country might differ to their own. Case's own research (1985) infers this is possible and at this point an explanation of his theory might be useful.

Case follows Piagetian theory but his stages of development are more explicit than Piaget's. Table 2.3e. details Case's staged theory of development. Case's investigations included the study of a variety of domains including mechanical tasks, language communication and social interaction. He found that the substages were applicable across all age stages. His study of social interaction and role-play found that at 3½ - 5 years (substage 3 in Early Childhood) a child was capable of Bifocal Co-ordination whereby a child could take two dolls and role-play appropriate parts for each. If a child of this age can assume the part of another for role play could it not also be assumed that he/she would be able to think themselves into another place or person elsewhere in the world if they had the necessary information. Similarly, if the same child is also capable of speaking in complete sentences he/she therefore has the ability to talk about another

place which supports Vygotsky's idea of language and thought processes being mutually supportive. Where one domain is extended so too is the other.

Table 2.3e. Case's Stage Theory of Development

Substage 0 : Operational Consolidation

Substage 1 : Operational Co-ordination

Substage 2 : Bifocal Co-ordination

Substage 3 : Elaborated Co-ordination

Each substage is applicable to these age groups:

	Infancy	Early Childhood	Middle Childhood
0	0-4 months	1-1½ years	3½-5 years
1	4-8 months	1½-2 years	5-7 years
2	8-12 months	2-3½ years	7-9 years
3	1-1½ years	3½ - 5 years	9-11 years

(The same applies beyond middle childhood to Adolescence)

(Robbie Case, 1985)

Case maintains that trying to accelerate progress through the stages would be futile but on the other hand he does advocate providing broader experiences for children to enable them to apply their skills and accomplishments in many different areas. This appears to argue in favour of a rich curriculum, which lays the foundations for future learning.

2.3.8 The Role of Language

As previously mentioned there still remains a need to sort information out and it is to this sorting out process that this chapter now turns. The process of sorting out could come with the development and extension of the child's language ability. Bruner (cited in Case 1985 p.41) suggests language in young children up to five plays only a small part in cognition. As the child develops, language facilitates higher order thinking.

However, this suggests a static linear development and the question should be raised whether or not this can be short-circuited. For instance, educational practitioners are familiar with the young child who has had many opportunities to talk with adults on a range of concepts. These are the ‘old heads on young children’ as the saying goes. If a child is taught the associated vocabulary of a distant place will that enable the child to have more knowledge and understanding about that place? Alternatively does language input only have a positive effect on cognition when the child is developmentally ready? Case (1985 p.41) appears to suggest that language needs to be a co-ordinated process alongside other representational forms. How far this co-ordination can be directed is not clear and instances can be given whereby an ability to represent through a graphic skill is not matched with the same degree of verbal skill as is often the case with autistic children. Bruner (1986 p.132) is definite in the fact that ‘language not only transmits, it creates or constitutes knowledge or reality’ thereby acknowledging the power of language. Furthermore it could perhaps suggest a power that can override developmental constraints.

2.4.9 Vygotsky: Pseudo-Concepts

Vygotsky (1962 p.66/7) too acknowledges language as being a powerful tool. He suggests that language is important for refining pseudo-concepts (these being concepts held before full understanding of the concept is attained). If the analogy of a scene of deforestation is referred to again, the pseudo-concept jumble (perhaps a seeming wasteland) could be refined through language. Language is important if the child is to come to true understanding of the concept. Vygotsky (1962 p.69) believed in fact that ‘verbal intercourse with adults...(is) a powerful factor in the development of the child’s concepts’.

According to Vygotsky (1962 p.99) it is the ‘intercourse’ or verbal interaction which has the power to change perceptions. Vygotsky states, ‘in conversation, every sentence is prompted by motive...the changing motives of the interlocutors determine at every moment the turn oral speech will take’. Writing formats do not have the same potential

since according to Vygotsky they are ‘more abstract, more intellectualized, further removed from immediate needs’. This would indicate that conversation is the best tool for distant place learning and television language fails to motivate a young viewer or establish attention since there is no interlocutor. The distant place image is also liable to be far removed from the child’s immediate needs or interests. In the absence of interactive communication with the screen the visual and auditory images of the place are largely ignored especially when the opportunities to interpret body language as well do not exist.

It follows therefore that the development of speech from single words to simple and then more complicated sentences would also have some influence on distant place perception in children. According to Vygotsky (1962 p.126) speech is built up from a part (word) into a whole (sentences). However, as the child divides up his or her thoughts the whole is divided up into parts. This can be seen when children first learn a generic word such as ‘dog’ and only later refine the concept into ‘big dogs, small dogs, Spaniels, Poodles etc. Piaget (cited in Wiegand 1992 p.66) supports this idea acknowledging that children are first interested in the name of a place for example ‘Australia’. Wiegand (ibid p76) continues by suggesting other attributes such as country shape represents early place knowledge. However, it is doubtful if this is the case with children of the age of this study. As the child’s thought processes are refined into parts and more words and sentences can be constructed, the concept of ‘Australia’ becomes more complex. Vygotsky (1962 p.126) further argues that as speech progresses into whole language so too the child’s thoughts develop, a double-edged sword in fact and Gibson (1969 p.226) also suggests words empower ‘perceptual learning’.

2.3.10 Minick :The Language of School

Minick (1996 p.46) however suggests that Vygotsky’s notion of ‘word’ when used in conjunction with school based learning, has a different function. In school, meanings are learned not ‘as a means of communication but as a system of knowledge...(which)

occurs not through direct experience with things or phenomena but through other words'. This suggests that language in school is in itself its own learning support framework. If school language is apart from other language this would infer that school based education not only has the potential to open up a treasure chest of knowledge but more specifically provide knowledge of other world places which the child can assimilate. The language of school would appear to be almost immune to developmental theories. However, teachers often witness a failure of this special educational language. When a child fails to understand a concept, say conservation of volume, further explanation is given and repeated until the child eventually understands. With distant place study some children never reach the point of understanding. It is not clear whether this is due to developmental constraints, lack of context of presentation or perhaps simply too challenging and beyond their own immediate interest or needs. Alternatively, it could be that the power of language, especially educational language is only activated through active discourse.

2.3.11 Halliday: Experiential Language

Halliday (1992 p.94) suggests language is 'the process by which experience becomes knowledge'. In its broadest application this idea would mean that travel experiences have the potential to increase knowledge provided the child is conversationally involved with the experience. Speech is the catalyst for learning. Not only does the child need to be engaged physically in investigating a concept, it could be that verbal interaction is a necessity to harness knowledge. Halliday further suggests that children like challenge but anything posing too great a challenge is ignored. This could mean the messages and meanings contained in a television advertisement about a distant place location could be too challenging for young children and are therefore ignored. Piagetian theory would attribute this blocking out as the result of the child's stage of development. Vygotsky and Halliday would suggest that it is the lack of motivation and direct verbal exchange.

Language has the power to create knowledge. Little is known about the learning outcomes of interactive information technology which provide such two-way communication.

2.3.12 Whitehead: Early Language Ability

These dilemmas would appear to indicate that distant place teaching is inappropriate for young children. However, it could also be argued that rather than avoid distant place teaching children should, with the right methods, be given the opportunities to explore other global locations. Emerson (1996 p.132) suggests that a ‘challenging verbal and physical environment’ is important as children move away from the Piagetian notion of egocentrism. Furthermore Whitehead (1990 p.72) would argue that early childhood experiences are important factors in later development and that ‘labelling probably plays a significant part in early language and thinking’. She acknowledges that refinements can be made ‘over time, by general experience as well as formal education’. Hence the labels ‘Australia’ or ‘Africa’ indeed represent the first rung on the ladder of global knowledge and responsibility must be claimed for refining these concepts through the most appropriate methods. Staged development theorists might again argue that this is impossible.

2.4 Summary:Developmental Theories and Distant Place Perception

Therefore, where do such theories of child development leave a study of distant place perceptions? We have seen that early staged development theories viewed the young child of four as being unable to think beyond their own immediate needs (Baldwin,

Piaget) and being unable to comprehend other world places although one staged development theory (Case) infers the four year old might be capable of this. However, other theories acknowledge the importance of culture, experience or environment on knowledge (Bruner) and suggest that more accurate perception of world places is possible given the right experiences. As previously mentioned, all theories are rooted in time and should be examined in light of contemporary phenomena. The global nature of life today especially its communication, must surely have some impact on even the youngest child. Perhaps then it is not one single theory that holds the answer but rather an eclectic model encompassing many theoretical points.

In the latter part of the twentieth century, Piaget's theory appears to have been too quick to dismiss other influencing factors and evidence is growing which criticises the application of his ideas (Matthews 1992 p.207). When these factors are taken into account the notion of a state of readiness to absorb information is difficult to comprehend. Given the diverse learning experiences received from even a pre-natal age, young children today would appear to have no universal starting point. Just as children develop physically at different rates and in different areas, so too perhaps they develop cognitively in different ways. Just as the environment and the child's own culture influences physical development so too it may also affect cognitive development. Perhaps if such staged development theories were viewed in terms of milestones in the same way as physical development they would have some relevance for today's young children.

Accepting such an approach, the challenge then exists of how to speed up passage through the milestone chronology. Although beyond the scope of this study, the question then arises whether this acceleration is affected by any innate factors. For instance, whether the capacity for M-power, as previously discussed, would be able to be stimulated and increased more successfully in some children than others. Certainly it appears Pascual-Leone's notion of M-power raises issues regarding the cognitive ability of young children and their resulting perceptions of distant places. It might be that

children can be taught how to increase their M-power and thereby clarify and expand their place knowledge.

On its own however, cognitive capability would appear not to be the whole answer for the image itself seems to exert some implicit power over what is understood and learned. Different information processing theories (Rosch 1975, Anderson 1992) may appear to hold the answer to how children's place perceptions are formed but other factors such as language are integral factors that should not be dismissed. Neither too should the Vygotskian notion that interactive language is a powerful tool. Words on their own are not the solution, rather it is what use is made of the words that creates the power to extend knowledge. Just as a ball being hit across a net is not tennis, it only becomes so when it is hit backwards and forwards over it, so too, words need to be utilised by at least two people if the power of words is to be released. When a child engages in meaningful conversation about a distant place, knowledge is often gained and a perception of that place evolves. Where experience exists, direct or indirect, and is also opened up for the child, the perception is enhanced. The greater the language interaction, the greater the potential for learning.

This chapter looked at theories of child development and information processing. It has considered how modern technology may in fact be too advanced for a young child to understand and how language interaction may appear to offer the greatest potential for refining children's concepts and therefore their perceptions of distant places. These theories appear to suggest that language has the power to transcend development limitations and that a child's distant place perception may be as detailed and accurate as the language opportunities that have been presented to them.

Chapter three looks at how children make geographical sense of their world and tries to gain an insight into the knowledge or understanding young children have of the wider world.

CHAPTER THREE

GEOGRAPHICAL THEORIES

3.1 Review of Chapter Two

The last chapter discussed theories of child development, language and information processing systems and explored how these might construct, constrain or refine perception of 'place'. When applied to the second research proposition it appears that some theories of intellectual development suggest young children are incapable of 'knowing' a distant place. On the other hand, language and in particular interlocation would appear to be a powerful tool for learning and therefore place perception. These theories are set against the increasingly global nature of information and experiences surrounding even the youngest child.

3.2. The Role of Chapter Three

This chapter focuses more directly on children's geographical understanding and knowledge. However, it should be pointed out that there is a dearth of information relating to geographical research with children of the same age as those chosen for this study. The available literature has therefore been applied and evaluated as appropriate but conclusions are tentative in light of the frequent mis-match of ages between this study and others. The first research proposition, 'that children come to school aged four with some geographical knowledge of the wider world' is explored in this chapter by examining how children make geographical sense of the world. It will look at geographical theories and in particular how spatial knowledge (i.e. local level to wider world level) is developed and the importance of 'place' in our lives. Then it will suggest how cognitive mapping is used as a tool to this end and how it is unique to each

individual. The role of stereotyping in the formation of place perception will be examined before looking at how wider world knowledge is built up. Finally the roles of technology, landscape and language in formation of perception will be explored.

3.3. Making Sense of the World

3.3.1 Spatial Knowledge

An infant's place knowledge begins in his/her own environment yet Graves (1980 p.145) points out that 'the number of studies which have been made of children's perceptions of their own environment is relatively limited'. Downs and Stea (1977 p.203) concur with this. Furthermore they acknowledge that the process of acquiring spatial knowledge begins at an early age, even as soon as a child begins to speak, they also suggest that 'cognitive development and environmental learning (which interact) occur at even earlier ages in *all* cultures'. However, they also propose (p188) that a logical learning progression from small-scale space to large-scale space does not necessarily happen thus contributing further to the difficulty of research with young children and highlighting the individualistic nature of place perceptions. Complicating the picture further still is where place knowledge comes from and how it can relate to current place knowledge. Scoffham (1998 p24) suggests young children's knowledge of places comes from fairytales, adventure stories and pre-historic and wildlife stories. He cites a study by Lynn and Graham (p25) which showed that only the most mature 7-11 year olds thought of developing countries in a way other than 'hunter-gather' societies. Hence although development of spatial knowledge may begin at an early age, clearly it is vulnerable to misconception.

3.3.2 Experience and Place Knowledge

However, an infant's spatial world experiences often occur hierarchically starting with local places. These are widened as trips to supermarkets, visits to grandparents, relatives

or friends occur. Holidays also extend the geographical list of places experienced. Whether experience results in something extra being learned or it is merely another event of the child's life, is one of the dilemmas at the heart of this study. Experience could be where a reaction to an environment occurs. For instance a child learns that there are pebbles on a particular beach rather than sand, or that the place is hot or associated with fun. The previous chapter suggested that language could be the catalyst for creating experience. As a child refines his/her language ability so too can details of 'place' be refined. Simple questions, discussions or statements serve to contribute to new knowledge and a refinement of previously assimilated concepts of place.

These experiences of place are summarised by Catling (1991 p.14). He states,

'children's interactions with places is intimately bound up with visits by themselves or relatives and friends...these may be familiar, everyday places or far distant places, but they are places that remain in children's minds because of their connections with people and events.'

Catling appears to suggest that there is a link between place cognition and people. He lists seven important aspects of place which it is worth reflecting on at this point. First he suggests that 'our knowledge of *what is where* is an essential *frame of reference* enabling us to make sense of the world about us.' From an early age children learn where to find a toy box or the direction of a familiar voice. Secondly, Catling proposes that everyone has a need to identify with places and more especially, children need to have a place of their own. Children are often heard to say, "This is my home". Next, Catling suggests that everyone interacts with places, familiar or unknown and it is this interaction that builds up place knowledge. Furthermore, there is a strong 'association with people and places'. This could mean that children more readily recall places where people were present for instance the market or beach rather than a scene of rolling pastures. Alternatively it could be that people special to the child aid the recall of the place perception. He points out that children also have a natural curiosity about and involvement with the world around them. Finally, he suggests children develop feelings

for places. He states 'in hearing of places children respond to the context in which they are encountered, and develop quite distinct views about places they have been to'. Whether this is also true from a very early age is not clear although even young children can talk with excitement about such places as EuroDisney or ones associated with happiness for example, when speaking about their grandparent's house.

Catling takes this idea further by suggesting, 'real places, whether visited or known only through others, lie at the heart of children's developing appreciation of *imaginary* places' (ibid. p.13). This appears to suggest that places cannot be imagined unless real places are known about first. In a sense this appears to suggest that place knowledge moves from concrete knowledge to abstract ideas and begs the question at what age this happens?

From these important aspects of place it could be argued that learning does not occur universally for all children given that some aspects are liable to be experienced before others. In fact the opposite is true depending on the opportunities presented to the child (Wiegand 1992, p.76). Neither do children learn about distant places in a uniform patterned way. Wiegand (1992 p.76) states 'children become aware of some parts of the world before others...some countries or groups of countries appear especially prominent early on in the primary phase, whilst others remain unknown by children at the age of transfer to secondary school and beyond.' It is difficult to scientifically evaluate a young child's perceptions of a distant place. Not only do methodological problems exist for gathering data but also from an early age each individual has been subject to different exposures in terms of information received from direct and indirect sources. Gould and White (1974 p.51) state 'we are all unique as individual human beings, we possess a unique set of personal experiences, and we have been subject to a unique set of information flows'. This suggests formal sources of information such as news reports but in reality much information comes to the young child from their parents and in turn, theirs are formed by their own unique influences.

3.3.3 Cognitive Mapping

However, not only do these information flows differ between households they also differ according to ethnocentricity (Gould cited in Downs and Stea 1973 p.240). The resulting perceptions of distant places are therefore liable to be different 'colored by the social group, region and nation that we identify with' (Downs and Stea 1977 p.24). Perceptions will be etched uniquely into the mind of each individual. From place information to resulting perception is a process which is more widely written about. Downs and Stea (1977 p.85) suggest information about places is organised into categories which are 'highly generalized and simplified reconstructions of our environmental experience. They are the result of interaction, selection and organization, which have occurred intermittently and simultaneously' This categorisation maps information in the mind and has been referred to as cognitive mapping. It has been described as 'the process of acquisition, amalgamation and storage' (Downs and Stea 1973 p.10) although to this list 'refinement' can also be added since it could be argued that place perception refinement continues throughout life.

TABLE 3.3. A SUMMARY OF COGNITIVE MAPPING ABILITY

1. Sensori-motor spatial action as the child moves through the immediate environment. The child then makes representational thought about places to enable movement to be less haphazard. The place can be imaged although it is not there.
2. The child enters 'egocentric' spatial perception' where the child's actions begin to develop a spatial framework but in relation to his/her own actions.
3. Experience with familiar environments and indirect contact with a wider world evolves into 'objective spatial cognition'. She learns that relationships exist even without her although she cannot fully understand these.
4. Abstract spatial reasoning is a level of development where a child has an abstract referencing system which is hierarchically organised. The child knows that all the parts make a whole and her actions do not affect these. Direct experience is needed yet the child can still 'analyse and assess spatial situations and problems'.

Catling (1991 p.14)

A review of cognitive mapping ability is comprehensively detailed by Catling (1991 p.14). In order to understand how the child possibly makes sense of the world around them, a summary is shown above (Table 3.3.).

The suggested development of cognitive mapping ability in table 3.3 is based on Piaget's stages of development. Although it indicates a pathway of knowledge and skills acquisition it sheds little light on the dilemma of what (at any age) the child's perceptions of a place may be. It has been suggested that information about places is cognitively stored as a cognitive map. However, cognitive maps bear little resemblance to a cartographic or photographic representation. Cognitive or mental maps are 'a product of a person's organized representation of some part of the spatial environment' (Downs and Stea 1977 p.76) and can be known in terms of 'what people say or do, from verbal or spatial behaviour' (p.85). In other words, person 'A' may prefer to cross London by travelling around the M.25 thereby avoiding the central London traffic congestion. Person 'B' may prefer to cut through London given they know all the back street routes to avoid possible traffic problems. It is more likely that the perceptions in the heads of both people are based on landmarks or landscapes rather than a symbolic map like representation.

People and Places

Given that children are more interested in people than places (Wiegand 1992 p.94) the cognitive map of the young child is liable to have strong associations with people. People and their houses possibly replace the landmark referencing system mentioned above. The same could be said of adults to some extent as stress zones reveal mental maps containing 'no-go areas'. (Ley cited in Gould and White 1974 p.30). In this case the cognitive maps are associated with people who pose a possible personal threat. It may be that children's distant place perceptions not only contain associations with people but are perhaps formulated around people, more specifically, adults. This is not difficult to imagine given that from an early age adults are largely responsible for the

places to which a child is exposed. Whether it is a walk to the park or a visit to EuroDisney it is the adult who determines the child's locative exposure. In turn the adult's decision to go to these places are determined by their own preferences. The child's mental place map is built upon previously determined influences. These may be as simple as taking route A to the supermarket in preference to route B because route A involves less right turns. However, research into cognitive mapping is difficult not only with children but also adults (Downs and Stea 1977 p.85, 88) especially given that the type of request to recall the perception and the mood of the individual at the time may affect the resulting perception.

Although Downs and Stea (1973 p.9) suggest mental maps are concerned with 'the everyday spatial environment of the individual' given the global nature of society today they appear to have equal relevance to distant places. If information about the local environment comes from 'a complex, uncertain, changing and unpredictable source...operating over varying time spans' (Downs and Stea *ibid.* p.9-10) distant place information comes from no less indeterminate and inconstant sources. Within the local environment people may well share similar experiences such as the walk to the railway station or school each day, or the need to drive to the nearest supermarket. These commonly experienced events contribute to mental maps which may well have similarities with other people in the local area. It is difficult to appreciate how the same could be said of distant place information since the commonality of experience in the first instance is liable to be different.

3.3.4 The Phenomena of Places

Downs and Stea (1973 p.16-17) suggest that cognitive maps are made up of locational and attributive information. Locational information is concerned with distance and direction while attributive information gives an indication of what is at a particular location. This is referred to as the 'phenomena' of places and an example is cited of going to a drive-in movie. The locational information of the cognitive map informs the individual how far away the drive-in is, how long it will take to get there and where it is

in relation to other landmarks. The attributive information enables the drive-in to be recognised by its large car park and screen and the presence of lots of people. As far as distant places are concerned the same sort of information is being developed especially in young children. The information may well be more general though. For example, a child may know that Australia is a long way away and cannot be reached by car, that an aeroplane is needed. Although vague, this locational information already informs the child correctly and will form the basis for the development of more explicit information as time passes. So too with attributive information. The child may know just two simple facts about Australia, that it is hot and that Koala bears can be found in Australia. Over time and as a result of exposure to other information about Australia the child's cognitive map of Australia will be refined. Whether these refinements will be accurate or not will depend on a variety of factors and will be discussed later in this chapter but what should be remembered is the fact that even young children have quite sophisticated knowledge of places (Palmer 1999a).

To refer back to Downs and Stea's discussion of attributive information, they state it can take the form of 'descriptive or denotative' information and/or be 'evaluative or connotative'. To use their example of the drive-in movie, the descriptive information would confirm a large number of cars at the location while evaluative information may well suggest that the chosen drive-in shows the best films or is cheaper than others. It is easier to appreciate this when applied to adults rather than children who may well have given little evaluative thought not only to places but even to general concepts as well. Evaluation requires some form of comparison and given the child's likely limited experience of places this may be difficult. Applied to the example above the fact that Koala bears can be found in Australia or the fact that it is hot there is descriptive information. However, given the remoteness of the concept, an adult, like a child may well find it difficult to make evaluative judgements about Australia. Therefore, although cognitive maps may well contain evaluative information the quantity and quality of such information may well be reduced the more distant the place and the younger the individual.

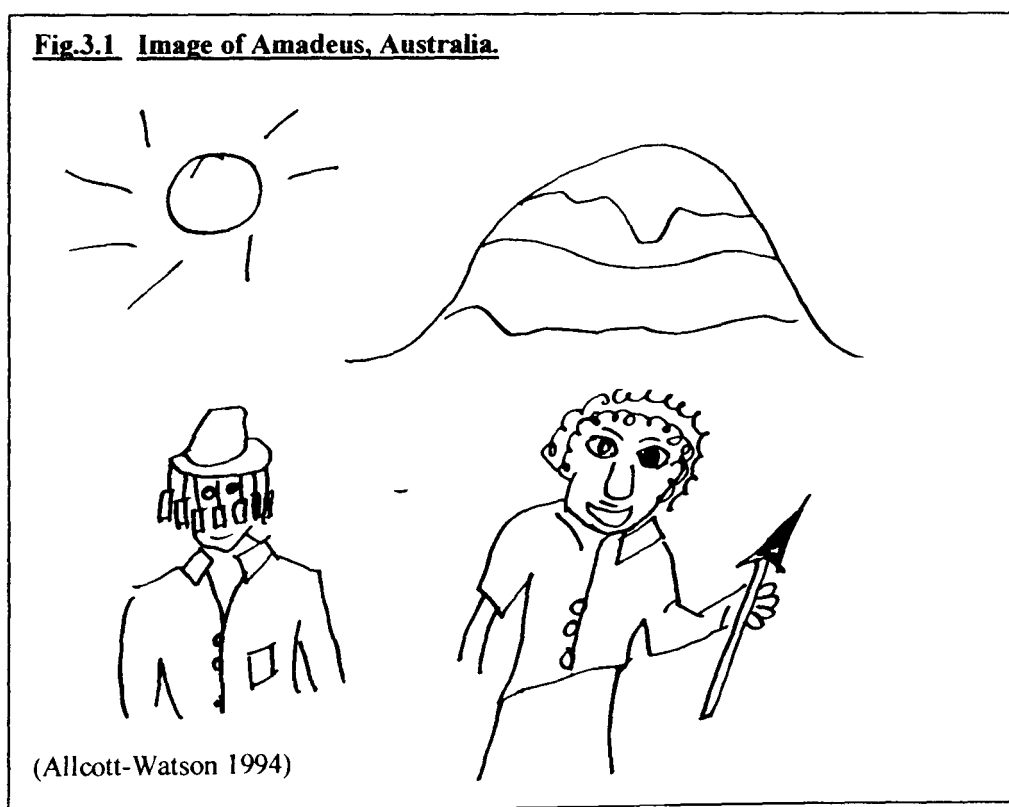
3.3.5 Cognitive Mapping Distortion

This does not mean that young children cannot hold cognitive maps about distant places. On the contrary young children have knowledge of a range of global issues (Palmer 1994, 1999a) and their perceptions of places should not be dismissed. What form do these place perceptions take then? Downs and Stea (1973 p.19) suggest that cognitive maps are 'distorted so that size (scale) of the represented phenomena, especially in the drawings of young children, indicates relative connotative significance'. For instance, if a child draws a cave, the larger the drawing in relation to other drawn concepts may infer that the cave was in some way very significant for the child, perhaps representing a place of danger. To take Downs and Stea's idea further it may be that this can be applied to people in the child's drawing (which represents his/her cognitive map). If a child draws a place and includes their family perhaps this too could be interpreted as having some connotative significance. Again this representation may or may not be accurate. Perhaps Auntie Anne did not in fact go to France with the child last summer even though she appears in the child's drawing of the French location. Auntie Anne may represent someone for whom the child feels very strong emotional ties at the current time.

Downs and Stea also suggest that cognitive maps are of 'functional importance' and we 'know or remember what is generally useful to us in our everyday patterns of spatial behaviour' (1977 p.78). However, this should not suppose that other details are not present in a cognitive map. Simply because a child does not draw something it cannot be assumed that the missing concept does not appear in his/her cognitive map or is not known to the child. It may just be that the missing concept has no previous or current significance for the child. This adds to the problem of gathering data from very young children.

3.3.6 Stereotyping

However, it is quite common for cognitive maps to be ‘augmented’. (Downs and Stea ibid. p.21) This means that where details about places are missing the resulting perception may well be augmented with other details added from the child’s own experience even though the added information may not fit the picture from an adult’s point of view. If asked to draw what they think it is like in Australia, a child may well draw a tent or a caravan to augment their cognitive map. It is if the mind makes ‘unconscious inferences’ (Pronko, N et al. 1966 p.61). This could fit with the inference made by a child that all people in Africa are poor as mentioned in Chapter one. Alternatively such inferences might relate to the existence of something else beyond the frame of the photograph. In other words they ‘read’ what they cannot see by making an inference based on something within the visual frame. To refer back to the opening phrase, teachers often ask themselves ‘I wonder what they’re thinking?’ or ‘what made them say that?’ because a child has made such a seemingly illogical or bizarre remark.



At this point it would be useful to reflect on the accuracy of such inferred images and in particular, stereotypical images. There are many discussions about stereotyping (see Wiegand 1992 Chapter 3 for a comprehensive summary of research into stereotyping). In a more recent study an adult was asked to draw a scene from the Australian outback (Fig.3.3) (Allcott-Watson 1994). The resulting picture appeared quite stereotypical. The person who drew the picture was in fact quite knowledgeable about various aspects of Australia. However, when a particular place, Amadeus in central Australia was focussed upon, it appears stereotypical images were used to augment the cognitive map of the particular location.

Gould and White (1974 p.123) talk about a 'distance' effect which gives rise to ignorance and therefore possibly stereotyping about more distant places. It may be that a child will be more willing than the adult to admit to a lack of knowledge or maybe simply augment their perceptions by importing images from their own experience or maybe even the youngest child has already developed stereotypical images about places. Lowenthal (1972 p.92) suggests that stereotyping influences 'how we learn and what we know about every place in the world' but that 'education and the passage of time revise but never wholly displace such stereotypes about foreign lands and people'. However, Scoffham (1998 p24) points out that young children's stereotypes should be challenged early on if their misconceptions are not to endure into secondary school. He states, 'We need to be careful not to underestimate young children, many of whom (if given the opportunity) can make sense of abstract ideas, whilst contributing to children's personal, social, intellectual and emotional development.'

It has been suggested (Downs and Stea 1977 p.79) that cognitive maps are based in fact on 'distinctiveness or imageability' perhaps inferring that distinctive qualities are deliberately (albeit cognitively) sought out and that perhaps stereotyping is a cognitive function not a cognitive failure. Indeed, Gibson (1975 p.226) would suggest that searching for the 'different' is a necessary function for perceptual learning. Downs and Stea (1977 p.90) further suggest that stereotypes are 'generally accepted categories that are part of the common currency of communication and understanding in a culture' and

are 'useful tools in our search for an economical means of organizing spatial knowledge'. Perhaps a distinction should therefore be made between these functional associations and the more prejudicial stereotypes once prevalent in school textbooks.

What is clear is that children have 'attitudes, beliefs and values about other people and places. Some...positive but others may be negative and critical' (Weldon 1998 p250) and these latter ideas need challenging to enable children to 'develop an informed and balanced view of other people, places and cultures'.

3.3.7 Development of World Knowledge

Even if it is accepted that stereotyping occurs, this does not assist understanding of what perceptions children have of the wider world since even the distinctiveness of one image is relative to the individual. Wiegand (1992 p.29) correctly points out that no 'accurate' image of the world exists since 'we each see and construct our own picture of how we think the world is through our own assumptions, experiences and values'. Palmer (1999a p37) also acknowledges not only the wealth of knowledge about wider world places which children bring to school but also the 'misconceptions, preconceptions and frankly inaccurate ideas'. As has already been stated, the young child's image is also liable to be constructed according to range of different influences not least of which is that of adults. If misconceptions remain unchallenged into adulthood subsequent generations are liable to develop place knowledge on these inaccuracies. Given that an accurate image is not liable to exist and that seemingly missing information may well be present as previously mentioned, understanding children's distant place perceptions is problematic and understandably little researched.

It could be argued that prior to the formation of any form of place picture or image the young child's mind is a tabula rasa. According to Piaget (cited in Wiegand 1992p.66) the first thing to be etched in a child's mind is a name of a country. Research by Lambert and Wiegand (1990) revealed that the known world of four-year-olds consisted

of Spain, France, Africa, America and Australia. By comparison a larger study of seven to eleven year olds showed a wider world knowledge of place names. Furthermore, the study highlighted world regions which were identified by common attributes. 'Costa' was identified by beach, sea, hot sun, hotels, pool and holidays while 'North Pole' had snow, igloo, Eskimo, Father Christmas, reindeer and penguins (Wiegand 1992 p.87). The study appears to have also shown no references to people within these regions and yet children are more interested in people in the first instance. Interestingly, neither did a subsequent word association study with 7 – 11 year olds (Wiegand 1992 p.88). Perhaps this was because in recall, the human form is perhaps silently acknowledged, as in the saying 'it goes without saying'. Alternatively, perhaps people are not as strongly associated with places as previously suggested. What the study did show was that the world picture varied according to socio-economic backgrounds of the children attending each school. The wealthier the family background, the wider the world picture held.

Beyond country names, Palmer (1994 p.150) suggests that children of four to five years of age are 'ready for and are indeed using geographical concepts and understandings'. She states children of this age have 'thought about their immediate space and local environment, about routes and landmarks, about distant places, about our planet, and have acquired skills of investigation and understanding'. Although Palmer cites research to support her claim (Cornel and Hay 1984, Muir and Blaut 1969, Atkins 1981, Blades and Spencer 1986, 1987 and Somerville and Bryant 1984) it appears the focus of these research projects were concerned more with route learning, mapping and work with co-ordinates than with the knowledge these children have of distant places. However, Palmer (*ibid.* p.19) continues:

'Children are remarkably good at learning about other lands and peoples, albeit from secondary source materials. They have a 'world inside their heads', derived from constant interactions with the media (TV, films, newspapers), travel advertisements, books and descriptions by other people. Young children know that there is a 'world out there' – from the news, from international take-away food shops, from foreign presenters of children's TV programmes and from story books,

among numerous other incidental contacts with distant places and people of other nationalities’.

These remain broad generalisations however, and are unsupported by specific research into what images of distant places, children of four to seven years of age hold. How do we *know* that young children know? It may be that ‘constant interactions’ are not as active and meaningful as suggested and in fact that some place information is more readily assimilated than others. Whether in line with Piagetian thinking children of this age are developmentally unable to process distant place information at all, or more akin to Brunerian principles that the mode of presentation is important, still remains unclear. Downs and Stea (1977 p.203) suggest that development and learning interact. They cite evidence which showed that a girl of seven engaged on a geographical task, advanced through several Piagetian stages of development with just one piece of intervention and guidance from an adult. Although Piagetian followers would say the child was ready to make that progress others would propose that a Vygotskyian zone of proximal development would best explain the event. After all, the fact still remains that the child was enabled to make better sense of one aspect of the world around her and this appears more in line with the Vygotskian theory.

3.3.8 Technology and Place Perception

While Palmer’s list of potential sources of information about distant places (above) is not disputed, again there appears to be a dearth of research concerned with whether these sources do in fact inform children’s perceptions. As seen in chapter two, Cullingford (1990 p.172) and Salomon (1987) would show little support for a statement proposing television as a main source of learning for children. On the other hand, Lambert and Wiegand’s (1990) research appears to claim that between the ages of seven and eleven years of age the power of television is increased and accounts for much of the children’s knowledge about distant places. However, since the study was concerned with children older than those who form the basis of this study, it is not

known whether the same can be said of four year olds. Gould and White (1974 p.123) talk about a 'distance' effect that results in ignorance about more distant places, perhaps television does serve to decrease to some extent, that ignorance for all children.

