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Play Patterns and Behaviours of Young Children who are Gifted in an Early Childhood Setting.

A thesis presented in partial fulfilment of the requirements for the degree of

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ABSTRACT

This thesis begins to address a gap in early childhood research in New Zealand by exploring how young children who are gifted play in an early childhood setting. In this study, data were generated from two young gifted children and five teachers, in one early childhood centre in the North Island of New Zealand. The children, both boys, were nominated by teachers as being intellectually and affectively gifted. A qualitative approach using case study methodology was utilised in order to describe, explain and understand (Yin, 1994) their play patterns and behaviours. Methods chosen were observation, interviews and document analysis.

Findings showed that these children had advanced knowledge and language, were perfectionists and could experience frustration during play. They were found to be highly imaginative children with an interest in abstract or conceptual thinking and ideas. Co-incidentally, both were ambidextrous. The children were highly curious with a love of learning, but boredom could be experienced. They exhibited a heightened interpersonal awareness and advanced sense of humour during play.

Five play preferences were identified. These children enjoyed open-ended play, pretend play, solitary play and rules-oriented play. They also preferred their play not to be disrupted by noise, centre routines and transitions. Their interactions during play were explored. They preferred to interact with the teacher during play and they were observed ignoring or repelling their peers. When they did engage socially, dominance, leadership and competition were elements of that play.

This study has implications for early childhood teachers. Firstly, there is a need to understand the phenomenon of giftedness. Secondly there is the need to notice the characteristics of giftedness during play and recognise them as such. Finally, there is the need to respond by offering additional play support. The writer suggests that as early childhood teachers are a significant element of the gifted child's curriculum, that teachers can co-construct learning in meaningful ways which cater for the ease and speed of learning (Gagne, 2004) of the gifted child.

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INTRODUCTION

This thesis begins to address a gap both in current early childhood research in New Zealand and the dearth of current literature globally concerning young children who are gifted and their play. It was my intention to discover the play experiences of these children in an early childhood setting, which may in turn suggest curriculum implications for early childhood teachers. The curricular experiences of this group of children (which includes play) entice curiosity for me. This thesis aims to provide a voice for young children who are gifted and provide a medium through which to advocate for curriculum support in order to enrich their learning.

International literature informed the intended research. Findings may relate directly to early childhood teaching practice regarding supporting the play of these children and assisting them to utilise their learning capacity to the full during play.

The motives of this thesis are thus two-fold. Firstly to investigate the play patterns and behaviours of young children who are gifted and secondly, to suggest the curriculum support these children may require during play in an early childhood setting. An understanding of the meaning of the play patterns and behaviours identified will have outcomes that are directly related to teaching practice.

I recently conducted a small research investigation (Murphy, 2004a), in which four teachers from one early childhood centre in the North Island of New Zealand were interviewed. The focus of that investigation was the teachers' perceptions of how young children who are gifted have differing play patterns and behaviours to their peers (not gifted). The emerging themes of most interest to me from the data generated, implicated aspects of curricular interest. These themes involved choosing adults as play partners, interest in generating new games, pushing the boundaries of equipment use and a love of fantasy games or those experiences which call for high use of the child's imagination. From this preliminary research, I focused an interest within the area of play. Taking a case study approach to this investigation encapsulates the idea of being able to take a rich in-depth analysis of certain situations and this has appealed to me in this instance.

How do young children who are gifted experience the curriculum in New Zealand early childhood settings? This broad question cannot be answered in this one thesis alone, so I have focused research attention on play experiences. Using case study methodology as a research approach, demonstrated my desire to gain an understanding of this group of children and to answer questions about their play in an attempt to understand them and their needs as individuals. The examination of the play of individual children facilitated an in-depth analysis of their experiences within a limited time frame (Bell, 1999).

The identified topic is affirmed at the end of this chapter and the research questions, which provided the general focus of this investigation, are stated. A literature review is presented in chapter two. The review consists of concepts underlying the definitions of giftedness, presents a menu of definitions of giftedness and states how giftedness is defined for the purposes of this research. In addition, play theories, definitions of play, intersubjectivity and play in regard to young children who are gifted are explored. This review provided me with the impetus to learn more about giftedness and to develop a greater sense of inquiry concerning the play experiences of these children in an early childhood setting. In chapter three, methodology is reviewed, methods used are explored, descriptions of the sample and a description of the early childhood setting and its programme are provided. Ethical considerations are emphasised and respected. The findings are presented in chapter four, highlighting emerging themes that surfaced from the data generated (Graue & Walsh, 1998). Examples directly linked to the analysed data, are indented within that chapter. Chapter five then discusses the findings in relation to the questions, linking to the literature reviewed, other literature and the data generated. Finally, a conclusion is drawn in chapter six, which questions whether the aims of this thesis have been realised, explores implications for teachers, policy implications, acknowledges the limitations of the research and suggests possibilities for future research.

In short, the principle aim of this research was to present a fresh lens into the play patterns and behaviours of young children who are gifted in an early childhood setting. The overall aim was to find out:

- How do young children who are gifted play in an early childhood setting?

It was hoped that this lens would in turn, answer the following research questions:

- What characteristics of giftedness are evident in young children's play?
- Do these children demonstrate particular play preferences?
- What interactions with teachers and other children can be observed during play?

I acknowledge the limitations of the research, that only one early childhood setting was involved and that both children were boys. However, it is hoped that the research will provide a sound foundational platform for future investigations and may initiate further future research interest amongst the early childhood research sector.

The following chapter now presents a review of the literature relevant to the research questions.

LITERATURE REVIEW

Introduction

This thesis explores how young children who are gifted play in an early childhood setting. This question promulgates the need to examine the concepts of both giftedness and play, keeping in mind that play is an integral element of a child's curriculum. This chapter reviews recent research and literature examining various aspects of these topics. The literature review includes an overview of the principles underlying the contemporary definitions of giftedness and an overview of definitions, including those, specific to and appropriate for young children. The characteristics of young children who are gifted are examined and a definition upon which this research is based is presented. Contemporary theories of play inform the thesis. In addition, definitions of play, intersubjectivity and an analysis of global literature concerning the play of young children who are gifted are explored. Curriculum is everything a child experiences in an early childhood setting; play and curriculum cannot be separated. Play includes all aspects of the child's environment in the form of "people, places and things" (Ministry of Education, 1996, p.9).

2.0 Giftedness

What is giftedness? Spanning over most of the last century research has investigated giftedness albeit primarily intellectual forms of giftedness focusing on older gifted children. The following section of the review examines dominant lines of thinking specific to a conceptualisation of giftedness and explores definitions of giftedness including those that underpin this research. In addition, contemporary research concerning how young children who are gifted play will be reviewed.

2.0.1 Principals Underlying Definitions of Giftedness

There are two specific lines of thinking dominating current concepts of giftedness, these being the multi-category approach and a sensitivity to multicultural values (McAlpine, 2004). Due to the continual changes in educational and social thinking (McAlpine, 2004), viewpoints will continue to evolve with time. Nutall, Romero and

Kalisnek (1992) had reiterated in the early nineties, that the concept of giftedness was expanding beyond the traditional emphasis of general academic prowess. Historically, different views have been held and opinions are being contemporised due to the increase of research in this field. Some viewpoints (Ministry of Education, 2000) have asserted that giftedness is valued according to the communities, cultures, religions and societies in which they surface. In other words, giftedness would be viewed quite differently by a remote tribe in Africa in comparison to a small rural village in New Zealand or a community of university graduates in Wellington. Finding a solution as far as agreeing upon one definition of giftedness may never happen.

Furthermore, historically there has been much talk of giftedness in New Zealand, but very little research is being conducted (Moltzen, 2004; Riley, Bevan-Brown, Bicknell, Carroll-Lind & Kearney; 2004). In May 2001, a working party on Gifted Education was established in New Zealand and various recommendations developed which outlined the next steps needing to be taken, in the approach to the education of these children. Core principles have been identified in order to support the achievement and well-being of children who are gifted and early childhood is included in the guidelines (Minister of Education, 2002). Some of these core principles acknowledged by the Minister of Education (2002) were, that gifted learners are found in every group within society and that the early childhood environment is a powerful catalyst for the demonstration and development of talent. In addition, it has been acknowledged that Maori perspectives and values must be embodied in all aspects of definition, identification and provision for gifted learners. Early childhood centres should provide opportunities for parents, caregivers and whanau to be involved in the decision making that affects the learning of individual children and should aim to meet the specific social and emotional needs of these children. The Minister (2002) has acknowledged that programmes for gifted learners should be based on sound practice, take account of the research and literature in this field and be regularly evaluated.

2.0.2 Defining Giftedness

Attempts to provide a definition of giftedness in this country date back to the late eighties. The New Zealand Department of Education drafted a definition of giftedness in 1986 relating to high performance that was relative to the educational context of the child. Several aspects were emphasised, such as general intelligence; creative, productive or intuitive thinking; specific academic, technical or mechanical aptitude and achievement; cultural arts: verbal, visual and performing; cultural traditions: values and ethics; social skills, leadership and aesthetics (McAlpine, 1996). Whereas in the United States, Renzulli (1977) concentrated on gifted behaviours and believed educators should focus on these behaviours rather than trying to define giftedness. He identified three human traits which he believed when combined together, form the basis of giftedness. These are:

- Above average academic ability – Renzulli (1977) points out that this does not necessarily mean high Intellectual Quotient (I.Q.). Abilities include a wide range of general abilities e.g. recall, early language; and specific abilities e.g. advanced drawing skills.

- Task commitment – involves sustained motivation and attention, in the development of ideas and products e.g. the young child who stays at the carpentry table for long periods of time to complete a project or reads alone despite distractions.

- Creativity – involves problem solving, originality of thought, fluency, flexibility and elaboration of ideas e.g. the 18 month old who stacks chairs to see out a window.

Renzulli (1977) wrote of both the possession of the traits or the potential to develop the traits. Emphasis was then placed on how the combination of these traits could be applied to human performance. Therefore, in the late eighties, whilst New Zealand was trying to define the concept of giftedness, this American researcher was delving deeper and focusing on behavioural characteristics.

Gardner (1993) took a different slant, suggesting in his theory of intelligence, that every individual possesses a variety of separate intelligences. Eight forms of intelligence were identified: musical, bodily-kinaesthetic, intrapersonal, interpersonal, linguistic, spatial, mathematical-logical and naturalistic (Gardner, 1999). Gardner (1993) emphasised that every young child has all these forms of intelligence and that a personal profile of strengths and weaknesses could be identified for each domain. The views of Gardner (1993) and how they can be interpreted in the early childhood world are considered, alongside examples of experiences likely to foster particular forms of intelligence. Spatial Intelligence is the ability to form mental models of the spatial world e.g. a young child at the clay table, or at the block corner. Musical Intelligence is the ability to be sensitive to rhythm, discriminate pitch, produce music e.g. the child singing out loud whilst playing in the sandpit, the infant tapping 2 containers together to make a sound. Bodily–Kinaesthetic is the ability to solve problems or to fashion products using one's body e.g. the three year old that crouches down to allow a one year old to climb on to her to see out the window, the young child applying his own face paint, dressing up himself and acting out the part in front of others. Interpersonal Intelligence is the ability to understand other people, what motivates them and how they work e.g. the two year old that brings in the mail each day to the teacher; the three year old that says " You feel sad today don't you?" Intrapersonal Intelligence is the ability to form an accurate model of oneself, how one behaves and how one feels e.g. the three year old that says "I need a sleep" or "I don't want to play with anybody this morning." Linguistic Intelligence is the ability to use language in written and oral expression e.g. the two-year-old that says, " I don't like you because you've got crooked ears!" Logical – Mathematical Intelligence is the ability to use notation and calculation to aid deductive and inductive reasoning e.g. The one year old that was told by another child that she was too small to see out the window. So the one-year-old proceeded to stack chairs until she could climb high enough to get a full view. Naturalistic Intelligence is the ability to be 'nature smart' e.g. the young child who has a knowledge of and interest in spiders.

Gardner's theory (1993) asserted that all human beings have multiple intelligences but that each person has their own unique combination. The theory demonstrates how children learn and that many play experiences incorporate several intelligences, some

covering all intelligences. Understanding multiple intelligences enables early childhood teachers to be more understanding of children's play preferences.

Cathcart (2001) challenged our understanding of giftedness here in New Zealand by looking outwards in less strictly defined parameters, asserting that it is essential that all types of talent are recognised.

> Our basic premise is that giftedness or exceptional ability occurs in any area or level of performance, not just what's taught at school – whether it be understanding other people, being compassionate, gifted in leadership, oratory, or a whole range of cultural areas that our schools do not recognise or do not know how to assess (Cathcart 2001, p.23).

Cathcart's view appears to align with how a definition of giftedness in early childhood in New Zealand is evolving (Minister of Education, 2002), broadened to encompass both the commitments we have made to Te Tirito O Waitangi and the multicultural society in which we now live. This document (Minister of Education, 2002) asserts that "gifted and talented learners are those with exceptional abilities relative to most other people" and that " these individuals have certain learning characteristics that give them the potential to achieve outstanding performance" (p.2). Furthermore, "giftedness and talent can mean different things to different communities and cultures in New Zealand" (Minister of Education, 2002, p.2). In her thesis study, Bevan-Brown (1993) examined aspects of Maori culture and customs that are valued by Maori. She found that these need to be incorporated into the concept of giftedness and that teachers need to receive professional development in order to recognise giftedness, in particular from a Maori perspective. In other words, the Maori concept of giftedness needs to be viewed holistically, reflecting the customs, beliefs, values and attitudes of Maori people (Ministry of Education, 2000).

Gagne (2004) proposed a clear distinction in the field of gifted education between the two concepts of giftedness and talent which aligns well with the New Zealand context. In his view, giftedness is innate, whereas the development of talent is age and training related. According to Gagne (2004) giftedness (but not talent) can be seen in early childhood. He suggested that gifted individuals make up approximately

10% of any population, indicating that an early childhood centre licensed for 50 children that may have an overall roll of 75, could have seven gifted children in its care. Furthermore, Gagne (2004) advocated for a benchmark, a scale or formula which the international community of gifted education researchers can use to assist with identification. Defining giftedness according to Gagne (2004) is determined by the greatness of an individual's natural abilities.

Cathie Harrison, an early childhood lecturer in Australia, completed a Master of Education in gifted education and has a wide knowledge and familiarity with early childhood education. Harrison (1999) suggested that "giftedness should be defined in terms of exceptional behaviour and development which influences the child's educational experiences and outcomes and which affects the child's social and emotional development" (p.19). This definition suggests that advanced behaviours can therefore influence the play of the gifted child.

2.0.3 Definitions of Giftedness used in this Research

It is the definitions of both Harrison (1999) and Gagne (2002) that inform this research. I call on the viewpoint of Harrison (1999) firstly, in order to align this study with a contextually appropriate definition. Due to the unique characteristics of the early childhood context, there is a need for focus on the whole child and consideration of potential rather than perhaps giftedness in the functional sense (Fatouros, 1993; Karnes & Shwedel, 1983). Harrison (1999) articulated a definition aligned with the philosophical basis of current early childhood research.

> A gifted child is one who performs or who has the ability to perform at a level significantly beyond his or her chronologically aged peers and whose unique abilities and characteristics require special provisions and social emotional support from the family, community and educational context (p.20).

Gagne (2004) differentiated between giftedness and talent and proposed that giftedness can be defined in the simplest sense, as the ease and speed of learning. He asserted " high aptitudes or gifts can be observed more easily and directly in young children because environmental influences and systematic learning have exerted their

moderating influence in a limited way only" (p.1). Giftedness can be defined as the facility and speed with which individuals acquire new skills in any given field of humanity (Gagne, 2002). Thus, for the purposes of this research, giftedness is defined as the ease and speed of learning

2.0.4 Summary of Definitions

In summary, contemporary research highlights various viewpoints concerning definition and clearly there is a move away from defining giftedness in terms of one factor such as intelligence. The ideal of noticing, recognising and responding to giftedness in early childhood settings therefore validates the need to be aware of multiple perspectives in how we define it. Nutall, Romero and Kalisnek (1992) have reiterated that the concept of giftedness is expanding beyond the traditional emphasis of general academic prowess, while Gagne (2004) asserted that the hardwiring a person is born with accounts a great deal for who they are. Young children who are gifted are those showing sustained evidence of advanced capability relative to their peers. This capability could be in general academic skills and /or in more specific domains such as music or interpersonal intelligence (Gardner, 1993). A wide ranging and diverse 'menu' of abilities and qualities which reflect the diversity of the multicultural nature of our country, is also now recognised as contributing to the concept of giftedness.

2.0.5 Characteristics and Behaviours Associated with Giftedness

One of our most utilised assessment tools in the early childhood environment is that of 'noticing' (with the guidance of Te Whaariki (Ministry of Education 1996), our curriculum framework). We notice young children on a regular basis in order to provide a curriculum that will suit the interests, abilities and needs of the children. Walker, Hefenstein and Crow-Enslow (1999) stated that in order to develop an appropriate curriculum for gifted children which includes supporting play, early childhood teachers need an understanding of the characteristics that distinguish such children from their peers and ways to differentiate the curriculum so as to offer educational support. Noticing the play of young children who are gifted in this study,

could assist early childhood teachers in gaining an understanding of the phenomena of giftedness and ways in which they can provide educational support during play.

Research has demonstrated that as a group, young children who are gifted possess characteristics that distinguish them from their peers in the areas of cognitive, affective and physical development (McAlpine, 2004). In the field of gifted education, global literature tends to note and discuss the characteristics of giftedness by separating them into categories such as physical, cognitive and affective subgroups. In early childhood in New Zealand, the sector has moved away from these types of categorical assessments, taking a holistic approach to the whole child, particularly influenced by sociocultural factors. Children develop at their own rate from the time they are conceived. They have different behaviours, different developmental rates and display potential and performance in different ways. Age is not an adequate gauge of neurological and physical maturation, as child development is influenced by the environment of the child and by the child's genetic foundation (Clark, 1997). Furthermore, every gifted individual is different. Being gifted does not place one in a homogenous group.

It is important to understand average development patterns of infants and young children so that advanced and accelerated development can be noticed (Clarke, 1997). Recognising the characteristics of these infants and young children enables their identification, which in turn could optimise learning for these children, pending how they are responded to. During this early period of childhood, giftedness can be nurtured. Young children who are gifted tend to demonstrate outstanding talents far beyond what would be expected for their age. These children are precocious in that they may be unusually verbal or advanced in one or more domains of intelligence. It is therefore important that the teacher of the gifted child be intuitive to these early characteristics that may be demonstrated, so that giftedness can be nurtured early in a child's life. It should however be acknowledged that, as recently as in the eighties, there was "no evidence .....of a relationship between early signs of specific precocity and later accomplishment in supposedly related fields" (Tannenbaum, 1983, p.151). The earlier the identification or 'noticing' and 'recognising' occurs, the more potentially beneficial for the child.

The role of the teacher is crucial during the assessment of a child's interests and the identification of their abilities. All children need to be allocated equal consideration and time for observation or 'noticing' as there are young children who are gifted in every ethnic group and at all socio-economic levels (Ministry of Education, 2002). Children with disabilities and learning difficulties are not to be overlooked. It would be wrong for any early childhood teacher to assume that because a young child is wheelchair bound or has ADHD or Dyslexia for example, that they could not be gifted. There may also be an attitude amongst teachers that giftedness does not exist among children from low-income backgrounds (Karnes & Johnson 1989). This is incorrect. Teachers must be cautioned with regards to defining giftedness in ways that only reflect the values, attitudes and beliefs of any majority. It would not be ethical to do so. In addition they must be alert to the characteristics of giftedness regardless of other dimensions such as ethnicity. gender, socio-economic background, or age.

Characteristics of giftedness may be observed in all children to some degree. However, when high levels of a number of these characteristics are combined and evident, indication of giftedness is strongly considered (Moltzen, 1996). Allan (1999) explored the identification of young children who are gifted in New Zealand and developed a very useful tool in which to identify young children who are gifted in the form of teacher observations scales. These scales focused on a child's approach to learning, cognition and language, creativity and social competence. Gagne (2004) asserted that we must recognise who the gifted our in our care in order to differentiate our response to them. This view supports the work of Allan (1999), however further research in New Zealand concerning giftedness in early childhood has been slow to come.

Reasoning well, high use of imagination, memorising effortlessly, being a creator of jokes and puns and attentive to the emotions and feelings of others are all characteristics of giftedness identified by Gagne (2004). These characteristics are aligned under the four domains of giftedness he proposed; intellectual, creative, socioaffective and sensorimotor.

Other research has stated that young children who are gifted have the ability to think and synthesise abstractly, have a sensitivity to learning and the ability to generate original ideas and solutions (Hollinger & Kosak 1985; Lewis & Louis 1991; Lewis & Michaelson 1985; Parke & Ness 1988; Roedell, Jackson, & Robinson 1980; Van Tassel-Baska 1988). These children may reveal a high level of language development and an accelerated pace of thought. They show the ability to have long concentration spans on subjects of interest to them, or develop passion areas in which they are intensely interested. Furthermore, Harrison (1999) has highlighted other characteristics such as the asking of probing questions, creativity, imaginary play and the ways in which resources are used.

Research has also emphasised that there can be discrepancies between physical, intellectual and social-emotional development, commonly referred to as asynchrony (Roedall, 1990; Webb, 1994; Webb & Kline, 1993). Because fine motor skills often lag behind cognitive and conceptual abilities, young children who are gifted may visualise in their minds what they want to draw but may not have the developed motor skills to allow them to achieve the task. In the affective development of young children who are gifted, their mature vocabularies and frequently uneven development makes them vulnerable to social isolation if they lack interaction with children of similar abilities. I noticed asynchrony (Murphy, 2004b) whilst working with a group of kindergarteners in Sydney, Australia, in a school holiday programme for young children who are gifted.

> I observed the asynchronous development I have read so much about: a brain that could process numbers in ways I would never have imagined at this age, yet a mouth and tongue that could not achieve control and normal function. Never-ending questions and seeking of truth and fairness, yet a need for emotional support and understanding were evident (p.36).

Harrison (1999) suggested that we can examine the cognitive development of the young child who is gifted by observing his/her development and characteristics from an early age. These phenomena include alertness, intensity of purpose, curiosity, task commitment and advanced play behaviours. Harrison (1999) has highlighted the importance of characteristics such as an exceptional memory, early reading ability

and rapid pace of learning. Parents of young children who are gifted are often the first to notice that their child has different behaviours e.g. the baby who needs little sleep and is highly alert and curious. If characteristics of giftedness can be noticed from as early as infancy (babyhood) it seems acceptable that the attention spans and interests of these children may often differ from the norm. Tannenbaum (1983) questioned how early in life a child's aptitudes emerge. In the eighties, this researcher acknowledged that preschool children could show signs of becoming specialists very early in life. This view is supported by Roedell, Jackson and Robinson (1980) who viewed preschoolers as having distinctive profiles, which are much more easily recognised in those who are gifted.

In short, the cognitive characteristics of young children who are gifted can primarily be identified as; keen observation and curiosity, the ability to ask searching questions, early reading, writing, maths, art, music; advanced use of language and advanced comprehension skills. Furthermore, the ability to see unusual relationships, to understand complex concepts and to think logically and abstractly indicate advanced cognition. High levels of intrinsic motivation, long concentration periods and a love of learning and acquisition of further knowledge are all indicators of giftedness.

Noticing the affective characteristics of young children may also determine giftedness. These include perfectionism, heightened sensitivity, advanced interpersonal awareness and the ability to empathise (Harrison (1999, Gagne, 2004). Harrison (1999) has observed other affective characteristics that are evident in play situations. It appears that young children who are gifted have high personal expectations, enjoy the company of older children (especially those who are gifted) and enjoy the company of adults. They may also have an advanced sense of humour (Harrison, 1999; Porter, 1999). Murphy (2004a) found that early childhood teachers perceived young children who are gifted exhibiting an advanced sense of humour and this finding concurs with those of Harrison (1999) and Porter (1999). Feelings of frustration in play may also be evident (Harrison, 1999).

Clark (1997) suggested that <u>how</u> giftedness is expressed depends on two criteria; firstly, the genetic patterns and anatomical structure of each individual brain and

secondly, the support and opportunities provided by the individual's environment. For those of us teaching in early childhood services, we can be mindful that many children may not have had educational support of any quantity or quality before coming to the service. Some children will not have been a participant of as vast an array of experiences as other children and it is crucial that these children do not go unrecognised. Despite a renewed interest in genetics (Gagne, 2004), environment has and always will act as a powerful tool and lens, through which special abilities of young children can come to the fore (Ministry of Education, 2002). It will be imperative therefore in this thesis study, to discuss the characteristics that come to the fore during play in a New Zealand early childhood setting. Hence the development of the first research question concerning characteristics of giftedness that are evident in young children's play, given that our early childhood settings may have quite different play environments and curricular foci to other settings overseas.

2.1 Play

Play is an essential part of every child's life and vital to the processes of human development. The following section examines play theories and definitions of play. In addition, intersubjectivity during play, play and curriculum and current global literature on how young children who are gifted play are explored.

2.1.1 Play Theories

Contemporary theories of play have been developed since the 1920s. Whereas classical theories sought to describe and philosophise about play, contemporary theories aimed to add to our understanding of the role of play in development and to explain the existence of play (Saracho & Spodek, 1995).

2.1.2 Psychoanalytic Theories of Play.

Freud did not develop a theory of play as such, but "his views of play fell within the framework of his psychoanalytic theory" (as cited in Dockett & Fleer, 2002, p.42). This theorist described development in terms of progression through a series of psychosexual stages and play was considered by him to be a cathartic experience.

"Children could use play as a means of shedding negative emotions related to events they could not control in their lives" (as cited in Dockett & Fleer, 2002, p.42), including trauma and conflict. The 'unreal' aspects of play were emphasised. Freud (1959) believed that children achieve mastery over stressful events by playing out the same things over and over again. This is the enactment of the child's reality.

In comparison, Erikson's (1963) work resulted in exploring psychosocial stages across the lifespan and described a sequence of events; each stage being characterised by a conflict to be resolved so that progression to further stages could occur. The view held was that "play was one way children resolved the conflicts they encountered in each stage" (as cited in Dockett & Fleer, 2002, p.43). Interestingly, play was described by Erikson as a disposition resulting in inventiveness (Rogers & Sluss, 1997).

To summarise these psychoanalytical processes, play was viewed as cathartic and emphasis was placed on the development of mastery. These theories suggested that play environments should help children develop a sense of control and competence as well as have the opportunity to play out their own realities. Furthermore, the role of play could be conceptualised as encouraging children to engage in play experiences that provide opportunities for the expression of emotions and experiences that are interesting and worthwhile to the child (Dockett & Fleer, 2002).

2.1.3 Arousal Seeking / Modulation Theory of Play:

The arousal theory of play focused on the cause and effect that occurs between stimuli and responses. Berlyne (1960) suggested that play was a natural medium through which a child can maintain arousal at a balanced level and the assumption was made that a certain drive had to be present for a child to maintain arousal during play at optimum levels. The view held was that arousal levels were raised when children were subjected to excessive stimulation, and "some activity was required to reduce that level of arousal. Hence play occurred" (as cited in Dockett & Fleer, 2002, p.44). Boredom resulted when arousal levels were below the optimum and children were motivated to seek additional stimulation. Too little stimulation and the child will seek out additional input. This also leads to further play. This compares favourably with Murphy's (2004a) findings where early childhood teachers

perceived that young children who are gifted can become bored in the early childhood setting. When something novel is introduced, attention to it is increased (Ellis, 1973), however, if there is too much novelty, a child may focus on one small aspect of it only and may ignore much of the experience to avoid over stimulation.

Saracho and Spodek (1995) summarised the arousal/modulation theory of play well, stating that individuals think best, when there is a situation that provides an optimal degree of novelty, uncertainty and complexity. Play allows children to achieve this optimal level, because it is under the child's control and the child protects against overload to ensure that enough stimulation is provided and self-regulates that stimulation.

2.1.4 Metacommunicative Theory of Play:

Bateson (1955, 1976) described frames and framing and believed play occurs as a framed event, where all involved are knowledgeable that what is happening is play. Central to this theory is how communication occurs and influences play. This is a particularly useful play theory when examining children engaging in pretend play where metacommunication is used by children to actively negotiate their intentions during play and the direction of it. Signals used outside the frame of play are metacommunicative. These signals regulate the play and guide its direction or course.

Within the play frame, communication guides the play roles and play rules that are taken and enacted (Dockett and Fleer, 2002). Children establish a "shared frame or focus in which the play occurs" (p.47) through this communication, which enhances intersubjectivity. "Children identify the nature of the play that will occur" (p.47) and gather clues that will help them "negotiate and make adjustments if differences are exposed"(p.47). This theory highlighted that "children use many communicative and metacommunicative devices to indicate they are playing" (as cited in Dockett & Fleer, 2002, p.47). Furthermore, play is framed by not only the players, but also the communication processes that occur during play.

2.1.5 Cognitive Theory of Play

Play has an important role in a child's cognitive development. This is one of the implications of Bateson's (1955, 1976) work. Connections between cognitive development and play have been explored by many researchers such as Piaget, Vygotsky and Smilansky. "Children were regarded as having an active role in play as they engaged their own body, toys and equipment or other people, and mentally as they played with ideas and symbols " (as cited in Dockett & Fleer, 2002, p.50).

Piaget (1962, as cited in Dockett & Fleer, 2002) believed that children construct their own knowledge during play and asserted that play embraced the dual processes of accommodation and assimilation. For each stage of development Piaget described a characteristic type of play. The state of balance or equilibrium he refers to, relates to what is known and what is experienced by the child. "Through assimilation, information is incorporated or assimilated into existing knowledge and understandings. When information is incompatible with these existing mental structures, these structures change to accommodate this new information" (as cited in Dockett & Fleer, 2002, p.50).

Spontaneous play is where assimilation predominates. It is the predominance of assimilation that makes something play. This involves the suspension of reality. Piaget (1962, as cited in Dockett & Fleer, 2002) detailed three stages of play, each relating to modes of thought and becoming incorporated into the next. These were Functional Play, associated with the sensori motor stage of development involving the repetition of actions or repeated use of objects or actions; Pretend Play (Symbolic) where children separate the mental world from the real world at the preoperational stage of development and Games with Rules that have been predetermined, for example board games or skipping which contain an element of competition. Children may play with the rules as well as play by the rules, testing their own limits and of those with who they are playing or competing.

Piaget (1962, as cited in Dockett & Fleer, 2002) acknowledged that pretend play is a significant indicator of cognitive development with considerable implications for

play. As pretend play moves from solitary to social, the agent of pretence changes, objects used in pretence change, the context of pretence changes and pretend sequences are combined. Smilansky (1968, as cited in Dockett & Fleer, 2002, p.59) added to Piaget's three stages describing Constructive Play "as using materials to construct something that remains when the play finishes". It is positioned between sensorimotor play and symbolic play, for example, a block castle or play-dough pizza.

Vygotsky (1967) offered an alternative play perspective. This theorist asserted that play creates an imaginary situation that is governed by rules. He believed that play is a social and symbolic experience and that these aspects underpin the importance of play itself. Furthermore, that the enculturation of the child that occurs in play is a reflection of the culture and society within which the child is situated. In his view, social rules constrain the child's ability to freely engage spontaneously and that when children engage in play they begin to separate thoughts from actions and objects and to adopt self-regulated behaviour. Hence, there is an emphasis in his theory on social themes, experiences and symbols in play. Vygotsky (1967) asserted that play creates a zone of proximal development and that abstract thinking is nurtured by stronger reliance on a child's inner thoughts, than on objects in the external world of the play environment. Self-regulation therefore develops through play and this sense of greater control can be demonstrated in play moreso that in other contexts.

To summarise cognitive play theories, while Piaget (1962) believed play reflected development that had already occurred, Vygotsky (1967) believed that play has the potential to lead development.

2.1.6 Summary of Contemporary Play Theories

From the literature reviewed on play theories, it appears that one common denominator is that play and development are closely intertwined. Pretend play specifically is a precursor to abstract thought and an indicator of cognitive development. Play sets up a zone of proximal development (Vygotsky, 1967), where interaction with peers and adults is the basis for the construction of new knowledge and understanding. As observers of children's play, we must also consider the

context in which the play occurs. There are many different types of play, too many to explore in this thesis, however it is clear that although play theories can be situated within a Piagetan (developmental) paradigm, in recent years, play perspectives have moved towards a sociocultural theoretical paradigm, due to the influence of the Vygotskian perspective.

2.1.7 Intersubjectivity

As aforementioned, sociocultural perspectives are increasingly being incorporated into the field of early childhood in New Zealand (Jordan, 2003) concerning play. Vygotsky (1978) viewed play as a social experience that requires intersubjective understandings between the players. He placed high emphasis on children learning from within the influences of their social and cultural life, mediated by more expert others. The role of teacher-child dialogue, in developing intersubjectivity between children and teachers during play and within their zone of proximal development (Vygotsky, 1978), is one consideration (Wells, 2001). This zone "is a way of describing an activity in which someone with greater expertise assists someone else to participate in sociocultural activities in a way that exceeds what they could do otherwise" (Rogoff, 1998, p.699). Rogoff (1998) believed that it is intersubjectivity that underlies the interactions that occur within the zone of proximal development; interactions which are co-constructive between play partners.

Verba (1994) described intersubjectivity as the participants' belief that they are jointly attending to the same aspect of the situation in which they are involved. Jordan (2003) suggested that "the development of intersubjectivity means each participant understands and adjusts actions to what the others are saying and each learns from the other" (p.4). She emphasised (Jordan, 2001) that this development is advanced to the Piagetan perspective of 'meeting minds'. Intersubjectivity is a moving process at a deeply enriching level of learning where children make sense of their world during play in the form of meaning-making. Jordan (2001) addressed meaning-making, discourse which "relates to an understanding of learning as a process of co-construction, by which in relationship with others we make meaning of the world. It assumes that each person co-constructs his or her own understanding of what is going on" (p.9).

"Continuous knowledge exchange between the children" (Goncu, 1993, p.101) occurs when young children are playing, therefore, intersubjectivity can be viewed as a constantly changing paradigm. This notion of an ever-moving and changing continuum was noted by Jordan (2003) who stated, " it is through constructing a joint understanding of the topic of discussion that the teacher and children gather clues to each other's thinking" (p.4) and that "through ever-evolving shared understandings of the topic, the teaching team and the children together co-construct" (Jordan, 2003, p.4).

Intersubjectivity during play, within play frames and experienced by the players provides opportunities for the ongoing development of mutual understanding and further learning. The role of the teacher as one element of the child's play curriculum is therefore a crucial one, in particular that of being attuned to a child's state of thought during play. Listening and respectful reciprocity were emphasised by Jordan (2001) who asserted that during co-construction "we expect children to contribute their ideas; in fact the starting point of their learning is their ideas. When we listen to what the children are really thinking, we frequently stand in awe of their understandings and insights" (p.9).

2.1.8 Defining Play

Schwartzman (1978) believed that play could be defined as an interactional process through which young children experience and exert power, dominance, authority and control over others and within situations, as they position themselves and are positioned by others. Play communities therefore, are based on a shared knowledge of play events.

According to Dockett and Fleer (2002) play is a complex and diverse experience. In other words, like giftedness, play is difficult to define (Johnson, Christie & Yawkey, 1999). Fromberg (2002) defined the play of young children in seven ways:

- Symbolic – this play includes elements of make-believe. People, objects and ideas may be treated as if they were something else, for example a

young child using a wooden block as a telephone, or playing with written or verbal forms of language.

- Meaningful – this type of play makes sense to the player and reflects what they already know and can do. It enables children to extend their knowledge skills and understandings, to connect ideas and to solve problems, for example making a sand garden after having spent the weekend gardening with grandparents.
- Active – this play involves activity – physical, mental or imaginative for example digging channels in a sandpit, bouncing on moonhoppers, playing guessing games
- Pleasurable – Children will engage in play for the pleasure or sense of fulfilment it affords and will cease to play when they cease to enjoy it. For example climbing to the highest point of a play fort to 'fly' or seeing how long one can dangle from a tree, running under a water sprinkler.
- Voluntary – Children choose to become involved in the play or not. The experience is controlled by the players and children can show a high level of application and commitment to the play for example choosing to play alone, packing lunch away early because a play experience has enticed the child.
- Rule governed – All play is governed by some rules such as the amount of time for play or equipment that can be used. If all the rules are imposed by the adult on what to do and when, the players may not regard the outcome as play. Children often impose their own rules for example who is going to be the mummy, the daddy, the dog.
- Episodic – Play has a beginning, a middle and an end. Play episodes may be fleeting or returned to time and again for example a child may get distracted by centre routines or the arrival of another friend. A product being made at the carpentry table may be revisited many times until finished.

Dockett and Fleer (2002) validated play as something that matters to children. These researchers stated that play is a multifaceted phenomenon, characterised by individual variation. In New Zealand, early childhood teachers acknowledge the

value of play as an active, child-initiated learning tool which provides empowering learning experiences; perfectly and naturally designed to enhance the autonomous learning of each child. Open-ended, free, child-initiated play experiences enable children to dominate their own development and to develop holistically and with meaning for the child. These are common terms in the early childhood sector used to describe play that has no predetermined result, no model to copy, no guide to follow and no pressure to finish. Open-ended play involves discovery, exploration, creativity, experimentation and critical thinking. Play in general terms, is relatively free of constraints and allows a child to release the energy of their own intrinsic motivation, and this is no different for the young child who is gifted. A crucial role the teacher or more expert peer has is that of mediating. If play leads development, more expert play partners can be instrumental in co-constructing understandings and experiences (Jordan, 2003; Rogoff, 1998).

2.1.9 Summary of Play Definitions

What any one community or culture defines as play could be quite different in comparison to another. Social-cultural influences cannot be distanced from the concept of play itself. Dockett and Fleer (2002) asserted that play is influenced by the context in which it occurs and that it influences the context in which it occurs. In early childhood education (and in this thesis), curriculum and play cannot be differentiated, as play is an integral part of the child's curriculum. Furthermore, the teacher and other players who are more expert, play a critical role in meaning-making within the play frame and outside of it (Jordan, 2003; Rogoff, 1998).

2.1.10 Play as Curriculum

Children progress through varying levels (complexity) of play influenced by the social and cultural influences in their world (Vygotsky, 1978). They progress to new understandings as they master new concepts through intersubjective experiences as they occur. In the introductory chapter of this thesis, curriculum was referred to as everything a child experiences. Play is an experience that is usually child initiated, therefore children have the power to create their own curriculum whilst playing, albeit constrained at times by what is readily available to them.

Children experience "people, places and things" (Ministry of Education, 1996, p.9) during play. They experience interactions, resources, materials and make full use of their senses in exploratory ways. Mastery of these tasks helps children to become confident and competent learners. Currently, many early childhood teachers encourage interests and strengths through authentic learning experiences (Jordan, 2003) which can occur during free-play episodes, during mat times, group times or teacher-initiated activity. The ultimate curriculum is provided through play (Wardle, 2001) and the teacher is a critical element of that curriculum.

2.1.11 Play of Young Children who are Gifted

Parke and Ness (1988) asserted that "play gives young gifted children an outlet for expression and a vehicle for learning. Dramatic play demonstrates their sophisticated use of language. Employing new combinations of materials and ideas shows the ability to be inventive and imaginative" (p.198). Vygotsky (1978) viewed imaginary play in particular, as a critical aspect of child development and suggested that "in play the child always behaves beyond his average age, above his daily behaviour" (p.102). This belief provides foundation to Te Whaariki, (Ministry of Education, 1996) which emphasised "the critical role of socially and culturally mediated learning and of reciprocal and responsive relationships for children, with people, places and things" (p.9). Planning and communication about roles and responsibilities are common play patterns seen in imaginary play (Vygotsky, 1978).