3.3.9 Secondary Sources of Information

If the power of television to inform distant place perceptions remains in dispute so too perhaps should other secondary sources. Wiegand (1992 Chapter 4) explores these at some length and goes so far as to suggest suitable books for use in classrooms. (Although Palmer (1999a p37) suggests even school does little to challenge misconceptions about places.) Wiegand discusses photographs and states they can 'evoke powerful and long lasting images of what places are like' he is also quick to point out that children do not see everything in a picture and their attention is not necessarily focussed on what adults see. He proposes that photographs should contain details to gain a child's attention. If this is applied to photographs of holiday locations in a travel brochure it would follow that the type of details they contain might not draw and hold a child's attention. In other words, holiday brochures and similar aimed at an adult audience, may well be ignored by the child and therefore not provide a source of potential information as claimed by Palmer (1994 p19).

Therefore, linking the idea of attention details and television, it could be that television pictures have little power to inform distant place perceptions. Scenes of people and accompanying foreign place vocabulary may well not have the power to extend Wiegand's 'known world' of the young child. At the time of writing this study, scenes of refugees fleeing from Kosovo to Albania and Macedonia with background landscapes of the former Yugoslav territories could possibly be of immense learning potential. Yet it is more probable that as Wiegand proposed, only the name would be known by the young child and then possibly not by the four year old. Adult viewers bring their own subjective influences to the visual images presented. While political persuasions, interest in environmental, humanitarian or simply current affairs aid the

adult viewer to refine their perceptions of this European area the child's view of the scenes may reveal nothing worthy of their attention.

3.3.10 The Role of Landscape

Perhaps other ideas hold the key to making sense of the world and Newby's (1979) ideas might be more applicable. He states (p.351) 'landscape is differentially attractive' and 'the more meaning a landscape possesses for an individual the stronger will be that person's mental image' (p.353). Scenes of fleeing refugees may be less meaningful for a child than colourful scenes from a busy street market especially when the wares on sale might be the sort to tempt children. The same could be true comparing a deserted wave washed tropical beach to a beach scene offering visual evidence of rock pool exploration or sandcastle construction. In the former images there are no attention-seeking devices for the children and therefore no potential meaning unlike the second examples.

Hart and Moore (1973 p.249) suggest that for a child to make geographical sense of the world he/she will use 'all the modes of knowing, perceiving, thinking, imagining, reasoning, judging and remembering.' For a child to make geographical sense of the world and hold some perceptions about distant places he/she will operate many of these modes. A young child will perceive a distant place subjectively. They will be able to think about the location possibly thinking themselves into it. Perhaps the notion of war and fleeing death previously mentioned are too remote and children are therefore unable to think themselves into this situation. Children can imagine what a place may be like and possibly form some reasoned ideas about it, even though they may possibly find making a judgement about the place difficult. However, with the aid of stereotyping as previously mentioned, they are liable to remember some details. Places can be represented as imagery or in words. (This study has used both during the draw-and-write technique). However, the sensory imagery is 'sometimes more powerful (since) we visualize places, but we can recall their feel and their distinct sounds and smells in highly affective, sometimes emotive terms' (Downs and Stea 1977 p.85). It is difficult

to understand how this could be applied to places not personally experienced although for places directly experienced this can be appreciated.

3.3.11 The Role of Language

In the previous chapter it was suggested that language was a powerful tool for learning. Graves (1980) acknowledges this power for distant place learning and takes the idea of words representing places one step further. He states:

‘Superimposed on this experience of different environments, come the linguistic experience of the learner...if the learner is encouraged...to reveal in words what he perceives, to discuss some of his misconceptions...then he is likely to make rapid progress in acquiring not only a vocabulary but also a body of concepts represented by this vocabulary, useful in codifying further experiences’.

(Graves 1980 p.5)

If these statements are examined it seems to suggest that not only do children have greatly varying experiences of places, it also appears they have differing linguistic opportunities and experiences as well which serve to compound any understanding of place perception. Also, it appears that how language is used to develop knowledge of places will also affect perceptions. Without the opportunity to discuss and clarify potentially misleading images of places, stereotyping may well persist and perceptions may never undergo refinement as previously suggested. However, evidence is emerging which acknowledges that if young children are assisted with their geographical learning (and this must inevitably involve language) they achieve significant success (Matthew 1992 p 207).

3.4 Summary : Making Sense of the World

In summary, this chapter has shown that little research has been carried out about young children’s place perceptions. It appears, the older the subject the greater the wealth of documentation that exists yet even then each individual holds a different view on the

world (Graves 1980 p.41). From a very young age children begin to develop knowledge, and in many cases quite sophisticated knowledge (Palmer 19991 p37), of wider world places in a variety of ways depending on ethnographic, social and economic influences. Place perceptions build up to form mental maps as unlike a cartographic representation as it is liable to represent an accurate image of a place. Personal cognition augments these maps according to meaningful associations and are especially strong when places are associated with people. The myriad of potential information sources about distant places possibly offer more for the adult than the child. Unless specifically directed towards the young child, television may not motivate attention any more than advertisements for exotic holidays. The young child's distant place perceptions are liable to be moulded from meaningful interactions about the location either physically experienced or cognitively imagined and in all probability dependent upon the linguistic opportunities presented.

Chapter four sets out the details of the pilot study that was undertaken as a preliminary to the main study. It describes the original chronology and approach to the study and then the necessary refinements in preparation for the main study.

CHAPTER FOUR

PILOT CASE STUDY

4.1 Review of Previous Chapters

Having outlined how the study began in chapter one, the following two chapters looked at theories of child development and geographical ideas about how children make sense of the world. From these there appears some evidence to support the proposition that children do come to school aged four with some knowledge of the wider world but it is less clear whether there is a link between development and geographical perception.

4.2 The Role of Chapter Four

This chapter will detail how the pilot study was undertaken as a pre-requisite to the main study (Chapter 5). Firstly it will outline the chosen method of research, the research question and the propositions. It will explain the unit of analysis, the context of the research and the research instruments. It will then describe how photographic selection was made and finally explain any refinements necessary for the main study.

4.3 The Case Study

An exploratory case study was the chosen method to ‘investigate children’s geographical perceptions at Nursery and Key Stage One’.

The case study can be defined 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. (Robson 1993 p. 146)

Table 4.3a. The similarities between naturalistic enquiry and case study research

1. Natural setting. Research is carried out in the natural setting or context of the entity studied.
2. Human instrument. The enquirer(s), and other humans are the primary data gathering instruments.
3. Use of tacit knowledge. Tacit (intuitive, felt) knowledge is a legitimate addition to other types of knowledge.
4. Qualitative methods. Qualitative rather than quantitative methods tend to be used (though not exclusively) because of their sensitivity, flexibility and adaptability.
5. Purposive sampling is likely to be preferred over representative or random sampling, as it increases the scope or range of data exposed and is more adaptable.
6. Emergent design. Research design emerges (unfolds) from the interaction with the study.
7. Case study reporting mode preferred because of its adaptability and flexibility
8. Idiographic interpretation. Tendency to interpret data idiographically (in terms of the particulars of the case) rather than nomothetically (in terms of law-like generalizations)
9. Tentative application. Need for tentativeness (hesitancy) in making broad applications (generalizations) of the data.
10. Special criteria for trustworthiness. Special criteria for trustworthiness (equivalent to reliability, validity and objectivity) devised which are appropriate to the form of the enquiry.

Adapted from Lincoln and Guba 1985 in Robson 1993 p.60

Since human perception may be considered rather an abstract concept to research and given that the subjects of the research were young children, the case study seemed the most appropriate method. Robson (1993 p.60) uses work by Lincoln and Guba (1985) to highlight the similarities between naturalistic inquiry and case study research Table 4.3a. shows the main points of similarity.

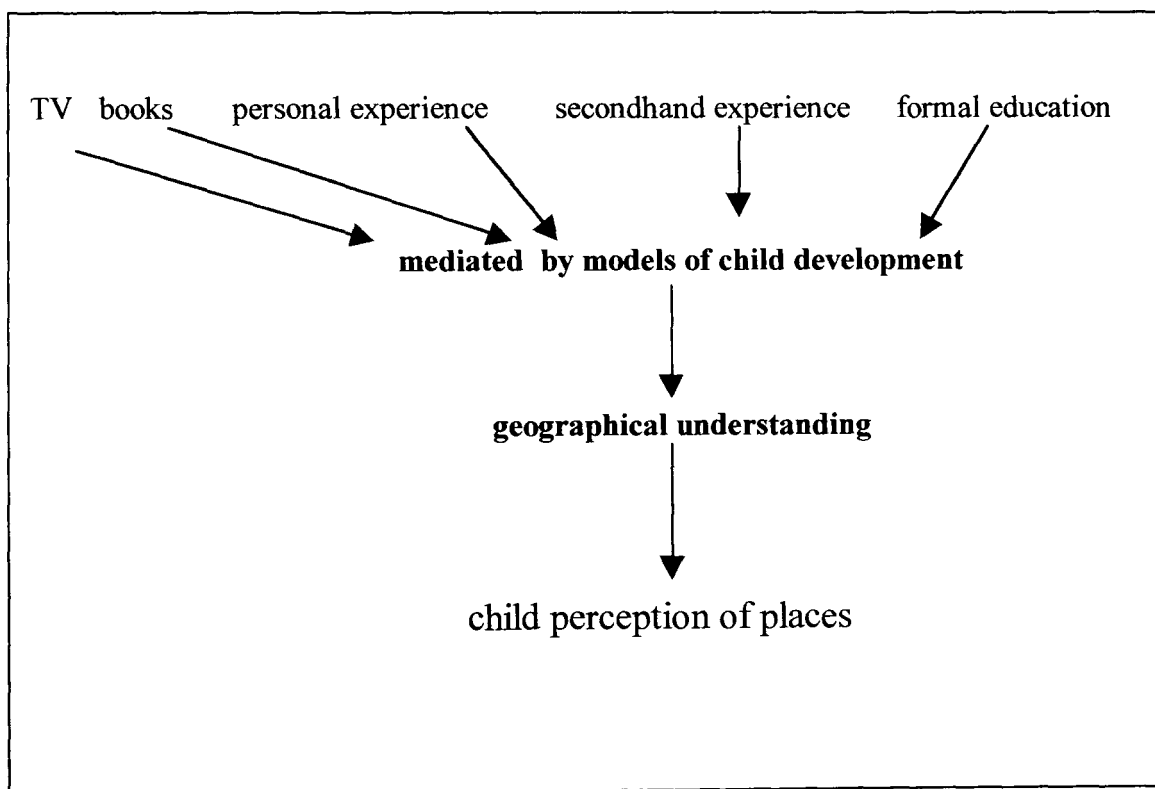
Yin (1984 p.13) also acknowledges the case study as the “preferred strategy...when the investigator has little control over events”. This is not to infer that the rigours of other research methods need not apply to case studies. On the contrary, the possible lack of control demands the research design to be tailor-made to avoid, as far as is possible, such occurrences. Also since multiple sources of evidence are used the design must be so planned that any possible discrepancies are avoided.

Having selected case study as the preferred approach, this research endeavoured to reflect trustworthiness throughout. First a conceptual framework (Robson 1993 p.150) was developed as shown in table 4.3b. This attempts to show the influences that affect children’s perception of ‘place’. Subsumed within the child’s development is how he/she makes geographical sense of the world. The study therefore makes these its main focus to maintain a primarily geographical basis. Through the inquiry process glimpses of knowledge sources such as the media may be revealed. However, exposure to these possible sources of information may not in themselves lead to enhanced perception of distant places. It could be that a child’s development or maturity restricts the potential for learning in some way. For example, if a child learns to grip a pencil it cannot be assumed he/she could write a story. They have not learned the required skills and developmentally it is doubtful whether they would know what was required to create a story.

However, it could be that if the child were given that knowledge and they acquired the necessary motor skills, they might be able to complete such a task. The end result might

be an acceleration of development and a general increase of knowledge in other conceptual areas. In the same way, refining perceptions of ‘place’ might in fact speed up development and enhance other skills and knowledge and consequently further refine perception of place. Educationalists need to consider how far this triangular process can be achieved not only for geographical study but across the whole curriculum. This study is therefore a mixture of qualitative and quantitative data but the emphasis is on the qualitative nature of the children’s responses. The process of inquiry is qualitative in that it sets out to try to maintain the rigors of scientific study by having a structured framework which is followed. However, given that the study is an interpretation of words it is more a qualitative study.

Table 4.3b. Conceptual Framework for Investigating Distant Place Perceptions



4.4 The Research Propositions

The framework generated many questions relating to how different sources of information and the role of development (in its broadest sense) affected children’s perceptions of distant places and the research question arose from these.

Yin (1984 p.29) suggests the research question and the propositions are the first two of five necessary components for any research design and the research question:

“What are children’s geographical perceptions of the wider world at Nursery and Key Stage One?”

was subsequently formulated. While this question provided the focus of the research the propositions were then essential to take the research forward. As outlined in Chapter One, it could be assumed that a young child would come to school with some perception of world places since technology brings into our homes not only visual images but also audible information, description and commentary about world places. Children, less than adults, stop to question the validity of these images and it would be understandable if children associated exotic beach locations and starvation with hot climatic regions. In the same way as a photograph album is built up by adding new photographs, so each new place image encountered by the child contributes to his or her own mental album or perception. Whether this is true or not may depend on many different factors not least of which would be the influence, if any, of the child’s developmental stage. Yet children at quite a very young age do appear to have some knowledge of the wider world.

The first proposition for this research became:

1. Children come to school at aged four with some geographical knowledge of the wider world.

If it is suggested a child’s perception of distant places is nothing more than a collection of snapshot images, then it could possibly be assumed that perception is not influenced by development. If such typical images are not present (for instance, beach, palm trees, sun) it could be argued that development is crucial for fixing the images in the child’s cognition, in the same way as a child’s understanding of conservation of number is a

developmental milestone. The following is therefore the second proposition for the research

2. **That there may be a link between a child's geographical perceptions and his/her development.**

4.5 Unit of Analysis

The third component of research that Yin (1984 p.29) proposes is the "unit of analysis" or 'sampling' (Robson 1993 p.156). For the purposes of this research two different age groups were selected, those aged four and those aged seven. These ages were chosen firstly because the research was carried out in a school where both pre-school and Key Stage One children attended. The four-year-olds' perceptions of distant places could be compared with those of the older children. Educationally, both children would transfer within a year to the next significant stage of their school careers. Also between these ages children develop rapidly both physically and mentally showing understanding and knowledge about an increasingly diverse range of curriculum concepts.

According to Piaget (cited in Mussen et al. 1990 chapter 7) both ages of children would be at different intellectual stages although it could be argued by some that this may not be so (Donaldson, 1978). Therefore this empirical study uses a variety of child development (including linguistic development) theories (Case 1985, Bruner 1986, Vygotsky 1962, Piaget 1969, Whitehead 1990) as well as those more focussed upon geographical understanding (Wiegand 1992, Downs and Stea 1973, Gould and White 1974).

Prior to starting the study, all parents of the children in the Nursery and Year Two were sent a letter (British Psychological Society in Robson 1993 Appendix B) requesting permission for their child's involvement in the study. No refusals were received.

Similarly, permission was also sought from the parents of the children involved in the main study. Again no refusals were received.

For the pilot study two whole class sized groups of children were used for a brainstorm activity but as will be explained later, this was not used for the main study. Six children were chosen from each age to become a small discussion group. It was felt that six would be an appropriate number. The group would be small enough to encourage discussion without inhibiting the less confident child. Within each group of six children, three girls and three boys were chosen to represent collectively a spread of academic abilities although no intelligence test was performed. In each case, the class teacher used her professional judgement to make the selection, the only criteria being those relating to gender and academic ability. In the case of the preschool children, the teacher making the selection of children was also the researcher. The research activities only went ahead on days when all six children were present in school.

4.6. Context of Research

This research was carried out in a grant maintained primary school in Hertfordshire. Approximately 350 children aged between 3 and 11 years of age attended the school. The school was situated in a large village within the commuter belt north of London. Generally, the parents were white, middle class people, of whom the vast majority took their holidays abroad, some to more exotic locations. It may be assumed that houses had a television and video and many had home computers, some with CD-ROM's. The practitioner-researcher (Robson 1993 p.447) was also the Nursery teacher at the time with responsibility for geography throughout the school.

4.7. Research Instruments

4.7.1 Knowing

The research instruments were devised to explore degrees of “knowing”(chapter one). For instance, at one level, to know a place name would constitute “knowing”. At another level, to be able to communicate some details about a place would constitute “knowing”. while conveying a feeling about a place, would constitute “knowing” at a higher level.

The three research instruments chosen offered the scope of exploration required to investigate these levels of “knowing”. The brainstorm would facilitate investigation of the first level. The draw-and-write and the photographic discussion presented within them, opportunities to explore the other two deeper levels of “knowing” although both were different approaches.

The research instruments were designed to provide fair and unbiased opportunities for the children (the subjects of the research) to present evidence of their own distant place perceptions. However, the researcher was also aware of the notion of ‘validity’ (Yin, 1984 p.37) or as Lincoln and Guba (cited in Robson 1993 p.403) alternatively suggest, ‘credibility, transferability, dependability and confirmability’. The research would, if necessary, need to be reapplied by another researcher. This would only be possible if the instruments were clearly detailed and defined. The three instruments are so detailed below.

4.7.2 Brainstorm

The first instrument used in the pilot was the brainstorm. By its very nature a brainstorm does not usually have a schedule of questions other than those designed to initiate or sustain the session. (In fact the brainstorm was not used in the main study.) The brainstorm was used in order to obtain an overview of the extent of the children’s wider world place knowledge. To know a place name constituted “knowing”. It involved a

similarly sized whole class of children on both occasions. The year two children completed their brainstorm first and the nursery second.

The children were collectively told that they would be required to think about places a long way away, not in this country (United Kingdom), but which they had visited. The children were told to mention a place whether or not they knew it was abroad. The activity was tape-recorded. The children suggested place names. Next the children were asked to mention other places abroad they had heard of but not visited.

As a result of the findings it was decided to abandon the brainstorm for the main study. The Year Two children's knowledge of world places supported research carried out by Weigand (1991 p.143-9). However, the Nursery children found it difficult to distinguish between reality and fantasy. The vast spectrum of places suggested included the name of a road where a friend lived and the world inhabited by Batman. (As already indicated in Chapter One, it was not felt appropriate in this study to investigate this potentially fascinating area.) Given the range of places named and the lack of richer response opportunities revealed through use of the brainstorm it was felt that little comparative information could be drawn using this method about the Nursery children's geographical perceptions of the world. Therefore the brainstorm was not used for the main study.

4.7.3 Draw-and-write Technique

The next instrument used was the draw-and-write technique. Major research had already relied on the draw-and-write as a research instrument when young children were used. (Barraza 1999, Williams, Wetton and Moon, 1989). The technique allows the children to represent their ideas by drawing them on paper. Additional thoughts are then added using an adult as a scribe by either annotating the drawing or as in this case study, noting further comment separately. The technique had also been used previously by the researcher (Allcott-Watson 1994).

Each small group engaged on separate occasions in the draw-and-write activity. This method was chosen because it provided children with an opportunity to express their ideas about distant places in response to questions put by the researcher. The questions focussed on geographical concepts such as weather, human activity and the more abstract notion of a feel for a place. Since the annotation stage of the technique is on a one-to-one basis, it was felt that even those children who would otherwise be less confident in a group situation, might feel able to respond verbally.

Firstly the children were asked to draw a picture of a 'hot' country and to include some buildings and people. The generic term 'hot country' was used deliberately to avoid the more suggestive place names such as Africa or India, which in themselves are associated with specific images (Weigand 1992 p.92). It was felt that the term 'hot' would in itself reveal something of the child's interpretation and understanding of what constitutes a 'hot' place. The researcher accepted that the concept of 'country' may not have been correctly understood but such lack of understanding would have little bearing on the focus of the research. The pilot showed that there was a lack of understanding of the concept of a 'country' but the children's responses showed they understood the term to mean a geographical place or location. When it appeared that the children understood the focus of the inquiry was a geographical rather than scientific (oven, fire) 'place', the word 'place' was used. A 'cold country' would also form part of the main study (see below). Again this generic term was used for the same reasons as for 'hot country'.

The children were told that there were no right or wrong answers. No directive was given as to whether the child should have visited the place drawn. Having been given the task, the children were then moved to different areas of the room to avoid any borrowing of ideas. A selection of colouring pencils was provided. The children were not allowed to talk to each other or ask the researcher what to draw. Upon completion, the child took his/her picture to the researcher in another part of the room whereupon the researcher and the child engaged in a discussion about the picture that had been drawn. The resulting dialogue was noted down and tape-recorded.

Schedule of Questions for the Draw-and-Write

For the discussion a schedule of questions was not only possible (it had not been possible for the brainstorm), but rather it was desirable in order to avoid aimless unfocussed conversation that would provide little evidence to explore the research question. Similarly, the photographic discussion (detailed below) required a schedule of questions. The questions themselves needed to be open ended (Cohen and Manion 1989 p.313) as far as possible but prescriptive insofar as the children's answers were to focus on the research issue. For instance, a question 'what is the weather like in your hot country?' would hopefully provide responses that would reveal something of the child's understanding of the weather in hot countries. However, the schedule of questions needed some flexibility to allow further questioning to some responses (Palmer et al 1999a p22). The questioning sessions would therefore take the form of semi-structured interviews (Robson 1993 p.233) with individuals and small groups using both open-ended and structured questions (Robson 1993 p.159).

The researcher was aware of the importance of construct validity and therefore every endeavour was made to keep within the confines of the questions as scheduled but without being so rigid that possible evidence was lost.

The following is a list of the questions used in the pilot study draw-and-write technique:

- 1 *Where is this place you have drawn?*
- 2 *Who are these people?*
- 3 *What are they doing?*
- 4 *What are they wearing?*
- 5 *What do these people do?*
- 6 *Are these people happy or sad?*
- 7 *What is this place like?*

- 8 *Is it near other places?*
- 9 *What is the climate or weather like here?*
- 10 *Is it always like this?*
- 11 *Would you like to live here? Why/ why not?*

As a result, it was felt that firstly, contemporaneous note taking inhibited both the researcher's possible lines of further inquiry and also the child's responses. The main study would therefore rely on the taped responses which would be transcribed. Secondly, the pilot highlighted the need to refine some of the questions and include some additional predictable questions to enable more detailed responses. Spontaneous questioning would still arise according to the child's individual response.

Amended Schedule of Questions

The following is an amended list of questions for the main study:

- 1 *Where is this place you have drawn?*
- 1b *How do you know all these things about the place you have drawn?*
- 2 *Who are these people?*
- 3 *What are these people doing?*
- 4a *What are the people wearing?*
- 4b *Do all the people in this hot country wear these things?*
- 5a *What do these people do all day?*
- 5b *Do the people who live here all the time have jobs?*
- 5c *What sort of jobs do they have?*
- 6 *Are these people happy or sad? Why?*
- 7 *What do you think it is like living in this place?*
- 9a *What is the weather like?*

- 9b *Is it like this all the time?*
- 9c *Does the rest of your hot country have weather like this?*
- 10 *Would you like to live here with your family? Why/why not?*
- 11 *Are all hot countries like the one you have drawn?*

The rationale for the amendments are as follows:

Question 1

It was felt that knowing how a child knew so much about the place they had drawn may contribute to the research. For instance, 'I saw it on T.V.' or 'I read about it' or 'I just know' may indicate whether or not the image held by the child was attributable to intellectual development or perhaps a current news item.

Question 4b/c

By asking the child to think of people in other parts of the country they had drawn, it was hoped to encourage them to think of others or present additional information. In the pilot, five out of the six children in both groups drew people wearing shorts and tee shirts. These are clothes the children are familiar with. It cannot be assumed that the children know dress in hot countries is often the same as in their own country when it is hot. An opportunity to present other ideas may contribute towards a fuller understanding of the child's image of place. For example, additional information may reveal knowledge of traditional dress in specific places such as a sari.

Question 5

The original question was intended to draw out information about employment. However, only one child out of the two groups mentioned 'work'. The other children referred only to leisure type activities engaged in while on holiday. Question 5c is therefore added in order to help children think of the people who live in these places rather than those who just visit.

Question 6

Question 6 is retained in an attempt to understand any possible empathy or feelings the children may have about people in different countries especially those in hot or cold climatic regions. In fact only two children suggested the concept of sadness associated with poverty or war. Five of the older group indicated 'happy' because of the leisure type activities the people were pursuing and five of the younger children indicated 'happy' because the people they had drawn were with their families and engaged in activities which the children themselves associated with making them happy. The results suggest that it is possible a child's perception alters as he/she develops.

Question 7

Question 7 has been altered to become more precise in what is being asked. The question was intended to draw out ideas relating to a combination of factors such as weather, buildings, landscape and family life. The year two children all answered with reference to the weather. It may be that further exploration is required in order to receive a response that gives a 'feel' for a place although the results of the pilot suggest that it may be that these children are developmentally not ready to do so.

Question 8

Additional questions have been added to explore the children's ideas about climate across a whole country. However, the term climate has been discarded. In the pilot, each time the question was asked, the children appeared not to understand until the word 'weather' was substituted. Although the question asks for responses that refer to the climate as opposed to the weather, the wording has been altered to accommodate the children's language and understanding.

Question 10

The wording of this question has been altered and now has the additional phrase 'with your family'. For the younger children the extra qualification was considered

appropriate. During the pilot, the younger children were either reluctant to answer or gave a negative response. Presumably the children could not contemplate separation from their families even though this was not suggested and it was merely how they seemed to interpret the question. With the inclusion of the additional phrase it is hoped that a more valuable response will be forthcoming, perhaps indicating an association between places, knowledge and a sense of security.

Question 11

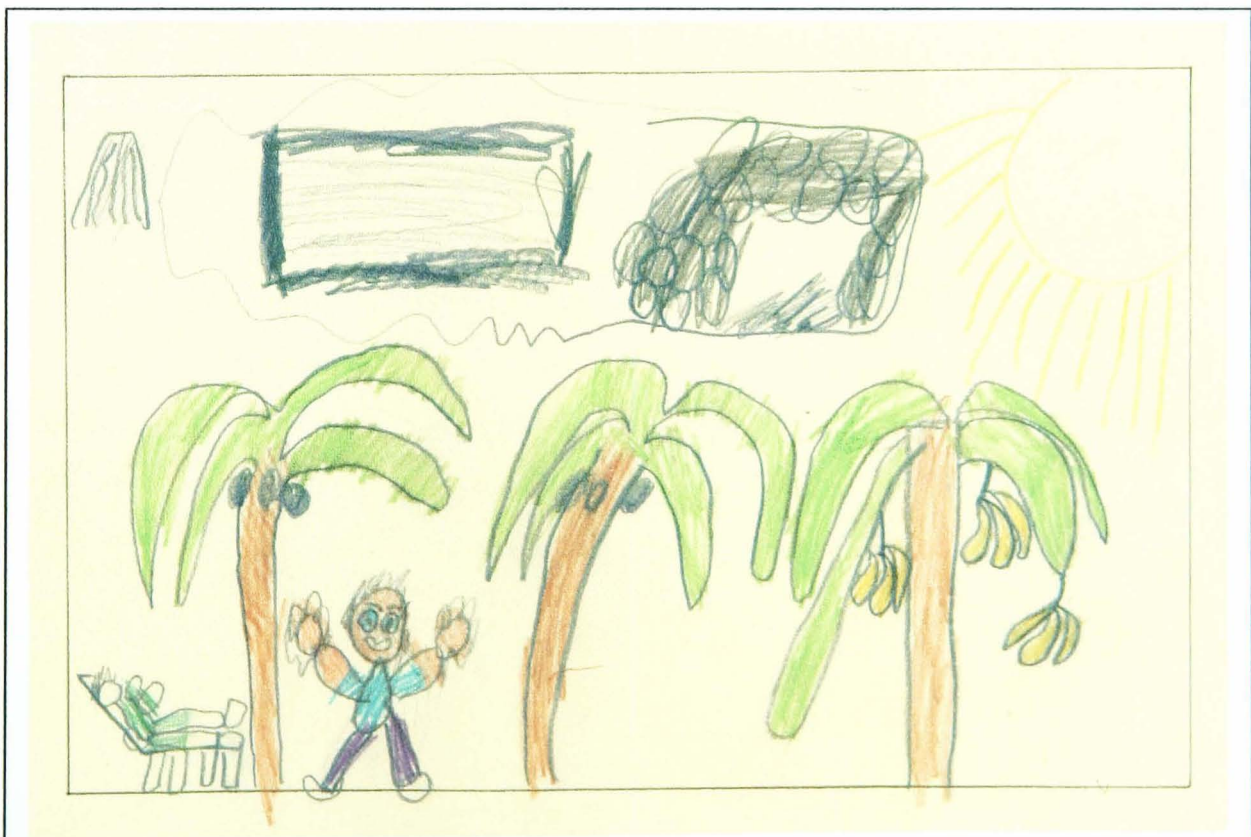
Question 11 has been included to give the children an opportunity to present other images of hot places and not be confined to the one they have drawn. It would be wrong to assume that the drawn image is the only one the child has of a hot country. The child may decide not to present other ideas or images but the opportunity for them to do so must be given.

Conclusions

The draw-and-write technique used in the pilot was a valuable means for collecting evidence about the children's geographical images of hot countries. The discussion allowed the children to expand their ideas behind the drawings. Although the list of questions appears quite prescriptive it is also a flexible schedule. The responses given during the activity often presented spontaneous thoughts and ideas. Some of these ideas were beyond the scope of the questions but were still relevant to the focus of the research. One important point arising from the pilot was to ensure that each child was asked the schedule of questions as a minimum requirement. During the pilot, some children were not asked some of the questions and the opportunity for comparative analysis was lost.



Example of draw-and write hot place study Chloe, year two.



Example of draw-and-write hot place study Jeremy, year two



Example of draw-and-write hot place study Rebecca, Nursery



Example of draw-and-write hot place study Jack, Nursery



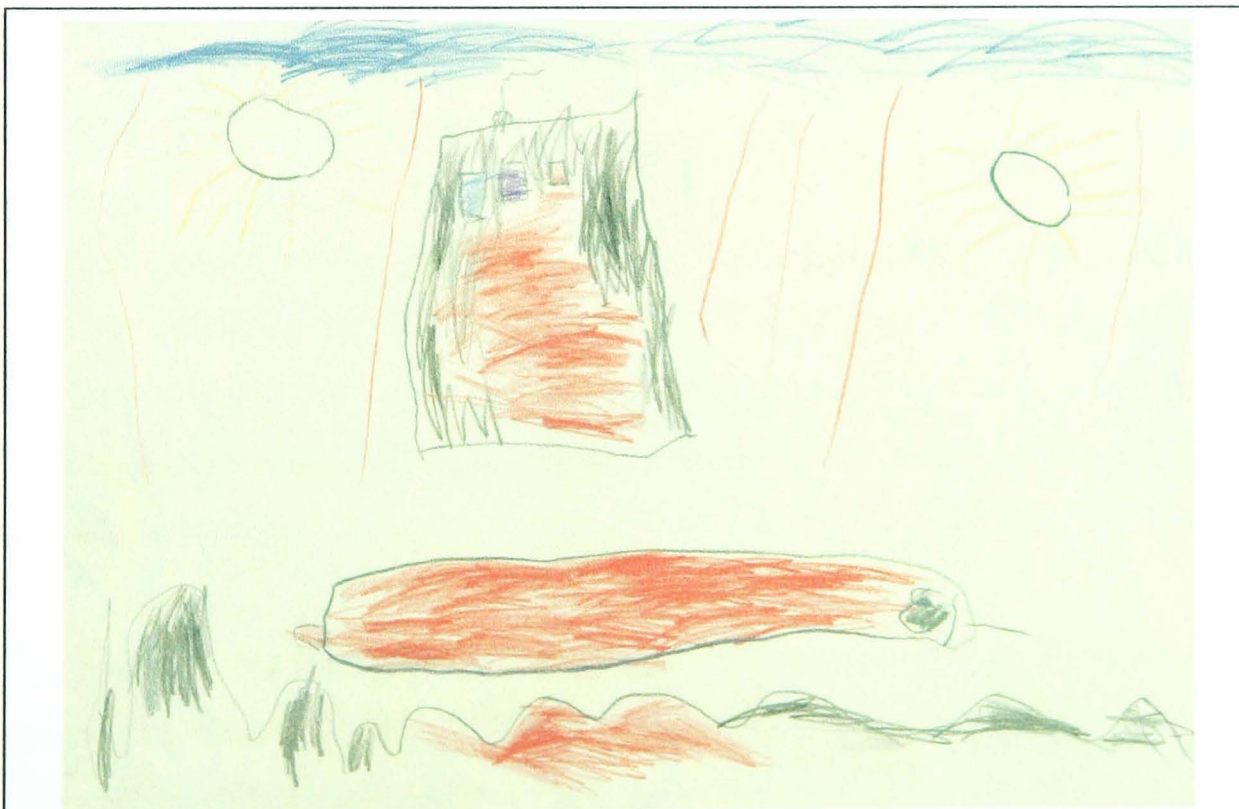
Example of draw-and-write cold place study Chloe, year two



Example of draw-and-write cold place study Michael, year two



Example of draw-and-write cold place study Stacey, Nursery



Example of draw-and-write cold place study Joseph, Nursery

4.7.4 Photographic Discussion

Hot Place Study

After a time delay of not less than one week, each small group was brought together to discuss a pre-selected photograph. This would provide an alternative approach. Rather than the children drawing and then discussing their ideas, they were instead presented with a picture on which a discussion was based, a technique used by other researchers (Palmer et. al. 1999a). The photograph (A. p81) was one taken from a study pack about Kenya (Birmingham Development Education Centre). The photograph shows two women, wearing Kenyan dress, talking to each other as they stand on what appears to be a dusty road. Further in the background there is a group of men apparently resting in the shade of some trees. The men, who are only visible from the waist up, are wearing western type shirts. Behind the men is a small grassed area which is enclosed. Behind that are some houses and bungalows with corrugated tin and tiled roofs. In the far background there is what appears to be a block of flats. The sky is blue and the sun is shining enough to cast shadows on the ground. However, there are clouds in the sky and evidence of puddles on the dusty road.

The photograph was selected because it shows human activity. The women appear to have been shopping and are talking and the men are chatting in the background. It shows the built environment, with flats, bungalows and houses. The photograph also records the presence of green vegetation. Finally, although a 'hot' country, there is evidence that it has been raining.

By using this photograph it was hoped that the discussion might include all of these features both human and environmental and not merely focus on any one aspect. Since many of the children's experiences of a 'hot' country could be assumed to be as a result of a holiday abroad, the photograph did not represent any tourist images. The pilot

indicated that the children actively sought for tourist type images. The responses seemed to suggest an approach to the photograph, not of ‘what is happening here?’ but rather ‘how can I apply what I have experienced to this photograph?’ For the main study the same photograph will be used again. It may be that such an approach to visual evidence is in itself indicative of a developmental stage of maturity. The children will also discuss a photograph of a place that is in a cold climatic region. (See ‘Cold Climate’ below and photograph B. p82).