According to Smith (1998), a child's "capacity to separate meanings in the real world..... marks the beginning of higher representational thought" (p.126). Imaginary play provides this opportunity and implications may therefore be seen within the role of the teacher, concerning the co-construction in open-ended learning experiences, fantasy play and further opportunities for creative development. The question can be put as to whether the need to be in control of play and to generate games of their own, dominates the decisions the young child who is gifted makes, in order to create cognitively appropriate learning experiences for themselves.

According to O'Day (1996) a natural mode of learning for children is drama. Having the opportunity to experience story sequence and characterisation enhances opportunity for critical thinking abstract thought and language. This researcher suggested that young children who are gifted "appreciate the silly and the absurd" (p.16). In addition, children between the ages of four to six both respond to and enjoy riddles and "silly rhyming slapstick" (p.16). Melodrama is therefore suggested as a strategy to combine humour, which young children who are gifted may often demonstrate and drama, in order to engage the imaginations of these children. Not only does melodrama assist children to learn about plot and characterisation, but there is also the opportunity for these children to use their "skills of inferencing and prior knowledge" (p.16). Furthermore, creating rhymes and stories (Harrison, 1999) have been acknowledged as language characteristics evident in young children who are gifted.

Children need the opportunity for self-directed and discovery learning (Harrison 1999). This freedom to self-select allows the child to act on their own intrinsic motivation and can be achieved through long periods of uninterrupted play, flexibility in centre routines, accessible resources and the self-selection of activities. Harrison (1999) also emphasised that unrealistic expectations and frustration may be displayed "when fine motor development does not match cognitive development" (p.68).

Playing socially together during free play times, gives young children who are gifted opportunities for enhanced learning with peers as well as being a time that discreetly allows characteristics of giftedness to come to the fore. Abroms and Gollin (1980) found evidence of this in their study of twenty three-year-olds interacting during free play in a nursery school setting. The children observed had a mean IQ of 134 and they were observed for "ten four minute periods on ten different days" (Abroms & Gollin, 1980, pp 334-343; in Tannenbaum, 1983, p.147). The study showed that social skills develop early in life as many prosocial behaviours were demonstrated such as, helping others physically or verbally, sharing materials or workspace with others, reacting to another child's distress and showing affection for another child. Separate aptitudes could be identified and the "correlations between IQ and prosocial behaviour proved statistically significant, but they were independent enough of each

other to suggest the possibility that giftedness is plural almost at birth" (Abroms & Gollin, 1980, pp 334-343; in Tannenbaum, 1983, p.147).

Play interests of young children who are gifted (in particular, exceptionally gifted young children), may have an impact on their social development. Simple sensorimotor activity tends to engage young children of average ability whereas " the play interests of the gifted centre on games of intellectual skill " (Gross, 2004, p.130) and "sensible and logical behaviour are usually evident in free-play situations" (Tannenbaum, 1983, p.116). In addition, young girls who are gifted tend to be less interested in playing with dolls than their nongifted peers (Gross, 2004). These types of pretend-play experiences in an early childhood setting are commonplace; therefore, for the young child who is gifted and rejects playing with dolls, barriers may exist concerning socialisation. According to Gross (2004) " for the gifted child....search for logic and structure may supersede the desire for social intercourse" (p.130).

Board games appear to rank highly on the list of play interests for children who are gifted with pretend play, puzzles and fantasy games also highly favoured (Hollingworth, 1942; Silverman, 1989). These views concur with those of Harrison (1999) who stated that young children who are gifted enjoy intellectual pursuits, playing with words, concepts and puzzles. Similar findings have been made by Gross (2004) who recorded during interviews with children, that they have a deep enjoyment of fantasy or pretend play. These findings are also supported by Murphy (2004a) with early childhood teachers attesting that they observed young children who are gifted engaging in fantasy/pretend play frequently. Arguments during play may erupt due to the acceptance or nonacceptance of play and game rules. Gross (2004) suggested that conflict can arise when the highly gifted child seeks to overturn the rules "either to improve the game or simply for the intellectual stimulation of the ensuing argument" (p.132). Therefore solitary, fantasy and imaginary-based play may develop, rather than compromise any one child's individual interests that are to be pursued.

Gross (2004) reflected on whether it is commonplace for young children who are exceptionally gifted to invent games of "considerable structural complexity" (p.132).

A very early study by Hollingworth (1931) suggested that in early childhood, exceptionally gifted children had conspicuous difficulties with play. This researcher asserted "these children were unpopular with their age-peers because they always wanted to organise the play into some complicated pattern with some remote and definite climax as the goal" (as cited in Gross, 2004, p.132). Gross (2004) suggested that there may be resentment developed in children of average ability to the attempts of gifted children to reorganise play. Restructuring the conditions of both play and the rules may cause frustration for them. This researcher asserted that the vision of the average ability child is narrower and altering new rules during play may destroy the very fabric of it, whereas for the gifted child, he/she may perceive change to be one way of making the experience more challenging. Early childhood teachers have confirmed that young children who are gifted like to make the rules and get frustrated when play does not evolve as expected (Murphy, 2004a) .

A search for like-minded friends and companions appears to begin in early childhood for young children who are gifted. Murphy (2004a) suggested that these children seek out those who are like themselves and are fussy when choosing playmates. Hubbard (1929) observed a group of children aged three years old in a nursery school and collected data, in terms of the number of times the children chose each other as playmates and in terms of the length of time they spent playing as a group (as cited in Gross, 2004, p.134). Findings clearly demonstrated that playing together for longer periods occurred when there was a greater match of the same mental age.

The level of a child's giftedness needs to be considered as research indicates that the higher the IQ, the more solitary the play becomes. Hollingworth (1936) attributed these social difficulties to finding playmates "who are appropriate in size and congenial in mentality" (as cited in Gross, 2004, p.134). Similarities in mental age rather than chronological age are a high priority when choosing playmates. Te Whaariki (Ministry of Education, 1996) supports this need by advising early childhood teachers to offer opportunities so that children may interact with others of the same <u>and</u> different developmental and chronological ages and for teachers to identify strategies and techniques that encourage social integration. These viewpoints illuminate discourse on mixed-aged versus same-age groupings in early childhood services.

Nelson (1979) expounded the virtues of learning games and simulations as possibly being a "powerful means of tapping and releasing the potential in gifted children" (p.348). This researcher suggested that these types of play activities accommodate and utilise the gifted child's " superior creativity, imagination, wide-ranging interests and abilities and limitless energy" (p.348). As young children who are gifted thrive on discovery and enjoy playing around with ideas, these types of open-ended play experiences may be ideally suited to them. Role-playing experiences in particular may allow young children who are gifted to exercise and develop their sense of humour, creativity and individuality. According to Nelson (1979) making connections with reality in simulated play is recommended. In particular, exaggeration, chance, humour and competition are elements in play that would be responded to with some enthusiasm. The view of young children who are gifted is a world of limitless horizons "where exploration is sheer joy" (Nelson, 1979, p.351).

Barnett and Fiscella conducted a study in 1985, observing 15 gifted preschool children who were playing with a nongifted sample. The results revealed that the young children who were gifted "demonstrated higher degrees of physical, social and cognitive play styles, but were equivalent to the nongifted group in sense of humour" (p. 61).

Grant (2002) reported on an early childhood programme established at the University of Melbourne's Early Learning Centre, for preschoolers who are gifted. The programme attempted to identify how a typical early childhood programme could respond to these preschoolers. Parents of young children who are gifted provided strong impetus into the programme by reporting their experiences of various early childhood programmes. An initial cohort of six children started and it was increased to eleven in the months that followed. Parents nominated their children for the programme and for the first two years, a specialist teacher with postgraduate qualifications in gifted education taught the group. This teacher provided extension activities for many hours a week.

Empirical data generated from this study (Grant, 2002) provide a foundation of knowledge regarding the educational experiences preferred by this group of children.

Experiences offered that had the greatest appeal, were those that were fast-paced and complex, with intellectual content. Two, typical types of experiences were preferred by the children. Firstly, there were "activities where the children could explore materials more or less independent of adult support and where there was a clear goal or outcome" (Grant, 2002, p.6). Secondly, there were those activities such as science and maths experiments, which were initiated by the teacher. Topics "would be presented at a concrete level followed by ideas or concepts that were more complex or abstract" (Grant, 2002, p.6). Further differentiation of the content would be offered as a follow-up activity for a smaller group of children. Grant (2002) suggested that in this programme, higher order thinking skill utilisation was very popular with the children. Socially, the cohort appeared to prefer to play on their own or to interact socially with adults. "Socialising with other children was most successful only when it was mediated by an adult" (Grant, 2002, p.7).

I noticed the value of utilising higher-order thinking skills during a visit to the University of New South Wales to the Gifted Education Research, Resource and Information Centre (GERRIC) (Murphy, 2004b). Here young kindergarteners attended a school holiday programme called 'Number Brains and Games'. It was my observation that these children thrived on challenging, intellectual experiences and as the teachers' questions became harder, so too did the children's enjoyment of using higher-order thinking skills. Furthermore, despite some evidence of socialisation throughout the day class, playing off dice finals with the teacher appeared to offer a greater degree of social satisfaction. "Witnessing true differentiation of the curriculum where children do not get offered 'more of the same' but novel and challenging activities at a deeper level of learning, reaffirmed my belief that young children who are gifted thrive on challenge" (p.36).

According to Grant (2002), in dramatic play situations in her study, there was the need to dominate play, therefore the success of social interaction was reduced at times, but could be sustained through the inclusion of some 'teacher direction.' Similar findings were made by Murphy (2004a). Teachers' perceptions were that young children who are gifted are much more likely to start a new game of their own, rather than join in an existing game successfully and that there is a high need to dominate play.

2.1.12 Summary of the Play of Young Children who are Gifted

It is clear so far that young children who are gifted have advanced play behaviours and interests (Robinson, 1993) and games with rules are often mastered earlier than for other children (Mares, 1991). In other words, play skills and patterns may emerge at more sophisticated levels than what would be the normal expectation for children of this preschool age. It is also clear that young children who are gifted need to be exposed to more abstract concepts in comparison to their peers (Clarke, 1997) and enjoy play experiences particularly focused around fantasy or pretend play and intellectual board games (Gross, 2004). Their play behaviours are more sophisticated than the child of average ability and their love of rules and changing the rules to perhaps present themselves with their own intellectual stimulation, can cause social frustrations and rejections (Gross, 2004). Furthermore, these children prefer to seek out like-minded playmates, who are cognitively well matched (Harrison, 1999).

Summary of Literature Review

As many sources of relevant literature as possible have been drawn upon (Oliver, 2004) for the purposes of this review. Limited access to New Zealand sources regarding giftedness in early childhood has constrained this review, however our Australian colleagues in research in this field provide much richness in the research conducted there. This literature review supports further examination of the phenomena of play of the young child who is gifted in a New Zealand early childhood setting.

I have now considered some of the discourses that currently dominate our thinking and practice about giftedness and play in early childhood. Play has been acknowledged world-wide as a major contributor of learning and development. Given that our play environments and curricular framework (Ministry of Education, 1996) are different to those of overseas countries, curricular implications are looming.

The following chapter now investigates the methods, materials and processes I utilised in the investigation.

METHODS, MATERIALS AND RESEARCH PROCESSES

This chapter presents an overview of literature concerning case study methodology in the first instance, then offers a description of the research site and details of the participants in this study. The methods I utilised to conduct the research are explored and described, followed by the ethical considerations shown throughout the research process. Data analysis is described; validity and reliability are addressed.

The aim of this research was to explore how young children who are gifted play in a New Zealand early childhood setting. Research questions chosen were designed to identify the characteristics of giftedness exhibited during play, their play preferences and the interactions that occur during play. I aimed to expose the unique features of the play of young children who are gifted and "to illustrate relationships and patterns of influence in a particular context" (Bell, 1999, p.12). This exposure was achieved through the identification of key themes that emerged from the data generated (Graue & Walsh, 1998) and I remained "open to a range of possibilities and discoveries as the study" unfolded (MacNaughton, Rolfe & Siraj-Blatchford, 2001, p.24).

3.0 Methodology

Case study methodology as a qualitative research approach has been chosen for this research. Qualitative research procedures provide a means of accessing unquantifiable facts about people (Berg, 2001) and case study methodology has been described as noticing moments in action (Bassey, 1999). I hoped to examine many 'instances in action' over a period of three months, through a variety of lenses, at various times of the day, both inside and outside, at one early childhood centre. Current literature confirms, that case study methodology is a design that can focus on an individual, a group, or an entire community and may utilise a number of data technologies such as life histories, documents, oral histories, in-depth interviews and participant observations (Hagan, 1993; Yin, 1994; as cited in Berg 2001, p.225). According to Merriam (1998), case study methodology allows the researcher to gain an understanding of a particular situation and to focus on the meaning for those involved. Thus, case study methodology focuses on the gathering of information

from a particular person or group, in order to gain an understanding of that particular person or group. This understanding is supported by Berg (2001) who stated, "case study methods involve systematically gathering enough information about a particular person, social setting, event or group to permit the researcher to effectively understand how it operates or functions" (p.225). Therefore, it could be assumed that case study design is a social cultural process, which examines any individual, group, class, or community in order to understand that particular unit.

According to Kemmis (1980), it is a process of seeking the truth using empirical data to gain a complete understanding of the case. Case study design involves the description and analysis of a single unit within a defined boundary. A great number of individuals or sites can be observed as 'cases'. An example of this can be viewed in Kline (1991) where this researcher, in attempt to explore the hypothesis that gifted females experience significant changes in social and emotional balance during school years, utilised 89 subjects in the study. In short, case study methodology provides an effective tool by which to examine the play of individual 'cases' in an attempt to understand the meaning behind the play of young children who are gifted, in this particular instance.

Case study methodology can allow the study of a case in depth for a limited time frame, however, it is a slice of an individual or group's life in a present context and data generated may be irrelevant in the near future. Berg (2001) suggested that the case study approach can be both quantitative and qualitative in its method. It is an objective approach, but may leave the area of bias wide open, as the researcher is 'looking in' and therefore may be likely to make judgements. A researcher at any research site inevitably influences the centre programme. Graue and Walsh (1998, p.91) suggested that a researcher is doing more than 'looking in' and asserted;

> *Data are not out there, waiting, like tomatoes on a vine, to be picked. Acquiring data is a very active, creative, improvisational process. Data must be generated before they can be collected. If research is the process of soaking and poking, we emphasise the poking over the soaking, or better, first poke and then soak. The researcher is not a fly on the wall or a frog in the pocket. The researcher is there. She cannot be*

otherwise. She is in the mix.

In this study, qualitative data was generated and the research questions for this thesis involved only the early childhood setting, not the home. Qualitative research methods have their strengths and limitations. In short, a key precursor to the methodology chosen appears to be the role of the researcher(s), the questions they have and their ability to generate data (Graue & Walsh, 1998).

Ethical considerations are actioned to show respect for the participants and the research site, to minimise any possible harm to the participants and to validate their contributions to the research findings (Berg, 2001). In this study, I considered all ethical requirements, concerning interviewing, observing children, analysing documentation and gaining general approval of the centre. Details of the ethical considerations shown throughout the research process, are provided for under each relevant and subsequent heading.

3.1 The Centre as Research Site

Walford (2001) emphasised that "case study research can only proceed where access has been achieved, and this is not always straightforward" (p. 151). Further in this section I explain the processes I followed in order to gain consent to conduct the research in the centre. Broadly speaking, the research site was an all-day childcare centre set in an urban suburb of a large city. The license catered for 50 children, twenty-five of whom were in the under-two age-group. Separation of age-groups into areas is described further in this chapter. The centre roll comprised of approximately 90 children in total and included an almost even mix of girls and boys at the time of the research. A range of ethnic backgrounds from within the community were represented, but the centre was predominantly supported by European children (80%). I had no previous links to the centre and had not visited it prior to research commencing.

3.1.1 Choosing the Centre

The centre was approached primarily because of the interests and previous experience of the manager in gifted education in the first instance and because gifted education had been a topic covered fairly extensively in her own teacher education programme.

> *The particular teachers that are coming out with Diplomas, they actually don't cover a lot of it (Gifted Education) in their course. We had a whole three terms on gifted children at the College where I trained at. Yeh, but they're coming out with training and often I find it... particularly with special needs and gifted children, I don't think they have a lot of current theory on it and current knowledge. If a teacher's passionate about it you know ummmmm, but other teachers.....that's not their area of speciality (SJQ Teacher Interview).*

> *The questions that they are asking I would say are more in-depth, more.... they're just different from peers (not gifted). They're more specific. Their vocab used in the questions...the vocabulary can astound you. Their vocab just seems to be quite, quite extensive (SJQ Teacher Interview).*

In addition, the centre had some procedures in place for the identification of young children who are gifted, in the form of observation and nomination. The manager and staff observed all children regularly for their interests and abilities. Teaching staff spoke to the manager if they believed they had a child exhibiting gifted behaviours in their care. There was also provision to nominate names at a staff meeting, as these quotes explain:

> *At each staff meeting we discuss any children and it's not necessarily talented or gifted but any children, but..like we had a particular boy that had an absolute passion for music and we wanted to extend that (SJQ Teacher Interview).*

I would discuss it with SJQ (the manager) or bring it up at a staff meeting. And you get the parents that think their kids are more advanced and some of them are. Other parents wouldn't necessarily see their kids as being gifted and talented..... but then in some areas they are. I think people see them (gifted children) as... if they're gifted it's across everything. They get stuck on behaviour and miss the other bits that they are very advanced on (SD Teacher Interview)

I keep an eye out all the time for those children who are advanced in any areas. If I need to talk it through I go to SJQ (Manager) but I also keep a reflective journal and I note these things down there. That helps when I come to the staff meetings (Teacher Anecdotal).

I have found in my experience that these children tend to stick out. They tend to be different from the rest. Gifted children want to go, they need to go beyond. They want relevant information. They don't want to be fobbed off (SJQ Teacher Interview).

The recent report from the Education Review Office (2005) acknowledged that teachers at the centre were providers of rich language experiences. Preliminary discussions with the centre owner and then the manager highlighted their drive for high quality care and education within the programme with a strong focus on numeracy and literacy. The centre environment and programme are described later in this section.

3.1.2 Ethical Considerations to the Centre

Following verbal conversation about the research with the centre owner (who didn't work in the centre), permission to conduct the research was sought from the manager of the centre. The centre manager was informed of the focus of the research and her informed consent was requested (see Appendices A & B). Her right to withdraw from the project in the first month was included in the information sheet. The centre

was made aware of the future possible uses of the data and that a summary of the information could be made available once collated, should it be required. These considerations were presented in writing, in the form of the aforementioned information sheets and consent forms (see Appendices A & B). The confidentiality of the centre was assured and maintained at all times. A centre newsletter written by the centre manager informed parents and staff of the focus of the research and of my presence at the centre to conduct the research. The manager distributed the staff information sheet (see Appendix C).

3.1.3 Sample

The participants were drawn from one early childhood centre in the North Island of New Zealand and consisted of five early childhood teachers at the centre (one of whom was the centre manager) and two targeted children, who are noted as 'case study children' for the purposes of this investigation (MC & MJ). Two other teachers provided anecdotes from time to time.

3.1.4 The Teacher Participants

Altogether, five teachers were directly involved in the research and interviewed. Three of the teachers had early childhood qualifications and two were enrolled in a teacher education programme. Three of the teachers had considerable experience teaching young children who are gifted and identified with a selection of cognitive and affective characteristics of giftedness (Gagne, 2004; Harrison, 1999; Porter, 1999). The following quotes explain:

> *They're full on (gifted children). Mental intensity. With young gifted children that have been hard to settle to sleep, I think sometimes their mind is still going too fast. I think they can exhaust themselves. I think their imagination knows no bounds sometimes (abridged). Sometimes they go into their own little world. I have seen gifted children add on at the end of another game but they change the game reorganising the rules first then often the peers cannot keep up.*

With one child they would initiate a game that was all organised in their head and they would be stressed out if it didn't turn out like they visualised (SJO Teacher Interview).