As chapter two mentioned, the idea of M-power may increase knowledge and both photographs were selected to perhaps harness more attentional power. This is discussed below (4.7.6). The children were shown the photograph and told it was of a hot country. Discussion then followed working to a pre-determined schedule of questions. The resulting dialogue was noted down spontaneously and tape-recorded. As a result of the pilot it was decided to tape-record the discussion for the main study and not make written notes.

Schedule of Questions for Photographic Discussion

The following is the schedule of questions used in the pilot:

- A Where is place?*
- B Who are these people?*
- C What are these people doing?*
- D What are they wearing?*
- E What do you think all the other people in this place do?*
- F Do you think these people are happy or sad?*
- G What do you think it is like in this place?*
- H Do you think this place is near any other places?*
- J Is it always like this?*
- K Would you like to live in this place?*

Amended Schedule of Questions

Again as a result of the pilot, these questions were amended for the main study. By so doing, it was hoped to provide a more structured schedule of questions which would lead to more detailed and relevant responses from the children.

The amended questions are as follows:

- A1 Where is this place?*
- A2 Why do you think that?*
- B Who are these people? Do you think they are on holiday or live in this place?*
- C What are these people doing?*
- D What are the men and women wearing in the picture?*
- E1 Do you think the people who live here all the time work?*
- E2 What sort of jobs do you think they have?*
- F1 Do you think these people are happy or sad? Why?*
- F2 Are all the other people in this country happy or sad?*
- G What do you think it is like living in this place?*
- J1 What is the weather like in this place?*
- J2 Is it like this all the time?*
- J3 Does the rest of this country have weather like this?*
- K Would you like to live here with your family? Why/why not?*
- L What sort of things can't you see in the picture?*

The rationale for amending the questions is as follows:

Question A

An additional question has been added to encourage the children to give their reasons for thinking as they do. This may indicate an association between the image presented and

the child's 'knowing' the place. For instance, a picture of Buckingham Palace is associated with London or a pyramid with Egypt.

Question B

The question in its original form seemed to confuse some of the children. Perhaps it was interpreted that a named person be identifies, where in fact, the question was after more general information.

Question D

By specifically referring to 'men and women' in the question it is hoped to draw attention to the men in the photograph as well as the women who are more in the centre and foreground of the picture. Pilot answers showed that the children only saw the women who were wearing Kenyan dress and no reference was made to the men who appear to be wearing western clothes. It may be that their attention is more easily focussed by the 'different' or 'unusual'. The question will attempt to provide less obvious bias towards these.

Question E

Question E has been re-worded and another question added to enable the children to think specifically about employment in Kenya. Question 5 in the draw-and-write technique is similar.

Question F

Question F has been kept in order to encourage the children to think of other people in a real life situation. However, a further question has been added for the main study which enables the children to expand their ideas beyond the confines of the photograph. The women in the photograph are laughing and in that instant may be assumed to be happy. By allowing an answer about other people in the country, the children are being given an opportunity to present other views. Pilot answers focussed only on the two women in the photograph.

Question G

The word 'living' has been added to this question as it was in question 7 of the draw-and-write technique. Again it is hoped that ideas beyond the weather will be forthcoming.

Question H

Omitted for the same reasons as question 8 in the draw-and-write.

Question J

Question J has been amended to indicate 'weather' only for the same reasons as question 9 in the draw-and-write. However, a further question has been added to explore more fully the children's ideas about the climate across a country and over time.

Question K

The words 'with your family' has been added for the benefit of the younger children. In the pilot the children seemed reluctant to answer because it appears they assumed the question would mean leaving their families. The same problem presented itself in the draw-and-write technique with a similarly worded question.

Question L

A final question has been added in order to allow the children to talk more widely about the photograph if they wish. The pilot discussion revealed that some of the younger children especially wished to talk about the photograph in terms of things they expected to see. These details may prove or disprove a link between the image held and the child's development.

Conclusions

As a method for gathering evidence to investigate the research question, the photographic discussion was very appropriate. In comparison to the draw-and-write

technique, the photograph, itself an image, became a stimulus for discussion. For the younger children, this in some respects seemed more appropriate and they answered at some length. The older children were more reluctant or succinct in their answers. Such brevity could be attributed to a few years more of educational conditioning in discussion situations rather than any natural lack of willingness to answer. As a result, the younger children appeared to be more observant. Through more focussed questioning, it is hoped to encourage the older children to elaborate their responses. (Research shows that there is a danger of children saying what they think the researcher wants to hear, or a fear of them giving the wrong answers (Robson 1993 p.232). Hopefully the qualification of there being no right or wrong answers will help avoid answers being given that are intended to please the researcher's expectations.

For the main study it is important to ask both age groups the schedule of questions as a minimum requirement if opportunities for analysis are not to be lost. By nature of the two research methods still to be used and the ages of the children involved, spontaneous discussion will occur. Further questions may also be important to clarify a child's answer. For instance, in the pilot, one child's response to the question 'what are these people doing?' was that the people were picking worms off the beach. Clearly this response needed exploration in order to be comprehended since no such image was evident to the researcher.

The schedules of questions for both the draw-and-write and the photographic discussion are almost identical. The draw-and-write allows the child to present an image but the photographic discussion presents the child with an image. With both methods, discussion is vital and an integral part of the research process. It may be that the children will seek images from their own draw-and-write pictures in the photograph and this in itself could show a link with development. However, it would be wrong to present the photograph first, since images from the photograph might later appear in the children's drawings and not be representative of their own images and ideas.

4.7.5 Cold Place Study

For the main study, the draw-and-write and the photograph discussion will be used in relation to a 'cold' place study as well as the 'hot' place study. Both techniques will be applied in the same way for the cold place study as they were for the hot place study. The schedules of questions will be the same but any references to 'hot country' will be changed to 'cold country'. The hot place study will precede the cold place study.

For the main study, the photographic discussion of a cold place will focus upon a photograph (B. p82) of Greenland children at play (Schools Examination and Assessment Council 1993). The photograph shows some school buildings with a swing in front and on which the children are playing. Next to the school there is a building which appears to be a hall and beyond that some houses. The children are dressed in thick anorak type jackets and trousers. The whole landscape is covered in snow and in the background there are small snow covered mountains. There are some husky dogs and a sledge near the foreground. There are also some power lines and a mound of snow clearly visible. There is no evidence of any form of vegetation.

The photograph for the cold place study was quite difficult to obtain. Again the researcher felt it should present a balance between landscape and built environment yet also include human activity. Neither should the scene represent any form of winter tourist location.

A cold place study has been included in the research to provide a broader scope for the research than merely 'hot' place images. Children may or may not know more about one type of environment than the other. Although the brainstorm has been withdrawn from the main study, answers from both age groups during the brainstorm in the pilot included the Arctic and Antarctica, in much the same way as Africa had been. Would the children know as much about a cold place as a hot place, the latter receiving more media

coverage? Since the title of the research referred to world places it was felt that both climatic extremes be included within the scope of the study.

4.7.6 Photographic Selection and M-Power

Both photographs used in the pilot (and main study) were selected for specific reasons as detailed above. However, the literature review explored the idea of M-power (Chapter two) as proposed by Pascual-Leone (1969 cited in Case 1985 p.31). This notion appears to suggest that the greater the number of mental elements that can be given to an image, the more readily will that image be committed to memory and therefore contribute further to that person's knowledge.

The schedule of questions were drawn up to not only reveal the children's perceptions or visual understanding of a place but to also focus more mental power upon the photographs. In this way the children's responses would not merely be descriptive lists of information contained within the photograph but more a reflection of other thought processes possibly linked to the images presented. As previously stated, the questions themselves were contained within a schedule but were also open-ended to some degree and did not in themselves preclude any other questions which might require other mental powers be utilised.

Table 4.7.6.a details the explicit and implicit concepts contained in the photograph requiring M-power.

**Table 4.7.6a Concepts requiring M-power
Photographs A and B**

Buildings –	location, style, shape, size, features, materials, roof construction.
Road –	material, state, man-made v natural.
Boundaries –	fencing, posts, hedges.
Physical features –	landscape, vegetation (and detritus) and location.
People –	location, skin colour, dress, luggage, activity/ employment, emotional state.
Weather –	sky (appearance), evidence of rain, evidence of weathering, effect on vegetation and human activities, climate.
Place –	location, similarities / differences to other places including own locality.

4.8 Summary

The research propositions grew naturally from the research question. Naturally, because those involved in the education of young children often encounter situations where not only educational curriculum practices are questioned but also the role of development in any child's learning. Since the researcher is also a teacher (with a keen interest in geography), propositions similar to those used in this research, often arise. The first hurdle to embarking actively on the research process was the need to find instruments that would be acceptable in terms of 'reliability' as defined by Yin (1984 p.37). The instruments also needed to be user friendly for the research subjects, in this case children as young as four and seven years of age. Since the propositions involved linking the results with theories of development the schedule of questions used in the instruments needed to present opportunities not only for the representation of the children's own perceptions but also to facilitate an insight into children's development. The pilot

followed the sequence of brainstorm, draw-and-write and finally photographic discussion, with the year two children completing their tasks first. As a result of the pilot findings the schedule of questions was revised for each instrument. Results also revealed that the brainstorm contributed little to providing evidence to address the research questions. The brainstorm was therefore omitted from the main study.

This research found that the pilot study did indeed support Yin's (1984 p.74) suggestion that the pilot case study helps investigators to refine their data collection plans with respect to both the content of the data and the procedure to be followed.

Revisions as a result of the pilot enabled a more focussed line of inquiry be undertaken for the main study. The pilot also served to ensure organizational requirements for the research processes would be tighter for the main study. By so doing it would possibly provide a surer foundation from which to possibly generate hypothesis for any future research.

The next chapter provides a description of the results of the main study relating them to the findings of the literature reviews in chapters two and three.



Photograph A. Photographic Discussion. Hot Place Study.

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Photograph B. Photographic Discussion Cold Place Study.

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CHAPTER FIVE

MAIN STUDY

5.1 Review of Chapter Four

Chapter four provided an explanation of the methodology used and the resulting refinements, primarily the use of only two research instruments. It detailed why adjustments were necessary before the main study was undertaken.

5.2 The Role of Chapter Five

The role of this chapter is to provide a description and analysis of the results of the main study. The results are drawn up in matrix form and these together with the fuller transcriptions (examples at 5.7, all studies in Appendix 1) were used to examine the children's responses and analyse them alongside the research propositions. The draw-and-write technique is presented before the photographic discussion and in each case the hot place study was undertaken before the cold place study.

5.3 Draw-and-Write: Description and Analysis of Results

5.3.1 Hot Place Study

(Responses are summarised in the matrix below. See table 5.3.a.)

Table 5.3.1a Matrix to Show Results of the Draw-and-Write Hot Place Study

(Bullet point order reflects specific children's responses. The same order is applied throughout all matrices in this chapter: Nursery: Sean, Joseph, Jack, Stacey, Rebecca, Zara. Year Two: Jasmine, Chloe, Caroline, Michael, Louis, Jeremy.)

CONCEPT	NURSERY SAMPLE	YEAR TWO SAMPLE
PEOPLE DRAWN	<ul style="list-style-type: none">• Self and family• Self and friends• Self• Self• Self• (none drawn) they're inside	<ul style="list-style-type: none">• family• self, family and friend• self and family• self• (none drawn) there aren't a lot in the desert• self and family

CLOTHING PEOPLE IN DRAWINGS	FOR <ul style="list-style-type: none"> • swimming trunks and dressing gowns • tee-shirts and shorts and trousers and sweatshirts • clothes with eyes and flowers on shirt, dress and trousers • dress and towel • dressing gown 	<ul style="list-style-type: none"> • tee-shirt and shorts • tee-shirts and shorts or tee-shirt and skirts • thin trousers and jumper • tee-shirt and shorts • tee-shirt, shorts and a bag • trousers, shirt, tee-shirt and shorts
CLOTHING OTHERS IN THE HOT COUNTRY	FOR <ul style="list-style-type: none"> • also trousers, shirts, tee-shirts and jumpers • same as above • same as above • also dresses different colours, trousers, sweatshirt, different clothes than I wear • same as above • same as above 	<ul style="list-style-type: none"> • also trousers and jumpers • (not known initially) wrap around blanket type • no response • also short dresses, shorts and tee-shirts • also jeans and a top • also wrap around blanket things.
WORK	<ul style="list-style-type: none"> • jobs – shopping and washing • washing – plant trees and dig holes • having drinks – sometimes ladies pick up stones • (no response) • don't know – shopping and swimming • (no response) –cleaning up and station work 	<ul style="list-style-type: none"> • Jobs – owning hotels, rest do as tourists • Work – in market • Look at all the animals – don't know • Watch tele, walk around, eat food – job in St. Arthur's Cave • Walk and look for things – making money • Work in these factories – build huts for holiday people, clean swimming pools.
WEATHER	<ul style="list-style-type: none"> • Really hot, (whole time, whole country) • Very hot, (whole time, whole country) • Sunny, rainy, stormy and cloudy (whole time) not the whole place...on the ground it's cold • Very hot (sometimes) some of it (whole country) has rain • Lovely and shiny, (whole time, whole country) • Sunny, (whole time, whole country) 	<ul style="list-style-type: none"> • Very hot, (most of the time), half of the country) in the morning it's a bit sunny and the rest of the day it rains a bit • Hot, (no response re time)I don't know (about whole country) I've only been to one part. • Sometimes sunny, sometimes rain a little bit (whole time), sometimes it's a bit snowy (rest of country) • Sunny, hot (most of the time) Most is hot but not all of it (rest of country) • Sometimes it rains, sometimes really hot (whole time, whole country) • Sometimes there are storms the TV goes off (whole country)

<p>GENERAL KNOWLEDGE OF OTHER PLACES</p>	<ul style="list-style-type: none"> • Sometimes windy, sunny and rain and cloudy • (Same) • Others look hot but they're cold • Some are hot and warm • Some of it rainy, very sunny • (Same) • (Same) 	<ul style="list-style-type: none"> • Some have more rain, some have deserts and other things • The Bahamas had rain • Some are snowy, some really hot • Sometimes they're wet • Sometimes they're rainy and windy • Some have snow all the time and some have deserts
<p>FEELINGS</p>	<ul style="list-style-type: none"> • Happy - got friends • Happy – sunshine and swimming • Sad – so hot • Happy – lots of good things happening, the rain could come • Happy – sunshine • Happy and sad – nice big house 	<ul style="list-style-type: none"> • Happy and sad –they've got a kind of country • Both - lot of land, jobs, loads of beaches, boat rides • Happy – never really cold • Both –(not known why) • Both – (not known why) • Happy– nice beaches, nice food
<p>EMOTIONAL RESPONSE TO THEIR HOT PLACE</p>	<ul style="list-style-type: none"> • Really boiling –really hot • Really hot –too hot • Very red – so hot • Very hot –nobody else could live there • Lots of different people, I like nanny and granddad • Nice – nice place, like farms 	<ul style="list-style-type: none"> • Quite nice, can play on the beaches –nice country • Hot, nice if got a pool –if got a pool • Nice, lots of animals- looks nice • Hot • Nice, hot – walk long way for food • Nice, fun- fun, nice beaches
<p>PERSONAL REFERENCES</p>	<ul style="list-style-type: none"> • We did go shopping....(names all his family in picture).....Mummy didn't go in 'cos we had to bring the puppy.....we got into our school clothes • I play with them..all my other friends.....they've got these showers and this baking hot water..... • Sometimes my house gets hot and cold...it's freezing when it's night time • I know which place we lived..we had a little cottage.....we don't live there we just stayed for holiday...It makes me warm.....Different clothes than I wear.....There's some fruit on a little table on the beach so I had some fruit.....The grown ups did (carry water).....I could do the downstairs and upstairs one from the tap.....They were carrying it to different houses. 	<ul style="list-style-type: none"> • My Papa and Granny have gone to Australia..they've shown me a few of their pictures..most of them look like these. • I've been there, that's where I stayed.....We're watching the road, we just like looking at the different cars..we tried to count the cars..there's lots of Toyotas...Everywhere we went there was Toyotas.....We never really went out, we stayed in the pool all day.....I know, there's a market..... We bought loads of jewelry...this shop made...you put on those beads.....They sold drums.....We had a swimming pool.....I remember when we stayed there....nearby was a donkey and we fed it....and we exchanged some apples for some special fruit.....I've only been to one

	<ul style="list-style-type: none"> • Nanny's flat.....When I was a little girl there..I went in the big pool.....Nanny lives upstairs.....You just need to walk up the stairs.....There was a sea.....I'm looking at Mummy....I'm wearing a dress 'cos I didn't want to go in the pool.....A towel to get me warm....I went in the water.....I weared a skirt....We went shopping when we was there..with Nanny to get some shoes....We saw a storm.....Dad went to get the towels in • Our house.....We're just going there..we're going to go there on holiday....It's a nice place..I like living near the farm. 	<ul style="list-style-type: none"> part.....I got burnt once in the Bahamas. • My Granddad and Grandma have been. • There're these little grass things that stick up when you pass..they stick to you.....I went to Spain. I saw palm trees.. I went in St. Arthur's Caves.....I'm wearing.....There were loads of rides...I stayed..it went on to one o'clock in the morning....I stayed up till twelve.....I wasn't allowed in it...only a teenager..... It rained once when I went to Spain and normally when I go to holiday it rains quite a lot....I went to Costa Del Sol • My Mummy goes to work and she makes money...I'd have to walk a long way to get food • I've been there with my Granddad.....On the beach there was palm trees.....I'm looking at someone taking a photo.....I'm wearing.....My Granddad told me there was a volcano there..it's in the distance....Where my Granddad's house was...there was a swimming pool
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5.3.1 (I) Places Drawn: Description (See Matrix: Appendix 2)

The nursery children drew England, America, Mars, Gambia, Spain and Cornwall. Year two children drew Australia (x2), Lanzarote, Spain, a desert, and a holiday place.

When asked how they knew about these places four of the nursery children stated they had been there, one had been told about the place by a relative and one did not know why they knew. The year two responses indicated three had been to their chosen place, two had been told about it by a relative and one child had read the information in a book.

Places Drawn: Analysis

Only two of the nursery places mentioned were representative of appropriate 'hot places' (see Chapter Four 4.5) whereas most year two children were. These place names lend some support to Lambert and Wiegand's findings (1990) and to Wiegand's (1991) about the extent of children's place knowledge. The evidence indicates that place knowledge becomes less reliant on personal experience and more accepting of other sources of information such as relatives or books. (Matrix, Appendix 3a) The nursery children relied more on personal experience. Only one nursery child appeared to have focussed on images possibly related to the national media. (Mars at the time of the study was in the national news.) The child though did not attribute his knowledge to this source.

It would appear children's knowledge of 'hot places' moves from a personal knowledge base to one more accepting of the experiences of others. Beyond this, the evidence might suggest that knowledge incorporates information from other sources such as books.

5.3.1(II) People: Description

Five nursery children drew themselves in their pictures, two of these also included family. One child did not draw any people but stated they were inside the house. Four year two children drew themselves in their pictures and three included family or friends as well. One child drew family members only and one did not draw any people stating there are not many to be found in the desert.

People: Analysis

Concepts of 'self' and 'family' were in evidence across both groups. When asked what the people were doing, many answers indicated the pictures were based on holiday activities in which the drawer had participated, suggesting active involvement is

important for learning. One nursery child said the people were inside and one drew themselves on Mars. It could be that children of four years of age are simply unable to envisage a place of which they are not a part. Even the year two children showed people featured significantly in their place perceptions (Wiegand 1992). One year two child who did not draw himself showed through his dialogue his assumption he was somewhere in the 'hot place', stating 'I'd have to walk a long way to get food.'

The results suggest that 'self' appears to be central to children's knowledge about places. Also children in the early years nearly always perceive a place where they themselves and often their own family members are present.

5.3.1(III). Clothes: Description

These responses refer to questions 4a, 4b and 4c.

The nursery children drew people wearing swimming attire, tee shirts and shorts and nightclothes. One child described the pattern on the clothes drawn.

Clothes: Analysis

The younger children portrayed a range of clothing items. The year two children all drew tee shirts and shorts or trousers and jumper. they might possibly wear themselves, the exception being the child who drew Mars. It may be that realising the clothes in a 'hot place' might be different he gave the clothes flower and eye patterns. One child (Stacey) suggested people's clothes might be 'different colours'. Stacey had been to Gambia and this simple answer may indicate a lack of language ability to elaborate her answers rather than lack of experience. (For the purposes of this study, wherever the term 'language ability' is used it relates to a child's ability to express themselves in words or sentences.) Generally the year two children drew typical holiday clothes and

though some felt other people might wear different clothes their suggestions revealed few stereotypical items. Only one child mentioned 'wrap around' or 'blanket like' clothes.

There appears to be little evidence that stereotypical images from books, advertising or the television are held, the children recalling instead information they know for themselves or from relatives.

5.3.1(IV) Work: Description

This includes any activities in which the people in the picture might be engaged (question 3) and discussion about activities or work by the people of the country (questions 5a, 5b, 5c).

The nursery children mentioned swimming (x2), washing (x2), looking at the sunshine, cooking and playing. Responses about other people included shopping (x2), washing, planting trees, digging holes, swimming, cleaning, picking up stones, station work, washing and having drinks.

Year two answers stated people were looking at a koala bear, walking, photographing or counting cars. Other people were looking at animals, watching television, walking around (x2), eating, working in factories and doing their jobs. These jobs included owning hotels or doing what tourists do, working in a market or St. Arthur's Cave, making money, building huts for tourists or cleaning swimming pools.

Work: Analysis

The concepts of 'work' and 'jobs' seemed difficult for both age groups to comprehend but more so for the younger children. All answers mainly reflected leisure, holiday or everyday activities in which the children themselves would engage. One older child

(Chloe) suggested the people would ‘probably work’ but added that they had never left the hotel, suggesting a lack of experiential knowledge. Later comments revealed that she has made an association between things she had experienced and the question about work and suggested the people could work in the market she visited. She appeared to have made a distinction between tourist and non-tourist forms of employment. She did not suggest other people visited the market as well but said they ‘sold drums’. Where the older children do mention employment, the types of jobs suggested were mainly those associated with tourism such as ‘building huts for holiday people’. The nursery children however, appeared to be unable to think beyond everyday activities.

It appears that personal experience is an important factor in children’s knowledge about work. The results possibly suggest the older the child, the greater the ability to understand how people sometimes work directly for our own needs. It may be that the next phase might be an understanding that people’s work indirectly influences our lives or indeed that it has no influence on our lives at all.

5.3.1(V) Weather: Description

These answers refer to questions 9a, 9b and 9c.

Three of the nursery children stated the weather was ‘really hot’ or ‘very hot’. One said ‘sunny’, one ‘lovely and shiny’ and one listed ‘sunny, rainy, stormy and cloudy’. Five thought the weather was as they described all the time and one thought it was sometimes the same but with rain. Four of the six said the same weather was experienced across the whole country, one thought just a part of the country had that weather and one stated that on the ground it was cold.

Four year two children thought the weather was in some way ‘hot’. Two mentioned it as ‘sunny’ and two said ‘rain’. Two of the children thought the weather was the same as they described for most of the time, one for all the time, one did not respond to the question and two thought it was not the same all the time. They stated that it was also

cloudy or with storms. One child said the whole of the country had the same weather as they described, three felt not all the country had that weather and two said they did not know.

Weather: Analysis

Responses to all the questions relating to weather indicated that the children felt weather was synonymous with temperature. This supports Wiegand (1992 p.157) who states 'almost all children when talking about travel...recalled the heat'. Both age groups used the word 'hot'. Only one nursery child listed different types of weather and where the older children gave weather types, 'sunshine' and 'rain' predominated. It was evident that one child experienced a storm that made the television go off. This experience would appear to have helped 'fix' the weather image in this child's head. However, it is not clear whether a less powerful recall might have been possible if the child had merely been told or read about the possible impact of storms. No mention was made of seasonal weather such as Autumn fog or Spring showers. Neither was the weather associated with particular world latitudes such as lack of rain in deserts or tropical thunderstorms.

Weather knowledge appears to be derived from personal experience but lacks any depth of detail. It could be that lack of focus on the weather at home or at school might be responsible for their simple weather perceptions and vocabulary. Alternatively, the concept of weather may not be appropriate for the knowledge capability of a child in the early years or it is merely unimportant to them.

5.3.1(VI) General Concepts: Description

These were concepts arising other than those specified in the questions.

Three of the nursery children mentioned other concepts of 'milk', 'swimming pool' and 'a farm'. Five year two's mentioned other concepts. Three said 'swimming pool', two 'a

shop' and two mentioned a 'beach'. Other responses included 'volcano', 'koala', 'storms', 'cars', 'market' and 'bed'.

General Concepts: Analysis

Few other concepts were mentioned by either group. Where they were, the general concepts were usually based on personal holiday experience.

5.3.1(VII) Concepts about Other Countries: Description

Two nursery children stated that not all hot countries were the same as they had drawn. One child said they could also be 'windy, sunny and rain and cloudy' and a second felt that others looked hot but were cold or were hot and warm. Three felt that all hot countries were the same as the one they had drawn. One child felt 'some of it' was the same being 'rainy' and 'very sunny'.

All year two children stated that all hot countries were not the same as they had drawn suggesting they differed with rain, deserts (x2), snow (x2) and really hot and wet.

Concepts about Other Countries: Analysis

The answers appear to suggest that the younger the child, the more universally applied is the knowledge. For instance if the child's country was hot, all countries were hot. Where knowledge to the contrary is revealed, that not all places are the same, the differentiation appears to be based on the weather. The older children nearly all agreed that not all hot countries were the same as theirs. Acknowledging their lack of understanding, these children then suggested places differed through the weather. Only two of these children suggested places might also differ through landscapes such as a desert.

The evidence suggests that both age groups have little knowledge about places beyond their own experience. Whether this is due to lack of direct teaching about distant places or a developmental barrier to learning about them is not clear at this point.

5.3.1(VIII) Feelings: Description

These results relate to question 6.

Four nursery children felt the people were happy because they had friends, the sunshine (x2) swimming and 'lots of good things are happening.. the rain might come'. One stated the people were sad because it was too hot. One felt they were happy because the people had a big house but that they could also be sad.

Four year two children stated the people could be happy and sad. Reasons for happiness included the country, lot of land, jobs and beaches, boat rides, and nice food. Two of these children could not give reasons. No reasons were given for being sad. Two children felt the people were happy because of the nice beaches and warmth.

Feelings: Analysis

The concepts of 'happy' and 'sad' seemed difficult for the younger children to understand. Many of the older children and one Nursery child recognised that people could be happy or sad at different times and for different reasons. For the Nursery children, happiness came from enjoying holiday activities like swimming or from the sun. Only one nursery child commented that in some countries rain would make people happy (Stacey). The year two children also identified holiday activities as bringing happiness.

It could be that what makes children happy is assumed by them to make other people happy as well and as they mainly drew themselves, perhaps they were recording their own happiness. Stacey's example could indicate she is beginning to develop reciprocity, the ability to see someone else's viewpoint. However, her response is not fully articulated and her statement about the rain could be interpreted that when in Gambia she would have been happy if it rained rather than those native to the country feeling that way.

5.3.1(IX) Emotional Response to Place: Description

These results relate to questions 7 and 10.

Three nursery children gave answers referring to the temperature as 'really boiling' and 'very hot' (x2). One said 'very red'. One replied 'lots of different people' and one stated 'nice'. Four stated they would not want to live in the hot place. Of these three gave the high temperature as the reason. The other child stated that no one else could live there (the house was a time -share). The other responses were that they liked Nanny and Granddad or living near a farm.

Five year two children used the word 'nice' in response to the first question adding they could play on the beach, have fun, was hot, or it was 'nice' if it had a pool or lots of animals. Four of the children stated they would like to live there if they had a pool, because it looked 'nice' or was a 'nice' country or it meant they could have fun. One did not know why they would like to live there. One child would only live there if it had a swimming pool and one child felt he would have to walk a long way to get food and would not therefore want to live there.

Emotional Response to Place: Analysis

Most of the younger children did not want to live in their place because it was too hot and this contrasted to the older children who did. Many of these children used the word

‘nice’ with no further elaboration. It might be that the older children felt more secure with the thought of living somewhere else or it might be the lure of fun holiday activities. There was no indication of reciprocity though more specific questioning for this might have shown otherwise.

5.3.1.(X) Personal References: Description

This category refers to responses made by the child about his or her self including actions or events in which they have taken part and also any reference to the child’s immediate family or friends and any actions or events in which they have taken part.

Three nursery children mentioned family members or friends. Two referred to their own house. Three commented about a holiday taken. None of the children made responses which indicated they had knowledge as a result of information given by family.

All six year two children made personal comments. Three children made comments regarding a holiday they had taken. Three children indicated that they had been given information about a place from a relative or friend.

Personal References: Analysis

All the children made reference to themselves or their homes and family at some point in the dialogue. Many were direct references to personal experiences. The older children often included information from other people perhaps suggesting the older the child, the more others contribute to their knowledge. This supports Whitehead (1990 p.72) who states ‘children learn much of their language and culture by listening to the telling of anecdotes, legends, gossip, stories...and memories’. It might be that spheres of influence exist. The child is at the centre with close, then distant family and less special people radiating out from the centre. Where formal education, maturity and language fit is unclear at this point.

5.3.2 Summary of draw-and-write, hot place study

It appears some evidence exists suggesting personal experience is a foundation stone for knowledge about places and as Wiegand (1992 p.157) states ‘the significance of travel as a family event cannot be overemphasized’. At the same time spheres of influence extending beyond the personal, feed information to the child. However, at some point the spheres change their relationship. The child’s own experience no longer remains the dominating sphere. It could also be suggested that perhaps knowledge is greater where active involvement in events has occurred either by the child themselves or the person imparting the information. This could support Pascual-Leone’s M-power theory that if a child is actively involved using both intellectual and motor skills the result will be that the place is likely to be remembered more.

The evidence does not suggest that children’s perceptions of hot places have been influenced by television or other similar media sources. However, it appears that more distant places are usually associated with holiday locations which are not only important to the child for enjoyment but also as a tool for learning.

5.3.3 Cold Place Study

(Responses are summarized in the matrix below. Table 5.3.3a.)

Table 5.3.3a Matrix to Show the Results of the Draw-and-Write Cold Place Study

(Bullet point order reflects specific children’s responses)

CONCEPT	NURSERY SAMPLE	YEAR TWO SAMPLE
PEOPLE DRAWN	<ul style="list-style-type: none"> • Family • (none drawn) inside • (none drawn) inside 	<ul style="list-style-type: none"> • (none drawn) • (none drawn) • boy

	<ul style="list-style-type: none"> • self • self and family • self and family 	<ul style="list-style-type: none"> • Santa Claus • (none drawn) • boy
CLOTHING FOR PEOPLE IN DRAWINGS	<ul style="list-style-type: none"> • snow things, gloves, boots • jumpers sweatshirts, trousers and shorts • don't know • dresses • leggings, tee shirt • pyjamas and nighties, it's night 	<ul style="list-style-type: none"> • jackets, jumpers, trousers • leather and fluffy things, fluffy jumpers • earmuffs, wooly hat, scarf, jacket, jumper, 2 pairs trousers • Santa a red suit, children green jumpers, blue shirt and jogging bottoms • Water jackets, scarf, furry coat • Hat, scarf, wooly mittens, warm tracksuit bottoms
CLOTHING FOR OTHERS IN THE HOT COUNTRY	<ul style="list-style-type: none"> • (same as above) • (same as above) • warm clothes because it's rainy and coats • (same as above) • sometimes (same as above) • shorts and bikinis in day 	<ul style="list-style-type: none"> • (same as above) • (no response) • (same as above) • most people (same as above) • (different but no ideas what) • sometimes (same as above)
WORK	<ul style="list-style-type: none"> • go to Australia to go shopping – washing, going to football, getting lunch and breakfast • work and shopping – writing names on computer • do the computer and play Mega drive • do the washing, tidying their bedrooms – go in the playground, driving lorries, building houses 	<ul style="list-style-type: none"> • work – factory or shops • (no response) • work, play in the snow – forgotten • play and build snowmen – in restaurants or shops • go skiing, go to shops – skiing, shops, making cars • work in factories, make hats, make holiday homes, builders – stay at home and play with the children, work in the garden, make cars, lorries, ploughers and cottages

WEATHER	<ul style="list-style-type: none"> • snowy (whole time, whole country) • rainy (whole time, whole country) • sunny and rainy (whole country) • snowy (whole time, whole country) • sometimes chilly or warm or hot (whole time, whole country) • cold and lots of snow (whole time, whole country) 	<ul style="list-style-type: none"> • quite rainy, sometimes it snows. Spring it would be quite a bit of rain, might be very nice weather (whole country) • very cold (whole time, whole country) • very snowy, rainy and cold (whole time, whole country) • cold (whole time, whole country) • cold (whole time) • sometimes it's always snowing, or it isn't (whole country)
GENERAL KNOWLEDGE OF OTHER COLD PLACES	<ul style="list-style-type: none"> • don't know • nice and sunny • (all the same) • windy • (all the same) • (all the same) 	<ul style="list-style-type: none"> • some might have lots of snow even in Spring • don't know • some sunny, rainy, a bit of snow, some just snow and rain, (or) cold and snow • some have a winter, wind and rain... not many have snow or ice either • don't know • some just snow, never stops, some snow like us, then they get Summer and Autumn
FEELINGS	<ul style="list-style-type: none"> • happy – like snow • sad – raining every single day • sad – raining • happy – sun is shining • happy – sun is shining • sad – 'cos someone's being naughty and some happy, it's very hot and they've been to the play park and played with their friends 	<ul style="list-style-type: none"> • happy or sad – same as here • (no response) • happy – don't know • happy – playing • happy, enjoying themselves, sad, don't know • happy – they have snow
EMOTIONAL RESPONSE TO THEIR COLD PLACE	<ul style="list-style-type: none"> • snowy – we can play in the snow • rainy – I like to have a drink in the rain • good - • snowy – this is my home • they're going to move houses – I love them (family) • some of them might be cold – nice, you have lots of animals 	<ul style="list-style-type: none"> • I like it • (no response then) too cold • don't like cold • like the sun, can't go in swimming pool at North Pole, too cold even if heated • cold • fun – (but) like the sun, can have bar-b-ques and swim in pool

PERSONAL REFERENCES		
	<ul style="list-style-type: none"> • I've seen a Mars ice cream....(names all his family in picture) • I've seen these things on the beach.....I like to have a drink in the rain • My home, it's cold in my home.....If some of my brother's friends come round.. I think they'll play with the Mega Drive.....I like it raining, it grows all the flowers I don't like going to sleep, you can't do anything.....I have a dog (it) doesn't bite • My house, I've seen them all.....this isn't my home • Home.....Suki's waving to me.....I'm playing.....I'm waving to my other friend next door.....we got a fire and it's already falling over.....I love them • It's where we're going to stay at Christmas.....Mummy told me.....This is my bedroom, that's my friend, that's Mummy, this is Daddy, this is me. 	<ul style="list-style-type: none"> • I used to live there.....My old flat.....I like it quite a lot...I liked it. When my friends come round we used to sleep in..sleeping bags...I could haide my cuddly toys at the bottom • • My brother's friend went to the North Pole and he told me all about it.....I don't like the cold • My uncle told me.....This boy Peter, he threw a snowball..he got it in the face. • I've been there...two times..... • My Granddad went there..he told me.....That one's somebody because he said he saw.....That was his house he was staying in and he saw a little boy in his garden building a snowman.....I like the sun •

5.3.4(I) Places Drawn

The nursery children drew Mars, seaside, home (x3) and Cornwall. The year two children drew Scotland, Arctic, North Pole, Iceland (x2) and Canada. Two nursery children stated they had seen the places themselves, one had seen a Mars ice-cream, one said it was his home, one said a relative had told them and the last one imagined that was how the place would be. Three year two children stated a relative had told them about the place, one had lived in Scotland, one had visited their place and one said they did not know how they knew.