They quite like the quirky funny humour. They're quite adult like in their humour. I would definitely say they're very competitive. My personal view is what I've observed from experience. I find gifted children to be very focused. There can almost be a fire happening but they're so focused on what they're doing. Yet they know what's going on around them. They are very aware of their surroundings (SJQ Teacher Interview).

Their experiences of teaching these children were evident.

And they don't like to be disturbed to come for lunch or something. If they're doing an activity, they definitely don't want to come for a meal or lunch or to have a nappy done or things like that. They like structure to a certain degree as long as they're given the opportunity to go back to what they are doing. Sometimes I feel we disrupt them too much and this leads to frustration. Gifted children need to have quiet time on their own and not to be disturbed. Today, tomorrow, yesterday. Things like that gifted kids are the ones that pick it up. Like the concept of time. They seem to pick this up early. Other children have some realisation and understanding, but they question concepts of time much earlier than other children. They think about these concepts in their play and ask lots of questions about them (SJO Teacher Interview).

I think they find it hard...because at ten o'clock it's morning tea time and it's pack up time. That's why they find it so difficult because they want to keep on task, they want to complete what they're doing and yet a teacher's saying, come on, it's morning tea time. They don't like to be disrupted. When they're in the middle of creating a castle or a farm or they want to get to the end product and they find it

> *challenging when people come in and disrupt them. They (gifted children) want to be with the adult opposed to other children. They need that adult stimulation as opposed to not getting it from their peers (SJQ Teacher Interview).*

> *I don't think they (gifted children) get enough time to do imaginative stuff because it's like you're always interrupting. I think they need time where they can play. As soon as you go in and say something to them, you've interrupted the whole thing. I always feel we interrupt...interrupt them a lot (SD Teacher Interview).*

In short, these teachers were experienced at noticing and recognising giftedness as informed by the literature review of this thesis (Allan, 1999; Gagne, 2004; Harrison, 1999; Murphy, 2004a; Porter, 1999) and able to articulate what their experiences were.

3.1.5 The Child Participants

Based on discussions with teachers, it was apparent that two children (MJ and MC) were viewed as having distinctive profiles and were gifted (Roedell, Jackson & Robinson, 1980). Teachers commonly used the terminology such as 'different' 'quick' and 'stands out from the rest' when talking informally about these two children. An example of one such anecdote is included below.

> *They just want information. Very inquisitive minds. You can see he's stopping and thinking all the time. He is so clever (MJ). Outstanding in fact. He's a very deep thinking little boy but MJ and MC stand out (SJH Teacher Interview).*

I would not have commenced data generation on either of the two children unless convinced that both exhibited characteristics of giftedness as aligned with the definitions of Gagne (2004) and Harrison (1999) which underpin this study. The first day at the research site provided me with enough evidence of advancement and outstanding ability, that generation of data with these two children could commence.

3.1.6 MJ

MJ was four years and nine months old at the commencement of data generation. He was from a two-parent family and had an older sister at school. MJ was of European descent and attended the centre full-time. His mother was a drama teacher and his father a chef. MJ was ambidextrous. Teachers described MJ prior to research commencing as different, highly curious, very humorous, very advanced compared to others his age, highly intelligent and with a deep interest in learning.

> *MJ is very advanced in a lot of areas. He is just different. His needs are different. I don't think we cater for his needs well enough (Teacher Anecdotal).*

> *With MJ, he does seem to know everything, everything (SD Teacher Interview).*

> *If he's (MJ) not busy or not motivated towards something……the little thumb will go up (MJ sucks his thumb). You can see he's stopping and thinking all the time (SJH Teacher Interview).*

> *I have to watch myself. He's so quick. I feel so slow sometimes and I know things aren't going fast enough for him (MJ). He has stood out from the rest for quite some time. He picks everything up so quickly (Teacher Anecdotal).*

> *His (MJ) questions are different to the other children (abridged). He thinks about it. He thinks about what answer you give him. He's very particular and uses big words and thinks more deeply about things. He always asks 'why'. Sometimes he questions the answers. Also sometimes if I have him on, he knows, he'll go, you're tricking me aren't you? And he knows. He can tell the difference (SJH Teacher Interview).*

Anecdotal evidence suggested that MJ had an ease and speed of learning (Gagne, 2004) that distinguished him as more advanced than his peers (not gifted). Curiosity and a love of learning are characteristics of giftedness that are evident. Furthermore, advancement across more than one domain (Harrison, 1999) was recognised. There was no doubt in my mind at commencement of the research concerning MJ's giftedness. His language, recall, speed of learning, love of learning and curiosity were outstanding for a child his age. Furthermore, the depth and detail of his imagination, evident in not only pretend play scenarios but also in other situations, was astounding. His interpersonal awareness was deep and thought-provoking as evidenced in the rich, language- based results section of this thesis. These recognitions indicated that MJ was intellectually and affectively gifted.

3.1.7 MC

MC was three years and three months old at the commencement of data collection. He was also from a two-parent family and had an older sister that had just recently started school and returned to the early childhood centre for after- school care. MC was of European descent and attended the centre two days a week. His mother was a facilitator and his father a dentist. MC was ambidextrous. Staff described MC prior to research commencing as different, highly intelligent, in his own little world and very advanced in his thinking.

> *He's very quick (MC). Very quick. Sometimes I think he is quicker than me (Teacher Anecdotal).*

> *MC is very different to other children his age or even older. He's very clever. Although he's quiet and plays alone, he's watching all the time and listening. I have only have to show him once and he's away. Very clued up little boy. He's watching all the time and way more advanced than the others (Teacher Anecdotal).*

> *MC likes harder things to do. His facial expressions say it all at times, especially when I'm reading a story and going too slow or we might be gardening or something and he has to wait patiently when he already*

knows the answers. I think it's quite hard for him at times. He's definitely different to the other children (SA Teacher Anecdotal).

MC is always asking. The questions in their conversations are a bit more advanced, like full-onish, than, than others of their...age. Thinking of like MC, other kids his age, they don't...he knows what he wants to say or question and he'll ask them so you understand. MC's ones are very clear. You know what he wants to know, what type of question (SD Teacher Interview).

Anecdotal evidence suggested that MC was a highly intelligent, curious and deep thinking boy, who played alone and had keen observation skills (Harrison, 1999). He was noted as very clever and advanced and exhibiting an ease and speed of learning (Gagne, 2004), therefore recognised as intellectually gifted. His keenness and knowledge regarding literacy and numeracy were outstanding for a child of his age as were his interpersonal awareness and high use of the imagination.

To summarise, both boys were nominated by the staff at the early childhood centre and had been recognised prior to my arrival as children who had advanced abilities in one or more areas of development. MJ and MC were cognitively and affectively gifted children (Gagne, 2004; Harrison, 1999; Porter, 1999). I invite the reader to trace the evidence of this from the section in the literature review in chapter two, focusing on characteristics of giftedness, with the analysed data shared in the results section of chapter four. This further ensures validity and reliability of this study. I would like to acknowledge at this time, that there may have been other children at the centre who were gifted, but not nominated.

3.1.8 Ethical Considerations to the Participants

The teachers who were willing to be participants were asked to give consent to participate (see Appendix D). Two children (cases) were targeted for this research and information was provided to these children (see Appendix E) and to their parents (see Appendices F & G) and consent sought (see Appendix H). Consent was sought from the parents and consensual involvement of the case study children was sought,

by the parents being asked to read the child information sheet with my photo on it to their child at home. There was provision on the consent form for the child to make a special mark to show some understanding such as a drawing, or handprint (see Appendix H). I provided an information sheet for the parents of non-targeted children (see Appendix I). Because of the sensitivities concerning giftedness, this sheet was labelled 'information sheet for parents' rather than information for parents of non-targeted children. It clearly stated that I would not be collecting data from their child. A consent form was provided to them, due to the fact that their child could be playing with a targeted child during the observation period (see Appendix J). All participants were asked to sign a confidentiality agreement (see Appendix K).

3.1.9 Centre Environment

The centre catered for children aged birth to five and had three separate buildings that aimed to cater for three broad age groups of children. The children under two years old had their own building and their own outside playground. The two-three year olds and the four year olds were in two separate buildings, but shared one large playground. For children in the younger sections, this grouping strategy worked against the tendency of these children to play with older children. It restricted their accessibility to like-minded peers and focused on chronological matching instead.

MC and MJ were in the buildings and outside area designated to the over two year old children. There were two buildings in this area; a main house that had been renovated and a very small building, much like a half- sized garage on the other side of the playground called the Busykids room. The main building was comprised of a large open plan play area and a separate smaller room (for blocks and construction equipment) which was also used for mat times. There was also a separate kitchen, sleeproom, resource room and toileting area. In this building there was a wide range of equipment for the children to access during the day such as books, puzzles, blocks, construction equipment, trains, track, cars, dress-up clothing and a variety of other toys for play. The main building was used by MC throughout the day, moving from the inside to the outside as he chose; unless disrupted by centre routines such as mat times (twice a day), food times (three times a day), toileting times or other children.

The main building was also used by MJ when he first entered the centre in the mornings.

The Busykids room was allocated to the older children and the space managed by one teacher (SJH) who worked five days a week full-time. This space was never available to MC and used for the majority of the time that MJ played inside. Once the Busykids room was opened by the teacher and ready in the morning, the Busykids were called from the main building into this space. The space as previously aforementioned was very small, often catering for one teacher and up to 12 children at any given time. There was a single large table, a few chairs, lots of shelving up high, full of resources such as board games, seriation games, floor puzzles, music equipment and a variety of other early childhood equipment suitable for children of this age- group. In particular there were games with very small pieces and more intricate toys. The size of the room however, meant that MJ had very little self-selection access to equipment and was highly dependant on the teacher's selection of activity or had to request that certain equipment be brought down from the shelves. While outside equipment was extensive and easily accessible to children, inside equipment was not always readily available for MJ to access independently. Children were at times restricted in their challenges and choices and my impressions at the time of data generation were, that some children may not be sufficiently motivated to take responsibility for their own learning. Equipment was set up immediately outside the Busykids room, in particular blocks and construction equipment which were often requested by MJ. There were more routines in the Busykids room and a greater expectation to participate in teacher directed group experiences, often based on a theme such as Springtime or the Olympic Games. Other experiences were based around a group learning story which focused on the established interests of the children. In other words, group projects were promoted. MJ was able to move from the room to the playground several times during the day providing lots of opportunity for outside play, but he was constrained by the routines of the Busykids programme.

The outdoor playground was spacious and well designed with the central feature being a very large sandpit surrounded by a track, used often for example, for trolley pulling, or riding moonhopper toys. Carpentry, blocks, painting and clay were available as learning areas and a full range of equipment such as skateboards, balls,

trolleys, hoops, planks of wood and other equipment were available. The sandpit was extensively resourced with sandpit equipment, water availability and covered by shade cloth. There was a climbing fort with a swing-bridge, slide and other apparatus. There was a large bark area, a geogym and several trees to climb and a hilly slope of concrete near the Busykids room. This outside area was shared by all the children over two years of age at the centre, therefore MJ and MC shared the same playground but often at different times, as the two buildings appeared to have routines at non-correlating times. All children were encouraged to explore the outside at various times throughout the day and to enjoy a variety of experiences. MC spent many hours playing in the sandpit and hanging from the trees and the geogym. MJ spent many hours on the hilly slope with balls, hoops and skateboards.

3.1.10 Centre Programme

The recent report from the Education Review Office (2005) acknowledged that teachers at the centre used a range of teaching strategies to engage children in their learning and in addition used positive interactions effectively. Open ended questions, ongoing dialogue and problem solving were particularly highlighted by ERO as strategies that reinforced and extended children's higher level learning such as critical thinking skills. In other words, children were provided with opportunities to develop their ideas and theories about the world, within the centre programme.

In the two and three-year-old age group, the aim of the programme encouraged children to explore freely, using their own decision-making skills and communicating with peers. Teachers were always nearby either inside or outside and supportive of play chosen by the children, sometimes actively participating and co-constructing learning with an individual child or group and sometimes supervising, taking observations and photographs of children busy in play, or supervising and facilitating routines. Occasionally group experiences initiated by a teacher occurred, usually outside and children were encouraged to participate if nearby, showing an interest or asking questions. Participation at these times was encouraged but not enforced. The programme planning was based around learning stories and extended on children's current interests alongside a group focus that met the needs of the

overall group. One of the case study children (MC) was in this group. MC was free to choose the experiences he wished to be involved in with an adult always nearby to support his learning.

The four-year-olds were involved in the Busykids programme. Structured teacher - directed group times and group projects were commonplace in the room itself. Often the teacher called the children together to discuss their current group project they were working on such as the Springtime poster or a cooking activity. There was no evidence of process cooking or the availability of playdough throughout the data generation period. Music and movement times were often facilitated by the teacher and there was a mat time every morning. The teacher ensured that the children in this room went outside frequently during the day and she was very conscious of the lack of space and the lack of self-selection that could occur in this room. She often reminded the children to ask her if they needed something bringing down off the high shelving, but items were restricted at any one time due to lack of space. In short, the size of the room restricted a wide range of curriculum experiences being available to children at all times, however, overall a variety was offered and available throughout the data generation period. The programme planning within this group was also based around learning stories, extending on children's interests, alongside group foci such as mini projects covering a range of curriculum areas. MJ was in this group.

Comprehensive planning was a feature of the centre's practice, both for individual children and for groups. This planning was often verbalised amongst the teaching staff during the working day, however, I was not in attendance at any planning meetings or privy to access planning documentation, other than what was sited in the case study children's portfolios. Teachers communicated often during the day about their plans for such things as mat times, other group times and planned learning experiences and appeared to develop areas of interest and establish learning outcomes linked to Te Whaariki (Ministry of Education, 1996), which were shared with centre families.

Summary

To summarise, young children who are gifted at this centre were identified through teacher observation along with input from parents. Nominations were then put forward to the centre manager and staff meetings, where further discussion occurred.

MJ and MC shared the same outdoor play area, not always simultaneously. This playground was extensively resourced and well catered for with well-designed spaces and a large variety of play equipment. When MC or MJ were outside, there were plenty of opportunities for self-selected play that were unstructured and exploratory in nature. Inside space issues within the Busykids room restricted MJ's ability to self-select and his exposure to a variety of equipment was in many ways dependant on his motivation and ability to make requests of his teacher. He was also restricted in his play by the routines, group work and teacher-directed learning experiences occurring in the room. In contrast, MC had more inside space and a wider variety of equipment to choose from and spent most of his indoor time engaging in self-initiated play.

3.2 Methods of Data Generation

I used three methods to generate qualitative data for this research, these being; observations of the case study children during play, interviews with them, interviews with those teachers willing to participate in the research and document analysis by way of examining the portfolios of the case study children. This approach ensured methodological triangulation (Berg, 2001). Smith (1998) asserted that observation as a single method could never truly assist a researcher's quest towards understanding children. She emphasised how important it is to talk with children and gain the perceptions of others, stating that "using other people's observations and interpretations as well as your own is an important way of increasing awareness of children" (Smith, 1998, p.41). Interviewing teachers and viewing their interpretations in the children's portfolios were methods of achieving this greater awareness. I also considered my role as researcher and sole data generator throughout the research processes.

3.2.1.Observation

According to Smith (1998), "observation is a deliberate, active process, carried out with care and forethought, of noting events as they occur" (p.40). Running records (continuous recording) provide rich and detailed research data used to "cover intensively the behaviour and situation of a child during more or less extended behaviour sequences" (Smith, 1998, p.53).

In total, running records were taken on 37 random occasions for MJ totalling 392 minutes and on nine occasions for MC totalling 246 minutes over a period of three months. Running records comprised of the bulk of the data generated. It was my intention to capture significant moments at various times of the day and on different days and this variety of observational application was achieved. In addition, video footage taken on random occasions supplemented the written recordings. Berg (2001) highlighted that " the use of videotape in a variety of settings is becoming one of the most useful and complete running records available to archival researchers" (p.196).

Time samples were taken only when I decided to focus on the case study children at one minute or five minute intervals in order to record their play behaviours, preferences or interactions (Smith, 1998). These recordings were taken on two occasions for MJ totalling 48 minutes and on three occasions for MC totalling 105 minutes.

Smith (1998) suggested that anecdotal description can be described as "setting down on the spur of the moment whatever invites the attention at the time (p.48). Anecdotal recordings were taken at informal times, mainly from teaching staff in the staff room or whenever a relevant comment was made that I felt worthy of recording for the purposes of the investigation. I gathered anecdotal evidence on 22 occasions for MJ and on nine occasions for MC. Occasionally these were from the parents of MJ. Access to the parents of MC was limited.

It is appropriate to mention at this time, that MJ was a full-time enrolment at the centre, whereas MC was enrolled for two days a week. Therefore, it was easier for

me to access MJ and to gain more frequent anecdotal evidence from staff in particular. MJ was also involved in the 'Busykids' programme; a programme based in a room in which he was withdrawn from the general centre environment on several occasions throughout the day to play with children of similar age. Therefore, he had a greater exposure to one teacher and the programme during these times. MC was more difficult for me to access due to attendance only twice a week, however the fact that his older sister came to the centre after school enabled me to observe his relationship with her. MC played alone for the majority of his time during the day. I also made the effort to take particularly long running records due to his low level of enrolment. Therefore, two of the running records for MC comprised of 60 minutes and 61 minutes of observation respectively.

3.2.2 Ethical Considerations Concerning Observation

Observations were taken in the form of running records (see Appendix L), anecdotal recordings (see Appendix M), time samples (see Appendix N) and video recording; details of which were in the aforementioned information sheets. Observations were hand-written or typed onto a laptop and remained in my safe possession at all times, in a locked cabinet in my home or car. The two case study children were allocated codes to ensure they remained unidentifiable to the best of my ability and other children involved in observed dialogue with them, were recorded as 'child' 'another child' or given a code. Only those children whose parents gave consent were directly observed. I was respectful of parents and of their rights to family confidentiality and to access any observations taken of their children in the centre. Videotaping of children was not undertaken without the expressed and written permission of the parents (see Appendix H). Although teachers were not the focus of the observations, there was provision in the staff consent form for videotaping, should they be nearby or working with one of the case study children chosen (see Appendix D).

3.2.3.Interviews

Interview techniques can be utilised where small numbers of people are involved and where they are accessible (Gillham, 2000). In case study methodology, questions are open-ended and allow time for the researcher to prompt or probe, in order to clarify

answers or manipulate the interview to gain a deeper understanding of a particular topic of interest to the researcher (Gillham, 2000). As the case study researcher is not directly involved in the setting, then interviews are conducted perhaps in situations that do not naturally arise and are more formally arranged.

In this study, interview data were generated by interviewing five early childhood teachers and two children. The length of the interviews were estimated at one hour for each teacher and approximately 15 minutes for children. All teachers were interviewed once. These interviews were conducted either in the office or staff room during lunch breaks or after hours, however one of the teachers requested to be interviewed at home and provided her own tape-recording unit. A list of the teacher interview questions can be found in Appendix O. The children were interviewed 'on the fly' in broken instances as the size and daily routines of the centre highly influenced the decisions I made at the time, concerning what was best for the child. A list of the child interview questions can be found in Appendix P.

3.2.4 Ethical Considerations Concerning Interviews

Consideration was given to participants who agreed to be interviewed as to where the interviews could take place and at what time. Participants were informed that the interviews would be recorded on a tape recorder and by way of note-taking and their informed consent was sought (see Appendices C, D, E, F & G). Participants were informed of their right to withdraw at any time from the interview and of their right to decline any question asked of them. Participants were assured confidentiality to the best of my ability and code numbers were written in the top right hand corner of the interview sheets. The teachers and case study children were encouraged to hold the tape recorder and were shown the on/off button and how to check if the machine was recording.