Places Drawn: Analysis

The places suggested by the nursery suggest they have little understanding of the concept of a cold place. The year two children did however draw places more in line with research expectations (chapter four) and although some of these stemmed from personal experience half were based upon information from relatives. Lack of experience of cold places did not inhibit the children drawing such a place. The younger children simply applied what they knew to the task and the older ones used information from others.

5.3.4.(II) People Drawn: Description

Three nursery children drew themselves, two of these also included other family members. One drew family only and two did not draw any people stating they were inside. One year two child drew Santa Claus, two drew 'boys' and three did not draw any people. One of these said the people were inside the cable car, one that it was too cold for anyone to live there and the third that the people would be working in the factories.

People Drawn: Analysis

The fact that nearly all the nursery children drew themselves could indicate the importance of 'self' to them. Places can only be perceived if they themselves are there. Half the year two children did not draw any people perhaps suggesting that these cold places were not inhabited or perhaps that they did not feel 'self' was important.

5.3.4(III) Clothes: Description

These responses refer to questions 4a, 4b and 4c.

The nursery children drew people wearing snow things, gloves, boots, jumpers, sweatshirts, trousers, shorts, dresses, tee shirts, leggings and pyjamas. One child did not know what the people were wearing. Four felt that the people would wear the same clothes as they had drawn, one said they would at night (she drew nightclothes) but the people would wear shorts and bikinis during the day. The last child stated the people would wear warm clothes. When asked if the people wore anything else five gave other clothing suggestions of jackets (x2), coats, jumpers, trousers, tee-shirt (x3) and dress.

The year two children drew people wearing jackets (x3), jumpers (x3), trousers (x2), ear muffs, hat (x2), scarf (x3), 'Santa's Red suit', shirt, jogging bottoms, coat, mittens and tracksuit bottoms. One child described the clothes as 'leather and fluffy things around it'. Two children felt that everyone would wear the same as they had drawn, one that most people would wear the same and one that they would sometimes. One child said the people would wear different clothes but could not make any suggestions and one child did not respond to the question. When asked if the people wore anything else one stated shorts and tee shirt in warmer weather, another said a tracksuit if it were colder, two could not respond to the question and two said the people did not wear anything different.

Clothes: Analysis

Many of the nursery responses such as 'shorts', 'bikinis' and 'pyjamas' were not appropriate to the focus of the question. The year two children did appear to have better knowledge of clothing for a cold place, even suggesting types of material and one child later mentioned warm weather clothes indicating knowledge of how the weather affects what is worn. The evidence suggests that the younger children had very little understanding about a cold place and simply applied personal knowledge to the task. By contrast it appears the older children did not do this and either admitted to their lack of knowledge or applied information from other sources.

5.3.4.(IV) Work: Description

This refers to questions 3, 5a, 5b and 5c.

The nursery children listed playing, playing in the snow, shopping and eating. Two did not respond to the question. They suggested the people would go shopping (x3), play, eat out, visit a friend, washing and tidying or go to the playground. Three children mentioned activities associated with work, for example work on the computer, work in a hotel, pub or restaurant or simply going to work. When further questioned about whether the people worked, five nursery children stated they would listing washing, going to football, getting lunch and breakfast, writing names on the computer, going to the playground, driving lorries, building houses, shopping, working in hotels, pubs etc. One child said the people did not have jobs.

The year two children stated the people in their pictures were working in factories, making a snowman, packing presents, talking and watching. One child did not know what the people were doing and one child did not respond to the question. When asked what the people would do all day, two mentioned work (one of these was factory work), two said playing in the snow, one skiing, one shopping, and two mentioned making things (hats and holiday homes). One child suggested the people were builders. Other suggestions were making cars and ploughers, staying at home, playing with the children, and working in the garden.

Work: Analysis

The younger children suggested activities to do with the household. The year two responses show some understanding of employment although these are predominantly in the tourist industry. These older children appear to be developing an awareness of

activities beyond the home although those are still child-orientated in some way. The results indicate that where gaps in the children's knowledge exist they are frequently filled from personal experiences.

5.3.4.(V) Weather: Description

This refers to questions 9a, 9b and 9c.

Three nursery children mentioned snowy weather, two used the word 'rainy' and the words 'chilly', 'warm', 'hot', 'cold' and 'sunny' were also used. Five of the six children felt the weather was as they had drawn it all the time and one child did not respond. Five also felt the whole country had the same weather and one child felt that only sometimes did the whole country experience that sort of weather.

Three of the year two children mentioned snow, two used the word rain and four children mentioned the word cold. All children responded to the question. Four children felt the weather was as they had drawn all the time. One child did not respond and one suggested that it was like that most of the time. Three children said the whole of the country had that weather, two thought it would and one did not know.

Weather: Analysis

These results tend to suggest that the younger children had little knowledge of weather in a cold place. To a lesser extent the older children also appeared to lack this knowledge. Weather types focussed mainly on snow and cold. It could be expected that even from personal experience some other weather types such as fog, ice, frost or mist could have been suggested. This raises the issue of whether children are interested in the weather or they merely lack the language ability to talk about their experiences.

5.3.4.(VI) General Concepts: Description

These were concepts arising other than those specified in the questions.

Two nursery children made no mention of concepts other than those relating to the specified question. Two children used the word 'grass'. Other concepts mentioned were 'ball', 'roof', 'tree', 'snake', 'house', 'sky', 'flowers', 'dog' and 'farm'

One year two child made no mention of concepts other than those relating to the specified question. Two children used the words 'snowman' and 'car'. Other concepts mentioned were 'town', 'flat', 'sleeping bag', 'penguin', 'igloo', 'lifts', 'shops', 'factories', 'holiday homes', 'lorries', 'ploughers', 'school', 'cottages', 'animals'

General Concepts: Analysis

Both groups mentioned a variety of other concepts most of which did not appear to fit with a cold place study although the older children did also mention concepts such as 'penguin' and 'snowman' that did match with the study at this point. Again the younger children would appear to have ignored the task set.

5.3.4.(VII). Concepts about Other Countries: Description

One nursery child felt all other cold places were the same as the one they had drawn. Two suggested others could be different. Of these one did not know how they would differ and one said others might be 'sunny, rainy, windy, and Winter'. Three children did not respond to the question.

One year two child did not respond to the question. One felt other cold places could differ but did not know how. The other four children all suggested cold places differed by the type of weather they experienced.

Concepts about Other Countries: Analysis

The younger children gave few responses indicating knowledge of cold places. The year two children appeared to know that cold places could differ and suggested different weather mixes. Different landscapes were not suggested. These results indicate a lack of knowledge across both age groups.

5.3.4.(VIII) Feelings: Description

These results relate to questions 6.

Three nursery children felt the people were happy because they had snow or the sun was shining. Three felt the people were sad because of the rain (x2) or they had been naughty.

Three year two children stated the people were happy. One could give no reason and two suggested the snow and the chance to play brought happiness. Two children said the people could be happy and sad. One said they could enjoy themselves and one child said the people were the same as us, that is, happy and sad at times. One child did not respond to the question.

Feelings: Analysis

It appears that the nursery children thought feelings were affected by the weather. Some of the older children also felt snow would mean fun and therefore happiness. Only one

child felt feelings could vary for different reasons and at different times. These results could suggest both age groups viewed feelings in a very simplistic self-orientated way.

5.3.4.(IX). Emotional Response to Place: Description

These relate to questions 7 and 10

One nursery child did not respond to the question. Other responses were 'snowy' (x2), 'rainy', 'good' and 'cold'. All six stated they would like to live there and listed reasons as playing in the snow, the rain and lots of animals. One child also stated she loved the people in the picture and one said it was his home.

Four year two children thought it would be too cold to live in the country. One thought it would be 'fun' and one child did not respond to the question. Five children said they did not want to live there because it was too cold, two of these also mentioned missing the swimming pool and bar-b-que. One child stated they would like to live there because they liked the picture.

Emotional Response to Place: Analysis

It is not clear why the nursery children wished to live in their places. The reasons were diverse and appeared almost illogical to adult interpretation. However, since all the nursery children had personally experienced the place they drew it might be that they were remembering their own feelings from those experiences. The older children were positive they did not want to live in their places because of the cold. Since it is unlikely the children had experienced extreme cold these feelings cannot be based upon personal experience. This indicates a change away from experiential cognition during Key Stage One. The evidence also indicates that the children were possibly unable to articulate their thoughts.

5.3.4(X) Personal References

This category refers to responses made by the child about his or her self including actions or events in which they have taken part and also any reference to the child's immediate family and friends and any of their actions or events.

All six nursery children made personal comments, two regarding a holiday they had taken or were about to take and three about things they had seen. Three children mentioned family or friends and three mentioned their home. There were no responses which indicated that information from family or friends had directly informed the children's knowledge.

Five year two children made personal remarks, three stating relatives had told them about a place and one that they used to live in the place. Two expressed likes about something and two mentioned they had been to the place drawn.

Personal References: Analysis

The nursery children made many personal references often based on an anecdote. The year two children made fewer such comments and one (Chloe) did not make any at all. This cannot be interpreted that she was in any way more mature, instead her responses where given at all, were brief and could rather suggest lack of knowledge. It could be that as the child matures, a change occurs whereby fewer references are made to 'self'.

5.3.5 Summary of draw-and-write, cold place study

The research findings appear to suggest that personal experience is fundamental to a child's knowledge about places and the younger children rely on this. The results could

suggest that during Key Stage One, this reliance decreases and where there exists no personal experience to fall back on, more use is made of information given by others. Indeed, Wiegand (1992 p.157) found that 'some of the strongest memories recounted by children were family members' responses to particular situations encountered'. During the same period thought processes mature and reference to 'self' decreases as well. It would appear that within both age groups there is a lack of knowledge about cold places and sometimes a lack of language ability.

5.4 Summary of the Draw-and-Write Hot and Cold Place Studies

Results from both studies indicate that personal experience is a powerful, fundamental tool to learning about places. Where such experience is lacking, Nursery children would appear to transfer knowledge they have about other places which they have experienced. The year two children did not appear to fill gaps in their knowledge in this way and relied more on the experience of others suggesting that the degree of influence from some sources may change over time. The results suggest that initially, knowledge gained for oneself has the greatest influence. By year two this has changed and knowledge gained from close and wider family is stronger. People such as teachers and other sources such as books or television do not appear to exert the same influence at this point.

Results from both studies suggest that the children had more knowledge about hot places than cold and this might be attributed to the fact that many children had visited a hot place and few had been to a cold one. There also appears to be a general lack of knowledge about the concepts of work and weather. It would appear that between Nursery and end Key Stage One a transition takes place and understanding of work becomes less home centred. However, even the older children's knowledge progresses little and work is understood mainly by how it might affect the children themselves, for instance in the tourist industry. Both groups showed a lack of knowledge about weather types. Whether the study directive of 'draw a hot/cold place' influenced the dialogues is not clear. Certainly the weather was primarily talked about in terms of hot or cold.

However, questions providing an opportunity to elaborate were often poorly answered indicating a lack of knowledge or vocabulary about weather types.

Knowledge about places appears to change with maturity though some place concept knowledge remains minimal. Dialogue such as in the draw-and-write would have contributed little to the children's knowledge especially given that the children were only speaking about their own pictures. It might be that presented with an image such as a photograph and in the situation of a small group discussion, the children might appear to show no lack of collective knowledge.

The results also indicate that it was difficult for the children to make emotional judgements. The judgements could be what Downs and Stea (1973 p.17) term 'evaluative' information of place. Whether the children's difficulty lies in the fact that they do not necessarily know about the places and are therefore unable to 'evaluate' it, or whether it lies in the fact that such judgements come with maturity of cognition, remains unclear and beyond the scope of this research.

5.5 Photographic Discussion: Description and Analysis

5.5.1 Hot Place Study

(Responses are summarized in the matrix below. See table 5.5a.)

Table 5.5a Matrix to Show Results of the Hot Place Photographic Discussion

(Bullet points are randomly indicated and order does not relate to specific children)

CONCEPT	NURSERY SAMPLE	YEAR TWO SAMPLE
PEOPLE	<ul style="list-style-type: none"> • They're brown • On holiday • On holiday • At home • They're not from England 	<ul style="list-style-type: none"> • There's black people • If they lived there they'll be very brown, if they just went for holiday..they wouldn't be that brown.

	<ul style="list-style-type: none"> • They're from China • We don't know where they've come from • They live in the hotel 	<ul style="list-style-type: none"> • They (people) live in that country.. and they drove there....for holiday, still in their country. • They live there • Indian • Tourists • Hunters
CLOTHING	<ul style="list-style-type: none"> • Blue jacket • A spotty one • Shoes • A white thing • A towel • A sheet • No shoes • Flip flops • I haven't got any of those kind of clothes • They're different • Different colours 	<ul style="list-style-type: none"> • Those things that you wrap round your body • Shirt • Kind of a waistcoat • A bit like a dress • Hats • Wrap around hat • A cloth • A towel • Headdress • Shoes like flip flops • Red band round her leg • No shoes on that one • The head doesn't get burned • Blue shirt • Cap • They're (men in background) not wearing the same sort of clothes (as women in foreground) • Sunglasses
WORK	<ul style="list-style-type: none"> • Speaking • Looking at each other • Smiling • Packing • Packing all the food up • Packing their clothes up • Shopping • Shopping • Going to a picnic • Holiday • Picnic • Shopping - • Shopping • Gathering clothes • Shopping • Buying shoes • Buying food • Buying football boots • Buying jelly shoes • Work • Planting • Building houses 	<ul style="list-style-type: none"> • Talking • Spying • Having a picnic • Collecting water or fruit or water in the basket • Shopping • Going fishing • Quite a few would (work) • Work in the factories • Collect water • Making wells • Work in markets • Working in hotels

	<ul style="list-style-type: none"> • Doing paperwork • Doing writing • Selling hats • Buying hats • Making hats • Going to Pizza Hut • Sewing hats • Sewing dollies • Sewing bears • Sewing dogs • Sell clothes 	
WEATHER	<ul style="list-style-type: none"> • It's been raining • The sun • If it's really sunny they could burn their head • Sunny • Rains sometimes • Not weather like this • Storm at night • Rained at night • Sunny 	<ul style="list-style-type: none"> • If it's a hot country would it rain a lot? • Hot • Very hot • Probably (hot all the time) • Not (hot) at night time • Half hot and half cold at night • Half warm, half coldy night • Windy • It'll still be hot but not as hot as it would be in the day • It'll be cold, sometimes hot in the night • Really hot in the day, at night, warm • It might have some rain •
GENERAL CONCEPTS	<ul style="list-style-type: none"> • You can see some bags • You can see some puddles • The sea • Rain • Sand • Stones • Mud • Beach • Sand • Sea • Houses • Cars • Hotels • Bats come - • Ghosties • Dragons • I can't see no sun • White clouds • The sea • Tents • Trees, Silver Bark tree • Beach • Mud • Sawdust • Soil • Friends 	<ul style="list-style-type: none"> • It might be a beach (road) • The house for visitors • Flats • I think they might be fruit trees • Shops (houses) • Market • Hotel • Caravan selling ice-creams on the beach • At daytime the water goes forward, at night it goes backward • Carts have comed with barrels of water from the wells, it's been spilling on the road

<p>GENERAL KNOWLEDGE OF OTHER HOT PLACES</p>		<ul style="list-style-type: none"> • Mostly in hot countries you get like a lot of sand (road) • All the houses are the same as other hot countries • Iceland must be very hot now when the volcano's blowing up • In other countries they haven't got anything (food)
<p>FEELINGS</p>	<ul style="list-style-type: none"> • Happy (all) • Happy – sunny • Happy – smiling • Happy – nice and bright • Happy – like their trousers • Happy – smiling • Happy – playing • Happy – like blue sky • Happy – sunshine • Happy - like hotel • Happy – like books • 	<ul style="list-style-type: none"> • Happy – smile on their face • Happy – grow lots of fruit, nice fruit • Happy – it (fruit) could feed them • Happy – can buy an ice-cream • Happy – hot • It's hot and they don't like rain • If you have rain you can't play can you
<p>EMOTIONAL RESPONSE TO THE HOT PLACE</p>	<ul style="list-style-type: none"> • Too hot • Too hot • Too sweaty • Nice and sunny • It's all yucky in there • I think the picture's got ghosts and bats on it • I get sweaty • I'll get wet 	<ul style="list-style-type: none"> • It'll be nice • Hot • Don't know • I think it'll be nice • It's hot and I don't like the rain because when it's rainy I can't go football in the garden • Hot, at night time it'll just be windy • There might be people who are black and some are white • Too hot, I like the rain • They only have blocks of flats • Wouldn't be any nice flowers • I like the picture • Don't like it hot, like bigger spaces • I'd go on holiday there but wouldn't want to live there • Wouldn't have trees or flowers
<p>PERSONAL REFERENCES</p>	<ul style="list-style-type: none"> • From my holidays (knows about Gambia) • I had a blanket on the sand on the beach..at Norfolk • There was a storm..it rained at night. • I live in a house..Mandy lives in a flat. • I had a blanket and I was sit on it on the sand • Suki and me slept in a tent the other 	<ul style="list-style-type: none"> • I think it's in India..my friend Sabrina comes from India and she's got..I looked at her mother's clothes 'cos I sleep round hers they look like that • She has necklaces that go round her feet • That's what my Mum and Dad might like (walk in the country) • Sometimes you can walk along the beach..finding a caravan selling ice

	<p>day</p> <ul style="list-style-type: none"> • My Granny lives in Norfolk 	<ul style="list-style-type: none"> • creams and things. • Sometimes you get a coffee from shops • It happened to me it did (heat stroke) • One day I went to the beach and I found a caravan • I don't like the rain, I can't go...
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5.5.1(I) Places: Description

The nursery children suggested China, America, England, Spain, Scotland and Gambia as possible locations for the photograph (Appendix 4b).

The year two children suggested Bethlehem, Africa, Europe, China, India, Spain, New Zealand and England.

Places: Analysis

From the dialogue it would appear that the nursery children had visited the places suggested. The year two children suggested names of places that it is unlikely they had visited. This may suggest that as children get older they gain knowledge of place names from sources other than their own experience.

5.5.1 (II) People: Description

Two of the nursery children thought the people in the photograph were on holiday, one that the people were at home and two children suggested they came from England and China. One child stated they did not know where the people came from. One child commented that the people were brown and another said that the people in the photograph lived in the hotel.

One year two child said the people were Indian, another suggested tourists and another hunters. Two children mentioned the people's black skin and that the people would not be as brown if they were just there for a holiday. Two children thought the people were native to the country.

People: Analysis

Results across both age groups were similar with the children thinking the people in the photograph were natives or tourists. Although children in both groups mentioned skin colour there is no evidence to suggest the presented image was matched by the children to stereotypical images they held. However, some year two children did appear to associate hot places with black people and the fact that the men and women wore different clothes suggested to them that the men in European type clothes were tourists.

5.5.1 (III) Clothing: Description

The nursery children mentioned shoes, flip flops and no shoes, and jacket as clothing worn by people. One child observed that they had not got any similar clothes and two children commented the clothes were 'different' in some way. The women's hats were described as 'a white thing', 'a towel' and 'a sheet'.

The year two children listed shirt, waistcoat, shoes like flop flops, no shoes, cap, waistcoat and sunglasses. One child described the women's clothes as 'those things that you wrap round your body' and another described them as 'a bit like a dress'. The women's hats were called 'hats', a 'wrap around hat', a 'cloth', a 'towel' and a 'headdress'. One child commented these were to stop sunburn. One child noted the red band around one of the women's legs and another commented that the men and women in the photograph were wearing different style clothes.

Clothing: Analysis

The nursery children observed that the women's clothing was different to their own but appeared unable to articulate in what way they differed. The younger children also observed familiar but not everyday items such as the flip flops and no shoes and the men in the background. The year two children mentioned both the men and the women pointing out that both groups were wearing different clothes. The older children listed more items of clothing than the nursery group and they also made some attempt to describe the women's clothes. The evidence could suggest the younger children's observational and/or articulation skills are not as well developed as the older children's.

5.5.1 (IV) Work: Description

This includes responses to questions C, E1 and E2

The nursery children spoke of the people 'speaking', 'smiling' and 'looking at each other'. Four children said 'shopping'. Five suggestions were made that the people were buying things including shoes, food, football boots, jelly shoes and hats. Some felt the people were 'packing' (food and clothes) and 'picnic' was mentioned twice. One child suggested the people were going on 'holiday'. Other jobs suggested were 'planting', 'building houses', 'doing paperwork', 'doing writing' and 'going to Pizza Hut'. Two comments were made that the people were 'selling hats' or 'selling clothes'. Suggestions put forward also included 'sewing' a variety of things such as 'hats', 'dollies', 'bears' and 'dogs'.

Year two children suggested the people were 'talking', 'spying', 'having a picnic', 'collecting water or fruit', 'shopping' or 'fishing'. Jobs included work in 'factories', 'collecting water', 'making wells', or working in 'hotels' or 'markets'.

Work: Analysis

The nursery dialogue shows some evidence that the children latched on quickly to suggestions put forward by others, hence the list of 'sewing' activities. However, their list of occupations lacks any depth of knowledge beyond things they might probably have observed or been engaged in themselves. The year two responses show only slightly more depth and some like 'making wells' would not presumably have been observed by them. No insight is given as where that or the comment about 'collecting water' might have originated. The older children did mention work associated with the tourist industry suggesting that they knew people worked in areas outside the home but these were again occupations they would have observed on their own holidays.

5.5.1(V) Weather: Description

(These responses include answers for questions J1, J2 and J3)

Nursery suggestions were that it had 'just been raining', that it 'rained sometimes' and it 'rained at night'. Three mentioned the weather as 'sunny'. One child suggested it might 'storm at night'.

Of the eleven year two comments nine made reference to the weather as being hot in some way. Two children suggested it would be cold at night and one that it would be 'cold, sometimes hot in the night'. Two other weather suggestions were 'warm' and 'windy'. Two children mentioned 'rain'.

Weather: Analysis

Both groups mentioned the rain. The Year Two children explored the concept of puddles in more depth than the Nursery. Whereas the younger children held their own ideas about the puddles, the Year Two children reached a collective decision that the sea was the cause after apparent observation of 'seaweed' and 'shells'. Generally knowledge of weather types was lacking across both groups. Other weather types still

focussed upon degrees of hot or cold. This may indicate an undeveloped vocabulary associated with weather types, lack of knowledge or experience. This supports Wiegand (1992) but like his findings, the reason why this should be, remains unexplained.

5.5.1(VI) General Concepts: Description

(These were concepts arising other than those specified in the questions)

The nursery children mentioned the 'sea' and 'sand'(x3), 'beach'(x2) and 'mud' and 'houses'(x2). Other concepts included 'bags', 'road', 'cars', 'bats', 'ghosties', 'dragons', 'trees', 'sawdust', 'puddles' and 'soil'. One child mentioned 'rain', another, 'white clouds' and another the 'sun' but not in connection with the weather questions.

The year two children referred to concepts such as 'flats', 'shops', 'hotel', 'carts', 'wells', 'caravan' and 'house'. 'Beach' and tidal action were also mentioned

General Concepts: Analysis

Some of the nursery children introduced imaginary/fantasy concepts into the discussion hence mention of 'ghosties' and 'dragons' although most of their discussion focussed their perceptions of what they could see. However, a certain amount of distortion occurred with the visual information as with the dust/sand and puddle/sea images. Some children appeared to distort what they saw to match the visual information to conceptual categories they already held in their heads, (Kaplan cited in Downes and Stea 1973 p.70). The older children's discussions talked around issues and other non-observable concepts such as 'caravans'. From the dialogue it would appear that small group discussion did initiate more lateral thinking about the distant place although the potential learning outcomes of these are beyond the scope of this research.

5.5.1.(VII) Concepts about Other Hot Places: Description

The nursery children made no reference to other hot countries.

Four year two children commented about other hot countries. One suggested hot countries had a 'lot of sand', another that the houses in the photograph were the same as in other hot countries, another that hot countries did not have enough food and finally one child mentioned Iceland as being hot with the volcano erupting.

Concepts about Other Hot Places: Analysis

The older children appeared to be able to use previous knowledge gained about other places during the discussion. This knowledge was from personal experience and knowledge gained from other sources such as the television. For instance, Iceland's erupting volcano had been in the national news at the time of the study. The degree of influence of television news items is not clear, (Wiegand 1991 p.146). Of the nursery children, only the child who had visited Gambia tried to apply her own knowledge introducing the idea of there being a storm at night. Although this might indicate a developmental change the group situation may have inhibited such discourse for the younger children.

5.5.1(VIII) Feelings: Description

The word 'happy' was used eleven times by nursery children. Three children said the people liked the 'hotel', the 'books' or 'their trousers'. Two children said the people were 'smiling'. Others said the people were happy because of the 'blue sky', 'playing' or it was 'nice and bright'.

The word 'happy' was used five times by year two children and two other comments inferred the term 'happy'. These were that it was hot in the picture and the people did

not like rain and also that it was not raining and that meant the people could play and be happy. Other reasons for happiness were growing lots of fruit, having food, being able to buy an ice-cream, smiling and simply hot

Feelings: Analysis

The younger children felt the people were happy mainly because of the sunshine and the positive image of the smiling women. It could be that the 'blue sky' and sunshine reminded them of their own holidays which they remembered as being happy. Similarly the lack of rain and the sun made the older children believe the people were happy. Unlike the draw and write results they gave no indication that the people's feeling might be different at certain times and for various reasons. It could be that the photograph was a more powerful image than their own drawings and it was read not based on the children's knowledge about their own feelings but on the message conveyed by the photograph.

5.5.1.(IX) Emotional Response to Place: Description

These relate to questions G and K

One positive and seven negative comments were made by the Nursery. Twice children mentioned that the place was 'too hot' and twice the notion of getting 'too sweaty' was mentioned. One child felt they would get wet. Other comments were that the place was 'yucky' and that 'ghosts and 'bats' were in the photograph.

The year two children gave four positive responses, four negative responses and five responses that did not indicate any positive or negative feelings. The positive responses were that the place would 'be nice' (x2), 'hot and I don't like the rain' and 'I like the picture'. The negative responses were that the place only had blocks of flats, that there were no flowers (x2), or they did not like it hot. The other responses were simply 'hot'

(x2), 'don't know', 'there might be people who are black and some white' and 'I'd go on holiday there but wouldn't want to live there'

Emotional Response to Place: Analysis

Comments by the nursery were generally negative and those of the older children tended to be neutral with no strong feelings one way or another. However, the year two dialogue suggests the children were beginning to try and think about life in the place although the evidence did not show reciprocity. The nursery children's dialogue showed their thinking was purely self-orientated.

5.5.1(X) Personal References: Description

This category refers to responses made by the child about his or her self including actions or events in which they had taken part and also any reference to the child's immediate family or friends and any actions or events in which they had taken part.

Comments were made by the nursery children about their holidays for instance 'from my holidays', 'I had a blanket on the sand' or about events in which they had been involved 'Suki and me slept in a tent the other day'. Some references were made about family or friends such as 'Mandy lives in a flat' and 'My Granny lives in Norfolk'.

The year two children made comments that appeared to refer to holidays but these were sometimes said in a passive rather than personal voice, for example, 'sometimes you can walk along the beach...finding a caravan selling ice creams' and 'sometimes you get a coffee from shops'. References were made about friends and likes/dislikes or personal experience.

Personal References: Analysis

The comments made by the nursery suggested that they were very self focussed. The older children did make reference to themselves or personal experiences but used a passive voice. This might suggest a developing language ability or an ability to use their knowledge to hypothesize about an issue.

5.5.2 Summary Photographic Discussion, Hot Place Study

The older children discussed the photograph in greater depth than the younger children. The former group brought not only personal experiences to the discussion but also information from other sources, possibly from television or books. The nursery children appeared to read only what was in the photograph although it should be remembered that the interpretations are unique to each individual (Downs and Stea 1973 p.12) just as everyone's mental maps of places are also unique (Gould and White 1974 p.51).

The results indicate that the children did not appear to hold stereotypical images about places. (Although the fact that the older children saw the place as a tourist location may in itself indicate stereotypical thinking.) However, it should be remembered that this is only one photograph and these results are by no means exhaustive. These results reinforce the draw-and-write results that both age groups appear to lack knowledge about weather, work and distant places in general. Their perceptions of distant places are vague with regard to these specifics. Finally there would appear to be some evidence that the younger children read the photograph differently to the older children. The youngest focussed on matching visual concepts with their own schemas (sand = beach) and the older children actively sought clues often reaching a collective decision.

5.5.3 Cold Place Study

(Responses are summarized in the matrix below. See table 5.5.a.)

Table 5.5a Matrix to Show Results of the Cold Place Photographic Discussion

(Bullet points are randomly indicated and order does not relate to specific children)

CONCEPT	NURSERY SAMPLE	YEAR TWO SAMPLE
PEOPLE	<ul style="list-style-type: none"> • On holiday • That's where they live • At holiday • At home 	<ul style="list-style-type: none"> • Father Christmas • Moscow people • Eskimos • Managers...of the place
CLOTHING	<ul style="list-style-type: none"> • They got hats on • Special (hats) • Clothes • Snow clothes • Gloves • They're not a same...(as his) • It (clothes) doesn't look like them (his) 	<ul style="list-style-type: none"> • Coats • Trousers and Eskimo coats • Really thick • Thick • Thick trousers • Boots • Boots • Thick boots • Nice thick boots • Boots joined on...to their trousers • Sometimes..like tennis rackets on their feet
WORK	<ul style="list-style-type: none"> • Standing up on swings • At a playground • They don't work 'cos there's only swings • There's a hole to go through to go to their houses..when they are in the car to work • Shopping • Writing • Tidying up • Build a playground • Washing up • Playing 	<ul style="list-style-type: none"> • They're playing on swings • They're managing it • Playing on the swings, running and climbing on things • He's on skates...playing on the swings • Pushing him • In here somewhere (indoors) • They're going to climb up ...the mountains • ..and ski...bob ski • Having fun • Snowfights • Have a job

		<ul style="list-style-type: none"> • Like the things what hunt for dinosaur bones...wooly mammoths • Making something out of snow • Teaching people how to ski • Managing a ski place • Digging snow for roads • Teaching • Manager
WEATHER	<ul style="list-style-type: none"> • Snowy (all children) • Icy • Windy • Winter • Just snow • It (snow) melts and go away • It doesn't go away, it doesn't melt • The sun dries it all up • Some snow turns into water • It snows every morning 	<ul style="list-style-type: none"> • It's cold • It's cold • Very cold • Very cold • Snowing • Really freezing • Really cold • Freezing • Very cold • It's snowing, sometimes it's raining, sometimes a bit of sun • It snows all the time • Sometimes it (melts) does • On Thursdays and Saturdays it turns into ice and snow the rest of the days • Small country would have same (weather all over) • Rain and a bit of sun and snow
GENERAL CONCEPTS	<ul style="list-style-type: none"> • There's swings • Loads and loads of mountains • There maybe a trap with the house • There's a pig • Pile of snow • Rock • A trap • Pig's home • (no) wolves • Skiing sticks and skiing • (no) sun- • Trees • They don't have trees in snow • If the snow falls down all the trees are dead • (no) grass • Flowers • Trees • No lots of people • Inside the houses (people are) 	<ul style="list-style-type: none"> • Swings • Children with sledges • Sledges • A lot of mountains • Dri-skiing • That's the place where they pay for skiing • They won't be able to (go) to school • It might be a camp site • Like Brownies, light bonfires • It's a skiing place • There's not a lot of shops or houses • (shops and houses) might on top of the mountain • Trailers • School • Offices • A bar • House • Telephone wires...there's a telephone there...they would

		<p>call...put it (mammoth) in a museum</p> <ul style="list-style-type: none"> • Those wires might be for the (ski) lift • Little wolves...pull the sledge along • A rock • Igloo • Rock covered with snow • School, office, few houses for people coming to stay • They're the toilets • Factories (none seen) • Many houses (not seen) • Tesco (not seen) • Safeways (not seen) • Cars (not seen) • River (not seen) • Trees (not seen) • Fields (not seen) • Grass (not seen) • Train track (not seen) • Cars(not seen) • Flowers (not seen) • Pavement (not seen)
<p>GENERAL KNOWLEDGE OF OTHER COLD PLACES</p>		<ul style="list-style-type: none"> • They might be going to other countries...there might not be people who'll be nice to them • In Iceland ...a road crashed..but you can't see anything like Iceland in the picture •

<p>FEELINGS</p>	<ul style="list-style-type: none"> • Happy – swing on swings • Happy • Happy – play with snow • Sad – when it’s not snowy • Sad – snowball in their face • (most children) happy • happy and sad • happy and sad • sad – haven’t got a home • sad – sun dries up snow 	<ul style="list-style-type: none"> • Happy – throw snowballs, and it’s snowing ...sad ‘cos they get really cold • Happy • Happy – we can (throw snowballs) • A bit of both • The children are happy and the grown ups a bit of both • Happy – snow • Happy – get to play • I don’t like the snow so they might not like the snow • The proper grown ups are sad...because of the weather, cold... and the children like the snow • Some are happy some sad • Some are happy some are sad • Some are happy some are sad • Half of them are happy and half sad • All happy and all sad sometimes • Dads sad ‘cos they want bar-b-ques •
<p>EMOTIONAL RESPONSE TO THE COLD PLACE</p>	<ul style="list-style-type: none"> • snowy • windy • Could make snowballs and snowmens • Could make snowballs and snowman • Snowmans • Like to make snowballs and snowmen 	<ul style="list-style-type: none"> • Nice and cold • Fun • I don’t want to live there no way • Interesting • Really freezing • Horrible • It’s fun and it looks good • Don’t think so (want to live there) • There isn’t a lot of shops, houses and flats • It’s cold, I don’t like the cold • I like the snow, playing in the snow, getting messy • You could stay in the igloo and not go to school
<p>PERSONAL REFERENCES</p>	<ul style="list-style-type: none"> • I don’t (wear clothes shown) • I think I like to make snowballs and snowmen • When I’m skiing, you can go down... 	<ul style="list-style-type: none"> • I don’t like the snow so they might not like the snow • I don’t like the cold • My Dad went on a mountain a long, long way ago..he climbed up..to the top, it was all snowy there and not even one single thing to see.