On one occasion MJ requested to be asked questions using a video recorder in the classroom and this was attempted, but not as the semi-structured interview with set interview questions (see Appendix P). MJ was very keen to be interviewed alone, inside, outside or with others around him. He often asked to be interviewed and

showed great interest in the video recorder and tape recorder. MC appeared shy at the prospect of being interviewed, but was happy to answer my questions in broken phases during play or in the book area. Parents were given the right to be present for any child interviews conducted (see Appendix H).

3.2.5 Document Analysis

I also examined the portfolios of the case study children in an attempt to analyse these documents in relation to the research questions. These personal documents are described by Berg (2001) as "any written record created by the subject that concerned his or her experiences" (p.227). Many early childhood centres maintain children's portfolios as collections of their children's work. Children are often keen participants as to what is included and what is not. In a sense, child portfolios are living documents to which children, teachers, parents and whanau can refer and revisit and which provide a means by which ongoing planning for the enrichment of the child can occur. At the research site, the portfolios contained a learning story that was documented usually once a month, photographs, art work and printouts of themes or group projects that MJ or MC had been exposed to. The portfolios contained scant information relating to the research questions and this method (although used and considered in analysis) was not heavily relied upon.

3.2.6 Ethical Considerations Concerning Document Analysis

Portfolios, which contained staff observations, photographs and artwork, had to be analysed at the centre as I was unable to take them home. The manager was supportive by allowing the photocopying of relevant contents and the parents were made aware that documents would be analysed (see Appendix F). Written observations normally taken by staff as part of their normal work routines and any other centre information in the portfolios of the targeted children, were examined during centre time. Care was taken to ensure that photocopies from the portfolios were stored in a locked cabinet and only taken if access to the portfolios was consented to by the parents of the targeted children.

3.2.7 Profile of the Researcher

I was the sole data generator. Prior knowledge and experiences influenced decisions about data generation and analysis, in particular the interpretations and assumptions I made about behaviours, language, interactions and activity. A short profile of my experiences in early childhood and gifted education would therefore be of benefit to the reader.

At the time of this study, I was working as a Base Co-ordinator and lecturer for Te Tari Puna Ora o Aotearoa/NZ Childcare Association delivering the Diploma of Teaching (ECE). Having completed a Postgraduate Diploma in Education (Gifted and Talented), I used this postgraduate learning to disseminate information with the Diploma of Teaching (ECE) students and in turn to listen to their experiences of working with and teaching gifted children. Through this medium, much discussion has occurred concerning the play of young children who are gifted.

In addition to raising three children, I have had extensive experience teaching children for 19 years, firstly through the Playcentre Association and then for 11 ½ years as the owner of an early childhood centre. Five years of postgraduate study at Massey University solely focused on gifted education, has added greater knowledge to my practice. I have actively used the teacher observation scales of Allan (1999) for a period of four years at my early childhood centre, in order to identify young children who are gifted. This prior experience and theoretical knowledge has been influential in my 'listening' to the data generated in this study and gathering such extensive language-based evidence as a major tool for analysis.

3.2.8 Role of the Researcher

Within case study design, the role of the researcher is that of literally standing to the side where participation is minimal and where the researcher has minimal influence on that individual or that group or early childhood centre (Berg, 2001). In the case study approach, the researcher steps back and endeavours to describe a situation in relation to the focus. That was my intended role for this study.

Inevitably, my presence in the centre meant that I became part of the culture to a certain extent. My involvement with the teachers included answering questions about giftedness, offering to present a staff seminar on identification of giftedness (which did not eventuate) and generally assisting staff to gain more knowledge about young children who are gifted. I was asked by the centre manager to notify her if able to identify any other children who may be gifted. I was not a participant observer in the sense of the word (Berg, 2001), however there were many occasions while observing the two children that they asked for assistance such as reading a story and the manager and staff of the centre were comfortable with this involvement. It is fair to say, that concentration on only two children, enriched and personalised my relationship with these two children. On many occasions, MJ would run to hug me on arrival or call out my name as soon as he saw me arriving. His first questions of me would often be focused on whether or not I had brought my video camera or tape recorder with me, or he would ask me what we were going to be doing together, perhaps offering another interview. MC would often engage solely with me despite being surrounded by other children.

I was mindful that there was an initial adjustment required on behalf of all participants, especially the teachers. The presence of any researcher in a centre inevitably introduces some degree of reactivity into the field setting (Berg, 2001). In these circumstances, I needed to be mindful that some teachers may or may not have believed in the concept of giftedness or may have culturally constructed perspectives on how giftedness can be defined and recognised. In addition, my presence could likely have changed the ways in which teachers interacted with the children.

Furthermore, it was important to ensure that I was not placed in a vulnerable position contributing to legal difficulties or complication. Berg (2001) acknowledged this stating " the adoption of a covert research role.... must be carefully considered" (p.54). It was of great importance to remain neutral during the investigation; observing for long periods of time so as to get to know the two children well and also, so that I could be viewed as part of the natural setting. Being in an early childhood centre with very young children, sensitivity was paramount at all times. I was very conscious of not being alone with children, but sometimes that occurred, due to staffing changes or various incidents that do occur from time to time.

Another consideration involved my being aware of my own possible manipulation of the truths and interpretations from recorded evidence (Berg, 2001). A further role was protection of data generated and a locked cabinet to contain and secure the data at all times was ensured.

Because events and interactions were foci that might affect the play of these children, it was important to be respectful to and open with the teachers, but to be mindful of not enticing unnatural performances that could sabotage the research (Berg, 2001). This would further ensure validity of the research. An example of this was that if I was particularly focused on mat times, this was not indicated, so as not to force any unnatural behaviours in the teacher taking mat time.

Upon conclusion of the data collection, the centre, staff, parents and children were thanked and their contributions acknowledged.

3.3 Data Analysis

I was overwhelmed by the amount of data generated and during analysis it became clear that some data would be selected for the thesis and other data would not (Oliver, 2004). The focus of analysis had to be the explication of the research questions. All data was analysed.

The aid of a transcriber supported handling the data. The transcriber was at that time an undergraduate at another university and she entered into a transcriber's agreement (see Appendix Q). The tapes were transcribed in my home, then locked away in a secure filing cabinet. Using the tape recorder, the transcriber listened to every word on the machine as it was spoken and typed the exact dialogue onto the computer. As the researcher with the responsibility of the study, I listened to the tapes during analysis and checked the transcripts against the recordings. Once all interviews from participants were transcribed, the data were then returned to the teachers and the parents of the two case study children, to read the transcripts, to make any necessary amendments and to give consent for the transcripts to be used in this thesis by way of signing a transcript release form (see Appendices R & S). The mothers of both case study children read the transcripts of the interviews with their children, as did MJ's

father. Interestingly, Smith (1998) indicated that "parents.....frequently speak of the enormous satisfaction and understanding they achieve through the heightened awareness brought about by observation" (p.40) and this was certainly the case in this study. The parents took great pleasure in reading their children's transcripts and asked many questions.

Using the content analysis recommendations of Gillham (2000), each transcript was taken in turn and a set of categories derived from the responses to each question. The responses were checked eight times for emerging themes and accuracy within the categories that evolved during collation. An analysis grid was drafted and examples recorded within each category.

My aim was to uncover the essence of the accounts given by the participants (Berg, 2001). "Interviewing is not simply devoted to data acquisition" (Glesne, 1999, p.84), therefore the meanings and explanations I hoped to gain from the process, were emphasised and highlighted when the phenomenological approach to analysis was applied (Berg, 2001). Observation notes were examined each week during data generation to establish whether or not the method of collecting heavily language-based observations, in particular running records, was going to address the research questions. Commonalties that emerged through the interviewing process were highlighted. Codings were used to identify common themes from the responses of the participants. These themes were examined with a phenomenological perspective (Berg, 2001). This allowed for a more general understanding to be gained from the responses, looking for patterns, common themes or similar responses between the participants.

Regular close inspection of themes emerging from the data was a priority. In short, data were not measured as in a quantitative study. As sole data generator, I interpreted the data based on the language recorded 'in the moment', my understandings of the experiences happening at that time and considering the context in which they occurred (Delamont, 1995). I was mindful of being vigilant and reflective during analysis. Corsaro (1985) emphasised the challenges for researchers on entering the play world of children with regards to generating valid data. Using case study methodology I was not a participant observer, therefore I was removed

from the immediate social context of the play, despite being very close to it. Hatch (1995) noted that when analysing data it is often difficult in those circumstances to make appropriate and relevant links between the play experienced and the environment, which of course includes interactions with people.

3.4 Checking for Validity

Validity of this study was paramount in my research design planning. Firstly, methodological triangulation (Berg, 2001) as described earlier in this chapter, allowed for converging lines of enquiry in order to increase and strengthen the validity of the study. I aimed to understand how young children who are gifted play from more than one standpoint, these being: observation of the case study children in play, interviews of them and their teachers and document analysis. I was also mindful not to encourage unnatural performances by teachers when engaging with the children. As interactions were one of the research questions, this awareness was crucial every time the research site was entered and I attempted to be as unobtrusive as possible.

Furthermore, I considered the questions relating to research validity as proposed by Reason and Bradbury (2001), such as whether or not the research would be useful and whether anyone would be helped by the research. I believed that the research would be useful to early childhood teachers by answering the research questions relative to a New Zealand early childhood setting. There would be benefits for children and for teachers concerning educational support of the play of young children who are gifted. Reason and Bradbury (2001) also suggested that validity should be tested by asking whether the research methods are contextually sensitive. The methods chosen in this study were conducted with sensitivity and understanding at all times. I remained as unobtrusive as possible so as not to cause reactive behaviours in the setting. The case study children were interviewed in intermittent phases so as to be sensitive to their needs, with prompts often during play, when either child was engaging in conversation with me. Lastly, Reason and Bradbury (2001) recommended researchers question whether new behaviours would come about from the research undertaken.

3.5 Reliability

Reliability has been limited as the sample consisted of two case study children in one setting. My concerns regarding reliability were that generalisation " of the results to other children beyond this group" could occur (MacNaughton et al, 2001, p.24). Limitations will be acknowledged in the concluding chapter of this thesis.

Summary

This study has taken a qualitative approach, using case study methodology, to research how young children who are gifted play in an early childhood setting. Considerable time was spent gaining ethical approval from the Massey University Human Ethics Committee, which included the development of information sheets (for staff, parents and children), consent forms, transcribing agreements forms, release of the transcripts and confidentiality agreement forms.

Data were generated ensuring methodological triangulation by way of interviews (teachers and targeted children), observation and the analysis of the portfolios of both case study children. I aimed to generate research that would be " informative, ethical, meaningful, persuasive and significant" (MacNaughton et al, p.13). The data generated were heavily language-based allowing for careful attention to be given to understanding the play observed. According to Bell (1990) "at all times it is important to recognise that the case is constructed by the researcher who decides ultimately what is observed or asked and how the data is interpreted" (p.42). Validity was addressed by generating data in the context of the early childhood centre, in the reporting of my findings in the next chapter of this thesis and in the concluding statements of this thesis.

The following chapter now highlights the findings of the data generated and shares analysed data with the readers of this thesis.

RESULTS

> *When I grow up, I'm going to be a superhero. Spiderman. Spiderman's not real. Peter is only pretending to be Spiderman. You'd better watch it, because he is only pretend. The human inside him is real, but not the outside of him, that's pretend. Peter is inside Spiderman, that's how I know Spiderman's not real; only pretend (MJ 5/10).*

Through qualitative research design, the teachers' perceptions and actual play experiences of the case study children are now given voice (Anderson, 1998). For ease of the reader, speech is recorded in italics and indented. Observations and notes are merely indented. The data generated clearly indicated an emergence of common themes during analysis. These themes are now disclosed in relation to the three research questions initially proposed, which were:

- What characteristics of giftedness are evident in young children's play?
- Do these children demonstrate particular play preferences?
- What interactions with teachers and other children can be observed during play?

4.0 Characteristics of Giftedness Evident During Play

The first research question asked what characteristics of giftedness were evident during young children's play. Data concerning the ease and speed of learning of both case study children, reported in chapter three, affirms that MJ and MC were quick-thinking. A number of other cognitive and affective characteristics were evident during data generation and analysis. These additional characteristics of giftedness will now be discussed in relation to their play with descriptions as to how they were evidenced in their play. The two case study children, will now be referred to as 'children' from this point forward, unless there is an obvious need for me to refer to them as 'case study children', to avoid confusion for the reader. Furthermore, a finding not informed by the literature review has been included in the results as both children were found to be ambidextrous, which seemed coincidental.

The themes that emerged from the data concerning the characteristics of giftedness evident in play were:

- Advanced language and knowledge
- Perfectionism/frustration
- Highly imaginative, abstract, conceptual thinking
- Heightened interpersonal awareness
- Ambidexterity
- Advanced sense of humour
- Boredom
- Love of learning
- Curiosity

4.0.1 Advanced Language and Knowledge

MJ was aware of the concept of cleverness. During an interview period with me, MJ suddenly mentioned cleverness in response to my asking of him what he most enjoyed playing with at the centre.

> *You know how to be clever, you have to do clever things. If you're clever you have to work hard (MJ Video footage).*

MJ spoke often in adult type language during play. According to his teachers, he articulated unusual phrases and demonstrated language precision during play.

> *He's just, he's just such a classic. He is. The things he comes out with (SJH Teacher Interview).*

> *He (MJ) comes out with the most unusual phrases. He acts very grown up for his age at times (Teacher Anecdotal).*

Furthermore, a teacher commented on MC's advanced language evident when he played with his sister after school.

He doesn't say much (MC). He plays alone and is very quiet, but then I hear him when his sister arrives and his language is amazing for his age (Teacher Anecdotal).

MJ's language and knowledge was unusual for his age. An example of this was during a teacher-initiated cooking experience. There were ten children around a large table with SJH (the teacher). The table was covered in ingredients and the bowl was passed around for children to add and stir as instructed. Other children were speaking about the immediate experience. MJ made the unusual comment of:

When I grow up to be a big human, I'm going to be a chef (MJ 17/9).

MJ's father was a chef, so he was making contextualised links in his thinking, but his thoughts were actually removed from the experience at hand. Furthermore, other children may have said 'when I grow up' but MJ used advanced language by applying the terminology of being 'human'. A conversation later started about the 'Finding Nemo' video.

SJH (his teacher)-We went to the movies didn't we children?
MJ- Actually, the movies is called the cinema.
SJH- We've almost finished doing our mixing
MJ- Yes but we only have two ingredients left (MJ 17/9).

MJ had enough confidence to correct his teacher. In this short conversation MJ used the words 'cinema' and 'ingredients'. During play the children exhibited advanced knowledge and language which placed them in the position of 'expert' to their peers.

I caught MJ asking another child if he knew where Greece was. He offered to show the child on the wall map of the world, where it was (Teacher Anecdotal).

Language used was unusual in that MJ related a bridge in the construction set to not being an ordinary bridge. He noticed the detail and identified with it.

MJ- Where is the train track? (asking another child)
Child- There (pointing)
MJ-That's not a train track silly. That's a flexing bridge
Child- What's a flexing bridge?
MJ- It lifts up to let the boats go through (MJ 5/10).

MC used a full word not normally used now in common everyday language.

It's not called a fridge stupid! (shouting at another child at the kai table). Its real name is called a refrigerator (MC 23/9).

Other unusual phrases or words captured in play were:

You stopped short of the mark (MJ 17/9).

Throw them like those things so I can prance on them (MJ Child Interview).

MJ and MC also used adjectives in their speech more often than other children who are not gifted:

I threw it on a sharp point (in imaginary play) (MJ 6/10).

MJ picked up a small white ball.
MJ- what a cool, white, dirty ball (MJ 17/9).

MC was looking at his favourite tree at the centre.
MC- It's a beautiful, windy, whirling, winding tree (MC 5/10).

During a painting experience, all of the children were asked by the teacher to paint a shape. Most children painted a circle, two children painted a square but MJ painted a pentagon.

MJ- There- it's a pentagon! (MJ 16/9).

At a similar experience MC was asked to paint a flower picture. The other children painted pictures of flowers and MC painted his whole page white all over.

> *Tchr- Where is your flower MC? I can't see it.*
> *MC – I can see the flour, it's come out of the bag all over my paper!*

The teacher didn't understand MC's response. She asked what colour his flower was. MC replied that the flour was white like in the bag. Intersubjectivity was not reached in this play situation. In fact, MC's thinking was 'outside the square' in response to the teacher's initial request of 'painting a flower picture'.

4.0.2 Perfectionism/Frustration

MJ and MC are perfectionists and get frustrated when for example, words of a song are not right, when poems don't rhyme, when the routine of mat time is not quite up to scratch and about 'getting things right'.

A reflective journal entry during data generation noted that play appeared to come to a standstill at times, when sequences in play had to be re enacted or mat time routines had to be reversed in order to achieve correction, to appease MJ.

> *MJ got really frustrated when I got the words of a song wrong. He stamped his feet and clenched his fists. No! we have to sing it all over again now. You got the words wrong. He made everyone (the other children in the room) repeat it (Teacher Anecdotal).*

> *He (MJ) got frustrated the other day when I explained that a certain piece was a poem that didn't rhyme (Anecdotal- Parent).*

During an outside play session (in a pretend play situation with two children), frustration was evident when the rules of play didn't go as smoothly as MJ expected. MJ had started the play on his own- he was pretending to be a firetruck. Another child had approached and asked what he was doing and MJ offered to show him. Another child approached and MJ insisted that he would have to do as MJ said in

order to be part of the play. The children agreed after MJ stated that this play was his game. MJ had ownership and dominance over the game. When one of the children held the wrong end of the ladder, MJ shouted at him and said:

MJ- You are making me frustrated (MJ 5/10).

His teacher was aware that she had to be 'on the ball' when it came to facilitating mat times, especially updating the date, weather etc. on the wall which was a focus of the start of mat time.

SJH: He (MJ) corrected me this morning and said "we haven't done news yet"
Me: I noticed the other day he told you off because you'd forgotten to do the calendar
SJH: Oh yes! Change the date (SJH Teacher Interview).

A teacher who facilitated mat times for MC's age-group held a similar view when we were discussing MC at mat times

He (MC) tells me if I've missed something (Teacher Anecdotal).

During play on his own in the block corner MJ was carefully aligning many long blocks (16) perfectly so that they were matching end on end, to make a boat that was a perfect square. MJ spent 12 minutes aligning them carefully and was tutting and sighing if the blocks had crayon, playdough or other flaws on them. Each one was inspected as the constructive play progressed. When completed, MJ carried all the blocks vertically to the shelves very carefully, aligning them perfectly on the shelf (MJ 16/9). My impressions at the time were that perfectionism during play takes time and patience. The impact on other children could be huge if they are waiting for resources or other equipment. The impact on centre routines could be, that a teacher could be waiting for longer times for young children who are gifted to transition into the next phase of the programme. MC was also seen as a perfectionist during play such as a painting activity or when engaging in centre routines such as hand washing.

He's (MC) very fussy about getting things right. When he washes his hands he wants to wash them properly and thoroughly. It doesn't matter if everyone else is in a rush. If he's painting, he likes to be methodical and to keep clean. If he's in the blocks, he spends ages getting a piece placed just right. He's a bit of a perfectionist (Teacher Anecdotal).

MJ got frustrated at the slow learning speed of a topic and was acutely aware of when things were easy or difficult. MJ's teacher in particular was aware of this. She mentioned in her interview that he needed a faster pace of learning (SJH Teacher Interview). During a floor puzzle session, MJ enjoyed completing a more challenging task. He knew the resource was challenging and made the assumption that I would also view it as hard. He took on an expert role and addressed me:

Watch me. It's a hard one (MJ 5/10).

He also took on the 'expert' role when showing off his physical abilities with sliding down a slide balancing on two small pieces of plastic. He wanted 'exactness' when demonstrating to a nearby child who was observing him:

Now do it exactly like that. It's quite difficult you know (MJ 16/9).