5.5.3(I) Places: Description

The nursery children suggested the photograph was the North Pole, South America, America or England (x2)

The year two children suggested Canada, the Arctic, North Pole, Iceland (x2), England or France.

Places: Analysis

The year two gave place names mainly synonymous with climatically cold places. The nursery gave names which it is assumed meant cold to them. These younger children were unable to justify their suggestions although later dialogue showed they had visited some of the places.

5.5.3(II) People: Description

Four suggestions were made by the nursery children. Two felt the people in the photograph were on holiday and two said the people lived there.

Four different suggestions were made by the year two children, 'Moscow people', 'Father Christmas', 'Eskimos' and 'managers' (of the ski resort).

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People: Analysis

The year two suggestions appear to suggest wider world knowledge although there is no indication where some ideas such as 'Eskimos' and 'Moscow people' originate. They might possibly have come from television or books.

5.5.3(III) Clothing: Description

The nursery children mentioned hat (x2) and clothes (x2). One of these used the term 'snow clothes'. They also said 'gloves'. Two made comments indicating that the clothes were not the same as their own clothes.

Two year two children observed 'coats' and one said 'Eskimo coat'. Three mentioned 'trousers', one specifying 'thick' trousers.

Clothing: Analysis

The nursery children observed that the clothing was different to theirs and the older children knew the clothes would be thick. However, neither group suggested, in view of their observations that the place must be very cold.

5.5.3(IV) Work: Description

These include responses to questions C, E1 and E2

The nursery children commented that the people in the photograph were on the swings at a playground. One child said the people did not work because 'there's only swings'. Other jobs included shopping, writing, tidying up, building a playground, washing up and playing.

Three year two children mentioned the word 'playing'. Three times the suggestion was put forward that the people were managing the ski resort. Two children mentioned 'climbing' and 'skiing' and two building in the snow or having a snow fight. Teaching was mentioned by one child. One suggestion was making a road in the snow and another was hunting for woolly mammoths.

Work: Analysis

The results indicate that unlike the year two's, nursery knowledge is centred around the home. Year two suggestions still come from personal observation such as 'teaching skiing' but most observations occur outside the home and immediate locality, the exception being 'hunting the woolly mammoth'. This response might be attributed to a book source of information.

5.5.3(V) Weather: Description

(These include responses from questions J1, J2 and J3)

Three nursery children mentioned 'snow'. Four other comments referred to the snow melting. Other weather words used were 'icy', 'windy' and 'winter'.

Year two children used the word 'cold' (x6), 'freezing'(x2) and snow (x5) including references to it melting. Other weather types were rain (x2) and sun (x2).

Weather: Analysis

The year two children appeared unable to name other weather types. Possibly there was so much snow in the photograph they assumed the weather to be always like that. The nursery did offer some other weather types and felt the snow would melt (matching their own personal experience of snow events.) The older children were not sure whether the snow would melt or not. The results highlight poor knowledge about weather across both groups.

5.5.3(VI) General Concepts: Description

These are concepts that arose other than those from specific questions

The nursery mentioned 'swings', 'mountains', a 'trap', a 'pig', 'rock', 'wolves', 'skiing sticks', 'sun', 'trees (x3)', 'grass', 'flowers' and 'houses'.

The year two children mentioned twenty-nine concepts. These were 'swings', 'sledges' (x2), 'mountains', 'skiing' (x3), 'school' (x3), 'camp site', 'Brownies', 'bonfire', 'shops' (x2), 'houses' (x5), 'trailers', 'offices' (x2), a 'bar', 'wires' (telephone or lift) (x2), 'museum', 'rock' (x2), 'igloo', 'toilets', 'factory'. The concepts mentioned that could not be seen in the photograph were 'Tesco', 'Safeways', 'car' (x2), 'river', 'trees', 'field', 'grass', 'train track', 'flowers' and 'pavement'.

General Concepts: Analysis

The results suggest the older children's language ability enabled them to discuss an issue at length thereby bringing more concepts into the dialogue.

5.5.3.(VII) Concepts about Other Places: Description

The nursery children did not refer to other cold places.

Two comments were made by the year two sample these being that the people in the photograph might be going to other countries and might be ill-treated and that in Iceland a road had crashed.

Concepts about Other Places: Analysis

It appears that neither group had any significant knowledge about other cold countries. (Iceland was mentioned and was in the national news at the time of the study.) This might suggest that cold places are beyond the children's own experience and presumably that of other people who might otherwise inform them.

5.5.3(VIII) Feelings: Description

Three nursery children said the people in the photograph were happy because they could play on the swings or with the snow. Four times it was suggested that the people were sad either because they had not got a home, when the sun 'dries up the snow', when it's not 'snowy' or if they get a 'snowball in their face'. The idea of the people being both happy and sad was suggested twice but no reasons why were given.

Five times the year two children suggested the people were happy because the people could play in the snow. One child suggested that the Dads might be sad because they could not have bar-b-ques. Six times it was suggested that the people could be both happy and sad at various times but again reasons were not given. Two other comments were that because the child did not like snow the people might not like the snow either and that the grown ups were sad because they did not like the weather but the children were happy.

Feelings: Analysis

The nursery children felt the snow would make them happy and also therefore the people. The year two children were less simplistic and many did not like the snow themselves. They felt the people might not like it either and would therefore not be happy suggesting more mature and discriminating cognition from the year two group.

5.5.3(IX) Emotional Response to Place: Description

(These refer to responses from questions G and K)

Two nursery responses simply stated that the weather would be 'snowy' and 'windy'. Four comments indicated they could make snowmen and snowballs.

Four year two comments inferred a dislike of the place, these being 'horrible', 'there isn't a lot of shops, houses and flats', 'it's cold, I don't like the cold' and simply that the child did not think they wanted to live there. The other responses suggested that the place would be fun, that the child liked the idea of playing in the snow and getting 'messy' or of missing school by hiding in an igloo.

Emotional Response to Place: Analysis

The nursery children were positive about wanting to live in the place and have fun in the snow. The year two children were less certain and thought more widely about the implications. It seems the older children understood the need for certain requirements to exist in order to live in a place. For instance, they could not see shops and knew they would need food. This hesitation suggests more maturity of thought by the year two children than the nursery whose perceptions appeared simplistic.

5.5.3(X) Personal References: Description

This category refers to responses made by the child about his or her self including actions or events in which they have taken part and also any reference to the child's immediate family or friends and any actions or events in which they have taken part.

The nursery children made three such comments during the discussion. One referred to an action (skiing) in which the child had apparently participated, another 'I don't' (wear clothes shown) was a direct personal response and the third was a supposition regarding a future action 'I think I like to make snowballs'.

The year two children made three comments. Two were personal responses 'I don't like the cold', 'I don't like the snow' and 'My Dad went on a mountain...it was all snowy...not even one single thing to see.'

Personal References: Analysis

Few personal references were made by either group. This suggests the children did not have any personal experience and were therefore unable to make such comments.

5.5.4 Summary photographic discussion, cold place study

The discussions show that both age groups appear to have little knowledge about cold places. This may possibly be attributed to lack of personal experience, information from others or exposure to other sources of information such teaching, books or television. Both discussions lacked substance and this appeared to highlight glimpses of alternative perceptions held by some of the year two children such as 'Moscow people', 'igloo' and 'wooly mammoths'. These are only snatches of knowledge which it is assumed came from less personal sources but which may suggest the beginnings of stereotypical thinking.

The photograph appeared to channel the children's thinking and few applied knowledge they had about cold places to the photograph. For instance, because the buildings' appearance was different to those in their locality, the children felt there were no shops or school.

5.6 Summary of Hot and Cold Place Photographic Discussion

The results show that the use of the photograph as a research instrument has the potential to initiate in depth discussion. However, as a learning tool the photograph would need to be used in conjunction with direct teaching in order to dispel incorrect assumptions about its content. It should also be remembered that photographs are viewed differently by individuals. As Wiegand (1992 p114) states, 'children do not see everything in a picture and their attention is not necessarily focussed on what adults see'.

Where children's knowledge base is poor, as in the cold place study, the photograph appeared to inhibit children's thinking and concept matching.

The results support evidence from the draw-and-write instrument that children's knowledge of weather and work is poor. However, it is not clear whether this is through lack of knowledge or lack of language ability. (Wiegand and Stiell (1996 p.390) found that knowledge of climate was used by 10/11 year olds to position land masses on maps and globes. However, he found that such knowledge was often 'partial' and 'unhelpful' even at this age.)

There is some evidence to suggest that different factors influence and affect knowledge of places. Also that the strength of these influences alters as the child gets older maybe to the extent of no longer making any significant contribution to place knowledge. When this happens it appears other sources information to the child. However, where this occurs the quantity of knowledge is less in the years between four and seven and the more images appear which may be interpreted as early stereotypes.

Generally, there were few examples from the results of this instrument that children's perceptions about the wider world were stereotypical at nursery or key stage one. However, they did suggest that the children appeared to have more knowledge about hot places than cold. This would appear to reflect the influence of personal experience. Finally, there were some indications that a child's language may not accurately reflect a child's perceptions of distant places.

5.7. Case Study Examples

The following are examples of individual case studies. All the case studies are contained in Appendix 1.

Stacey (Nursery)

Stacey drew 'a hot beach' in Gambia having been there twice for a holiday. Stacey drew herself wearing a shirt and trousers and stated other people in Gambia wore 'different clothes than I wear'. She said 'they wear dresses' but 'different colours' and also trousers and a sweatshirt. People in Gambia walked on the beach all day but some grown ups in Gambia had jobs like carrying water on their head in pots 'because they need water'. From Stacey's description it appeared that the house she was in had running water but the resident population brought water into their houses in pots. She said other jobs were selling clothes, specifically hats. She said the people were happy because 'lots of good things are happening...the rain could come'. She felt it would be very hot living there. The weather was 'very hot' but sometimes they had rain. However, she did not experience rain when she went there. She said not all Gambia had hot weather, some parts had rain. Stacey explained she would not want to live there with her family because another family would need the house. (It is assumed the house was a timeshare.) Stacey felt other hot countries might be different with rain and they looked sunny.

Stacey thought the photograph was Gambia and the people were at home. Stacey told how she had had a picnic on the beach. She mistook one of the women for a man and felt the people would live in the hotels (buildings in background). She said the people would buy 'shiny shoes' all day, or do writing or sell hats. Stacey noted two people smiling and were happy. She thought it was 'too hot' living there and she would get 'too sweaty'. Stacey explained from her own experience that there could be storms in the night. She did not want to live there.

Stacey drew her own house for a cold place. She drew herself and someone jumping out of an aeroplane with other people inside. They wore dresses or trousers and tee shirts if it was cold. Stacey suggested the people did washing and tidying bedrooms all day. Jobs included going to the playground, driving lorries and building homes. The sun made the people happy. She felt the weather was snowy and it would be 'snowy' living there. She wanted to live in the place as it was her home anyway. She stated some countries were different being 'sunny', some 'rainy' and some 'windy and winter'.

Stacey suggested the cold place photograph was South America and that the people were on holiday although she later said they were 'at home'. Stacey commented that the clothes were different. She felt the people were happy and sad but gave no reasons. She described the weather as 'just snowy' every morning adding 'it doesn't go away, it doesn't melt'. Stacey wanted to live there to make snowmen.

Stacey revealed some knowledge about Gambia and applied this to the photograph. Her Dialogue for instance about getting water, hinted at deeper knowledge but it may be her language ability was not as developed as her cognitive ideas. She had little knowledge of cold places or employment. Stacey's personal experiences have made an impact on her perceptions of hot places. Her perceptions do not appear to be stereotypical.

Chloe (Year Two)

Chloe drew Lanzarote as she had been there for a holiday. She drew herself, her brother and a friend counting cars. She described the clothes as shorts, skirts and tee shirts. She said the people in Lanzarote wore other things but she did not know what and suggested when it was very hot they wore 'those sort of wrap around clothes' adding 'it's like a blanket they wrap around' and 'it makes a skirt as well as a top'. Chloe admitted that she did not know what the people did all day but guesses 'they probably work'. She stated that 'we never really went out, we stayed in the swimming pool all day'. She thought the people might have jobs perhaps in the market. Chloe felt the people were happy because they had a lot of land and things to do and would be sad when the tide went in destroying 'the things they had built in the sand'. Chloe thought it would be 'hot and things like that' living in the place but 'probably nice...if you had a swimming pool'. She said the weather was 'hot all the time' and went on to explain that she never had rain there. She did not know what the rest of the country experienced since she had 'only been to one part'. Chloe only wanted to live there if she had a swimming pool. Chloe spoke about the Bahamas as another hot country being different to Lanzarote because it had rain and she had got burnt there.

Chloe did not suggest a location for the hot place photograph. She noted 'there's black people'. She thought the women were on a road with puddles and suggested people had thrown away cartons of water. The discussion suggested that the road might be a beach and Chloe agreed after observing what she thought were shells. She felt the people were on holiday but perhaps they live in 'far far away' in the country. She observed the flats and said the people's houses would like 'kind of like that'. Chloe tried to help another child describe a market stall 'with a roof on'. Chloe said one man was wearing 'like a shirt', later noting it was blue and a woman was wearing something 'a bit like a dress'. She described the hat as 'a wrap around hat'. She thought quite a few people in the place would work, suggesting a market. She thought the people were happy because they were smiling or that they might find a caravan selling ice cream on the beach. She thought 'it'll be nice' to live there. Chloe agreed with other children that it was hot all

the time and said it was 'really hot in the day time and probably at night it would be sort of warm'. She added that 'it might have some rain'. Chloe did not want to live there because 'I like it when...you've got more bigger space' and that she did not like it hot.

Chloe drew the arctic as her cold place and what appeared to be ice flows. She did not draw any people because she said it was too cold to live there but added there might be a few people. She did not know what these people might do all day but suggested they might wear 'leather and fluffy and things around it...coats and fluffy jumpers'. She said the weather was very cold all the time and probably across the whole country. She did not want to live there as it was 'too cold'. She thought other cold countries might be different but did not know how.

Chloe suggested the photograph was the arctic, Iceland and later France. Chloe observed the 'swings' and repeated 'sledges' after another child had mentioned it. Chloe asked if one person in the picture was Father Christmas because of the fur around the hat. She thought one building could be a school, an office, a bar or a house. When another child mentioned a campsite Chloe talked about Brownies and lighting bonfires. She noted that the people were wearing thick boots because it was cold. She described it as 'really freezing'. Chloe suggested that the people were 'having fun'. One child tried to think of the name of frozen dinosaur bones and Chloe correctly offered 'woolly mammoths'. She said the people were making things out of the snow such as 'snow monsters' and she agreed with the suggestion that they might be teaching people how to ski. She further suggested they could be 'managing a ski place'. She felt the people were happy but then said 'a bit of both'. When a child suggested that the people might not like the snow Chloe said 'some children might'. Chloe was adamant that she did not want to live there 'no way' it was 'horrible'. Chloe thought the shops could be out of sight.

Chloe has more knowledge of hot places than cold presumably because she had visited a hot place. She admitted that her knowledge was quite limited. Although Chloe uses her language ability to help other children find appropriate vocabulary she also latches

on to ideas suggested by them. The evidence indicates that Chloe could develop her knowledge with further appropriate support.

5.8. Summary of Draw-and-Write and Photographic Discussion

Research Findings

The draw-and-write instrument appeared to provide children with an opportunity to present their own knowledge of places. This knowledge was frequently based on personal experiences of places often as a result of a holiday. The nursery children in particular drew and discussed places they had visited. These places were not always appropriate to the research expectation (chapter four) particularly when 'cold' places were the focus. These younger children, apparently lacking in knowledge of such places merely applied other place perceptions they had to the research task. The year two children, by contrast, showed signs of some cognitive maturity. Where they had no personal knowledge of a place these children were more inclined to apply information and perceptions gained from other people to the task at hand.

The nursery children's pictures, more so than the year two children's, nearly always included a picture of themselves suggesting the concept of 'self' is very important (Baldwin and Moses 1996 p.1916).

The main draw-and-write finding was that different sources of information appear to influence children's perceptions and knowledge of wider world places. The primary source is initially personal knowledge. The experience of other special people such as relatives was also a strong influencing factor in the place perceptions children held. (The influence of teaching is not known since no direct teaching about distant places appeared to have occurred prior to the research.) However, by the end of Key Stage One

the research found that other sources may have a greater affect on children's place knowledge particularly friends.

Unlike the draw-and-write, the photographic discussion provided an opportunity for the year two children to extend each other's knowledge as they discussed concepts in groups. The discussion often appeared to influence children's perceptions. A muddy road to one child became a beach to them as a result of the group discussion. This was less evident with the nursery children who tended to hold fast to their perceptions. The different influencing sources discussed above could include influence from peers though whether reinforcement of a perception altered in this way would be needed for knowledge to be permanently changed, is not known.

The photographic discussion also presented the opportunity for year two children to come to a peer's help when they appeared to be unable to express their thoughts. The younger children were generally unable to do this, presumably because of their own lack of language ability.

In the photographic discussion the nursery children were more inclined to discuss what they saw in the picture shown to them. The year two children thought beyond the physical border of the photograph more often and considered what might be behind the mountains or simply out of view. This would fit with Piagetian theory as the child moves to a more intellectual stage of development, from the concrete to the abstract, from a personal viewpoint to an alternative viewpoint. Although Vygotskian thought would counter this, arguing that with support even the nursery children could be helped to see the photograph from the alternative stance. Both groups of children did in fact talk beyond the border of their own draw-and-write pictures but these contributions were frequently anecdotal referring to personal experiences or those of other people.

Neither sets of results show the children's perceptions of places were stereotypical or any which may have been gained from the television or other media sources.

Both research instruments appeared to find that children lacked knowledge about cold places, climate and work. They appeared to have stronger perceptions (correctly or incorrectly held) of people. Many of these perceptions were derived from personal experiences or the anecdotal evidence of others to whom they were close (in an emotional not geographical sense).

This chapter has detailed the research findings. It has analysed these under various headings linked to the schedule of questions. A summary has revealed that children's own experiences were important but so too were the experiences of other people. Influence from these other sources of information tended to vary with age yet school based sources appeared to have little influence. Stereotypical perceptions were not apparent during this study, neither were images or information obtained from media sources. Children generally had limited perceptions of cold places and the concepts of work and climate.

The next chapter will discuss these findings in relation to the research propositions and the literature review before considering implications for education (both generally and geographically), revision of the National Curriculum and finally future research.

CHAPTER SIX

CONCLUSIONS

6.1. Review of Chapter Five

The previous chapter presented the main study findings and analysis. It suggested that various sources of information exert differing degrees of influence on children and therefore the perceptions they hold of wider world places. Further it did not find evidence that indicated the children's perceptions were based on media sources of information. Finally the children appeared to know more about hot places than cold.

6.2 The Role of Chapter Six

This chapter will discuss the research findings in relation to the research propositions and the literature review. It will consider implications for educational practice in general and geographical terms before finally exploring implications for any future revision of National Curriculum requirements and future research.

6.3 The Research Findings and the Research Propositions

This study set out to test the two propositions that:

1. children come to school at age four with some geographical knowledge of the wider world and
2. there may be a link between a child's geographical perceptions and his/her development.

This research did in fact support the first proposition. The nursery children in the study revealed knowledge and understanding about places more distant than their own local area. That knowledge may have been only partial or possibly inaccurate but the perceptions revealed indicate at the least, an awareness of distant places. Where the child had direct experience of such a place, the knowledge was liable to be deeper and more readily recalled. In some instances, (for example Stacey) such personal knowledge

enabled her to think around her basic knowledge and begin to understand how certain factors related to 'place' interact with each other. Stacey realised the inhabitants of Gambia would be happy if the rain came. She may not have fully comprehended why this was so but she was aware that the lack of rain was a cause for concern and its occurrence was a time for celebration.

While the first proposition was found to be true, the second was only tentatively supported. The research found some evidence suggestive of a possible link between development and geographical perceptions. There were few images which could be attributed to media sources. This could be the result of a developmental barrier to absorbing such information and therefore the apparent lack of the creation of cognitive perceptions. However, as suggested in chapter five, perhaps it is not that the child is developmentally unable to understand and perceive distant places but rather they have not been privileged to have access to the right tools to aid perception and understanding. The idea of language being such a tool (and a powerful one at that) was suggested in chapter three just as the notion of a suitable presentation of information was outlined in chapter two following Brunerian principles. For instance, the example previously cited above (Stacey) does indeed suggest this might be the case. If Stacey had not experienced Gambia and had not had the opportunity to use language to obtain more information she might not have even begun to make the association between climate and its effects on human existence, in this case the association between rain and happiness. Hence, although the weight of evidence suggests developmental barriers exist evidenced by a lack of knowledge generally being revealed, some evidence suggests that these barriers can be breached.

What the study did find however, was a lack of stereotypical images or knowledge, especially those which could be attributed to media sources. At this point it is worth remembering the social background of the pupils at the school from whom the study selected its participants. These children were liable to have access to up to date technology in the form of computers with CD-ROM information, television and video, computer games (some with virtual reality possibly) and the opportunity to visually observe and evaluate printed media sources about distant places. Finally these children

might well have had the chance to actually visit such places. If the idea of stereotyping as an aid to cognitive processing is possibly accepted the findings appear to suggest that the stereotypical images presented are not clearly attributable to media images. On the contrary, given the invasive level and nature of such images (e.g. all hot places are frequently synonymous with beach, sun, and palm trees) there is little or no evidence to suggest these have any influence on children at all. It appears the media images were not even cognitively attended to and have been largely ignored. By contrast, both age groups appear to have formed their perceptions from information they have experienced for themselves or gained from relatives or friends.

It should be remembered that this is just one case study and replication in a different or similar type of school may well result in other findings. Certainly this study acknowledges the difficulty of any future research with young children and the lack of previously written material about research with them. In particular the lack of available material about how children make geographical sense of the world is testament to the problematic nature of ascertaining what children think.

6.4 Findings in relation to the literature review

At this point it would be useful to evaluate the research findings by relating them to the literature review. The research itself used broad generic areas for its study. The concepts of 'hot' and 'cold' countries, chosen by the researcher to provide a wide field for discussion appeared to also reflect a generic approach by the children themselves of their cognitive categorisation of distant places. However, the children appeared to know far more about hot places than cold. This may support the theoretical standpoints which suggest personal experience is the prime factor in informing perceptions although it must be remembered that children in this study are far more likely to have visited hot places than cold.

6.4.1 Child Development Theories

Baldwin

One of the findings of this research is indeed as Baldwin, 1894 (cited in Case 1985 Chapter Two) suggested that information is accommodated into new conceptual categories if assimilation with currently held concepts is not possible. For instance, a 'dusty road' (hot place photographic discussion) became assimilated into a category of 'beach' yet 'Husky dogs', (Michael cold place photographic discussion, Appendix one) not recognised as dogs, were accommodated in a new category 'little wolves'. The research further found that it appears children possibly know more about their own local places than places more distant to them. As suggested in Chapter two, broad categories seem to exist, 'places I know' and 'places which are different to the ones I know'. Following on from this there would also appear to be a cognitive process which categorises places according to degrees of temperature rather than their physical or human geography. The unwitting choice of 'hot' and 'cold' places for this study appears to be how children do in fact differentiate between places and especially places within the second cognitive category 'places that seem different to those I know'. Although this broad conceptualisation appears to occur there is little evidence within this study to show any deeper knowledge of weather or climate types. Indeed when specifically questioned about the weather (weather being the term it was thought the children would be familiar with as opposed to climate) the responses showed only a simple knowledge and then usually focussed on degrees of temperature or rain.

Piaget

Baldwin and then Piaget further suggested that a child's stage of development would be a barrier to refined thinking and deeper knowledge and understanding. In this research, a year two child (Chapter 5 Hot Place Study, Photographic Discussion) made the comment 'It'll be hot but not a hot as it would be in the day' when asked about the weather in a hot country. This shows a certain level of reasoned thinking and would

support Piaget's and Baldwin's theories that developmental barriers exist. However, although most of the nursery children gave simple responses there is some evidence of the emergence of reasoned thinking at four years of age too. 'It (snow) doesn't go away, it doesn't melt' (Chapter 5 Cold Place Study, Photographic Discussion). This response was correct about the place under discussion although it appeared to be the opposite of what the child presumably knew about snow from their own experience. This child was able to think about that place yet not apply knowledge of their own experience to it.

Chapter two mentioned the notion of 'reciprocity' proposed by Piaget. In this study there were also a few other examples of reciprocity. In Chapter five Hot Place Study Draw-and-Write, one response (Stacey) to a question about the feelings of people in a hot place was 'They're happy, lots of good things are happening, the rain might come'. This appears to suggest that the child understood rain was a cause for celebration in a hot country. However, where Piaget discounted experience, this example rather supports Weigand's (1992 p154) contrary view that experience is important since the quote above was made by a child who had been to Gambia. Perhaps there was a time when experience could be assumed to be universal but not so now after the last few decades' technological advances and available travel opportunities for some socio-economic groups.

Roth and Frisby

The literature review of developmental theories explored the idea of a hierarchical structure to how information is processed (Roth and Frisby 1986). This research found that place information appears to be categorised broadly into 'places near' and 'places further away' as already stated. However, the low level of detail about those far away places as indicated by this study does seem to agree that there might indeed be an economical level of functioning as previously suggested. A 'need to know' basis for place knowledge. Since this research did not, however, provide an opportunity for the children to discuss places which were familiar to them, this cannot be proved and can only be suggested on the presumption that a child would reveal a deeper level of knowledge about places with which they were familiar.

This research did find some evidence to support Roth and Frisby (1986 p.71) that information is processed differently depending on any form of interaction that takes place or the need to re-present the information in some way. In the draw-and-write hot place study, one year two child clearly interacted with the environment while on holiday noting the large number of Toyota cars counted and the presence of a market where they bought jewellery. A nursery child similarly recalled that a storm had occurred at night (Hot Place Study, Photographic Discussion). The child had experienced and emotionally interacted with the storm event which made processing the event more accurate and durable over time.

Gestalt

This research also provides some evidence for Gestalt theories that children close perceptual gaps. The hot place photographic discussion revealed how puddles and leaves became the sea and seaweed in order to make the photographic evidence before them fit their perceptual expectations of a beach scene. If this analysis were argued to be too tenuous for Gestalt psychology, Downs and Stea (1973) would be more of the view that this closing or alteration of this gap is the result of 'augmentation' as discussed in Chapter three.

The process of 'augmentation' does not however appear to have resulted in the formation of stereotypical images being held by the children. Examination of the children's responses revealed very few stereotypical images. It was stated in the introduction that this study grew out of a belief that direct and indirect, and deliberate and unwitting exposure to images of distant places informed children's knowledge of those places. The fact that very few such references occurred in this study could suggest that the research supports ideas from Cullingford (1990) and Salomon (1987) that television is too passive a medium for significant learning to take place. Alternatively the results could support the suggestion made in chapter two that the images depicted by the media have little relevance to the child and are in fact dismissed by them.

In contrast, the research contains many references to place knowledge gained from the child's relatives or friends. Catling (1991 p.14) was quoted in chapter three as stating that children's 'interactions with places is intimately bound up with visits by themselves or relatives or friends' and they remain in the children's minds 'because of their connections with people and events'. Both age groups made many such references but the nursery made more reference to places experienced themselves, while the year two children made more references to place knowledge gained from other people.

This research therefore reveals that many children link place perceptions with people. They referred to holidays they had experienced and places relatives and friends had been to. Throughout this study there is no evidence that school based teaching has informed place knowledge. There is only one reference from a year two child to knowledge gained from a book (hot place study, draw-and-write). The reasons for this might be that these children have not had the opportunity to study distant places. Or it could be that any teaching received in school has been of less importance than information from other people such as relatives. Chapter five suggested that different sources of information contribute to wider world place knowledge but the degree of influence they exert appears to change as the child gets older. Initially there appears a reliance on information from immediate family and then friends. Formal educational sources appear not to contribute greatly. This could be attributed to the developmental barriers of intellectual 'unreadiness' according to traditionally held theories (Chapter Two), inappropriate pedagogy or a social phenomena which has resulted in more family travel and the treatment of the young child as a conversational participant.

Vygotsky

Two points arose directly from the research and their comparison alongside literature review findings is difficult except in the domain of developmental theories. Such theories might suggest again an intellectual inability to understand such concepts. However, this study prefers to subscribe to the belief that these concepts have hitherto remained relatively superfluous to and interactively un-engaging in the lives of these particular children. With the Vygotskian notion of education (zone of proximal

development) these concepts might well fall within such children's realms of knowledge.

The first finding of the research was the fact that children exhibited more knowledge about hot places than cold and little appeared to be known about the concepts of weather and work. Taking the first issue, it could possibly be explained that these children experience more places with a hot climate on holiday than a cold one. However, given the middle class background of the children, skiing holidays (as indicated by some of the year two responses) could easily have provided suitable information sources. Alternatively, holiday promotion and television locations are in the main in hot climatic areas and this could indicate that the children have been influenced by media sources. In light of the research findings this suggestion finds little to support it. Perhaps, rather it is that cold places remain beyond the immediate experience in many cases of both the children themselves and their relatives. Where children had experienced skiing holidays (in year two) these experiences did inform their perceptions of cold places.

The second issue, that the children knew little about the concepts of work or weather, is rather more difficult to understand. Work would perhaps be beyond the children's immediate necessary knowledge although at the end of key stage two it could be assumed the children would have at least heard of occupations in which their own family and friends' families are engaged. Perhaps the fairly 'protected' social backgrounds of these children are the reason for such lack of knowledge. With regards to weather, the children could have drawn on their own experiences of weather in their own country, yet their responses appeared to suggest they were unable to do this. One possible reason for this could be that weather and the effect it has on their lives is dominated by adult decision making. If it is frosty the children do not find out for themselves what is needed by way of clothing, they are simply told. If it is particularly hot, it is an adult who insists a sun hat be worn. The weather details recalled by children during the study appear to be those with which the children have interacted. For instance, in the cold place discussions children spoke of engaging in snow type

activities. Where hot places were discussed the children spoke of appropriate warm weather activities such as swimming. Perhaps it is a sad indictment of the current curriculum that time is no longer possible for children to experience drawing their faces on a frosty window pane or going for a walk around the school to explore how things look on a foggy day or how high the wind can carry a class made kite into the air.

Further analysis of the research findings reveal that the children who took part in the study used their knowledge of language to communicate their ideas. On some occasions, as previously noted the language was reasoned and logical and at times descriptive. The children gave opinions and told anecdotes, they provided explanations and descriptions. However, the apparent lack of more in-depth responses could give support to Vygotskian ideas about language having the power to extend knowledge and the concept of a ZPD. Where experiences have not been possible, communication and interaction through language could enrich knowledge and examples have already been given where this seems to have occurred.

This study appears to raise more questions about a variety of issues, not least the power of language to broaden knowledge. However, as suggested in chapter five it is not merely the words, the extended vocabulary that hold the key to enrichment but also what the child might be expected to do with them. Whether they hold any significance to the child. After all, knowing the step by step process of how to drive a car would be quickly forgotten if a person never then learnt to drive one. Perhaps further research might explore whether a Vygotskian approach (ZPD) combined with a need to re-present information in some way holds the key to educational learning.

At the end of the previous section it was suggested that research with young children was difficult. The literature review found few references to previous research into young children's thoughts about the world. As a result many of the assumptions made about this research are not always based on any previously printed documentation that can then be discounted or supported. As a result, this study has been able to make only tenuous links with previous research although it is acknowledged that what might in

some cases be applicable to seven or even eleven year olds, might not be for four year olds. What this research does support is a Vygotskian viewpoint (1962 p.126) that maintains a child's expression of thought may be only a partial description. The language and in particular the vocabulary of 'place' must be supplied to extend and develop speech for a more accurate description to be rendered.

6.4.2 Making Sense of the World: Geographical Theories

Spatial Knowledge

Evidence from the study supports Downs and Stea (1977 p188) that spatial knowledge does not develop in a truly hierarchical way. That is to say, even the youngest children do have quite a wide knowledge of wider world places at a time when they are still developing knowledge about their local area. Although the older children appeared to have a broader knowledge of world place names, some of the younger children had in-depth knowledge about some less well-known places (Stacey). However, the study did reveal a hierarchy in terms of people and their association with places. The strongest influence appeared to be personal experiences, secondly close relatives and thirdly friends. Other secondary sources such as books and formal education were rarely referred to.

There was some evidence with regard to pre-history influencing place perceptions (Scoffham 1998) with one child (Jeremy) mentioning looking for a 'wooly mammoth'. The child did however use the reference in the correct context. There was an element of fantasy appearing in the place perceptions of some children (Jack, Sean) although as previously detailed these would have to remain a fascinating future inquiry being beyond the confines of this essentially geographical study.

Experience and Place Knowledge

The children's responses revealed a great dependence on personal experience or that of close family or relatives. This supports Catling's idea (1991 p14) of places and people being connected. However, as Matthews points out (1992 p207):

‘young children may use their body as a central reference point, (but) this does not imply that they are locked into an egocentric frame of reference’.

What also emerged was the fact that children did have feelings about places. These feelings were stronger where personal experience had resulted in an interaction with the place (Stacey, Sean and Chloe qualified ‘happy’). There was a less rich response where this experience was absent and this was even more so where the place perception appeared formed from secondary sources as in the case of Louis and the desert.

The study did support other theories which suggest place knowledge (and in relation to this study, perception) is unique to an individual as is its development.

Cognitive Mapping

There was no evidence in any of the children's responses to suggest that any cartographic representation existed about wider world places. However if a cognitive map is viewed in its broadest form (Chapter 3) then there is evidence to support Downs and Stea (1977 p76,85) that some children's cognitive maps of a particular place are based on interaction with the environment. Stacey interacted with the environment in Gambia and found out happiness was associated with the rain coming and Chloe found out there were a lot of Toyota cars in Lanzarote.

Although the study found evidence to suggest that through direct or indirect experience, cognitive mapping was based on the ‘differentness’ (or similarity) with the child's own location, there was no evidence of the acknowledgement of ‘distance’ from their own home.

People and Places

Much of the evidence from the study revealed a close connection between people and places. A strong link emerged that place perceptions were not only formulated around things with which the children interacted such as ski cable cars or market wares, but also around people, especially adults. Jeremy's discussion with his granddad about the volcano clearly made an enduring impact.

There was a marked difference in the degree of knowledge revealed about children's wider world perceptions of 'hot' and 'cold' places. Far more detail and therefore presumably refined place perceptions were revealed with regard to 'hot' places than 'cold'. A study by Palmer et.al. (1999a) using similar techniques focussing on a rainforest location and a place in a polar area also revealed there was more knowledge, of the effects of environmental change, in the former than the latter. This could be attributed to less media coverage and almost no formal teaching focus on these world regions. However, from the results of this study it could be argued that two distinct yet intertwined factors are not present for the formation of 'cold' place perceptions. Firstly, human (through direct experience or reported from others) interaction with 'cold' places is far less than that with places in hotter climates. Secondly, and perhaps as a consequence, fewer opportunities are presented to the child for discussion of these colder regions.

It was suggested in chapter three that commonality of experience might differ and subsequently have differing effects on children's cognitive place maps. The diversity of responses, some quite sophisticated and others far simpler during this study would agree with this suggestion.

The Phenomena of Places

As mentioned above there was no mention of distance with regard to any places discussed by the children. It would be easy to conclude that locational information may

not exist for a variety of reasons. However, the schedule of questions did not directly set out to find out such information and it would not be appropriate to draw any conclusions one way or the other. However the term 'distance' is open to various interpretation and although this study had expectations in terms of 'distance' these were not presented to the children. For them 'distance' could mean a visit to an aunt 10 miles away rather than half-way round the globe and the terms 'hot' and 'cold' could equally be applied to places in the U.K. or even as one child did, his own home. Most children did appear to interpret the focus in line with the research expectations.

Although locational information appeared not to feature directly in the results the children did seem to have attributive information about places. Knowledge of ice flows, volcanoes, koala bears and deserts, all contributed to the children's wider world place perceptions. Sometimes this information about a place was accepted at face value, for instance, everyone works in the hotel business. Occasionally more reasoned thought was applied to refine this attributive information. However, some of these refining details suggest that the place is cognitively categorised for its 'differentness' and the more distant the place the more different appear to be these associations.

On the other hand they did seem less certain about evaluative information about the places. Most comments showed a superficial level of such information with only a few glimpses of anything deeper. Evaluative information did not appear to alter with distance. Emotional responses remained quite simplistic and were frequently based on the temperature of the place. Interestingly, evaluative information was rarely elaborated upon even when the place discussed was the child's own home. They appeared to be unable or disinclined to emotionally think about a place. This does not necessarily suggest that a developmental barrier may exist to prevent such reasoned thinking. Language ability or knowledge of vocabulary should be further explored before stronger conclusions can be made.

Cognitive Mapping Distortion

The research showed that people held connotative significance with regard to places. The majority of the children drew themselves and/or their family. While Piagetian theorists might argue that the children are still relatively 'egocentric' (concerned with self), this study would argue that it is the interaction with people in these places which is important. Where this interaction does not take place (year two, draw-and-write, cold place study) people do not feature. (The only people drawn here were unrelated 'boys'.) This would further support the notion that people and places have strong associations.

Through the interaction between people and places it appears children in fact remember what is useful or meaningful to them (Downs and Stea 1977 p78) such as counting Toyota cars (Chloe) or playing football with friends (Joseph). It would be a naïve assumption to assume that children's wider world place perceptions are therefore based on people, actions and distinctive features. It must be remembered that missing concepts may just not have been selected for representation or discussion. While their absence cannot be attributed to lack of knowledge this absence might rather reveal a truer reflection of how children regard and gain knowledge of places.

Stereotyping

There were in fact few indications that stereotypical images were prevalent in the children's perceptions of wider world places. Some association like Koalas and Australia would require further detail to support any notion that they had misconceptions about places. These associations did however suggest that places were significant because of being different. The children did appear to 'augment' their place perceptions in some way though. For instance the idea that everyone would work in the tourist industry (Jeremy). These associations and often incorrect augmentations should be put into a broader context to prevent the continuance of misconceptions. Early intervention to correct and accurately refine place perceptions is necessary especially if

they are already likely to hold ‘attitudes, beliefs and values about other peoples and places’ (Weldon 1998 p250) and these are likely to be informed by cultural influences (Matthews 1992 p204).

Development of World Knowledge

Analysis of the results of this study suggests that place perceptions are often eclectically developed (Wiegand 1992 p29) and sometimes inaccurate (Palmer 1999a p37). While Wiegand’s study (1992 p87) found world regions associated predominantly with animals it is difficult to draw similar conclusions with study especially since methodological approaches presented different opportunities of expression.

Technology and Place Perception / Secondary Sources of Information

This study reveals little support for the idea that place knowledge is developed as a result of exposure to media representations (Palmer 1994 p19). Nor does it support evidence that books or photographs, perhaps used in school or in holiday brochures, have informed the wider world place perceptions of the children in this study. Reference was made to Mars and Iceland (in the news at the time of the study) and one reference to a book. Neither did the scenes of fleeing refugees (also in the news) appear to impact on the children, again suggesting it is the interaction (themselves or through close relatives) with a place which is important.

The Role of Landscape

The children’s responses indicated that there was a degree of using the landscape, for football, shopping or swimming though it is difficult to state how far the association of these actions were related to the people featuring in the place. What was a little clearer was that the landscapes presented in the photographs triggered other associations and these enabled the child to view the landscape in terms of how they could use it. The

Kenyan road became a beach complete with a hotel and caravan site nearby and the Greenland scene became a potential skiing resort.

The Role of Language

The children's responses showed a wealth of quite rich vocabulary associated with places. Sometimes the responses were quite sophisticated and their accuracy presumably clarified through discussion with adults (Stacey). Clearly such opportunities should be capitalised upon to refine place perceptions. Other responses, including non-verbal communication appeared to show that the children did not possess the necessary language to be able to more fully explain their thoughts (Matthews 1992 p207).

6.5 Implications for Education

This section will summarise the implications in general educational terms arising from the research and then address more specifically the implications for geographical teaching. At first glance, it could be a sad indictment of education that not many references to school based education were revealed even though this is in line with other research (Palmer et. al. 1999a). However, as pointed out, the fuller picture was not part of the research focus and minimal or no direct distant place teaching might have occurred prior to this study. This was not ascertained prior to the study. However, it begs the question why such study had not been undertaken in school? Presumably the answer lies in the fact that the national curriculum for geography (at the time this study began) had become so prescriptive and at the same time, perhaps burdensome, that the end result was lip service observance of each of the programme of study elements. Distant place study became marginalised. Little wonder that this research found that education did not appear to exert much influence in informing distant place knowledge. Although the findings from this study are tentative, future research might also find more

extensive ignorance of world places, even in children older than four and seven, as foundation subjects are increasingly minimised in favour of a curriculum dominated by literacy and numeracy.

What is encouraging is the fact that stereotypical images appear not to have been formed. The power of the media should therefore be re-evaluated both in terms of its benefit as an educational tool and its supposed power to influence knowledge of places. Education on the other hand should not assume the role of passive observer to media images rather it should perhaps use them to extend knowledge through interactive discourse and an urgency to re-present knowledge.

This research has highlighted the fact that distant place knowledge is held by even the youngest child in school and these formative educational years need to be recognised as being unique and vital to extend knowledge about a range of concepts. In geographical terms, instead of assuming children are developmentally unable to learn about distant places, it should rather assume its duty to teach about life in other global regions. If the right tools and approach are used knowledge can be enhanced and a child's perceptions of distant places can be accurately refined and enriched to a point where stereotyping is no longer even used as a tool to cognitive processing. Without early exposure to distant place knowledge the process of refinement is liable to be delayed and valuable learning will not take place.

As Daniels (1992 p.311) states, 'the boundaries of the nation-state have become permeable to social and economic flows...as the idea of the 'nation' has been put into question, so a whole range of other places and place identities have come into view, from the parish to the globe'. Children have a right to a place identity at all levels and education should provide this legal entitlement.

Education by parents and other close friends should be acknowledged as vital, possibly the most significant source of information for children at four and seven. Schools in partnership with these people could harness and work with these rich sources of

information in such a way that would extend place knowledge for all. Baldwin and Moses (1996 p.1915) acknowledge that the 'purposeful intervention of others' is necessary for a person 'without the ability or inclination to engage in social information gathering' and where 'direct experience and observation' is not possible. If a Vygotskian (ZPD) approach to place learning is taken (with the recipient as Baldwin and Moses suggest being active not passive) there appears to be few constraints to distant place learning.

How then can education about distant places provide an opportunity to extend vocabulary and therefore knowledge and allow the student to be an active learner? While it is accepted that children cannot travel the globe for direct experiential knowledge, it is not inconceivable for the classroom practitioner to bring the whole world into the class. Visiting speakers, related to class members would be an ideal starting point for immersing the children in the experiences, sights, smells and tastes of a distant locality. Collecting and examining spices and foods from that country (with due regard to health considerations like peanut allergies) the children could use their senses as tools of investigation. Why could the children not try to carry water on their heads too just as Stacey observed in Gambia? With the ever present need to link foundation subjects to literacy, children could use their skills to research the country, its people and life styles and then use role play to portray aspects of what they found out. Through open-ended tasks adult guidance can lead the children beyond what they can do into the realms of what they might be able to do. In this way children's understanding and knowledge is stretched and challenged and they might appreciate why for instance water pots were held on the head and not on the hips?

Before the classroom-practitioner becomes too enthusiastic the traditional educational theories, which have been a foundation for decades, should be remembered... or should they? This study began by questioning the influence of development on children's distant place knowledge yet at the time Piaget penned his findings the world was far removed from what it is today. If science, innovation and enterprise have pushed back the physical boundaries of the world to facilitate global interaction and information

systems why has education not kept equal pace? It would not be unreasonable to assume that even Piaget would be excited by the prospect of re-investigating his own theories as the world enters a new millennium. It is only by challenging such out-dated theories that education will be able to realise the potential of the child and cease to constrain and prescribe their capabilities. It is only by realising the child's capabilities that the wider world can be grasped securely and confidently by each small hand and it is only by each child taking hold of the world that they can make their own fingerprint contribution to it.

6.6 Implications for National Curriculum Requirements

At the time this research began (1995) the National Curriculum requirements (Chapter one) seemed certain to look forward to a time of stability until review in the year 2000. By 1998 (Qualifications and Curriculum Authority 1998) the 'slimmed down' version for geography was acknowledging an ever increasing period of change and distant place geography (certainly in Key Stage One) was being relegated to the luxury of spare curriculum time. By July 1999 the QCA document unveiled a geography curriculum for children which further reduced distant place study. The resulting ethnocentric focus is brought into question as a result of research such as this. Government initiatives for the introduction of another strand of the curriculum, citizenship, from September 1999 appears at odds with the current trends in the geography curriculum unless citizenship ignores the notion of a global community.

The farthest corners of the world are only moments away, such is the advance of technology. As Catling (1993 p.346) acknowledges, 'we must recognise that children already hold and use a host of worlds in their heads as they walk through the school door. In fostering their learning we must help them gain a firmer grasp on the world, their place in it and their contribution to it'. It is not unreasonable to assume that technology could help provide that firmer grasp but only in conjunction with other appropriate methods of teaching.

This research suggested that distant place study should be introduced at an early age if for no other reason than to prepare children about people and places farther away. Yet there are other equally important reasons. Wiegand (1992 Chapter one) discusses many of these. He discusses issues of international understanding, geographical education, world interdependence, a European dimension in education, development education, multicultural education, environmental education, human rights education, peace, and citizenship. However, beyond these there exists a need to introduce distant place study to provide a richness and deeper understanding of life beyond our own, to actively challenge racism, to push children's intellectual development beyond current theoretical limitations and to provide a vehicle for teaching other educational concepts (for instance, why has the shaduff been used in Egypt so successfully for so long? Can they improve the design and apply the technique elsewhere?)

By failing to acknowledge the global nature of society is to fail to prepare today's children to be tomorrow's citizens. The European Union's new commissioner for education, Viviane Reding, took up her post in September (1999) and has already acknowledged the need to challenge current educational practice in some member states. She states:

'You cannot continue to make education based purely on national considerations. Young people today will grow up in a completely different world, with a big Europe, in which they will circulate. We have to prepare them for that'. (Times Educational Supplement July 23 1999,p.20)

It is not unreasonable to surmise that the basis of such preparation lies in children's untapped potential to discover more about people and places in other parts of the world. The reason this preparation has failed to materialise is because educational doctrine has failed to evolve with the changing times. If traditional theories are not challenged the world for our children will remain essentially egocentric and the potential of the technological age will result in no more than a generation of joystick experts. If tomorrow's citizens are to operate competitively and co-operatively in the global environment, today's children should be provided with the educational opportunities of

a globally aware curriculum. The most appropriate vehicle for these opportunities are surely through a geography curriculum which by its very name, 'geo' meaning earth, looks at the whole world.

6.7 Implications for Future Research

Many avenues and questions offering further sources for exploration arose during the course of this research for instance fantasy place responses. Adhering to the focus of the study non-geographical digression was avoided. At the conclusion of this research some pertinent questions still exist. However, as Catling (1999a) acknowledges, research into primary geography is 'low key' and where more fundamental issues remain unexplored (Bowles 1997) it is not certain whether such questions will ever be attributed with answers. However, two important questions remain. The first is whether a similar study, with children of different socio-economic backgrounds would obtain similar results to these? Secondly, what impact direct distant place teaching might have on children's (aged four and seven years) perceptions of unfamiliar and faraway places? D'Arcy (1989 p5) acknowledges the human capacity to deal with the unfamiliar:

'Our capacity to reconstruct enables us to be flexible in our understanding of the world, continually adjusting our personal knowledge in the light of new experience and making sense of what is unfamiliar in the light of present knowledge.'

Therefore, if D'Arcy is correct and this study would support such a view, future research would need to determine how far appropriate tools (language, verbal interaction, expectations for re-presentation and sharing experiences) used in teaching about the wider world can influence perception of 'place' and enable the unfamiliar to become understood.

At the outset, this research acknowledged the problematic nature of the study, not least of which is working with young children. However, the challenge of working with

children at this the most formative stage in their lives is at once both rewarding and fascinating and any potential researcher should not be dissuaded in favour of a more communicative age range. Indeed, as this study and others (Palmer 1999a) reveal, research into early childhood knowledge is essential if misconceptions about places are to be corrected and longitudinal studies (Palmer 1999b) are to be applauded as preventative.

In the same way, if children by the age of four can learn to master much of their native language system, why should their powers to perceive a world beyond their own be the subject of scepticism? To unlock the secrets of a young child's mind is to have the power to catapult our educational achievements into the 21st century. If, according to this study, young children's perceptions of distant places are reliant on information from adults beyond school, there appears a need for significant research in order to capitalise on such events as family travel and evaluate the role of parents and family in formal educational settings. Using more child-motivating techniques such as sending a bear (QCA 1999) on the children's travels is not only fun but hopefully also serves to increase the child's (and fellow classmates) awareness of the place visited.

Also, as a result of this study, it would appear that future investigation into the effects of more interactive media presentations and methods might also reveal other educational potential. Finally however, from a whole curriculum viewpoint (not merely geographical) research into commonly adopted educational theories might provide a new pedagogic foundation more applicable in the next century with its anticipated technological advances.

This study began in the classroom and in the classroom it shall end. Annie aged just five years left the class to live in America. Jennifer, her best friend (also five) discussed her friend's departure.

' Annie's in America now. She's not in school 'cos it's not school time over there. When she looks out of her bedroom window she can see this big statue

(Statue of Liberty) but she hasn't got a garden 'cos she lives high up. At the end of the summer Annie is moving into her house, it's not near the statue and she'll have a garden there. My mummy says I can go and see Annie one day but I'll have to go by plane 'cos it's a long way and you can't drive.'

How far can the world inside Jennifer's head be widened by the time she leaves school?

For the Jennifers and Annies, may your horizons expand and may you each hold the world in your pocket.

APPENDIX 1

CHILD CASE STUDIES

SEAN (NURSERY)

Sean drew England, a place he knew and all the members of his family. The people are wearing swimming trunks and others wore trousers, shorts, tee shirts and jumpers. Sean said the people did 'shopping' and 'washing' and were happy because they had 'some friends'. He thought the place would be 'really boiling' and the weather 'really hot' and therefore did not want to live there. Sean said not all hot countries were the same others being 'windy..sometimes sunny' or 'sunny and rain' or sometimes 'rain and cloudy'.

Sean thought the photograph was of England. He observed the people 'speaking' and suggested they might be 'packing'. He thought the puddles were from rain and not the sea and the foreground was a road. Sean said the men in the background were having a picnic. He commented one woman was wearing shoes and the other was not wearing any and they used the hotels (buildings) although he commented later that they could be hospitals. Sean said the people shopped all day for football boots or engaged in 'planting' and 'sewing' bears'. Sean felt it was 'too hot' living there. Sean said the weather was 'sunny'. Sean said he thought the sea was missing from the photograph and intimated that it was just out of view.

Sean drew Mars because he had seen a Mars ice cream and all his family. The people were wearing 'snow things' and described them as 'those things where you put your legs in and your arms in'. They also wore gloves, boots and wellies. Everyone wore those things but when it was very cold they also wore jackets. People went 'to Australia' all day to shop. Sean said the people on Mars did have jobs and would 'get

dressed and get the washing basket, have baths and go to football'. He said people were happy because they liked 'going in the snow'. He felt it would be 'snowy' living on Mars and the weather was also described as 'snowy' all the time. Sean wanted to live there and play in the snow. He said that there were other types of cold countries but he did not know what they looked like.

Sean thought the photograph was of America and people in the picture lived there. He agreed there would not be houses in the mountains. He stated the people were wearing 'clothes' but not like his own. He said the people did not work and they were happy unless it was not 'snowy'. He added 'windy' as a weather type. He stated he would like to live there and make 'snowballs and snowmen'

Sean viewed all hot places as England and appeared to have little wider world place name knowledge. Sean's family were important to him, featuring in his drawings but his knowledge of activities beyond the home and immediate locality was minimal. Sean appeared to have little knowledge of weather. He based other people's feelings on his own. Generally, Sean's knowledge of the world was limited and his perceptions were based on personal experience.

JOSEPH (NURSERY)

Joseph drew America, having visited there. He drew himself playing football with some friends. He said the people in America wore tee shirts, sweatshirts, shorts and trousers. Jobs included planting trees and plants and digging holes. Sunshine and swimming made the people happy. Joseph felt it would be 'very hot' living in the place. The weather was also very hot all the time across the whole country and all hot countries were the same.

Joseph said the photograph was of America and the people were on holiday. He suggested the people had been shopping. The puddles were from the rain. Joseph said the men were having a picnic. He stated one man was wearing a blue jacket and shoes

and woman's hat would stop sunburn. The other woman was 'alright' though. He said the Nursery children did not wear the clothes worn in the photograph because they were too big. Joseph reminded the group that 'we don't know where they've come from'. Joseph agreed the buildings were hotels and the people would have to go out to a supermarket to shop for food and shoes all day. Other jobs included 'building houses and doing paperwork'. He felt the people were happy because it was sunny, 'nice and bright' and 'they like a blue sky'. Joseph felt it would be 'too hot' living in the place although it might rain. Joseph said he would live there because it was sunny.

Joseph drew the seaside for his cold place. He stated he knew all about it because he had seen them on the beach. He said he drew a snake, his house, two suns, rain, blue sky and red and black grass. He did not draw any people as they were inside. He suggested the people would spend all day shopping or go to work writing their names on 'special computers'. All the people were wearing jumpers, sweatshirts, trousers and shorts. Joseph said the people were sad because it rained every day. It would be 'rainy' living there all the time. He wanted to live there with his family. Joseph suggested other cold countries would be 'nice and sunny'.

Joseph suggested the photograph was the North Pole because it was 'all snowy'. He observed that he had a hat like the ones worn in the photograph and that they were 'special'. He said the people were on holiday as there would not be houses in the mountains for people to live in. He noted that some people were standing on the swings at a playground. Joseph described the clothes as 'snow clothes' and not the sort he would wear. He felt people would not work because they would have to play on the swings and this made the people happy. He said it would be 'snowy', 'windy' and 'icy' there. He knew snow melted into water and skis were used in the snow. Joseph wanted to live there because of the snow.

Joseph identified both hot places as America. He did not draw his family perhaps suggesting a growing independence. He had clear ideas on many issues and was not swayed by others. He appeared to have the widest weather vocabulary but little

knowledge about clothing or work. Generally his responses indicate 'self' and his own personal experiences were central to his thinking.

JACK (NURSERY)

Jack drew what he thought Mars would be like. He drew himself but other people were apparently inside. The people wore 'flower' and 'eye' clothes and were drinking milk because it was so hot. Jack said that sometimes the ladies picked up stones and the man ('only the man') fixed things. They had no other jobs. He said the people were sad because it was 'so hot' but they were happy 'when they've drunk lots of drinks'. He thought it would be very 'red' living in his place. The weather was 'sunny, rainy, stormy and cloudy' all the time. He did not want to live there as it was too hot. Jack talked about his house as hot and cold and 'freezing when it's night time'. He said other hot countries looked hot but were cold.

Jack thought the photograph was China because the people were brown. He agreed the people had been packing and shopping. Jack observed the puddles suggesting they were rain puddles. He said the women were standing on grass but later said sand and referred to it as a beach. He thought the people might be on holiday. Jack stated that one person was wearing blue and white and that one woman was wearing a 'white thing' (on her head) calling it a towel and then a sheet. He said he did not have any of those types of clothes. He reiterated 'they're not from England', 'they're from China'. Jack thought the people lived in the hotels (buildings) and said the long buildings were houses. He suggested the people were shopping, buying food or jelly shoes and the people would work by selling clothes. Jack said the people were happy because they were smiling and they liked the hotel although he thought it 'yucky' and at night 'bats come'. He did not want to live there for this reason. Jack could not see the sea or tents and indicated they were beyond the edge of the photograph. Neither could he see his friends. He felt the sun had 'dried off' the sea and 'gone to a different place so somebody else can swim'.

Jack drew his home as a cold place. He said it was raining and sunny but the sun was not hot. He did not draw any people as they were inside eating. Jack stated that he did not know what the people inside would be wearing but normally in cold countries they would wear warm clothes. He thought that the people might play on the Sega Mega drive but they did not do any other jobs. Jack said the people could be happy and sad when it rained. He thought 'it would be good' living in the place' and described the weather as sunny and rainy. Not all the country had that weather. Sometimes it was 'rainy, sunny, cloudy and dark'. He wanted to live in his place. He thought all cold countries were like the one he had drawn.

Jack suggested the photograph was England. He commented he had different snow clothes. He thought the weather was 'snowy' but was uncertain if the snow melted. He felt he wanted to live here to make snowmen and snowballs. Jack thought the rest of the people were inside. He also felt that there should be some 'skiing sticks' in the picture. Jack explained 'they don't have trees in snow'.

Jack's responses were often superficial but sometimes hinted at deeper knowledge, for instance he knew Mars was red. Jack's picture of Mars could be what Vygotsky (1962 p.66/7) calls a 'pseudo concept' which needs refining through language. His imaginative additions about Mars may be 'augmentation' of his cognitive perceptions of distant places (Downs and Stea 1973 p.21). Jack's knowledge of weather and work was minimal. Although he did have some knowledge of wider world places he had little knowledge of cold places. Jack's dialogue includes many comments about 'self'. Jack's comments about China and the women's clothes may indicate the beginnings of stereotypical thought.

STACEY (NURSERY)

Stacey drew 'a hot beach' in Gambia having been there twice for a holiday. Stacey drew herself wearing a shirt and trousers and stated other people in Gambia wore 'different clothes than I wear'. She said 'they wear dresses' but 'different colours' and

also trousers and a sweatshirt. People in Gambia walked on the beach all day but some grown ups in Gambia had jobs like carrying water on their head in pots 'because they need water'. From Stacey's description it appeared that the house she was in had running water but the resident population brought water into their houses in pots. She said other jobs were selling clothes, specifically hats. She said the people were happy because 'lots of good things are happening...the rain could come'. She felt it would be very hot living there. The weather was 'very hot' but sometimes they had rain. However, she did not experience rain when she went there. She said not all Gambia had hot weather, some parts had rain. Stacey explained she would not want to live there with her family because another family would need the house. (It is assumed the house was a timeshare.) Stacey felt other hot countries might be different with rain and they looked sunny.

Stacey thought the photograph was Gambia and the people were at home. Stacey told how she had had a picnic on the beach. She mistook one of the women for a man and felt the people would live in the hotels (buildings in background). She said the people would buy 'shiny shoes' all day, or do writing or sell hats. Stacey noted two people smiling and were happy. She thought it was 'too hot' living there and she would get 'too sweaty'. Stacey explained from her own experience that there could be storms in the night. She did not want to live there.

Stacey drew her own house for a cold place. She drew herself and someone jumping out of an aeroplane with other people inside. They wore dresses or trousers and tee shirts if it was cold. Stacey suggested the people did washing and tidying bedrooms all day. Jobs included going to the playground, driving lorries and building homes. The sun made the people happy. She felt the weather was snowy and it would be 'snowy' living there. She wanted to live in the place as it was her home anyway. She stated some countries were different being 'sunny', some 'rainy' and some 'windy and winter'.

Stacey suggested the cold place photograph was South America and that the people were on holiday although she later said they were 'at home'. Stacey commented that the clothes were different. She felt the people were happy and sad but gave no reasons. She described the weather as 'just snowy' every morning adding 'it doesn't go away, it doesn't melt'. Stacey wanted to live there to make snowmen.

Stacey revealed some knowledge about Gambia and applied this to the photograph. Her Dialogue for instance about getting water, hinted at deeper knowledge but it may be her language ability was not as developed as her cognitive ideas. She had little knowledge of cold places or employment. Stacey's personal experiences have made an impact on her perceptions of hot places. Her perceptions do not appear to be stereotypical.

REBECCA (NURSERY)

Rebecca drew her Nanny's flat which it is assumed was in Spain and said it had two swimming pools in which she had swum. She drew herself and her mum. She was wearing a dress but she said she also wore a skirt or shirt and other people wore dresses. She acknowledged she did not know what the other people did all day but suggested swimming and shopping. Rebecca said the sun made the people happy. She thought 'lots of different people' lived there. The weather was described as 'lovely and shiny' all the time and she talked about a storm she experienced whilst there. Rebecca stated she would like to live there because she loved her Nanny and Granddad.

Rebecca thought the hot place photograph was of Spain and the people were on holiday. She noted that the people were speaking to each other and smiling. She suggested they were packing food up. Rebecca stated the puddles were from the sea and the foreground was sand. Rebecca suggested the people were going to have a picnic or do the garden. Rebecca noted that some of the clothes were 'spotty' and some were different' and that some of the people wore shoes. Rebecca suggested that the people had come from the houses and hotels (buildings) in the background. She said the people were 'gathering (buying clothes', 'buying hats', 'going to Pizza Hut' or 'sewing

dogs' all day. Rebecca said the people were happy and tried to explain 'they like their charges'. This was never satisfactorily clarified and Rebecca simply stated 'smiling'. She felt the place sometimes had rain but the rest of the country was 'sunny'. She did not want to live there because she would 'get sweaty' as another child had suggested. Rebecca thought the sea was beyond the edge of the photograph.

Rebecca drew her own home as a cold place. She drew herself and her sister playing and wearing leggings and tee shirts. Other people in the cold place also wore 'snowy' tee shirts when it was cold. Rebecca suggested the people shopped, ate, went to the playground or a friend's house all day. Rebecca thought everyone was happy because the sun was 'shining on both of them'. She suggested the weather was happy but it could also be sad stating 'sometimes it's chilly and sometimes warm and sometimes hot'. The whole country experienced that kind of weather. Finally she said she would like to live there with her family because she loved them.

Rebecca thought the cold place photograph was England. She thought the people lived in the place but later changed her mind and said 'I think they were at holiday'. Rebecca tried to explain that 'there may be a trap in the house'. When another child suggested that some of the people were standing on the swings she added 'there's a pig who's doing that'. She noted the clothes were the sort of clothes she might wear. Rebecca thought the people had jobs and tried unsuccessfully to describe them. Then she simply said 'shopping', 'writing' and tidying up as jobs. Rebecca stated the people were happy because they could 'swing on the swings' but would be sad if they did not have a home. Rebecca contributed 'winter' to the discussion about the weather. She wanted to live there to make snowmen. Rebecca mentioned she had experienced skiing.

Rebecca's dialogues included many personal comments and anecdotes, usually triggered as a response to something in the discussion. She had little knowledge of weather, employment or cold places. Rebecca appeared to lack the language ability to express her ideas at times. Her perceptions of places were tied into her own experiences.

ZARA (NURSERY)

Zara drew her house and a farm for her hot place adding that she was going there on holiday. She did not draw any people as they were inside cooking or playing. She said the people were wearing dressing gowns because they were 'chilly inside'. She explained that other people in the country wore jeans, leggings and jumpers. Zara suggested that the people were 'cleaners' or did 'station work' since they 'say all aboard and wave a flag'. She said the people were happy when they had 'a nice big house' and sad when they had 'a small house'. She thought it would be 'nice' living in the place. The whole of her country had 'sunny' weather all the time. All hot countries were as she had drawn.

Zara thought the hot place photograph was Scotland and the people were at home. She said the women were 'packing their clothes up'. She commented that she thought the puddles were from 'pouring rain'. She observed one woman was wearing flip-flop shoes. Zara suggested that the people's jobs would include 'making hats', 'sewing hats', 'sewing dollies' or 'sewing bears'. She felt the people were happy because they liked sunshine and books. She stated she thought living there would make her 'too sweaty'. One child suggested that at night there would be bats and Zara added 'and ghosties'. Zara agreed the sea was below the edge of the photograph.

Zara drew a farm in Cornwall for her cold place because she was going there for Christmas and her Mum had told her about it. She drew herself, her mum and dad and a friend. The people were wearing dressing gowns and slippers because it was nighttime adding other people would wear bikinis and shorts in the daytime. When it's really cold they would wear tee shirts. She explained that the people 'work in the cooking, in a hotel..in the pub..in the restaurants and in shops'. They also 'throw snowballs at the windows'. Zara explained that the people were sad because they had been told off but they were happy playing with their friends and it was hot. When asked what she thought it was like living in the place she stated 'some of them might be cold'. She

stated the weather was always 'cold and it's got snow' just sometimes it was hot. The whole country had that weather. Zara indicated that she would like to live there with her family because 'it's nice and you have lots of animals'. She said that all cold countries were the same as her one.

Zara did not comment on where the cold photograph might have been. She said she did not wear the same clothes as those shown in the picture. She stated she would like to live there because of 'snowmans'. She stated she could not see any trees in the picture.

Zara did not mention any places outside the United Kingdom. She appears to lack any knowledge of distant places in general especially about concepts such as weather, work and appropriate clothing. Twice she drew places she would be visiting and her information was presumably from other people. Zara's dialogues suggest she has a very home centred perception of the world. It may be that if children do not need to know about distant places their perceptions of them may remain vague.

JASMINE (YEAR TWO)

Jasmine drew Australia as her hot place as her grandparents had been 'quite a few times' and had shown her the 'pictures'. The people wore tee shirt and shorts and also trousers and 'even jumpers sometimes'. Jasmine said the tourists would go to the beach 'a few days a week' and the others would 'do their jobs including owning hotels and things'. She said that not all the people would have jobs, those that didn't would do the same as the tourists. Jasmine said the people were happy because 'they've got a lovely kind of country' but 'moments they could be sad'. She thought it would be quite 'nice' to live there because you could go and 'play on the beaches every day'. Jasmine described the weather as 'very hot...mostly all of them'. Half of the country had weather like that and half did not. Jasmine wanted to live there because it was a nice country. Other hot countries were hotter, some had rain and some deserts and 'other kind of things'.

Jasmine thought the photograph of the hot place was China, India or New Zealand. She thought the foreground might be a beach but not a road. Seeing the puddles she asked 'if it was a hot country would it rain a lot?' She observed the people were 'black' and talking. Jasmine suggested the buildings could be a hotel 'for the visitors'. Jasmine observed a 'waistcoat' and she thought the people were from India because of the clothes. Jasmine suggested the woman's hat was so the 'head doesn't get burnt'. Jasmine felt the men might be tourists because they were wearing western type clothes. She tried to describe the buildings which she thought might be a hotel or a factory. She thought there might be a caravan selling ice (on the beach). Some children spoke of the skin colour of the people and Jasmine suggested that 'we could have gone there and we're white'. She described the weather as 'half hot and half cold at night' and other parts of the country might 'have a cool breeze'. Jasmine said that when she looked at the picture it 'makes me think I would like to live there'.

Jasmine drew Morrison Street in Scotland as a cold place stating she used to live there. She did not draw any people as they would be working in the factory. She said most people would wear the same type of clothes, jackets, jumpers, trousers and a few woolly hats. When it got warmer Jasmine explained that they would wear shorts and tee shirts. She stated that people would work all day in the factory or as shopkeepers. Jasmine felt the people could be happy or sad stating 'it's the same as down here, we can always be happy and sometimes you can be sad'. She thought she would like living there. The weather was described as 'quite rainy' and 'sometimes it snows. In winter it snows nearly every day'. She added that in spring there would be 'quite a bit of rain and sometimes... very nice weather'. She said the whole of the country was the same. Jasmine stated some cold countries were different having more snow 'even in spring'.

Jasmine had a broad knowledge of place names. She had not presumably experienced the places she mentioned but shows through her dialogue a reasonably wide knowledge of places. This knowledge could be what Downs and Stea (1973 p17) call 'attributive' knowledge relating to a place. Jasmine sometimes used personal anecdotes but often to support a statement. Jasmine showed the beginning of reciprocity suggesting contrary

to popular opinion that she and therefore others, might not like snow. Her language ability appears to allow her to explain her perceptions and thoughts about places that are special to her and those more distant.