MJ responded well during the data generation period to a springtime group project. The Busykids group had been working on a wall montage as a group over a period of days, however MJ was frustrated that the montage was not finished. At mat time one day, MJ asked for the springtime song and they started singing it and pointing at the wall montage at the same time. When the song was finished MJ sighed.

MJ- we haven't got the leaves on our trees. We haven't got the flowers on the grass (MJ 17/9).

4.0.3 Highly Imaginative, Abstract and Conceptual Thinking

Both children were highly imaginative. On one occasion MJ was engaging in pretend play outside with another child (MS). MJ pointed to an open space and said that this space could be their home.

> *MS- How will we get down?*
> *MJ – I'll show you. It's easy. Use the chimney.*
> *MS- You can't go through a chimney.*
> *MJ- Yes you can silly. Use your imagination and you will see.*
> *MS – Where is an imagination? Is it inside the house?*
> *MJ – It's in your head. Silly, silly, silly billy it's so chilly. It's pictures pictures in your head (MJ 16/9).*

MJ conceptualised imagination as pictures in his head. This was further indicated when he was being steered in the trolley around the playground.

> MJ is being steered in the trolley around the playground.
> *MJ- Now take me somewhere! A surprise! Anywhere! But don't tell me! I like surprises. I want to fly, fly fast fast fast through the sky with lots of birds and clouds and taniwhas.*
> MJ is smiling and closing his eyes.
> *MJ- I can see the red dragon chasing the taniwha (MJ 15/9).*

Conceptualising the imagination in this way was not restricted to open-ended play. At mat time MJ had just given some news. He sat down and started sucking his thumb. He then realised he hadn't finished what he was sharing and articulated this to his teacher (SJH).

> *I still have more news. I haven't told you everything in my head yet (MJ 16/9).*

I invite the reader to peruse the observation in Appendix T. Here MJ was clearly using advanced abstract and conceptual ideas in his play. He was flying to the moon

on his flying carpet and I was engaged in dialogue with him during the play episode. I couldn't participate because the imaginary carpet was only big enough for one (his imagination; no props were being used). I suggest this response was unusual in that other children might have responded with something like, "OK climb on!" I offered to watch him on his journey but he quickly conceptualised that he would be going too fast, as after all he had already indicated he was off to the moon. He became exasperated when I asked how fast he thought he would be travelling and indicated he was more expert than me, in conceptualising the speed of the trip. His higher order thinking ability was evident in how he had sorted all the aspects of the travel he needed to think about. He wanted his teacher to help him, who he may have perceived as a cognitive match in that play situation. In MJ's view, I lacked knowledge of speed and distance! His tone was superior when he referred to me as a 'pretty girl'. Intersubjectivity with his peers could not be reached. He discarded any thoughts of including them in the play because they wouldn't understand the play.

MJ liked surprises. He indicated this when being pulled in the trolley and on occasions playing with bouncing a ball (SJH Teacher Interview). He engaged in the following dialogue with me during outside play. There were large groups of children outside, but MJ was playing alone with a ball, bouncing it hard on the concrete and looking up in the air to ascertain its direction. This play was repeated 13 times. He noticed me writing about him.

> *MJ- Balls are a favourite thing*
> *ME- Why are balls a favourite thing?*
> *MJ-Then I can chase after them and get them. I don't know which way it will go. It surprises me (MJ 15/9).*

This statement can be interpreted as MJ indicating that the element of surprise is enjoyable because it provides opportunity to use the imagination. He appears to enjoy the unknown. This was further indicated (on two separate occasions) when he was imagining what going to school would be like He likened using his imagination as dreaming.

> *MJ- I want to go school. I dream of being five (MJ 15/9).*

During imaginary thinking, he also demonstrated a mature sense of reality.

> *Me- What are you looking forward to at school?*
> *MJ- Playing in the playground with bigger balls and bigger maps and hidden caves and exciting stories.*
> *Me- School sounds exciting.*
> *MJ – I'm not sure if it is yet. I'm making all these pictures in my head about all the new things I'm going to be doing (MJ 5/10).*

MC also indicated in an interview, that he liked the element of surprise.

> *Me- What is it you like about the tracks the most? (train tracks)*
> *MC- Cos I don't know which way they will go until I make them up and then they can um, um go any way I want to, um and sometimes even the trains don't know which way to go and um, the tracks can go up to the ceiling and um. I don't want anyone to touch them cos they might fall down (MC Child Interview).*

On several occasions during data generation, MJ demonstrated a love of maps. This will be further discussed later in this chapter. The following observation affirms that MJ is considering what the world has to offer, yet has a realistic view and general scientific knowledge of that the world looks like in its physical form.

> *MJ- Look there's a map of the world (talking to me)*
> *Me- Yes it is a map of the area where you live. I noticed you were looking at the other map this morning – the one of the world and you were telling the children where SJH was on holiday*
> *MJ- I love maps*
> *Me- What do you think this map is about?*
> *MJ- It's about all the wonderful things you can do in the world*
> *Me-What do you think the world looks like?*
> *MJ- A big round ball floating in the sky (MJ 5/10).*

In short, MJ uses his imagination which he conceptualises as 'pictures in his head'. Some of these pictures are abstract to him and others more concrete. MC was seen by his teachers, to be a highly imaginative child.

> *MC is so imaginative. He spends hours in the sandpit making things on his own. He sings and looks dreamy. He fills containers a lot and carries them around the playground, sometimes talking to himself and sometimes singing to himself. I've even seen him talking to a tree. He's in his own little world (Teacher Anecdotal).*

At a mat time in which MC was participating, the teacher had engaged the children in lots of lead-in activities as the centre was expecting a visitor to bring in farm animals that morning. She asked the group a range of questions. In general, other children answered the teacher with common responses such as sheep, chickens, cows and dogs. MC was more imaginative.

> *Tchr- What animals do you think will be brought to the centre from the farm today?*
> *MC- An elephant (MC 23/9).*

Abstract and conceptual themes appear closely aligned with how the two children liked to engage in imaginary thinking. One day in the block area inside, MC stood up ready to go and wash his hands for lunch. His attention was caught by a picture of a bird on the wall in that area. He looked at me and suddenly said,

> *Imagine how far the bird can fly while I am walking? (MC 21/10).*

I noticed that MC was trying to explore the conceptual theme of flying and recognised that he was making a mathematical comparison. He was using higher-order thinking skills of analysis and synthesis to try and comprehend time and distance, during this moment of engagement with me.

Flying was a conceptual theme of interest to MC observed on other occasions. I took many observations of MC climbing a tree or the geogym (MC Video footage) and

when reaching the top, grabbing onto the bars or branches and hanging his whole body weight for long periods of time whilst smiling. MC engaged in this activity alone. Video footage has been captured of MC doing this repeatedly from the geogym in the outside playground. At first, it was considered that MC just purely enjoyed the sensation or that he was testing his strength or 'seeing how long he could last'. But an interview with him divulged that he was in fact imagining what it would be like to fly.

> *MC- And the tree. I like hanging down off it and pretending to fly*
> *ME- Yes I've seen you do that*
> *MC- I like hanging off it so I can fly*
> *ME- Where do you think you will be flying to?*
> *MC- I'm not telling (abridged) you anymore (MC Child Interview).*

Both myself and teachers noticed MJ's interest in maps, time, travel and distance. His main teacher (SJH) provided the following anecdote.

> *He (MJ) likes the abstract. He's fascinated with maps and travel and how long it takes to get somewhere or do something. Even posting letters (SJH Teacher Anecdotal).*

Two other teachers (not participants of the study) were sharing their understanding of MJ's interests in abstract/conceptual thinking during a lunch break and making comparisons to children who were not gifted.

> *He likes (MJ) mathematical concepts like time, speed, distance. He was very interested in death the other day, much more than the others (Teacher Anecdotal).*

> *I agree with what she's saying (other teacher). When the worm was dead, the questions were never-ending. He (MJ) likes these types of abstract things where he can question and probe. He finds it stimulating (Teacher Anecdotal).*

These anecdotes indicated that MJ asks questions more than his non-gifted peers and that he has an interest in death as a conceptual theme, moreso than other children. MJ himself acknowledged his love of maps. Early in the data generation period, MJ was observed drawing a treasure map.

Conceptual interests were also noticed in MC whilst playing in the family play area by himself. He was using his arms as big teeth, opening and closing them and running around in a circle making large roaring noises. He noticed me writing about him:

> *MC- I'm not just an ordinary crocodile you know.*
> *Me- I can see how big you are!*
> *MC- yes but it's not really about how big I am, it's about how old I am. I am so old I was here before McDonalds! (MC Anecdotal).*

I noticed that MC was interested in the conceptual theme of time, but I also recognised that this awareness was advanced for a child of this age. Clearly he was also mature enough and able enough to articulate it. MC was alerting me to the fact that at three years of age due to sociocultural experiences, McDonalds was part of his world (as long as he could remember) yet he had the higher-order thinking ability to articulate, that crocodiles were much older than that.

4.0.4 Heightened Interpersonal Awareness

MJ portrayed a deep interpersonal awareness in particular with SJH (his teacher) and myself.

> *MJ- Oh shucks. I just called you the teacher. SJH is the teacher not you (talking to me)*
> *Me- So what am I?*
> *MJ- You're the researcher. Mummy said so. You are searching for something and you found it in me (MJ 16/9).*

When MJ's mother read this piece of data she was astounded by his interpersonal awareness as she hadn't told him that I was searching for something in him. She couldn't remember using the word 'researcher' when speaking with MJ about the study and the word 'researcher' wasn't used on the child information sheet read out to him by her at commencement of the research. Interpersonal connections were sought after by MJ following a day of heavy interaction with me.

MJ-What do I need to be a big human researcher? (MJ 10/10).

I want to be the journalist (MJ Interview, Video footage).

The following dialogue makes explicit MJ's interpersonal awareness surprising for a child his age. Firstly he acknowledged his feelings and made interpersonal connections with me. This occurred near the end of the data generation period.

MJ- I love you Cat. I'm gonna, gonna miss you when you've gone
Me- And I'm going to miss you

He then sought out intersubjectivity with me, wanting to make a connection, by being like me.

MJ- Do you know, do you know when I grow up to be a big human, I might be a researcher as well, like you?
Me- How cool! Maybe we could do some research together then
MJ- Yeh yeh I'd like that. What do I need to be a big human researcher?
Me- You need to love asking questions and find out answers. And when you've collected all your information you will have a big smile on your face as you are reading it through

He continued to question me, seeking honest answers, exhibiting incredible perception.

MJ- Do you smile when you read about me?
Me- Yes. I love reading all the stories I've written about you.

MJ- Cool. Cool. Cool bananas
Me- I'm going to put it all in a book
MJ- Will it be about me, me, me?
Me-Yes it will
MJ- And you know what Cat? You know what? It will also be about you!

Considering the sociocultural implications of narrative assessment I replied:

Me- Yes it will because I am the researcher. I'll be in the story too.

Then MJ demonstrated his affective giftedness by saying:

MJ- no no no silly silly silly billy. It will be about you you you.
You are asking questions because silly silly it's all about you.
Me- what do you mean?
MJ- you're like me. You see me in you and you know what?
I see me in you!
Me- OK well let's be cool bananas together then.
MJ- Cool bananas? (Tutting) You're such a pretty girl (MJ 10/10).

This observation had a huge impact on my understanding of the child and the depth of MJ's understanding of self/others. This could well be an example of advanced spirituality and sense of collective consciousness that a young child who is gifted can exhibit, in an early childhood centre. MJ indicated a deep understanding of my work and was perhaps frustrated by my response. He demonstrated a deeply heightened interpersonal awareness, much deeper than one would normally expect to see in a child of his age, which indicates that he could also experience this with others. MJ appeared at one with the universe and others in that moment. I reflected that if MJ feels and sees things at this advanced level at his age, then what does it do to his spirit and self when unable to gain intersubjectivity with his peers, unless they are affectively matched.

MC also demonstrated heightened interpersonal awareness of a child of his age by offering emotional support to a teacher in need:

> *One day I was out by the sandpit and I stubbed my toe on the edging stuff. It really hurt. It brought tears to my eyes and MC came over and started rubbing my arm. He was only two (Teacher Anecdotal).*

Near the end of my time at the research site, MC was playing in the block area and watching me take notes. He noticed how tired I was looking and made comment to that effect! He also tuned in to how I might have been feeling about leaving.

> *MC- You are going to be sad when you are driving your truck home.*
> *Me- Why do you think I am going to be sad?*
> *MC- Cos you're leaving me and you won't see me again (MC 17/10).*

4.0.5 Ambidexterity

It seemed coincidental that both children were ambidextrous. Both children used both hands for a variety of tasks and although research concerning ambidexterity does not inform this study as a recognised characteristics of giftedness, ambidexterity does indicate high use of both hemispheres of the brain. Ambidexterity was noticed during play and at other times whilst eating. My notes explain:

> With his left hand he takes a paint brush and dips it in the green paint. He holds the brush with a pincer grip and then puts it in his right hand. On the paper he forms the shape of a pentagon (MJ 16/9).
>
> He sucks his left thumb. He sucks his right thumb (MJ 5/10).
>
> He alternates his hands to turn the pages (MJ 5/10).
>
> MC picks his up with his right hand and starts eating. He switches his sandwich to his left hand and continues eating (MC 22/9).

> MC takes a piece of fruit with his left hand and puts a piece of bread in his mouth with the left hand. He takes another piece with his left hand and eats it. He stands up and grabs more bread with his right hand and eats it with his right hand. He stands and reaches over the table and takes two pieces, one in each hand. He eats the piece in his right hand first and eats the second piece with his left hand. He takes a drink using his left hand (MC 6/10).

4.0.6 Advanced Sense of Humour

MJ in particular had an advanced sense of humour. He was known by his teacher to be the one who would come each week with a new joke. She attributed this to MJ's father who was often joking.

> *MJ will come down and tell me a joke. The other children try to follow and tell jokes too. But they haven't got it like he has (SJH Teacher Interview).*

Sometimes MJ would find humour at the expense of others such as the day one of the twins said "one of us is missing, it's the other twin" and MJ commented rhythmically:

> *Two faces that look just the same. Twins, twins twins on pins (MJ 16/9).*

On another occasion a child that was trying to copy him doing a difficult task outside on the fort ended up hurting himself because he didn't have the balancing skills. He skinned his knee on the bark.

> *No skin on! Now that was just a joke (laughing)(MJ 16/9).*

MC took great delight in the formation of a new word when he was playing in the sandpit. Again, rhythmical language was evident.

That's funny putting two words together. A cakealex. A cakealex. That's a funny word (MC 21/10).

A teacher noted that he saw humour in the unusual.

He (MC) has a funny humour. I've never seen him laughing with another child but I have seen him laughing at unusual things-like when he's outside and it's really windy. My hat went off one day and he really laughed (Teacher Anecdotal).

When I approached staff during the day or in the staff room about why they thought these children had an advanced sense of humour in comparison to other children, the words 'advanced' and 'different' and 'quick' were used in responses, which are indicators of intellectual giftedness. The following observation is an example of when MJ could not gain intersubjectivity with his teacher (SJH), which was rare.

MJ- I like Spongebob because he's made out of sponges.
Oh imagine that! Imagine being made out of sponges! (laughing)
SJH (his teacher)- OK MJ it's someone else's turn now
MJ- soaking soaking joking joking
SJH- OK MJ. It's x's turn now
MJ- SJH! You just don't get it do you? That was so funny! (MJ 16/9).

An element of repetitive and rhythmical language was noted within their humour; a characteristic of cognitive and affective giftedness. Particular attention was then given to language repetition and rhyme during play and the following observations recorded:

Cheat, cheat, cheat on his feet (MJ 16/9).

I'm playing kings kings kings and queens queens queens and Lovely things and beautiful things and wicked things. Kings! Kings! (MJ 10/10).

Hammer Hammer hammer. Shake shake shake. Twirl twirl twirl clap clap clap (Whilst playing with clay) (MJ 10/10).

Toot toot toot. Alex Alex Alex (MC 21/10).

There's Charlie (reading a book to himself). She's whirling and twirling. She's giggling and wiggling and jiggling (MJ Video footage).

Chinga, winga, dinga ringa (playing with the trains on his own). Ringa ringa (laughing). The train doesn't ring, it toots, toots, what a hoot (MC 17/10).

I noticed that repetitive, rhythmical language was not used frequently by other children who were not gifted. Nor did the peers of these two children respond to this phenomenon of their humour.

4.0.7 Boredom

The findings indicated that both children became bored with aspects of the programme. On one particular day MJ indicated that he was bored whilst playing inside. It was early in the morning and MJ had not long arrived and was in the large building utilised by MC during the day. A range of equipment was available. The Busykids room was not yet open and ready for the four year olds. MJ had been engaging in pretend play in the block area using blocks as skis and had engaged with another child in pretend play. His statement to the adjacent peer indicated that although engaged in pretend play in a large area with lots of available resources, at that time he perceived the outside at more stimulating.

MJ- When we go outside we won't get bored (MJ 16/9).

The next day, his acknowledgement of boredom was during time inside the Busykids room. A cooking activity was happening (teacher –directed) where six children were

sat at a table making biscuits. When the teacher was explaining the rules of the experience (for example, sharing, waiting patiently, using manners, keeping hands clean), MJ appeared very attentive. (Rules orientated play is discussed further in this chapter). Then the teacher asked to remove a stick that MJ was holding at the table and MJ had initially refused, indicating that it was his sword. The teacher removed the stick from him and MJ then stood to use a roller to crush the biscuits. His teacher instructed him to pass it on and he did (following rules). He sat down and sucked his thumb and gazed into the distance whilst the bowl was slowly passed around the table. His teacher reminded him about sucking his thumb whilst they were baking.

Oh yes I forgot, but I'm bored (MJ 17/9).

On another occasion at mid morning, rain had started so the four year olds came inside. Two children started playing with puzzles not usually freely available. The teacher had brought them down from a high shelf in response to MJ's request for them. There were a variety of large floor puzzles to choose from and MJ chose a three dimensional dinosaur construction that when constructed, made three different dinosaurs standing upwards from the floor. He indicated it was a challenging puzzle

Watch me, it's a hard one (MJ 5/10).

and indicated his confidence in his own abilities. He recalled how easy they were to do.

There I'm quick at it (MJ 5/10).

Then he quickly became frustrated. He completed them quickly and with ease. His comments below indicated that not only does he require quantitative differentiation of play materials but also qualitative differentiation. This will be further discussed in the next chapter.

Oh man, there are only three dinosaurs to do. Why can't there be six or ten or bigger ones or harder ones? (MJ 5/10).

Teachers acknowledged that boredom occurs.

> *We play that memory game quite a bit with the cards, where you put the cards down...but he (MJ) wants, it's too slow. Wants the memory game going at a faster level and speed. It gets boring. He gets bored (SJH Teacher Interview).*

> *Mat times have to be interesting (for MC), like, if it's a boring... mat time like, those fairy-tale stories again, you know, can get a bit boring (SD Teacher Interview).*

It was early in the morning and MJ was outside near the fort. He had wanted a ladder that another child was playing on and when he indicated this and the child didn't move he started to shake the ladder so the child would get off. She did get off and started shouting at him. He then invited her to engage in pretend play by stating that he was the king and that if she wanted to play she would have to be the queen. The girl indicated she wanted to be the mummy.

> *Well you can't be the mummy if you want to play with me. I'm not playing mummies and daddies cos that's boring (MJ 10/10).*

MJ viewed playing mummies and daddies as boring. Initiating the game and stating the rules with a peer were perhaps prerequisites of not being bored. Shortly afterwards, MJ ran over to the teacher to engage in conversation with her. MJ therefore was accepting that the girl could not provide him with the stimulation during play he required in order to not become bored, so he sought out the teacher who he possibly perceived to be a cognitive match.

4.0.8 Love of Learning

Both children demonstrated a love of learning. Sometimes this evidence was seen within the context of group projects or topics of learning. The centre had recently completed topics of learning on the Olympic Games and Aeroplanes.

He (MJ) loves topics that I introduce. He approaches it with such enthusiasm and gets fully involved in the whole thing. Then he talks about what he's learnt for weeks and months afterwards, like the Olympics and the Airport (Teacher Anecdotal).

MJ was able to recall important learning and clearly articulate it to a peer during play. He was exploring an old typewriter, so the conversation was not contextualised to what MJ was actually doing in the moment. The dialogue below demonstrates MJ's outstanding ability to recall the underlying concept of what he has learnt six weeks earlier.

Child- I'm not anybody's friend today (speaking to MJ)
MJ – Remember what they said in the Olympic Arena. It was all about friendship (MJ 16/9).

His teacher indicated that MJ has a greater enthusiasm for new experiences than other children.

MJ keeps reminding me because I have said we are going to the airport. So he keeps saying, is it today we go to the airport. He will remind me more than the other children will and will take in what's happening more (SJH Teacher Interview).

I recognised that he enjoyed learning something new especially if humour is involved and was clear in his articulation about why he liked it.

MJ- I like singing the pirate song-it's funny
Me- Oh! The one I taught you yesterday?
MJ-Yeh!
Me-About the bowl of jelly to fill my belly, now that's the life for me
MJ-Oi!
Me- Oi! We did the Oi at the end didn't we
MJ-Yeh. I like that part. I like the jelly part, because when I do it my belly goes fat (MJ Child Interview).

There was enthusiasm shown for mat times. Mat times may not be commonly conceptualised as play in an early childhood setting, but they are part of the child's curriculum. Furthermore, mat times often incorporate playful activities, therefore it seemed reasonable to follow this line of enquiry and take further observations. Mat times appeared to be seen as a time for learning for both MJ and MC. I acknowledge that many children enjoy mat times, but both of the case study children wanted and appeared to enjoy direct engagement with the teacher more. Both children were quick to come to mat time when called and both were keen participants, putting up their hand quickly, calling out answers. Teachers offered the viewpoint that there was a greater enthusiasm with gifted children for a variety of interactions with the teacher, including in-depth co-constructed learning that can occur in group times.

> A teacher calls out for mat time and MC runs inside making monster noises all the way. He pushes his way through to sit right in front of the teacher (MC 23/9).
>
> *MC-It's mat time soon.*
> *ME- Do you like mat time?*
> *MC-Yes I like the name cards and I like listening.*
> *ME- What else do you like doing at mat time?*
> *MC- I like the stories and the funny pictures and when SH (teacher) sits on her chair (MC 21/10).*
>
> At mat time, MJ bunny hops forward so he is right in front of the teacher (MJ 5/10).
>
> *He (MC) comes to the mat and likes to be in front (Teacher Anecdotal).*
>
> At mat time MC pushes to the front and places his hands on the teacher's knees. She starts a song "open, shut them, open, shut them" and MC participates. He stays seated at the front through the song and has his hands on his lips ready to "blow a little kiss" (how the song finishes). When the teacher asks what song to sing next

MC chooses Ba Ba Black Sheep. He pushes a child away that sits too close to him. As the mat time gets noisy, MC covers his ears. He responds to all of the teacher's questions (MC Video Footage).

MJ loves mat times and group times whether its sitting and learning or doing some dancing or other movement. He's always first to offer news, first to put his hand up, first to interrupt and ask a question, then he night interrupt again with another question. This is the thing with gifted children. Questions-they just want to learn all the time and you've got to keep up and move with them as the teacher (Teacher Anecdotal).

There appeared to be a particular love of learning in the areas of literacy and numeracy. Self-motivation was evident.

He turns to the back of the book and reads the back cover (MC 15/9).

MJ expressed great pleasure reading a story to himself about pirates, treasure and mermaids. There were lots of children in the room and he was lying on the floor reading to himself and loud and shouting out to nobody in particular.

MJ- yeh! Captain Puffy Pants! Look at that treasure map! Look at them sailing to Treasure Island! Hey look! I see Captain Highnote! Captain Highnote is such a pretty girl, such a pretty girl, such a pretty girl (MJ Video Footage).

Both children either demonstrated that they could articulate their need for learning in this area or could solve the need to learn themselves.

You know what? Can I do some writing too? I want to follow the letters and the numbers (MJ 16/9).

MC starts to read a story to himself then sings himself a song (15/9).

> *He does like to read (MC). If he's finished one book, he'll find another book. Other children will bring books to you as the teacher and ask you to read it for them and MC will go and read the story by himself (SA Teacher Interview).*

Cognitive advancement was evident in the following observation. It is most unusual to hear a three-year-old articulate an early mathematical concept such as multiplication, in the way that MC did in the example below. He was holding a green block twice the size of the other blocks.

> *"Look there's a double green," he said (MC 22/9).*

> *MC loves magnetic stories and stories that get read over and over again. He likes 'fish out of water' and says read it again, read it again (SJO Teacher Interview).*

MJ's teacher indicated that MJ gets frustrated if literacy and numeracy experiences are not available to him and that he enjoys the challenge they provide.

> *He gets annoyed (MJ) if I don't do writing; gets really cross if he can't do his writing. And even his maths. He likes it when I get the cuisenaire rods out and he's doing his maths. Loves that. Loves to stop and think about those sorts of things. It's a real challenge to him (SJH Teacher Interview).*

At mat times, MJ demonstrated enthusiasm for storytelling.

> The teacher starts to read a story. MJ stops sucking his thumb. He smiles at the storybook. He raises his body to 'stand on his knees' so he can see the book. He laughs at a funny illustration (MJ 5/10).

4.0.9 Curiosity

MJ and MC are highly curious which is an indicator of intellectual giftedness. I acknowledge that all children are curious in their own way, but focus on what is unusual in the curiosity of these children. For example, I was astounded by MC's response when he first asked my name. He was playing in the sandpit surrounded by other children, but playing alone.

MC- What's your name?
ME- My name is Caterina.
MC- How do you spell it? (MC 22/9).

It is highly unusual for a three-year-old to respond so directly by immediately questioning the spelling. A common response might have been a smile, or a request to repeat the name or to say what his name was. This was evidence of a highly curious child during play; a child who was able to be focused on sand play, with one eye on me and curious about spelling simultaneously.

MJ was also highly curious. He entered the larger building first thing one morning and approached a table set up with typewriters on it. A child who was standing adjacent to one of the machines initiated conversation with MJ. That child had made one attempt to open it and given up.

Child- it doesn't open
MJ- Why?

MJ started to explore the typewriter using both hands. He tilted his body side to side whilst peering into all the cavities of the machine. He opened it and removed a spool from inside, held it with both hands, brought it closer to his eyes and examined it whilst rotating it.

MJ- Oh that's a bit funny. I want to know how it works.
MJ puts the spool back into position
MJ- Oh that's cool (MJ 15/9).

I noticed that MJ had the motivation to get the typewriter open due to his own motivational drive. Instead of accepting that the machine was difficult to open as his peer did, MJ explored the machine and found out how it opened. He then explored various parts of it and developed further sense of enquiry. Analysis and synthesis were higher order thinking skills used in this situation. Later, outside in the playground, I was about to start taking video footage of MJ playing when he approached.

MJ-Let me see. What is that?
Me- It's a video camera
MJ- A video camera? Really? What is this micro, macro, what is..
Me- Do you mean the microphone?
MJ- What is the microphone doing in the camera? (MJ Video footage).

I interpret this dialogue to mean that MJ knew what a video camera was, yet I was holding a DVD camera which looks different. When he saw the hole grids, he knew this was a microphone, but had not seen one so small incorporated inside the camera before. I reflected at the time, that MJ spends time with his mother who is a drama teacher and possibly has had exposure to large cameras with large microphones. As the teacher was calling all the children to the mat, MJ was aware of who was sitting down already, counting them, telling them to fold their arms and cross their legs.

Tchr- Come on children. It's group time. In a circle.
Child (a twin)- One of us is missing. It's the other twin.
MJ- Yes but which twin are we missing? How can we know? (MJ 16/9).

MJ was unable to identify the missing twin. The twin who spoke, did not identify as an individual therefore it seems fair to acknowledge that MJ wanted more information and ways in which to solve the problem. Other children on the mat showed no interest in establishing which twin was missing. MJ was confident enough to articulate his own curiosity. A teacher concurred with these views:

When MJ has a question, it is more in-depth than the other children.
His questions are full-on. He likes to ask questions and he responds

well to questions (SJH Teacher Anecdotal).

Summary of Characteristics Evident During Play

To summarise, both children demonstrated a range of cognitive and affective characteristics of giftedness during play and in relation to play, which I have grouped into nine themes. Implications for early childhood teachers will be discussed further in this thesis, concerning noticing the characteristics of giftedness evident during play and in relation to play (Allan, 1999), recognising them as giftedness and making teaching decisions about how best to respond.

4.1 Play Preferences

The second research question asked whether these children demonstrated particular play preferences. The themes that emerged from the data concerning play preferences were:

- Open-ended play
- Solitary play
- Pretend play
- Undisrupted play
- Rules orientated play

These five play preferences and the analysed data will now be presented.

4.1.1 Open-ended Play

The two children preferred to be involved in open-ended play using open-ended play materials, such as balls, hoops, trolley, blocks, cars, trains and tracks. Often this play was highly physical and involved climbing, skateboarding (MJ) and hanging from the tree or geogym (MC) for long periods.

In MC's portfolio there were nine photographs of which he was engaging in open-ended play such as riding a bike, climbing the geogym, playing with water and sand, playing with the balls and dressing up. MC was observed spending the majority of his inside time in the block area playing with the trains and tracks. During his interview, MC described several different types of play preferences, all of which were open-ended play experiences.

> *I like the trains and the tracks and pretending to be a builder or a fireman. Playing in the sandpit and with the balls and the trolley. I like riding in the trolley and I like pulling the trolley cos I um get to put the balls in it. I like the stories and the sticky things (mat time) and the trains and the tracks and the blocks...the cars...the books... and the fireman's hat. And the tree. I like hanging down off it and pretending to fly (MC Child Interview).*

One of his teachers confirmed this.

> *MC quite often works with small intricate things, either the cars, the trains set, the blocks, the mobilo building, things like that. He's really good at climbing, swings, has very good balance. Somersaults I've seen him, dancing, twirling, gross motor skills, excellent balance (SJO Teacher Interview).*

I interpret this desire for open-ended play to provide a means of play processing using the imagination to the full, with no pressure for producing an end product. I alert the reader back to page 66, where the element of surprise was intimated. Constructions made with the trains and tracks were unlike other constructions seen by other children. These constructions were large, highly detailed and took a long period of time to make. During an interview phase with MC which occurred in the block corner, I mentioned in the interview notes what was observed during questioning.

> The tracks have now covered the whole carpet. There are many bends and hills and blocks underneath in several areas. Some pieces

of track are hanging mid air, as they cannot connect to anything (My Notes on MC Child Interview).

MC spent hours in the sandpit playing alone. He would often be surrounded by large groups of children as the pit was in the centre of the playground.

He spends hours in the sandpit (Teacher Anecdotal).

His sister (who arrived after school) was an emotional support to MC and seemed to know his preference for open-ended play in the sandpit. MC was crying.

Tchr- What's wrong MC?
MC- Go away!
His sister comes to comfort him. He cuddles into her and smiles. Two other children come over to him.
MC- Go away you two!
Sister- Do you want to play in the sandpit?
MC- yes I'll go there (MC 21/10).

An interesting observation was recorded on the day that farm animals were due to visit the centre. The farmer had arrived and brought a calf and several other varieties of farm animals in to freely walk around the children. Despite showing a little interest, MC chose to engage in open-ended play on his own. He displayed the most unusual behaviour. All the other children were very interested in the animals. They were feeding, stroking, sitting with or chasing them. MC was not from a farm, so these animals were a novel experience at the centre, yet he chose to continue with his own open-ended play (see Appendix V). Again displaying patterns of horizontal and vertical trajectory, he chose the ball, moonhopper and climbing over the novel experience. He appeared in his own world, playing alone and singing to himself.

There were five narratives in MJ's portfolio, three of which contained learning stories about MJ engaging in open-ended play; these being skateboarding and climbing on the geogym. The skateboards (which were more available to MJ) were of great play interest to him. I took many observations of MJ playing with a

skateboard, repetitively rolling down the hilly slope of concrete. He would mostly play alone or if another child engaged in similar play parallel to him, might compete or engage in some conversation. Sliding downwards on the slide was also a popular past time.

> *I like sliding down the slide with those big pieces of plastic. I like playing with the road and the new toys (cars and road tracks). I like climbing up the climbing frame. I like the cars and the planes. I like it inside the Busykids room (MJ Child Interview).*

> *Outside he (MJ) has his mind set on what he is doing. Everything can be out and ready but it will be hills, balls, hoops, skateboards and the trolleys (Teacher Anecdotal).*

MJ indicated on several occasions his love of playing with balls.

> *He climbs out of the trolley and picks up a ball and laughs.*
> *MJ- I love balls (MJ 15/9).*

On the same morning MJ was walking alone outside with a ball. He threw it up in the air several times and tried to catch it. He rolled it down the hill and ran quickly to try and catch it at the bottom. He saw me nearby and said,

> *MJ- Balls are a favourite thing (MJ 15/9).*

Later again, he put his ball in the trolley and pushed it alone around the playground. He developed a game where he tipped the trolley to allow the ball to fall out and roll down the hill. He then charged with the trolley to catch it at the bottom. Not once in the data generation period was MJ observed using the carpentry table which was right outside the Busykids room. My impressions were that MJ did not want the pressure of producing an end-product and was more interested in engaging in open-ended play because of the processing involved and because he could dominate and control it in isolation or with others if he chose to. Usually this person was the teacher and this will be discussed later in this chapter. He was observed painting only

once. Admittedly, painting was a restricted experience inside due to the size of the room, but MJ was a perfectionist and on the one time he was observed painting (the pentagon earlier mentioned in this chapter), he screwed up his 'end product' in frustration.

> *MJ- Oh I need a new piece of paper cos I've just done scribbles. I'm gonna put it in the rubbish (MJ 16/9).*

4.1.2 Solitary Play

Both children (MJ and MC) could be perceived to be playing with others, as they have others around them, when in fact their play preference is to play alone. MJ was playing alone on 19 occasions and MC was playing alone during every running record, except when his sister returned to the centre after school and on two occasions where play attempts with others were noted.

> *MC plays a lot on his own (Teacher Anecdotal)*

> *MC can spend the whole day by himself (Teacher Anecdotal)*

> *MC loves to play by himself (SA Teacher Interview).*

> *I have noticed that MC tends to be very much on his own. He plays a great deal on his own. He seems to concentrate a great deal when he's playing (SJO Teacher Interview).*

In one half hour period, I observed MC talking to himself or an imaginary friend on five occasions (6/10). Other occasions occurred where MC has been observed by myself and a teacher, speaking to himself, reading to himself or singing to himself ' in his own little world'.

> MC talks to himself. He mumbles conversation for four minutes. His expression is glazed and smiling. He talks to himself for three minutes more (MC 22/9)

> MC is reading a book. He squeals occasionally indicating delight in some of the comical illustrations. Pointing to the book he says out loud, *"Hey we've got one of these at our house!"* MC starts to read the story to himself again, then sings himself a song (MC 15/9).

> MC is at the kai table. He ignores any attempts at interaction with him by those that sit near him. When MC has finished he goes outside to the sandpit. 17 children are in the sandpit. MC plays alone tipping sand into a container with a bowl. He is the only child sitting down (MC 22/9).

Likewise, MJ was observed shouting out loud, singing to himself and reading to himself. MJ appeared on the surface to be a very social little boy when I first entered the research site, but after observing his play over a period of three months, the extent of how solitary it in fact was became evident.

> MJ runs up the hill on his own.
> *MJ- I just can't, I just can't, I just can't control my feet.*
> He slides down the hill on the skateboard seven times on his own (MJ 6/10).

Often MJ would be surrounded by others. MJ could be perceived by teachers to be playing with a group whereas in fact he was playing his own game within the group.

> *People think he's a social buzzy bee but if you look closely, he's not (MJ). He is playing in a group but playing on his own most of the time. He is making his own games and will play alone if the others don't follow his rules. He's in his own little imaginary world. He reads to himself, sings to himself and plays by himself (Teacher Anecdotal).*

> MJ lies on the floor in the Busykids room reading himself a book about treasure and treasure maps. He turns the pages one by one reading to himself. He reads the whole story and names the characters

of the story out loud whilst he's reading it (MJ Video footage).

I believe that this is because these two children find it difficult achieving intersubjectivity with their peers. MJ showed a desire to have play engagement with another boy who attended the centre only on alternate weeks. As MJ was a full-time enrolment, it was difficult for him to find a like-minded cognitive match. In Appendix T, he clearly indicated that he couldn't share his play with others because they wouldn't understand it.

It was also intriguing that MJ enjoyed playing so much with a Velcro ball and catcher. On every occasion that I saw him playing with it, he played with it alone, using each piece of apparatus in each hand (ambidexterity). When other children used this piece of equipment they shared it with a peer. One threw the ball and the other did the catching.

4.1.3 Pretend Play

Both children enjoyed engaging in pretend play both in freeplay time and were frequently observed making loud roaring noises as they played alone, with others or just generally walking around. Both children incorporated song in their play and appeared to often be in a world of their own. Observing pretend play in isolation of other children was of great interest to me as it seemed most unusual for three and four year olds to engage themselves this way in isolation. MJ was in the block area. He had set up two large blocks on the ground and was using them as skis.

> *MJ- Wow! I'm nearly at the end of the ice (Shouting out to nobody in particular). Look how far I've gone! I'm by the water (looking over to two boys). I need to get heaps of blocks to make a long boat so I can get over the water cos my skis won't take me*
> *Child- OK*
> *MJ- Actually this is a super duper skiing snowboard! Yeh! A big shark under there! (MJ 16/9).*

MJ was playing by himself during this symbolic play episode. He was engaging with the two boys nearby only by shouting over to them. This play lasted for ten minutes. Another observation (see Appendix T) showed evidence of solitary pretend play happening outside and suggests that MJ did not see his peers as having the ability to imagine and understand the play that he was engaging in. In other words, he didn't reach intersubjectivity with his peers.

MC's portfolio showed evidence of him dressing up and using symbolism in his play. In one photograph he was wearing two tambourines as hats. He acknowledged he liked dressing up,

> *Me- What sorts of things do you like playing at preschool MC?*
> *MC- Dressing up. I like being the doctors (MC 21/10).*

Throughout the data generation period, MC usually played alone, until his sister arrived after school where pretend play was a focus of their time together.

MC was playing alone pulling a trolley with three toys in it. Suddenly upon hearing a girl's voice, he dropped the trolley handle and ran inside. He saw his sister and started to jump up and down making boom boom noises and laughing. He pretended to fall over, then fell over deliberately and laughed. His sister entered the family play area and MC followed. He opened a cupboard of pretend play equipment, took all the equipment out, threw it on the floor and climbed into the cupboard. Another child tried to intervene.

> *MC- No this is my game. Sister give me that baby (MC 10/10).*

His sister gave him the doll and he cuddled it whilst inside the cupboard. MC and his sister then ran outside and she helped him to rewrap the doll.

During the day MC would often engage in solitary pretend play. This involved dressing up, talking to himself, using props such as the carrying of baskets with dolls, or climbing the tree with a doll in his hand and talking to it. It also involved a lot of play in the block corner with the cars and trucks and MC talking to the drivers. I

believe that it is unusual to observe pretend play happening in isolation of other children. With other children, pretend play was happening, but in groups. On one occasion, I observed MC engaging in pretend play with other children but he dominated the play and demonstrated solitary behaviours within the play. A child had approached him:

Child- I can be the mum
MC- I can be the monster

MC ran over to a play hut and the others followed. He climbed on top of the play hut and made roaring noises.

Child- I want to be the monster
MC- No you can't. I said I am (MC 23/9).