CHLOE (YEAR TWO)

Chloe drew Lanzarote as she had been there for a holiday. She drew herself, her brother and a friend counting cars. She described the clothes as shorts, skirts and tee shirts. She said the people in Lanzarote wore other things but she did not know what and suggested when it was very hot they wore 'those sort of wrap around clothes' adding 'it's like a blanket they wrap around' and 'it makes a skirt as well as a top'. Chloe admitted that she did not know what the people did all day but guesses 'they probably work'. She stated that 'we never really went out, we stayed in the swimming pool all day'. She thought the people might have jobs perhaps in the market. Chloe felt the people were happy because they had a lot of land and things to do and would be sad when the tide went in destroying 'the things they had built in the sand'. Chloe thought it would be 'hot and things like that' living in the place but 'probably nice...if you had a swimming pool'. She said the weather was 'hot all the time' and went on to explain that she never had rain there. She did not know what the rest of the country experienced since she had 'only been to one part'. Chloe only wanted to live there if she had a swimming pool. Chloe spoke about the Bahamas as another hot country being different to Lanzarote because it had rain and she had got burnt there.

Chloe did not suggest a location for the hot place photograph. She noted 'there's black people'. She thought the women were on a road with puddles and suggested people had thrown away cartons of water. The discussion suggested that the road might be a beach and Chloe agreed after observing what she thought were shells. She felt the people were on holiday but perhaps they live in 'far far away' in the country. She observed the flats and said the people's houses would like 'kind of like that'. Chloe tried to help another child describe a market stall 'with a roof on'. Chloe said one man was wearing 'like a shirt', later noting it was blue and a woman was wearing something 'a bit like a

dress'. She described the hat as 'a wrap around hat'. She thought quite a few people in the place would work, suggesting a market. She thought the people were happy because they were smiling or that they might find a caravan selling ice cream on the beach. She thought 'it'll be nice' to live there. Chloe agreed with other children that it was hot all the time and said it was 'really hot in the day time and probably at night it would be sort of warm'. She added that 'it might have some rain'. Chloe did not want to live there because 'I like it when...you've got more bigger space' and that she did not like it hot.

Chloe drew the arctic as her cold place and what appeared to be ice flows. She did not draw any people because she said it was too cold to live there but added there might be a few people. She did not know what these people might do all day but suggested they might wear 'leather and fluffy and things around it...coats and fluffy jumpers'. She said the weather was very cold all the time and probably across the whole country. She did not want to live there as it was 'too cold'. She thought other cold countries might be different but did not know how.

Chloe suggested the photograph was the arctic, Iceland and later France. Chloe observed the 'swings' and repeated 'sledges' after another child had mentioned it. Chloe asked if one person in the picture was Father Christmas because of the fur around the hat. She thought one building could be a school, an office, a bar or a house. When another child mentioned a campsite Chloe talked about Brownies and lighting bonfires. She noted that the people were wearing thick boots because it was cold. She described it as 'really freezing'. Chloe suggested that the people were 'having fun'. One child tried to think of the name of frozen dinosaur bones and Chloe correctly offered 'woolly mammoths'. She said the people were making things out of the snow such as 'snow monsters' and she agreed with the suggestion that they might be teaching people how to ski. She further suggested they could be 'managing a ski place'. She felt the people were happy but then said 'a bit of both'. When a child suggested that the people might not like the snow Chloe said 'some children might'. Chloe was adamant that she did not want to live there 'no way' it was 'horrible'. Chloe thought the shops could be out of sight.

Chloe has more knowledge of hot places than cold presumably because she had visited a hot place. She admitted that her knowledge was quite limited. Although Chloe uses her language ability to help other children find appropriate vocabulary she also latches on to ideas suggested by them. The evidence indicates that Chloe could develop her knowledge with further appropriate support.

CAROLINE (YEAR TWO)

Caroline drew Australia as her hot place as her grandparents had been there. She drew her brother and herself looking at koala bear and wearing short and tee shirt. Caroline added that people in Australia also wore thin trousers and 'sometimes jumpers'. Caroline did not know what people in Australia did all day but suggested 'look at the animals'. She could not suggest any sort of jobs. Caroline felt the people were 'mostly happy' because it was never really cold. She thought it would be 'quite nice' living in Australia because there are lots of animals. She described the weather as 'sometimes sunny, sometimes it rains a little bit'. Caroline said that was the weather the whole of the time but that other parts of the country might have snow. She stated that she would like to live there because 'it looks nice'. Caroline said that other hot countries were different because 'some are snowy more often than sunny'.

Caroline did not suggest any places for the location of the hot place photograph. She observed that the people in the photograph were 'talking' and the hat worn by one of the women was 'like a cloth...towel'. She explained that flip-flop shoes were being worn because 'it's really hot'. Caroline supported the notion of the people being happy by suggesting that they might be 'going to get a nice coffee'. She thought 'it'll be nice' living there but did not know why she felt this. She said that one of the buildings could

be a flat. She described the weather as 'cold and sometimes it'll be hot in the night'. Caroline said she wanted to live there because she liked the picture.

Caroline drew the North Pole as her cold place because her brother's friend had been there and told her about it. She drew a boy wearing earmuffs, a woolly hat, scarf, jacket, jumper, shoes and two pairs of trousers. She suggested that 'some people work' and others 'play in the snow'. She discussed the igloo she had drawn stating some people lived in this and others lived in 'warm houses'. She could not suggest any jobs. Caroline felt the people were happy but could not say why. She did not want to live there because she did not like the cold. She described the weather as 'very snowy and rainy and cold'. Other cold countries differed because they were 'a bit sunny and rainy and a bit of snow and some are rainy and snowy'.

Caroline suggested the cold place photograph was Iceland. She dismissed the suggestion that Father Christmas was in the picture. She suggested the trousers worn were thick 'because its very cold there...really cold'. Caroline suggested the people were 'having fun' and that they might have jobs but did not know what. She called the mound of snow an igloo and thought one of the buildings might be a house. Caroline felt the people were happy 'because of the snow' and the children 'really happy because they can build lots of snow men and snow dinosaurs'. She later said the people might be happy or sad. Living in the place she thought would be 'nice and cold' and 'interesting'. She described the weather as 'snowing and sometimes it is raining and sometimes there is a bit of sun'. She thought the snow might melt, she was indecisive about the weather across the whole country. Caroline did want to live there because it was 'fun and it looks good'. She observed that they could only see a part of the country.

Caroline had listened to information from others but appeared not to be able to apply what she knew to other places. Hence knowledge about one hot place, Australia was not transferred to other hot places. Her responses are often hesitant and infrequently forthcoming. Her language remained simple throughout but apparently appropriate for

her descriptive needs. Caroline indicates that she may have some stereotypical images about cold places.

MICHAEL (YEAR TWO)

Michael drew St. Arthur's Cave in Spain as he had been there in the summer holiday. He described what he had drawn listing palm trees, 'little brass things that stick up when you pass them' and the cave. He drew himself wearing a tee shirt 'with short sleeves and shorts' walking into the cave. He said girls wore short dresses and 'sometimes tee shirts and shorts'. He suggested the people ate or watched television all day although 'sometimes the people work in St. Arthur's Cave in the shop'. Michael felt the people were happy and sad. He thought it would be 'very hot' living in the place further adding 'it's not cold, its hot most of the time...it's only once cold it rained once'. Michael stated that it usually 'rains quite a lot' when he goes on holiday. He described the weather as sunny most of the time and named two places which did have the same weather, Belaweberra and Costa del Sol. He said he would like to live there because he would not be cold or wet.

Michael said the hot place photograph was Bethlehem. He suggested that the foreground was the beach and he saw 'seaweed' (leaf litter) on the ground. Michael felt that if the people in the picture lived there 'they'll be very brown' but if they went there for holiday they wouldn't be. He observed the people were black. During the discussions about the buildings Michael suggested that if they were houses they would have more space. He suggested the two men in the background were 'spying' and the women 'shopping'. He observed that the women had hats on to stop 'the hotness getting them'. He said a man was wearing simply 'blue'. Michael agreed that the buildings could be a factory. He thought the people were happy because they had found somewhere selling ice creams or because it was hot. Michael responded to the question of what it was like living there by stating 'there might be people who are black and some are white'. Michael felt the weather was not hot at night. He did not want to live there as there would not be any trees.

Michael drew Iceland as his cold place because his Uncle had told him about the North Pole. (He used both place names at various stages of the discussion.) He drew 'Santa Claus' in his red suit and some children in jumpers. Michael suggested that in the summer the people built snowmen and threw snowballs. He thought some people might work in restaurants or 'in kind of shops'. The people were happy because they were playing. He related a story about a boy called Peter who was hit by a snowball. Michael did not want to live there because he liked 'the sun' and going swimming. He described the weather as cold all the time across the whole country. He said other countries were different because 'some have a winter...they just have wind but there is rain as well' adding 'not many countries have snow or ice'.

Michael thought the cold place photograph was of the North Pole. He thought the people in the picture were children and later suggested they had gone there because there might be people who were not 'kind' to them. He suggested the place could be a campsite. He asked if the people were going to 'walk up that mountain with their skiing things on'. He said that the people might be teaching others how to ski. He did not think that there could be shops at the top of the mountain and suggested the buildings could be schools or offices. He observed the 'little wolves' in the picture used to 'pull sledges along'. He agreed with the suggestion the pile of snow was an igloo. Michael said the people were happy because they could 'get to play'. Michael thought it would be fun living in the place. He contributed little to the weather discussion.

Michael had more knowledge of hot places than cold although he appeared confused about the colour of people's skin. He also appeared to be easily swayed by the comments of others. Michael's dialogues contained many personal anecdotes relating to his own experiences. These are usually triggered by the discussion itself. However his knowledge and input in the cold place discussion appeared to reveal a lack of knowledge especially with regard to work and weather. Michael shows some immaturity of place knowledge and the beginnings of stereotypical thoughts about cold places.

LOUIS (YEAR TWO)

Louis drew a desert and knew about it from a book. He did not draw any people, just footprints. He stated 'there aren't a lot of people in the desert'. If he had drawn people he said they would wear tee shirts and shorts or jeans, a top and a hat. Louis suggested the people walked and looked for food all day or engaged in 'making money' by putting paper into a machine to turn it into money. Louis said the people were happy but did not know why. He thought it was 'nice and hot' living in the place and the weather was hot but not all the time, sometimes it being cloudy but not raining. The whole of the country had weather like that. He did not want to live there because he felt he would have to walk a long way to get food from the shop. He suggested other hot countries were 'rainy...windy' and looked different.

Louis suggested the hot place photograph was Africa, Europe or Spain. He thought the foreground was a road and not a beach. He thought the buildings were houses. He suggested that the people lived far away in that country but drove there for holiday. The people could get their food from the ground or from 'little shops' like a market stall. Louis thought the women might have breakfast in their bags and the men might be going fishing. He felt the people were happy because it was hot. Louis described the action of the tide. He thought it would be hot living in the place and that the weather would be hot and 'at night time it'll just be windy'. Louis disagreed with the suggestion that one of the buildings was a hotel. He stated he did not want to live there as it was hot and he liked the rain. He also added that 'they don't have houses, they only have blocks of flats'. Louis noted that there were not any shops and that the people could not get any drinks.

Louis drew Canada having been there twice and showed a lift that 'takes you to the skiing part'. He did not draw any people but said they were in the cable car talking and looking out of the window. He described the clothes worn as 'water jackets', scarf and a furry coat under the water jacket. He said that usually people in Canada wore trousers

and a coat and earmuffs. Louis said it never got hot in Canada and that the people skied all day or went to the shops. He suggested skiing, making cars and 'shops' as jobs. He felt some of the people were happy and some sad. They were happy when they enjoyed themselves but could not think what would make them sad. He thought it was cold living in the place and that was what the weather was like. He did not know if the whole of Canada had the same weather. He did not want to live there as it was too cold. Louis felt other cold countries were different but could not say in what way.

Louis suggested the cold place photograph was of Canada because there were lots of mountains. He did not think the people were Eskimos instead he said they were the managers of the place. He pointed to the buildings and said 'that's where you pay to go to sleep'. He felt the people were going skiing and climbing. He noted the people's boots were joined on to their trousers and agreed that they were dressed like that because it was snowing. Louis suggested the people might also be going to make something out of the snow or making a shop because 'there's not a lot of shops...or houses'. Louis said the people were happy because of the snow but some were sad because of the cold. He thought it would be 'really freezing' living in the place. He told a story about his father who climbed to the top of a mountain but could not see anything from the top.

Louis showed personal knowledge of a cold place. He applied this knowledge when engaged in both cold study tasks (draw and write and photograph discussion). On the first occasion he drew a ski resort and he applied the same knowledge to the photographic discussion. He also appears to have some knowledge of hot places from sources such as a book. Although he knew the landscape of a desert he had little knowledge beyond this. His place name knowledge was greater for hot countries although he was adamant the cold place was Canada. Louis had little knowledge of weather types and work. His language appeared adequate for what he wanted to say. He included anecdotes in his dialogue. Louis' knowledge came from a variety of sources and with appropriate teaching this could be extended.

JEREMY (YEAR TWO)

Jeremy drew a place that he had been to although he had forgotten the name. He described the palm trees and banana trees on the beach. He drew himself, someone taking a photo and his Nanny who was lying in a deck chair. The clothes worn were trousers, shirt and tee shirt and shorts but explained that other people in the country wore 'these things what you wrap around and they're really long like a blanket...like a shawl'. He thought when it was really hot the people would cut their shorts shorter. Jeremy suggested the people might work in factories or build huts 'for the holidays people who come to' or even clean swimming pools. He repeated what his grandfather had told him about the volcano. He thought the people were happy because they had 'nice beaches and clean...nice food, lots of fruit trees and fresh things'. Living in the place he felt would be nice 'and fun as well'. Jeremy described the weather as having rain and also being very hot. He related how there could be storms and the television could go off. He did not know if the rest of the place had weather like that. He stated he would like to live there because it would be fun and there were 'nice beaches, lots of fruit and coconuts'. Jeremy said that other hot places had snow or deserts.

Jeremy thought the hot place photograph was England because it looked very hot and also that 'there's sand and mostly in hot countries you get like a lot of sand'. He explained that carts might have come with water from wells and spilt some water. Later Jeremy pointed to a puddle and said he thought it was the beach. He said the people lived in the houses. Jeremy mentioned a national news item regarding Iceland and said it 'must be very hot now when the volcano's blowing up'. He suggested the men were having a picnic and the women had been collecting water from a 'market thing'. Jeremy said the clothes would only been seen in the United Kingdom on visitors. Jeremy noted one woman did not wear shoes and the other wore flip-flop type shoes. This was because trainers would make their feet sweaty. Jeremy added that the hats worn by the women were to stop the sun and that he had suffered what appeared to be heat stroke. Jeremy said the people would work in the factories or collect water or make wells. He felt the people were happy because they 'grow lots of fruit' and this

would feed them. He also felt that sometimes if it was hot it would make the people happy. Jeremy was sure the weather was always hot. Jeremy stated that he would like to go to the place for a holiday but he wouldn't want to live there.

Jeremy drew Iceland as his cold place because his granddad had been there and had told him about it. He drew a person and a boy mentioned by his grandfather. Jeremy listed the clothing as mittens, woolly jumper with 'something underneath' and 'nice warm track suit bottoms' or tracksuit. Jeremy said people worked in the factories making hats, cars, lorries, ploughs and building holiday houses. If the people did not have jobs Jeremy said they would stay at home with the children who don't go to school and play with them or do their garden. The people were happy because of the snow and it being 'so nice'. He said there were not a lot of animals in Iceland although those that were there were the same as in our country but they had to be kept in 'shelters like barns'. Jeremy thought it would be fun for the people living in Iceland but he did not want to live there because he liked the sun, swimming pools and barbecues. He felt sometimes it was always snowing in Iceland but sometimes it was not. Other cold countries had snow all the time and others were 'like us' with seasons.

Jeremy thought the cold place photograph was of England 'just when it's snowing'. He felt this because 'there wouldn't be like swings and that in there...children with sledges'. He further added that if it was the North Pole there would not be any children. Jeremy called the people Moscow people and then agreed they were Eskimos. He noted some were playing on the swings and others were on skates. Jeremy described the clothes as trousers, Eskimo coats which were really thick and thick boots because it was very cold. Jeremy thought the people could be hunting for woolly mammoths. He suggested the shops were on top of the mountain and the buildings were offices. He observed the telephone wires and described how they could telephone a museum if a woolly mammoth was found. He also suggested the wires could be for the ski lift. He suggested the people would dig the snow to make roads. He felt the children were happy because they could not get to school and the grown ups 'a bit of both'. He later added that the dads were sad because they liked to have barbecues. Jeremy thought it

snowed all the time and that the rest of the country had the same weather especially 'if it was a small country'. He suggested the shops might be behind the cliff. Jeremy said he would like to live there and he could hide in the igloo (not mentioned previously) and not go to school.

Jeremy had little place knowledge. Some of his perceptions of distant places perhaps indicate the beginnings of stereotypical thinking about hot and cold places. It is not clear where some of these perceptions came from. It might be that his hot place perceptions came from books or television since no indication is given about information from relatives. Alternatively it could be that some information was more valued by him than others (Wiegand 1992 p79). Jeremy sometimes appeared to want to say more than his language ability seemed to permit.

SUMMARY OF CASE STUDIES

Most nursery children referred to hot places of which they had experience. This experience was based primarily on holiday events. Cold place names were often similarly based on summer holiday locations and both groups appeared to have less knowledge about cold places than hot. Lowenthal (1972 p92) suggests that 'we seldom differentiate among people, places or things until we have a personal interest in them'. With no interest in cold locations (holidays are rarely taken in cold climates) the children did appear to know very little about them. However, Downs and Stea (1973 p19) remind us that just because a child appears not to know something, it should not be assumed they do not know it. The older children showed less reliance on personal experience and more willingness to use information gained from secondary sources such as family or books. The year two children also appeared to have the ability to think of a place without thinking of themselves in it, unlike the younger children.

All children appeared to have little knowledge about weather or work. Both age groups spoke of weather in relation to hot or cold (Wiegand 1992 p157). Where more detailed

knowledge about work emerged with the older children it was frequently based on knowledge of tourism.

Nursery children's feelings about places were often a response to whether they liked hot or cold temperatures or whether the place would offer opportunities for fun. By year two some of the children appeared to have greater understanding of how feelings relating to places can be affected by different stimuli although some children still made responses based on the notion of hot and cold.

Occasionally it appears a child has deeper knowledge about a place than their language ability permits expression (indicating the power of language, (Bruner 1986 p8) and the caution that necessarily must be applied to findings such as these for true and accurate place perceptions would seem almost impossible to obtain). It sometimes appears that only glimpses of perceptions are given. Stacey began to talk about people carrying water on their heads. She seemed unable in depth though what she wanted to say. Indeed her facial expressions at this moment indicated a desire to say more. This inability may be due to a lack of language ability to express her ideas. However the research does indicate the beginnings of a rich response attributable to travel (Wiegand 1992 p154).

Generally there appears some evidence to suggest that there is a developmental move away from knowledge based on personal experience to that gained from other sources. However this shift is not universal and some knowledge concepts do not show such a shift as in the case of work and weather. It is here that a Vygotskian notion of support (ZPD) has the potential to extend knowledge about distant places and if given the necessary language associated with them children's perceptions of the wider world might be fuller and more accurate than it appears from this study.

APPENDIX 2

Results for individual children shown in matrix format

MATRIX TO SHOW RESULTS FOR SEAN (NURSERY)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • England – we did... go shopping and we had to unpack • <i>At England</i> 	<ul style="list-style-type: none"> • Mars – I've seen a Mars ice-cream • <i>America</i>
PEOPLE	<ul style="list-style-type: none"> • All of us (his family) 	<ul style="list-style-type: none"> • (Names all his family) • <i>That's where they live</i>
CLOTHES	<ul style="list-style-type: none"> • Swimming trunks • Dressing gowns • Trousers, shorts, tee-shirts and jumpers • Just tee-shirt (when really hot) • <i>Shoes on that one, no shoes on that one</i> 	<ul style="list-style-type: none"> • Snow things • You put your legs in and your arms in • Gloves, some boots...wellies • Jackets (when very cold) • <i>Clothes (none like those in photo)</i>
WORK	<ul style="list-style-type: none"> • Shopping • Washing • <i>Speaking</i> • <i>Packing</i> • <i>Having a picnic</i> • <i>Shopping</i> • <i>Buying football boots</i> • <i>Planting</i> • <i>Sewing bears</i> 	<ul style="list-style-type: none"> • Playing outside in the snow • Go to Australia every day • Go shopping • Get dressed, get the washing basket, have baths and go to football • Get lunch and breakfast • <i>Doesn't think people work</i> • <i>Playing (inside)</i>
WEATHER	<ul style="list-style-type: none"> • Really hot (whole country) • <i>Pouring rain</i> • <i>Sunny</i> 	<ul style="list-style-type: none"> • It's snowy every day (whole country) • <i>Windy</i>
GENERAL CONCEPTS	<ul style="list-style-type: none"> • <i>-Bread (in bag)</i> • <i>I can see it (road) there</i> • <i>Women live in the hotels</i> • <i>Hospital</i> • <i>(Sea is below edge of photo)</i> • <i>Sawdust (not seen)</i> 	<ul style="list-style-type: none"> • <i>No houses in the mountains</i> • <i>Sun (not seen)</i>
CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • Sometimes...windy sometimes they're sunny. Sometimes they're sunny and rain and sometimes they're rain and cloudy 	<ul style="list-style-type: none"> • Some different ones (doesn't know how)
FEELINGS	<ul style="list-style-type: none"> • Happy – they get some friends 	<ul style="list-style-type: none"> • Happy – like going in snow • <i>Sad – when it's not snowy</i>

EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • Really, really boiling • <i>Too hot</i> 	<ul style="list-style-type: none"> • Snowy • We can play in the snow • <i>I could make snowballs and snowmens</i>
EGOCENTRICITY	<ul style="list-style-type: none"> • We did go shopping • Mummy didn't go in (pool) 'cos we had to bring the puppy • We got into our school clothes • We had to unpack • There was freezing in the swimming pool • Martin, daddy and me and Peter had swimming trunks and swam, it was freezing in there 	<ul style="list-style-type: none"> • I've seen a Mars ice cream • (Names all his family in picture)

MATRIX TO SHOW RESULTS FOR JOSEPH (NURSERY)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and photographic discussion (italic font)

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • America – I play with them ..my other friends • <i>America</i> 	<ul style="list-style-type: none"> • At a seaside – I've seen all these things on the beach • <i>North Pole – it's all snowy</i>
PEOPLE	<ul style="list-style-type: none"> • (self) • Lots of other people • <i>On holiday</i> • <i>We don't know where they come from</i> 	<ul style="list-style-type: none"> • (all inside) • <i>On holiday</i> • <i>Are inside (houses)</i>
CLOTHES	<ul style="list-style-type: none"> • Tee-shirts, sweatshirts, shorts and trousers • <i>A blue jacket...shoes</i> • <i>It's really sunny..they could burn their head</i> • <i>Wouldn't fit us</i> 	<ul style="list-style-type: none"> • Jumpers, sweatshirts, trousers and shorts • Same (all time) • <i>I've got a hat like those</i> • <i>Snow clothes</i> • <i>We haven't got (same) for snow</i>
WORK	<ul style="list-style-type: none"> • Washing • Plant trees and plants • Dig holes, put plants in • Playing football • <i>Looking at each other</i> • <i>Been shopping</i> • <i>Having a picnic</i> • <i>Buying shoes</i> • <i>Going to work</i> • <i>Building houses</i> • <i>Doing paperwork</i> 	<ul style="list-style-type: none"> • Doing shopping all day • Work all day and shopping all day • Write their names on special computers • <i>Standing on swings</i> • <i>They don't work 'cos there's only swings</i> • <i>They gonna build a playground</i>
WEATHER	<ul style="list-style-type: none"> • Very hot (whole place, whole time) • Pouring of rain • <i>Sunny..rain sometimes</i> • <i>Not like this (in photo)</i> 	<ul style="list-style-type: none"> • Rainy (whole time, whole place)
GENERAL CONCEPTS	<ul style="list-style-type: none"> • That's a rainbow • Blue sky. ..sun...cloud • -A pavement • Grass • <i>Cereal in bag</i> • <i>That bit's mud</i> • <i>Cars</i> • <i>If they got no food...they have to go out shop</i> • <i>Hotel</i> • <i>There's no such thing as ghosts</i> 	<ul style="list-style-type: none"> • A snake • My house • Two suns and ...the rain • Blue sky • Red and black grass • <i>The house...loads of mountains</i> • <i>Swings</i> • <i>It (snow) melts and goes away...some snow turns into water</i> • <i>A pile of snow</i>

GENERAL CONCEPTS(cont.)	<ul style="list-style-type: none"> • <i>Can't see no sun</i> • <i>White clouds</i> • <i>Willow tree</i> • <i>Sea</i> • <i>Mud</i> 	<ul style="list-style-type: none"> • <i>Wolves</i> • <i>If the snow falls down all the trees are dead</i> • <i>Skiing sticks and skis</i> • <i>Flowers</i>
CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • (all other places as he drew) 	<ul style="list-style-type: none"> • (Others are) nice and sunny
FEELINGS	<ul style="list-style-type: none"> • Happy –a sunshine and swimming • Happy –'cos it's sunny...nice and bright... like a blue sky ..play football 	<ul style="list-style-type: none"> • Sad –raining every single day • <i>Happy – gets to play with the snow</i> • <i>Happy and sad –sad when the sun dries up all the snow</i>
EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • Very hot • Too hot ..it's baking • <i>Too hot</i> • <i>Nice and sunny</i> 	<ul style="list-style-type: none"> • Rainy • I like to have a drink in the rain • <i>Snowy</i> • <i>Windy</i> • <i>Icy</i> • <i>I like to make snowmens</i>
EGOCENTRICITY	<ul style="list-style-type: none"> • I play with them • They've got these showers... and this baking hot water..they put it over the heads when they're having their hair washes 	<ul style="list-style-type: none"> • I like to have a drink in the rain • I've seen these things on the beach

MATRIX TO SHOW RESULTS FOR JACK (NURSERY)

(Bullets points within each cell reflect collated results from the draw-and-write (normal font) and photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • Mars –I think it's like that • <i>China</i> 	<ul style="list-style-type: none"> • My home and it's cold in my home – it's my home • <i>Snow</i> • <i>England</i>
PEOPLE	<ul style="list-style-type: none"> • Me.. the other people are inside • <i>They're brown</i> • <i>They live in the hotel</i> 	<ul style="list-style-type: none"> • They're inside • <i>Inside the houses</i>
CLOTHES	<ul style="list-style-type: none"> • Flower clothes... and eye clothes (whole country) • <i>Blue and white on one</i> • <i>A white thing on them..a towel.. a sheet</i> • <i>I haven't got any</i> • <i>They're not from England</i> 	<ul style="list-style-type: none"> • Don't know • Cold..warm clothes because it's rainy and coats • Coats and jackets and jumpers (when very cold) • <i>I've got snow clothes</i> • <i>It doesn't look like them(his clothes)</i>
WORK	<ul style="list-style-type: none"> • Washing – having drinks • The ladies at the end of their jobs they pick only a flower • Only the man fix things • The ladies and the man just pick the stones up • <i>Packing.. see some bags</i> • <i>Shopping</i> • <i>On holiday</i> • <i>Climbing up there (bank)</i> • <i>Going to have a picnic</i> • <i>Shopping</i> • <i>Buying food..buying jelly shoes</i> • <i>Work</i> • <i>Sell clothes</i> 	<ul style="list-style-type: none"> • We're eating • Do the computer • Play with the Mega drive • No (jobs)
WEATHER	<ul style="list-style-type: none"> • It's very hot • Sunny..rainy and stormy and cloudy (whole time) • On the ground it's cold • Sometimes my house gets hot and cold.. it gets freezing when it's night time • (Other places) are hot and warm • <i>I think it's been raining</i> • <i>The sun has dried a bit off</i> 	<ul style="list-style-type: none"> • It's raining and it's sunny but the sun isn't hot... the sun is cold • Sunny and rainy • Sometimes it's rainy, sunny, cloudy, dark and it's got moons and stars • <i>Snowy</i>

GENERAL CONCEPTS	<ul style="list-style-type: none"> • They haven't got any(water) • They drink milk • <i>Baked beans (in bag)</i> • <i>I can see a bit of puddles.. from rain</i> • <i>It looks like sand but isn't</i> • <i>It think that's the sea</i> • <i>Hotels</i> • <i>Them long bits is houses</i> • <i>Bats come</i> • <i>Ghosts and bats come... at night time</i> • <i>Tents (not seen)</i> • <i>I think it's (sea) gone to a different place so someone else can have a swim</i> • <i>I don't see my friends</i> 	<ul style="list-style-type: none"> • I like it raining because it grows all the flowers and grass • I have got a dog..my dog doesn't bite • <i>It (snow) doesn't melt.. the sun dries it all up</i> • <i>A rock (a pile of snow)</i> • <i>Skiing sticks and skis</i> • <i>They don't have trees in snow</i>
CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • They look hot but they're cold 	<ul style="list-style-type: none"> • (All other places as he drew)
FEELINGS	<ul style="list-style-type: none"> • Sad – it's too hot • <i>I can see a smile on her face</i> 	<ul style="list-style-type: none"> • Sad – it's raining • <i>Sad- someone throws a snowball in their face</i>
EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • I think it's very red • Too hot • <i>It's yucky inside (hotel)</i> • <i>Very yucky</i> 	<ul style="list-style-type: none"> • Good • <i>I could make snowball and snowmens</i>
EGOCENTRICITY	<ul style="list-style-type: none"> • Sometimes my house gets hot and cold...it gets freezing when it's night time • <i>I live in a house... Mandy lives in a flat</i> 	<ul style="list-style-type: none"> • My home, it's cold in my home • I like it raining, it grows all the flowers • If some of my brother's friends come round.. I think they'll play with the Mega drive • I don't like going to sleep...you can't do anything • I have got a dog..(it) doesn't bite

MATRIX TO SHOW RESULTS FOR STACEY (NURSERY)

(Bullet points within each cell reflect collated results from draw-and-write (normal font) and photographic discussion (italic font)

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • Gambia, hot beach..you have to go on an aeroplane – I know which place we lived, we just had a little cottage, we just stayed for the holiday there • <i>It's Gambia – from my holidays</i> 	<ul style="list-style-type: none"> • My house – I've seen them all • <i>South America</i>
PEOPLE	<ul style="list-style-type: none"> • Me • There's lots of people (in Gambia) • <i>I think they're at home</i> • <i>The lady and the man</i> • <i>It's a man</i> 	<ul style="list-style-type: none"> • Me...and somebody jumping out of the aeroplane • <i>On holiday</i> • <i>At home</i>
CLOTHES	<ul style="list-style-type: none"> • A shirt and a dress...trousers, it makes me warm • Different clothes than I wear (people in Gambia)...they wear like dresses, trousers and a sweatshirt 	<ul style="list-style-type: none"> • All day they wear dresses • (all people in country wear same) • they wear trousers and tee-shirt (when very cold) • <i>I don't (wear clothes shown)</i>
WORK	<ul style="list-style-type: none"> • Looking at the sunshine • They walk around, on the beach • They put water on their heads in pots..because the people need water • Sell clothes • Sell hats • <i>(Buying) shiny shoes</i> • <i>Doing writing</i> • <i>Selling hats</i> 	<ul style="list-style-type: none"> • They're inside, one isn't • Doing the washing • Tidying up their bedrooms • Playgrounds • Driving lorries • Building houses
WEATHER	<ul style="list-style-type: none"> • Sunshine • Very hot (sometimes) • Rain • <i>Sunny</i> • <i>When it's night time there was a storm.. it rained at night</i> 	<ul style="list-style-type: none"> • It's raining • They think it's not cold but it is • Snowy (whole place, whole time) • <i>Just snow.. it doesn't go away, it doesn't melt</i> • <i>When it snows I think it snows every morning</i>
GENERAL CONCEPTS	<ul style="list-style-type: none"> • The grown ups did it (carried water in pots) • <i>Milk (in basket)</i> • <i>Ice-cream (in basket)</i> • <i>The lady and the man</i> • <i>Hotel</i> • <i>Conker trees</i> 	<ul style="list-style-type: none"> • A ball • The roof • That's a tree there • <i>I think that's the pig's home (mound of snow)</i> • <i>Trees (none seen)</i>

CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • Some (are like Gambia) • Rainy..(some) very sunny 	<ul style="list-style-type: none"> • Different – sunny, rainy, windy and winter
FEELINGS	<ul style="list-style-type: none"> • Very happy – lots of good things are happening...the rain could come • <i>Happy – playing</i> 	<ul style="list-style-type: none"> • Happy – sun is shining • <i>(no one sad)</i> • <i>happy and sad (all the people)</i>
EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • Very hot • Somebody else would need the house • <i>Too hot</i> • <i>I get too sweaty</i> • <i>I'll get swaety</i> • <i>I'll get wet as well</i> 	<ul style="list-style-type: none"> • Snowy, snowy, snowy • <i>(would like to live there) –I can make snowmans and they have carrot noses</i>
EGOCENTRICITY	<ul style="list-style-type: none"> • I know which place we lived • We don't live there we just stayed for the holiday • It makes me warm • Different clothes than I wear • There's some fruit on a little table on the beach so I had some fruit • The grown ups did (carry water) • I could do downstairs one and upstairs one from the tap • They were carrying it (water) to different houses • <i>From my holidays (knows Gambia)</i> • <i>I had a blanket on the sand on the beach...at Norfolk</i> • <i>There was a storm...it rained at night</i> 	<ul style="list-style-type: none"> • My house • I've seen them all • This isn't my house • <i>I don't (wear clothes shown)</i>

MATRIX TO SHOW RESULTS FOR REBECCA (NURSERY)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • A flat..nanny's flat – 'cos I can make all of them • <i>At Spain</i> 	<ul style="list-style-type: none"> • Home – I had a look at the sky and I think what to do • <i>England</i>
PEOPLE	<ul style="list-style-type: none"> • Me • <i>On holiday</i> 	<ul style="list-style-type: none"> • Me and Suki (sister) • <i>I think they live (there)</i> • <i>I think they were at holiday</i>
CLOTHES	<ul style="list-style-type: none"> • A dress..a towel to get me warm • A skirt • A shirt • <i>One is wearing a spotty one</i> • <i>They got different colours</i> • <i>They're different</i> • <i>(Different) shoes</i> 	<ul style="list-style-type: none"> • Trousers..leggings, tee-shirt • Snowy tee-shirt ... summer dresses (when it's cold) • <i>They got hats on</i> • <i>Gloves</i> • <i>(The sort of clothes she wears)</i>
WORK	<ul style="list-style-type: none"> • Looking at Mummy swimming • Go shopping • Go swimming...lessons • They went in the sea • <i>Speaking</i> • <i>Smiling</i> • <i>Packing all the food up</i> • <i>They're going to a picnic</i> • <i>Having a gardener (gardening)</i> • <i>Gathering clothes</i> • <i>Having books in the bag</i> • <i>Buying hats</i> • <i>Going to Pizza Hut</i> • <i>Sewing dogs</i> • <i>Play</i> 	<ul style="list-style-type: none"> • Suki's waving to me • I'm playing • Go shopping • Go somewhere to eat • Go to the playground • Go to another friend's house • Buy some new shoes • <i>Some are doing that (on swings)</i> • <i>They can walk with the car...they can go up to their houses to work</i> • <i>Shopping</i> • <i>Writing</i> • <i>Tidying up</i> • <i>Washing up</i>
WEATHER	<ul style="list-style-type: none"> • <i>Lovely and shiny (whole place, whole time)</i> • We saw a storm • <i>Not lots of rain...just sometimes the rain</i> • <i>Sunny</i> 	<ul style="list-style-type: none"> • Happy...sometimes it's sad • Chilly .. warm .. hot (whole place) • <i>Winter</i>

GENERAL CONCEPTS	<ul style="list-style-type: none"> • Swimming pool • Spaghetti(in bag) • Sweetcorn (in bag) • Sea • Sand • Houses • Hotel • Dragons 	<ul style="list-style-type: none"> • <i>People on the swing</i> • <i>There may be a trap with the houses</i> • <i>I think it's a trap (pile of snow)</i> • <i>No lots of people (not seen)</i>
CONCEPTS ABOUT OTHER PLACES		
FEELINGS	<ul style="list-style-type: none"> • Happy – sunshine • <i>Happy – they like their trousers</i> 	<ul style="list-style-type: none"> • Happy – sun is shining • They happy when they inside too • <i>Happy –swings</i> • <i>Sad – when they haven't got a home</i>
EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • Lots of different people • I like (to live with) nanny and granddad • <i>I'll get sweaty</i> 	<ul style="list-style-type: none"> • I love them (cold countries)
EGOCENTRICISM	<ul style="list-style-type: none"> • When I was a little girl there..I went in the big pool and swimmmed • Nanny lives upstairs..you just need to walk up the stairs • There was a sea • I'm looking at Mummy • I didn't want to go in the pool • A towel to get me warm • I went in the water • I weared a skirt • We went shopping when we was there..with nanny to get some shoes • We saw a storm • Dad went outside.. to get the towels in • The other day mummy picked nanny up from Spain • <i>I had a blanket and I was sit on it on the sand</i> • <i>Suki and me slept in a tent the other day</i> 	<ul style="list-style-type: none"> • Suki's waving to me • I'm playing • I'm waving to my other friend next door we got a fire and it's already falling over • I'm happy when I'm moving house • I love them • <i>I think I like to make snowballs and snowmen</i> • <i>When I'm skiing you can go down...</i>

MATRIX TO SHOW RESULTS FOR ZARA (NURSERY)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • Our house – we're just going there on holiday • <i>Scotland</i> 	<ul style="list-style-type: none"> • Cornwall – Mummy told me.
PEOPLE	<ul style="list-style-type: none"> • They're inside (none drawn) • <i>I think they're at home</i> 	<ul style="list-style-type: none"> • Mummy, me, my friend..Daddy..in the bedroom
CLOTHES	<ul style="list-style-type: none"> • Dressing gowns...they're chilly • Jeans, leggings and jumper • <i>Flip flop shoes</i> 	<ul style="list-style-type: none"> • Dressing gowns and slippers..it's night time..'jamas and nighties • Shorts and bikinis.. in day time..when it's hot. Tee-shirts when it's cold • <i>(wears different)</i>
WORK	<ul style="list-style-type: none"> • Cooking • Playing • Cleaners • Station work • <i>Packing their clothes up</i> • <i>Making hats</i> • <i>Sewing hats</i> • <i>Sewing dollies</i> 	<ul style="list-style-type: none"> • Work in the cooking, in a hotel,in a pub..in the restaurants..in shops • And ..throw snowballs at the window
WEATHER	<ul style="list-style-type: none"> • Sunny (whole place, whole time) • <i>I think it was pouring rain</i> 	<ul style="list-style-type: none"> • Very hot • Some of them might be cold • Cold and it's got snow..lots • Sometimes it's hot sometimes it's cold (whole place)
GENERAL CONCEPTS	<ul style="list-style-type: none"> • Farm • <i>Soup (in bags)</i> • <i>Ghosties</i> • <i>Trees (not seen)</i> • <i>Silver bark tree</i> • <i>Sea</i> 	<ul style="list-style-type: none"> • Farm • Fishing net • <i>Swings</i> • <i>Snowmans</i> • <i>Trees (not seen)</i>
CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • (All as she has drawn) 	
FEELINGS	<ul style="list-style-type: none"> • Happy –nice big house, sad – got a small house • <i>(happy) – sunshine and like the books</i> 	<ul style="list-style-type: none"> • Sad – being naughty • Happy –it's very hot, they've been to the play park and played with their friends

EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • Nice • It's a nice place.. I like living near the farm • <i>I get too sweaty</i> 	<ul style="list-style-type: none"> • It's nice. You have lots of animals
EGOCENTRICITY	<ul style="list-style-type: none"> • Our house • We're just going there • I like living near the farm • We're going to go there on holiday • <i>My Granny lives in Norfolk</i> 	<ul style="list-style-type: none"> • It's where we're going to stay at Christmas • Mummy told me • This is my bedroom. that's my friend, that's Mummy, this is Daddy, this is me.

MATRIX TO SHOW RESULTS FOR JASMINE (YEAR TWO)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • Australia –Papa and Granny have gone..they’ve shown me ..their pictures • <i>China or India..New Zealand</i> 	<ul style="list-style-type: none"> • Morrison Street, Scotland – I used to live there • <i>Iceland –don’t know</i>
PEOPLE	<ul style="list-style-type: none"> • Granddad • <i>They are black</i> • <i>I think they might be tourists</i> • <i>(White) People might come for visits.. we could have gone there and we’re white</i> 	<ul style="list-style-type: none"> • (none drawn) • Most people might be working in the factory • <i>Eskimos</i>
CLOTHES	<ul style="list-style-type: none"> • Tee-shirt and shorts • Sometimes people wear trousers and things..sometimes jumpers • <i>Kind of a waistcoat</i> • <i>Necklaces that go round the feet</i> • <i>(same as her friend from India wears)</i> • <i>(head cover is so) the head doesn’t get burnt)</i> • <i>they’re (men) not wearing the same sort of clothes..so they must be tourists</i> 	<ul style="list-style-type: none"> • Jackets, jumpers, trousers, not many people will be wearing wooly hats (all people wear the same) • When it gets a bit warm they wear shorts and tee-shirts • <i>Coats</i> • <i>Thick trousers</i>
WORK	<ul style="list-style-type: none"> • The tourists that come might be going on the beaches..hings like that • Owning hotels • (those not working do as the tourists) • <i>talking</i> 	<ul style="list-style-type: none"> • Jobs in the factory.. shop keepers • <i>Playing on swings, running, climbing</i> • <i>Teaching</i>
WEATHER	<ul style="list-style-type: none"> • very hot , (most of the time, half the country) • –(Other half) a bit sunny and a bit rain • <i>If it’s a hot country would it rain a lot? ... to make it wet</i> • <i>Half hot and half cold at night.. (other parts) a cool breeze</i> 	<ul style="list-style-type: none"> • Quite rainy, sometimes it snows. In Winter it snowed nearly every day. In Spring a bit of rain, sometimes..nice weather (whole place) • <i>If it’s very cold why are they playing outside?</i>

GENERAL CONCEPTS	<ul style="list-style-type: none"> • <i>It might be a beach (the road)</i> • <i>That looks like plain water</i> • <i>That might be the house..hotel for visitors</i> • <i>They might be fruit trees..fruit doesn't fall out of thin air</i> • <i>Hotel</i> • <i>Shop</i> 	<ul style="list-style-type: none"> • Busy town • My old flat • Sleeping bags • <i>That could be a school..that an office..a few houses for people coming to stay</i> • <i>Could be a shop</i> • <i>Chairs (not seen)</i>
CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • Some are hotter, some more rain • Some have deserts and some other kind of things 	<ul style="list-style-type: none"> • Some might have lots and lots of snow even in the Spring • <i>In Iceland a few days ago.. a road had crashed</i>
FEELINGS	<ul style="list-style-type: none"> • Happy - got a lovely kind of country. ..could be sad..don't know (why) 	<ul style="list-style-type: none"> • Happy or sad – it's the same as down here... we can always be happy and sometimes... sad • <i>I don't like the snow so they might not like the snow</i>
EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • quite nice – can go and play on the beaches every day • quite a nice country • <i>I would like to live there ..the picture makes me think (so)</i> 	<ul style="list-style-type: none"> • I like it quite a lot • I liked it • <i>I'd only like to live there a bit</i>
EGOCENTRICITY	<ul style="list-style-type: none"> • My Papa and Granny have gone to Australia..they've shown me a few of their pictures • <i>I think it's in India...my friend Sabrina comes from India and she's got ..I looked at her mother's clothes 'cos I sleep round hers they look quite like that</i> • <i>She has necklaces that go round her feet</i> • <i>-That's what my Mum and Dad might like (walk in country)</i> 	<ul style="list-style-type: none"> • I used to live there • My old flat • I liked it quite a lot • I liked it. When my friends came round we used to sleep in...sleeping bags..I could hide my cuddly toys at the bottom • <i>I don't like the snow so they might not like the snow</i>

MATRIX TO SHOW RESULTS FOR CHLOE (YEAR TWO)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and the photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • Lanzarote –I’ve been there for holiday 	<ul style="list-style-type: none"> • Arctic- don’t know • <i>Arctic, Iceland, France</i>
PEOPLE	<ul style="list-style-type: none"> • Me, my friend, my brother • <i>There’s black people</i> • <i>On holiday..they live far far away in that country</i> 	<ul style="list-style-type: none"> • It’s too cold I think to live there (none drawn) • <i>Father Christmas?</i>
CLOTHES	<ul style="list-style-type: none"> • Shorts, tee-shirts, skirts, tee-shirts • Some might (wear the same, some wear) these sort of wrap around clothes..like a blanket they wrap around..it makes a skirt as well as a top • <i>A sort of like shirt</i> • <i>A bit like a dress</i> • <i>A wrap around hat..headdress</i> • <i>Blue shirt</i> 	<ul style="list-style-type: none"> • Leather and fluffy things • Coats, fluffy jumpers • White jumpers • <i>Coats</i> • <i>Really nice thick boots</i>
WORK	<ul style="list-style-type: none"> • Watching the road..looking at different cars..there’s lots of Toyotas • They probably work, I don’t know, we never really went out, we stayed by the pool all day • They sold drums (in the market) • <i>Some might work in the markets</i> • <i>Go for a walk in the countryside</i> 	<ul style="list-style-type: none"> • <i>Some are pushing him</i> • <i>(Making) snowmen and snow monsters</i> • <i>Managing a ski place?</i> • <i>Teaching</i>
WEATHER	<ul style="list-style-type: none"> • I think it might be hot all the time..some of the time • - There was never any rain • I’ve only been to one part (doesn’t know about rest of country) • <i>Hot all the time ..really hot in the day time, at night..sort of warm</i> • <i>Might have some rain(rest of country)</i> 	<ul style="list-style-type: none"> • Very cold really (whole time) probably (whole country) • <i>It’s cold</i> • <i>Really freezing</i> <i>..freezing..freezing</i>

<p>GENERAL CONCEPTS</p>	<ul style="list-style-type: none"> • Everywhere we went there was Toyotas • Market • Beaches • Boat rides • Donkey • Swimming pool • Road • <i>People get cartons..they don't want anymore..they just throw it in the road</i> • <i>Beach...shells</i> • <i>Flats</i> • <i>Table</i> • <i>Clothes they want to give away(in bags)</i> • <i>Coconut juice</i> 	<ul style="list-style-type: none"> • <i>Swings</i> • <i>Sledges</i> • <i>School</i> • <i>Brownies light bonfires and things and...walk in the woods</i> • <i>Offices</i> • <i>A bar</i> • <i>A house</i> • <i>(ski lift) around the back</i> • <i>snow</i> • <i>shops (not seen)</i> • <i>cars (not seen)</i>
<p>CONCEPTS ABOUT OTHER PLACES</p>	<ul style="list-style-type: none"> • The Bahamas... had rain, hot rain, it was hot...I got burnt once in the Bahamas • <i>People have trodden in puddles in other countries</i> 	
<p>FEELINGS</p>	<ul style="list-style-type: none"> • Happy sometimes sad – they got lot of land , lots of jobs to choose from and lots of things to do. 'Cos there's loads of beaches..and..boat rides • (Sad) when the tide went in..and destroy the things they've built in the sand • <i>happy – smile on their face.. can grow nice fruit</i> 	<ul style="list-style-type: none"> • <i>Happy</i> • <i>A bit of both</i> • <i>All of them happy and all of them sad sometimes</i>
<p>EMOTIONAL RESPONSE TO PLACE</p>	<ul style="list-style-type: none"> • hot and things like that. Probably be nice..if you had a swimming pool • Sort of (like to live ther)..if we had a pool..it's so hot in the cars • <i>-Nice</i> • <i>I don't like it hot..when you've got much bigger space. It's not so hot</i> 	<ul style="list-style-type: none"> • Too cold • Horrible • <i>I don't want to live there no way</i> • <i>Too cold, I don't like the cold</i>

<p>EGOCENTRICITY</p>	<ul style="list-style-type: none"> • I've been there..that's where I stayed • We're watching this road, we just like looking at the different cars..we tried to count the cars..There's lots of Toyotas • There's Toyotas everywhere • We never really went out, we stayed in the pool all day • I know! There's a market • We bought loads of jewelry ..this shop made..you put on those beads • They sold drums • We had a swimming pool • I remember when we stayed there..nearby there was a donkey..and we fed it..and we exchanged some apples for some special fruit • I've only been to one part of it • I got burnt once in the Bahamas • <i>Sometimes you can walk along the beach... finding a caravan selling ice creams and things</i> 	<ul style="list-style-type: none"> • <i>I don't like the cold</i>
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MATRIX TO SHOW RESULTS FOR CAROLINE (YEAR TWO)

(Bullet points with each cell reflect collated results from the draw-and-write (normal font) and the photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • Australia – Granddad and Grandma have been 	<ul style="list-style-type: none"> • North Pole- my brother's friend went to the North Pole and he told me all about it • <i>Iceland</i>
PEOPLE	<ul style="list-style-type: none"> • Me and my brother 	<ul style="list-style-type: none"> • A boy
CLOTHES	<ul style="list-style-type: none"> • Shorts and tee-shirt • Thin trousers, sometimes jumpers • <i>It's sort of like a cloth</i> • <i>Towel</i> 	<ul style="list-style-type: none"> • Earmuffs, wooly hat and scarf, jacket, jumper, two pairs of trousers and some shoes • <i>Thick trousers</i>
WORK	<ul style="list-style-type: none"> • Look at all the animals • Don't know what they would do • <i>Talking</i> 	<ul style="list-style-type: none"> • Some people work, some people play in the snow... some people build snowmen • Some have jobs- forgotten what sort of jobs they have • <i>Having fun</i> • <i>Have a job</i>
WEATHER	<ul style="list-style-type: none"> • Sometimes sunny, sometimes rains a little bit (rest of country) may be a bit snowy • <i>It's really hot</i> • <i>It'll be cold and sometimes it'll be hot in the night</i> 	<ul style="list-style-type: none"> • It doesn't stop snowing • Very snowy, rainy and cold (whole time, whole place) • <i>It's very cold there</i> • <i>It's really cold</i> • <i>Snowing and sometimes it's raining and sometimes there's a bit of sun</i> • <i>Sometimes it does maybe (snow melts)</i> • <i>(Rest of country)sometimes it does sometimes it doesn't (have same weather)..sometimes rain a bit of sun and snow</i>
GENERAL CONCEPTS	<ul style="list-style-type: none"> • Koala • <i>-(A shop) to have coffee</i> • <i>A flat</i> 	<ul style="list-style-type: none"> • Penguin • An igloo... where some people live (other people) live in warm houses • <i>Igloo</i> • <i>House</i> • <i>It's only a part of the country</i> • <i>Factories (not seen)</i> • <i>Many house (not seen)</i> • <i>Flowers (not seen)</i>

CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • Some are snowy more often than sunny 	<ul style="list-style-type: none"> • Some are a bit sunny and rainy and a bit of snow. Some are rainy and snowy. Some are just snow and rain...some are cold and snow.
FEELINGS	<ul style="list-style-type: none"> • Mostly happy-it's never really cold • <i>Happy – they could be going to get a nice coffee</i> 	<ul style="list-style-type: none"> • Happy – don't know • <i>The children might be really happy because they can build lots of snowmen and snow dinosaurs</i> • <i>Some are happy some are sad</i>
EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • Be quite nice – 'cos there's lots of animals • It looks nice • <i>I think it'll be nice</i> • <i>I like the picture</i> 	<ul style="list-style-type: none"> • I don't like the cold • <i>Happy – the snow</i> • <i>Nice and cold</i> • <i>Interesting</i> • <i>It's fun and it looks good</i> • <i>I like the snow and playing in the snow and getting messy</i>
EGOCENTRICITY	<ul style="list-style-type: none"> • Granddad and Grandma have been. • I played • <i>Sometimes you get a coffee from shops</i> 	<ul style="list-style-type: none"> • My brother's friend went to the North Pole and he told me all about it • I don't like the cold

MATRIX TO SHOW RESULTS FOR MICHAEL (YEAR TWO)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and the photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • Spain – I went to Spain • <i>Bethlehem</i> 	<ul style="list-style-type: none"> • Iceland – my uncle went to the Universal and .. came back he found that he could go to the North Pole.. He told me of the things at the North Pole • (Later called it) North Pole • <i>North Pole</i> • <i>It couldn't be Gibraltar</i>
PEOPLE	<ul style="list-style-type: none"> • Me • <i>If they lived there then they'll be very brown and if they went there for holiday they wouldn't be that brown.. they're black</i> 	<ul style="list-style-type: none"> • Santa Claus, children • <i>Children</i>
CLOTHES	<ul style="list-style-type: none"> • Sonic tee-shirt with short sleeves and shorts • Girls sometimes wear short dresses.. they wear shorts and tee-shirts • <i>Hats on</i> • <i>(Hats stop) the hotness getting to them</i> • <i>blue</i> 	<ul style="list-style-type: none"> • Santa is wearing his proper suit • The children are wearing all green... jumpers and a blue skirt and those kind of jogging trouser things • They have these kind of hats on..so they don't get snow in their faces
WORK	<ul style="list-style-type: none"> • Walking.. going into St. Arthur's Cave • Sometimes watch tele..sometimes just eat food • Sometimes the people work in St. Arthur's Cave.. there's a shop at the end..they could work there • <i>Spying</i> • <i>-Shopping</i> • <i>Working in hotels</i> • <i>A factory</i> 	<ul style="list-style-type: none"> • Santa is going to put the presents in here • In the summer they build snowmen.. they play..they throw snowballs at each other • Some people work in restaurants, some in shops..if you've gone to the swimming pool then you want a kind of Cappuchino • <i>They might be going in there(building)</i> • <i>Teaching people how to ski</i>

WEATHER	<ul style="list-style-type: none"> • It's very hot • It's hot most of the time.. it's only once cold, it rained once when I went to Spain • Sunny..not all the time but most of the time..most of it (country) but not all of it..Belaweberra and Costa Del Sol does • Spain isn't wet hardly at all • <i>Hot</i> • <i>Hot..not at night time..it'll still be hot but not as hot as it would be in the day</i> 	<ul style="list-style-type: none"> • Cold (whole time, whole place) • <i>On the rest of the week it's very cold</i>
GENERAL CONCEPTS	<ul style="list-style-type: none"> • Shop • Rides • Swimming pool • Treasure hunt • Jacuzzi • Sun tan cream • Bed • <i>They would need water</i> • <i>If it was the beach then the sand would be wet</i> • <i>Seaweed</i> • <i>Caravan selling ice-cream</i> • <i>There isn't a lot of houses</i> 	<ul style="list-style-type: none"> • Snowman, the children made him • <i>It might be a camp site</i> • <i>Houses at the top(of mountain) but not shops</i> • <i>Schools</i> • <i>Offices</i> • <i>Little wolves..pull sledges along</i> • <i>Igloo</i> • <i>Park (not seen)</i> • <i>There might be a car carrying a boat there</i> • <i>Trees (not seen)</i> • <i>Grass (not seen)</i> • <i>No pavement</i>
CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • Sometimes they're wet 	<ul style="list-style-type: none"> • Some have a Winter .. they don't have snow..just wind and rain as well..and not many countries have snow..some ..most not many have ice either.
FEELINGS	<ul style="list-style-type: none"> • Some are happy some are sad –there's a swimming pool..sometimes there's two outdoor pools and one indoor pool and there's this treasure hunt and they play water balloons..and there's a jacuzzi • <i>Happy- can get a coffee..it's hot and they don't like the rain .. if you have rain you can't play can you</i> 	<ul style="list-style-type: none"> • Happy –when they're playing • <i>Happy – they can get to play</i> • <i>The proper grown ups are sad and the children like the snow</i> • <i>Half of them are happy and half of them sad</i>

<p>EMOTIONAL RESPONSE TO PLACE</p>	<ul style="list-style-type: none"> • Yes (to live there) – if you went to other places you'll get wet and when you get wet you get cold..and then when you go to bed you'll be all cold • <i>It's hot ..I don't like the rain.. when it's rainy I can't go football in the garden</i> • <i>There might be people who are black and some are white</i> • <i>If you didn't have rain you wouldn't have trees ..and flowers</i> 	<ul style="list-style-type: none"> • I don't think I'd like to live there because I like the sun..if you go in the swimming pool..it'll be too cold and if you have a heated one it'll still get cold at night • <i>Fun</i>
<p>EGOCENTRICITY</p>	<ul style="list-style-type: none"> • There're these little grass things that stick up when you pass..they stick to you • I went to Spain.. I saw palm trees..I went in St. Arthur's caves • I'm wearing • There were loads of rides...I stayed..it went on to one o'clock in the morning..I stayed up till twelve • I wasn't allowed in it.. only a teenager • It rained once when I went to Spain and normally when I go to holiday it rains quite a lot • I went to Costa Del Sol • <i>One day I went to the beach and I found a caravan..you can get ice-creams</i> • <i>I don't like the rain..I can't go football in the garden</i> 	<ul style="list-style-type: none"> • My uncle told me • This boy Peter, he threw a snowball..he got it in the face

MATRIX TO SHOW RESULTS FOR LOUIS (YEAR TWO)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and the photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • A desert – saw ‘em in books • <i>Africa. ..Europe? Spain</i> 	<ul style="list-style-type: none"> • Canada - I’ve been there.. two times • <i>Canada in this places you get a lot of mountains and you can only go dri-skiing here</i>
PEOPLE	<ul style="list-style-type: none"> • (none drawn, just footprints) There aren’t a lot of people in the desert • <i>they live in that country..they drove there for holiday</i> • <i>They’re hunters</i> 	<ul style="list-style-type: none"> • (None drawn) They’re in there(cable car) • <i>he’s got white hair</i> • <i>I think they’re managers..of the place</i>
CLOTHES	<ul style="list-style-type: none"> • Tee-shirt, shorts, a bag on their back • Jeans and a top, a hat 	<ul style="list-style-type: none"> • Water jackets..scarf..furry coat over the waterjacket • Coats and trousers.. earmuffs • <i>Boots joined on..to their trousers</i>
WORK	<ul style="list-style-type: none"> • Walk and look for things.. coconuts..animals • Making money.. they get some paper and put it in a machine and it turns into money • <i>Going fishing</i> 	<ul style="list-style-type: none"> • Talking..looking out of the window • Go skiing • Go to shops • Skiing • Making cars • <i>Making something out of snow..makinga shop</i>
WEATHER	<ul style="list-style-type: none"> • Hot... sometimes it’s cloudy..it doesn’t rain but it’s cloudy (whole place) • (Wouldn’t rain a lot) • <i>I think it’s just gonna be windy</i> 	<ul style="list-style-type: none"> • Never gets hot in Canada • Cold • <i>It’s cold</i> • <i>On Thursdays and Saturdays it turns into ice and into snow all the rest of the days</i>
GENERAL CONCEPTS	<ul style="list-style-type: none"> • Food (in the bag) • Shop • <i>It might be the roads(road)</i> • <i>Little shops</i> • <i>Breakfast</i> • <i>(Tidal action) at daytime the water goes forward and at nighttime it goes backward</i> • <i>Flats</i> • <i>Apple trees..they get water from the well and put by the trees</i> • <i>There isn’t any shops</i> • <i>You can’t get any drinks only water</i> 	<ul style="list-style-type: none"> • Lifts • Snowman • Car • Shops • <i>That’s the place where they pay for the skiing</i> • <i>That’s where you pay to go to sleep</i> • <i>Shop</i> • <i>A rock..covered with snow</i> • <i>They’re the toilets</i> • <i>Bear..wolf</i> • <i>Tesco (not seen)</i>

CONCEPTS ABOUT OTHER PLACES	<ul style="list-style-type: none"> • (Others) rainy..windy • (Others) look different – don't know (how) 	<ul style="list-style-type: none"> • (Knows some look different but not how)
FEELINGS	<ul style="list-style-type: none"> • Happy – don't know • <i>Happy –(doesn't know then) it's hot</i> 	<ul style="list-style-type: none"> • Some happy – when they enjoy themselves, some sad • <i>Happy – get to throw snowballs</i> • <i>They children are happy 'cos it's snowing</i>
EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • Nice and hot • <i>Hot..at nighttime just windy</i> • <i>Too hot, I like the rain and they don't have houses only blocks of flats</i> 	<ul style="list-style-type: none"> • Cold? • Too cold • <i>Really freezing</i> • <i>There isn't a lot of shops and houses and flats</i>
EGOCENTRICITY	<ul style="list-style-type: none"> • My Mummy goes to work and she makes money • I'd have to walk a long way to get food 	<ul style="list-style-type: none"> • I've been there..two times • <i>My Dad went on a mountain a long long way ago..he climbed up..to the top it was all snowy there and not even one single thing to see.</i>

MATRIX TO SHOW RESULTS FOR JEREMY (YEAR TWO)

(Bullet points within each cell reflect collated results from the draw-and-write (normal font) and the photographic discussion (italic font))

CONCEPT	HOT PLACE STUDY	COLD PLACE STUDY
PLACE NAMES (also reason for knowing)	<ul style="list-style-type: none"> • Can't remember the country but I've been there with my Granddad • <i>England – 'cos it's hot..there's sand..mostly in hot countries you get a lot of sand</i> 	<ul style="list-style-type: none"> • Iceland – my Granddad went there..he came back and told me how it was there • <i>England when it's snowing- there wouldn't be swings and that ..if it was like North Pole the children wouldn't be there</i>
PEOPLE	<ul style="list-style-type: none"> • Me, Nanny, Grandad's not here yet 	<ul style="list-style-type: none"> • That one's somebody because he said he saw • A little boy • <i>Moscow people..eskimos</i>
CLOTHES	<ul style="list-style-type: none"> • Purple trousers ..blue shirt • Shorts, long tee-shirt • Things what you wrap around..really long like a blanket • Shorts and cut them shorter..and just wear their vest • <i>Those things you wrap round you body</i> • <i>They (visiting children from Chernobyl) must be wearing those clothes 'cos they told us some are Indian</i> • <i>Flip flops and no shoes</i> • <i>If they don't drink enough water the need to cover their heads up</i> • <i>Blue shirt...a hat</i> • <i>Sunglasses</i> 	<ul style="list-style-type: none"> • Hat, mittens, woolly jumper with something underneath • Nice warm tracksuit bottoms • <i>Trousers and Eskimo coats...like really thick</i> • <i>Thick boots</i> • <i>Sometimes they've got like tennis rackets on their feet but they're not tennis rackets</i>

<p>WORK</p>	<ul style="list-style-type: none"> • Looking at someone taking a photo • Work in factories • Build huts for the holidays people • Clean the swimming pools • <i>Having a picnic</i> • <i>Collecting water or fruit in the basket</i> • <i>In the factories</i> • <i>Collect water</i> • <i>Making wells</i> 	<ul style="list-style-type: none"> • Building a snowman • Work in factories • Make hats • Make holiday houses • Builders • Stay at home (if no job) and if the children don't go to school, they play with them or work in the garden • Making cars, lorries, ploughers...cottages and houses • <i>Playing on swings</i> • <i>On skates..playing on swings</i> • <i>Ski .bob ski</i> • <i>Snow fights, throwing snowballs</i> • <i>Hunt for dinosaur bones...frozen. .woolly mammoths</i> • <i>Digging snow for roads</i>
<p>WEATHER</p>	<ul style="list-style-type: none"> • Sometimes it rains sometimes it goes really hot..sometimes there's rainbows..storms..the television goes off • <i>Hot probably (all the time)</i> 	<ul style="list-style-type: none"> • It would be frozen (swimming pool) • Sometimes it's always snowing and sometimes it isn't • When it's getting near to summer in our country it(the snow in Iceland) stops but it doesn't go sunny it just goes like Autumn • <i>It's very cold</i> • <i>Snows all the time (whole country)..if it was a small country..an island</i>

<p>GENERAL CONCEPTS</p>	<ul style="list-style-type: none"> • Beach, palm trees, banana trees • Volcano • House • Swimming pool • Fruit trees • Rainbows • Storms • Television • <i>Road..cars make it wet</i> • <i>Carts..comed with barrels of water from wells..it's been spilling on the roads</i> • <i>Beach (sea)</i> • <i>Places where there's fruit growing.. like forests but animals are there as well</i> • <i>A market thing</i> • <i>Sunglasses (in bag)</i> • <i>Jungle</i> 	<ul style="list-style-type: none"> • Factories • Holiday houses • Hats • Cars • Lorries • Ploughers • School • Cottages • Not a lot of animals..they've got to be in barns and people be farmers • <i>School</i> • <i>Swings</i> • <i>Bonfire</i> • <i>They (shops) might be on top of the mountain</i> • <i>Trailers</i> • <i>They(buildings) might be offices</i> • <i>Telephone wires..that means there's a telephone there</i> • <i>If they found a mammoth..they could call..put it in a museum</i> • <i>Those wires might be for the lift</i> • <i>Sled house</i> • <i>Can't see a river</i> • <i>A field (not seen)</i> • <i>Train track (not seen)</i>
<p>CONCEPTS ABOUT OTHER PLACES</p>	<ul style="list-style-type: none"> • Some have snow all the time • Some have deserts • <i>All the house are the same as other hot countries...they might be made of slate</i> • <i>Iceland must be very hot now when the volcano's blowing up</i> • <i>In other countries they</i> • <i>Haven't got en.. like poor children, they haven't got anything</i> 	<ul style="list-style-type: none"> • Some just snow and never stop and some snow..like us then get Summer then Autumn

FEELINGS	<ul style="list-style-type: none"> • Happy – nice beaches and clean... nice food.. lots of fruit trees.. like bananas and apples • <i>Happy – grow lots of fruit and they've nice fruit... it could feed them</i> • <i>Sometimes happy (when hot)</i> 	<ul style="list-style-type: none"> • Happy – snow.. so it's nice • Fun – but I wouldn't want to live there.. I like sun.. you can have bar-b-ques and swim in the swimming pools • <i>Happy – the children are happy and the grown ups a bit of both- they can't ride to school. The dads are usually sad 'cos they like bar-b-ques</i>
EMOTIONAL RESPONSE TO PLACE	<ul style="list-style-type: none"> • Nice.. fun as well • Fun.. nice beaches and lots of fruit... I like coconuts • <i>There wouldn't be any nice flowers if it didn't rain</i> • <i>I'd go holiday there but I wouldn't want to live there</i> 	<ul style="list-style-type: none"> • <i>I would (want to live there) – get messy.. could go into the igloo so you didn't have to go to school</i>
EGOCENTRICITY	<ul style="list-style-type: none"> • I've been there with my Granddad • On the beach there was palm trees • I'm looking at someone taking a photo • I'm wearing • My Granddad told me there was a volcano there.. it's in the distance • Where my Granddad's house was.. there was a swimming pool • <i>It happened to me it did (heat stroke)</i> 	<ul style="list-style-type: none"> • My Granddad went there... he told me • That one's somebody because he said he saw • That was his house he was staying in and he saw a little boy in his garden building a snowman • I like sun

APPENDIX 3A

MATRIX TO SHOW RESULTS OF THE DRAW AND WRITE COLD PLACE NAME KNOWLEDGE

NURSERY SAMPLE	YEAR TWO SAMPLE
<ul style="list-style-type: none">• Mars• Seaside• Home• Home• Home• Cornwall	<ul style="list-style-type: none">• Scotland• Arctic• North Pole• Iceland• Canada• Iceland

MATRIX TO SHOW RESULTS OF THE DRAW AND WRITE HOT PLACE NAME KNOWLEDGE

NURSERY SAMPLE	YEAR TWO SAMPLE
<ul style="list-style-type: none">• England• America• Mars• Gambia• Spain• Cornwall	<ul style="list-style-type: none">• Australia• Lanzarote• Australia• Spain• A desert• A holiday place

APPENDIX 3B

MATRIX TO SHOW RESULTS OF THE COLD PLACE PHOTOGRAPHIC DISCUSSION PLACE NAME KNOWLEDGE

NURSERY SAMPLE	YEAR TWO EXAMPLE
<ul style="list-style-type: none"> • North Pole • South America • America • England • England 	<ul style="list-style-type: none"> • Canada • Arctic • North Pole • Iceland • Iceland • England • France

MATRIX TO SHOW RESULTS OF THE HOT PLACE PHOTOGRAPHIC DISCUSSION PLACE NAME KNOWLEDGE

NURSERY SAMPLE	YEAR TWO SAMPLE
<ul style="list-style-type: none"> • China • America • England • Spain • Scotland • Gambia 	<ul style="list-style-type: none"> • Bethlehem • Africa • Europe • China • India • Spain • New Zealand • England

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