Three other children then joined them so there were four children inside the hut with MC on top of the hut making monster noises. He got down, put his head inside the hut and made more monster noises. Another child walked past and MC started chasing her making louder monster noises. A teacher called out for mat time and MC ran inside, all the way making monster noises. He held up his hands replicating paws. In this play instance, I saw a very rare glimpse of engagement between MC and his peers. His playing alone is discussed later in this chapter, however, MC was dominant during this play and although engaging with the group was still isolated in that the children were inside the hut and he was on top of it.

Solitary pretend play was also evident in the sandpit (see Appendix U). Here MC was using symbolism, surrounded by children, yet only engaging with the teacher. I observed MC engaging in pretend play on his own 47 times which indicated a very high incidence.

4.1.4 Undisrupted Play

Findings show that these children prefer not to be disrupted during play. They also demonstrate that when applying themselves to a task or topic of interest they can

concentrate despite disruption around them. Four teachers have commented on MJ's and MC's dislike of being interrupted when playing. Observations have also indicated this. There were a range of interruptions noted, mainly noise, people and centre routines. Firstly, MC disliked being interrupted by noise.

> MC is in the block area. He frowns at a child who is crying and moves away. *"He's too noisy,"* he says (MC 22/9).

When MC was playing in the block area for a long period with the cars and trains by himself, he verbalised to me that he didn't like being disrupted by centre routines.

> The teacher calls everyone to tidy up for afternoon tea. MC says, *"I don't want to. I want to line up my cars. We're going on a trip and the driver's not in yet" (MC 6/10).*

A teacher shared the following anecdote concerning MC disliking being interrupted in play by centre routines.

> Today MC was making a rather elaborate block construction. When the teacher called out to wash hands for morning tea, MC sat by his construction and put his arms over it. There were no children near. He looked at me and said, *" I don't want to eat. I want to keep building. Someone's gonna come and bust it up now"* (My Notes).

SD was a teacher whom worked with MC regularly. She also indicated that he didn't like being interrupted by centre routines and added that he disliked his play being disrupted by people also.

> *I see that in MC, like if he's interrupted. And it doesn't matter if it's a child or a teacher, he does get quite, quite upset. The worst bit is like mat times or something, when they've got to stop...that can definitely interrupt their play and upset them. When he (MC) was in the sandpit and stuff, like, you know, he's got his mind on what he wants to do, and if they interrupt, he doesn't like it. The other kids cope, who*

aren't, (not gifted) but the ones who are, don't like getting disturbed with what they're doing (SD Teacher Interview).

Feelings of frustration were also observed by another teacher.

MC gets very frustrated when others disrupt him (SJO Teacher Interview).

In contrast, SA (another teacher whom worked with MC regularly) held the opinion that if committed to a task that he enjoys at a deeper level (concentration), he will carry on despite noise disturbance.

When he's (MC) doing something that he likes, he really would like to continue doing it until he's had enough of doing it. If you interrupt him, he's not going to be very happy. He will sit by himself despite disruption on the couch all by himself and he will read the whole book through. There can be something happening right next to him and he'll just carry on reading his books (SA Teacher Interview).

I observed this level of concentration whilst MC was sitting on a couch reading a book with two other boys of similar size next to him. Altogether there were four children within three metres of MC. He examined each page of the book in close detail, often bringing the pictures up close to his face whilst the two boys on the couch jumped up and down and made a lot of noise. MC continued to inspect the pages despite his own body being jolted up and down with the movements and he smiled as he looked at the pictures (MC 15/9). These observations led me to believe that perhaps MC disliked his play being interrupted when he is engaging in play of a constructive nature, yet when committed to a task such as reading, his concentration is so intense that he is less reactive to noise. This viewpoint aligns with data generated concerning MJ who was sitting reading a book which had lots of text. The room was very noisy. MJ turned page by page very slowly. A child approached and leant on his shoulder.

MJ- No you can't read it. Go and do a puzzle. You don't know

the words (MJ 5/10).

Furthermore, there may be an association with possession of resources and protection of the constructions made. MC's dislike of having his play disrupted was different to other children at the centre. Other children (not gifted) appeared to be more accepting of the disruption of centre routines for example. MJ's teacher was conscious of MJ's preference for undisrupted play when constructing.

> *Sometimes he (MJ) doesn't want to finish, I will say look, can we move it over here, we won't break it, we'll move it over here, we'll have our morning tea, then you can go back to it. And he will accept that. He won't want it broken and I'll go, no, no, I don't think we need to break it, we'll just move it to one side (SJH Teacher Interview).*

Possessiveness of resources was evident in the block area.

> He stops what he is doing and watches as another young boy joins the area. He gathers all his cars up between his legs and watch what the other child is doing. The other child sits down. *"Hey! That's my tower" says MC and grabs the tower off the child. "These are not your cars (to the boy) they are our cars (looking at me) (MC 22/9).*
>
> MC lines up five trucks in a row. When a child approaches and tries to grab one of the trucks, MC places his arms around all the trucks. MC and the child start tugging at one of the trucks. *"That was my car,"* says MC (6/10).
>
> *Hey! I never said you could play here. This is my track and my train (MC 21/10).*

MC appeared to dislike being disrupted in this way. He appeared threatened concerning ownership of space and resources.

> *No! There's no room. This is my space (MC 21/10).*

I also considered that MJ could repel his peers because he viewed them as disruptive to his play.

> *He (MJ) doesn't like it when he's playing with something and someone else tries to touch it or wants to share it. He gets very possessive of his space and his things (Teacher Anecdotal).*

4.1.5 Rules Orientated Play

Findings demonstrated that both children are strongly rules-orientated individuals and that rules awareness was evident in their play and in relation to their play. These findings appeared aligned with dominance exhibited in play situations and when acting as an expert to others, especially their peers. Data shared in this section incorporates mat time experiences because mat times contain playful experiences for children and are a regular component of the child's curriculum. Mat times are opportunities for rules to be followed, such as sitting on the mat, sitting quietly, looking at the teacher, putting a hand up and listening to a story.

> *He (MC) always follows the rules at mat time like putting his hand up (Teacher Anecdotal).*

> MC waits patiently for his name to be called. The teacher reminds them to stay seated on the mat until their name is called and MC remains seated (MC 23/9).

> *Me: do you think he (MJ) likes the structure of mat times?*
> *SJH: I think he does. He likes that. And it's got to follow a set pattern or he'll remind me I haven't done it. I think he does like the structure and if I alter the routine at all, well, he'll tell me (SJH Teacher Interview).*

MJ demonstrated an awareness of centre rules regarding adult: child ratios whilst playing outside one day. This was an unusual awareness because there already was one teacher outside, but MJ appeared to know that there were too many children for

this one teacher. Perhaps he had overheard the two teachers talking about one needing to leave the area, and he decided to help solve the problem by approaching me. With either way of thinking, MJ clearly had an interest in ratio rules that other children may not have demonstrated and he was willing to stop his own play to help. He also took ownership of the problem.

> *Can you help us out by looking after us so that SJH (his teacher) can get the vacuum cleaner because there isn't another teacher outside? (MJ speaking to me 17/9).*

During play where groups of children were clustered together, the rules orientation of the two children became clear. Outside one day, MC was playing alone with some blocks and he noticed a child that was too young for the Busykids programme was trying to go into the Busykids room.

> *MC-Hey Sammy you're supposed to be over there. You are in the wrong home. You know you're not allowed to go in there (yelling) (MC 22/9).*

MJ was quick to tell other children that they were breaking rules by not using equipment properly. When a child was using equipment incorrectly on the slide:

> *MJ- You're not allowed to do it with those (MJ 6/10)*

In the Busykids room MJ never showed interest in framed puzzles yet corrected a child when she had the pieces to the side of it upside down.

> *MJ- That's not how you do that puzzle. You're doing it the wrong way round (MJ 5/10).*

MJ was the only child in the Busykids room to tell the teacher that she had broken the rules of a learning experience. Cooking was happening and all the children were stood around one large table whilst the teacher directed.

MJ- No SJH! (talking to his teacher) You've got it wrong!
It's x's turn.
MJ- (talking to another child) Push that bowl the other way. That's not the right way. You're breaking the rules and we won't get our turn (MJ 17/9).

Admittedly if process cooking had been a regular feature of the centre programme, I might not have generated this evidence, however he was seen to tell her she had the rules wrong again on another occasion when they were playing outside. There was a small group of five children and MJ was engaging in open-ended play throwing blocks in the air to see how far they could 'fly'.

Tchr- Wood is a little bit dangerous. We need to find the beanbag
Child A reaches to take one of the pieces of plastic ramp.
Another child snatches it first and child A. starts crying.
MJ- Hey! (yelling at the snatcher) Let child A have it!
Tchr- No let him have it MJ. You have to share.
MJ- No SJH! You've got it wrong! Child A didn't have it yet.
No that's child A's
Tchr- MJ (stern look)
MJ- No! Child A was going to take it. She didn't touch it! (very frustrated, clenching fists, gritting teeth, stamping right foot)
Tchr- MJ!
MJ- No SJH! You've got it wrong! She was going to put her hands on it, but her hands were not actually on it! (MJ 16/9).

I was impressed that MJ advocated for another child because he knew that 'snatching' equipment was unacceptable behaviour. His strong sense of justice came to the fore in this situation. He saw this as breaking play rules, one of which was to be kind and considerate of others and that if you see someone is going to use something you don't quickly snatch it first. This was indicated when he turned to me and said,

No-one sees what I see. That was wrong, SJH (his teacher)

is getting old. She needs new glasses cos she didn't see him snatching it. The rules are no snatching (MJ 16/9).

A similar incident of 'snatching' toys happened later that day. MJ intervened as the teacher didn't see what the commotion was about.

That's not your track. That's T's track (shouting and pointing) (MJ 16/9).

On another occasion MJ noticed that his teacher was telling the wrong person off for something that they didn't do. MJ had seen what had happened from far across the playground. He shouted across to his teacher raising his hand as if to indicate 'stop'.

MJ- No no SJH! (his teacher). That is not what happened.
You've got it wrong SJH! Child x is inside! (MJ 17/9).

There was concern shown during play for how equipment was used.

MJ- It's not Hopscotch. That's not how it goes. You don't jump on puzzles. I'm going to tell SJH (his teacher) when she gets back (MJ 5/10).

MC- No that's not how you put it in the play oven! You're spoiling it.
The paints go over there! (MC 21/10).
MC- that doesn't get used like that. You're not following the rules.
They not allowed in the sandpit cos they get ruined (MC 21/10).

For MJ rules orientation was also linked to competitive play. He was skateboarding down the hilly concrete on his own. Another child started skateboarding next to him. They both started out at a similar time.

MJ- No way! You didn't start correctly!
Child- yes I did
MJ- No you didn't
Child- yes I did
MJ- cheat, cheat, cheat on his feet

Child- yes I did do it right
MJ- If you want to race me, you have to have the right start or I won't play with you (MJ 16/9).

Clearly MJ was engaging in a game where rules had to be followed. He considered his peer a cheat, for not following the rules of the game. The peer had no regard for the rules that MJ was trying to impose on him. On another occasion outside he was engaging in pretend play on his own and a child wanted to join in. He imposed the rules before saying whether she could play with him or not.

This is the king's ladder and I am the king. If you want to play, you will have to be the queen (MJ 10/10).

MJ dominated play by expressing the rules under the outside fort when a peer wanted to follow him making loud noises along the bark area.

I'm telling you. You are a fish and I'm going to eat you. That's the game because I'm the daddy crocodile (MJ 6/10).

His teacher gave him the task of setting up a new teaset. Several children were sat around him waiting for him to set it up. Being the keeper of rules came to the fore again.

Now wait a minute! Everyone can't play with the teaset (MJ 16/9).

MC was directed by the teacher to put all the blocks back tidily on the shelves ready for lunchtime. MC followed her directions. Another child came and tried to help but put the blocks back the wrong way.

MC- Hey! They don't go that way. <u>The rules are that</u> they have to go longways so you can see them (MC 21/10).

Summary of Play Preferences

To summarise, both children demonstrated the preference for open-ended play, solitary play, pretend play, rules orientated play and undisrupted play. MJ was highly competitive in his play and evidence of this could not be seen in MC because of his lack of engagement with his peers. Both MJ and MC liked to play on their own and at times were very sensitive to noise and other disturbances around them, such as centre routines. Evidence strongly suggests that MJ and MC disliked being disrupted in their play. There appeared to be a preference for solitary play, even when engaging in pretend play, perhaps because of the lack of intersubjectivity reached with their peers. Open-ended play is preferred because there is no pressure to produce an end-product and because these children enjoy high use of the imagination which can truly flourish through play processing. This includes the sheer joy of surprise during play. MJ enjoyed competitive play perhaps because he sees competition as an intellectual pursuit. Both children were keepers of rules and routines during play and in relation to play.

4.2 Interactions

The third research question asked what interactions occurred during play. Four themes emerged from the data, these being:

- Teacher/adult preference
- Repelling and ignoring peers
- Dominating and leading peers
- Views self as teacher's peer and helper

I now disclose the findings in relation to this research question.

4.2.1 Teacher/Adult Preference

Using the written recordings only (running records, anecdotal recordings and time samples) results clearly showed that both children had a preference to be with the

teacher and had 'one eye and ear' on the teacher during play. I observed MJ showing preference for the teacher as a play partner on 28 occasions in comparison to preference to play with a friend on only four occasions. Similarly, MC has shown preference to be with, converse with or have 'one eye and ear' on the teacher or his older sister on 31 occasions (teacher = 25; sister = 6), compared with no observations taken at any time where MC actively chose to play with a peer. MC played alone during the day for the majority of time but became very excited when his sister arrived after school and was fully engaged in pretend play with her on every occasion observed. He was also seen to initiate games with his sister even though she was unaware that she was playing with him. These types of interactions and play initiation with his sibling were never evident with peers.

> MC sits down on the bark alone, picks up a leaf with his left hand and examines it. He shouts *"One, two, three, four, five, six seven, eight, nine ready or not here I come!"* He jumps up and runs towards his sister. *"Found you found you.* His sister says, *"I wasn't hiding."* *" Found you found you,"* MC says (MC 6/10).
>
> *MC likes interaction with teachers and other parents (Teacher Anecdotal).*
>
> *I like being with SA (teacher). She's kind (MC).*

During play in the sandpit, MC and I struck up a conversation about friendship. Friendship was an aspect of MC's life of particular interest to me as he appeared to repel his peers and I was trying to investigate whether he had an imaginary friend at the centre, but could not gather evidence to this effect.

> *MC- He's being naughty eh? (talking about a child nearby)*
> *ME- Is he a new friend?*
> *MC- No he's not my friend*
> *ME-Who do you like playing with?*
> *MC- My mummy (MC 21/10).*

MC's preference for his parents and older sister became more evident in his interview.

ME- Who are your favourite friends?
MC- My mum. Yes my mum or my daddy (MC Child Interview).

MC- I want to play with that thing (points to the tape recorder) or play by myself or play with A. (his sister) but she doesn't come all the time cos she's five now and I have to wait all day to see her.
ME- Your sister sounds like she's fun to play with
MC- Yes and mummy (MC Child Interview).

In MJ's interview he articulated clearly his preference for his teacher (SJH). His teacher was aware of this preference for her attention.

ME- So who's your favourite grown-up at.....?
MJ- SJH (his main teacher)
ME-Why do you like SJH so much?
MJ- Because she's my favourite teacher
ME- She's a nice teacher isn't she?
MJ- Yeh but when I do bad things that SJH don't like she tells me off, but I , I still love her when she does that
ME- Do you like playing with your friends more or with SJH more?
MJ- I like playing with SJH (his teacher) more (MJ Interview).

MJ likes one to one. He does like that, if I spend time with him. If I'm not, if I'm spending time with other children, he will come and stand over me, to ask when it's his turn. I suppose he just likes that older person . MJ likes me to play with him. He chooses me. I know I've got a challenge, that I have to meet his needs and move him on all the time (SJH Teacher Interview).

During play, his preference for his teacher was very evident. I offer only a small portion of the analysed data concerning teacher preference.

> MJ smiles when he gets to hold the teacher's hand. One boy asks to hold his hand and MJ pulls away and frowns. On the way back, MJ suggests to the teacher who should hold open the gate. When a child stands closely to him, MJ moves closer to the teacher. *"I am only friends with SJH"* (his teacher) (MJ 15/9).

MJ preferred interaction with her rather than with peers first thing in the morning.

> MJ spotted his teacher (SJH) out on the deck when he arrived at the centre. He bypassed the children and resources to go and speak with her. When his Dad left, he went to hang his bag up and then had a conversation with his teacher (MJ 17/9).

MJ sought out his teacher during play.

> Suddenly he looks over to his teacher, gets up and walks towards her. He finds a large ball and picks it up. He follows his teacher around the playground .....*SJH will you sit down with me?* (MJ 17/9).
>
> *MJ- SJH (his teacher) will you sit down on the skateboard and have a race with me?*
> *SJH-How can I fit on it? I don't know if I can skateboard*
> *MJ- Get down on it. Lift your feet up off the ground and let yourself go.*
> *The teacher does this and the skateboard moves slowly.*
> *MJ- There! Now you know how to do it*
> *SJH- I'm not as good at it as you*
> *MJ-Maybe I'm just jealous of girls (MJ 17/9).*

Furthermore, he sought her out as his play partner rather than interacting with peers. MJ asked his teacher to play hoops with him. There were four other children adjacent to him. One of the boys attempted interaction by rolling his hoop to MJ.

> *MJ- Get out of the way! (MJ 17/9).*

There were now six children around. MJ and the teacher continued to roll the hoop back and forth and engage in dialogue together. MJ only interacted with the teacher repeatedly rolling the hoop to her 13 more times.

Both children had 'one eye and ear' on the teacher during play. When in group situations MC and MJ 'tuned in' to the teacher indirectly.

> MC is at the kai table surrounded by children talking and shouting. He looks up at a parent that enters the room and is watching and listening as she speaks with a teacher. He watches another teacher as she passes the plate around and gives some instruction. He turns around to listen to the conversation of the parent and teacher behind him. He watches her intently whilst eating the second piece with his left hand. He watches the teacher organising the drinks, then turns his head and watches a teacher talking to another adjacent to the kai tables (MC 6/10).

> Ten children and SJH (the teacher) are in the Busykids room. MJ is playing alone with two planes on the carpet. SJH is across the room reading to another child. The room is noisy. MJ is pushing the planes on the carpet and watching the teacher. He gets up and walks over to listen to the story. He lands his planes on a bookshelf near the teacher. He snuggles into the teacher and has his left arm around her shoulders. He returns to the floor and as he is playing he looks across to the teacher who is talking to a child about hammering a nail (MJ 16/9).

MC was acutely aware of the sounds and emotions of the teacher. He was playing inside as it was raining. MC stopped to look out the window.

> *MC- Hey! Sunshine! I can hear SH (one of his favourite teachers) (MC 22/9).*

On another occasion he spoke to me about one of his other teachers, indicating that he had been very aware of her emotions. This was a further indicator of his affective giftedness.

> *SH looks sad today. She hasn't been laughing. I've been watching her (MC 21/10).*

MJ showed a heightened awareness of his teacher's presence or absence.

> SJH (his teacher) has left the room to take something next door. There is a window in the room and as soon as she leaves, MJ stands at the window and watches her movements (MJ 17/9).

> He keeps an eye on his teacher whilst sticking the ball on and off the Velcro catcher (MJ 17/9).

4.2.2 Repelling and Ignoring Peers

MJ and MC were approached for play by peers. MJ was approached by a peer on seven occasions and MC was approached once. Both children approached their peers directly for play at a minimal occurrence (MJ, four times, MC, three times) during the data generation period. In the case of MJ, approaches to a peer were made by shouting at the peer across the playground. Often it was over the possession of resources or his awareness of rules and the shouting was with authority but not unfriendly. Peer interactions were interesting to notice. On ten occasions, MJ clearly repelled his peers and on 28 occasions, MC repelled his peers. For MC this occurred at the kai tables:

> MC ignores any attempts at interaction with him by those who sit nearby (MC 22/9).

And during play:

> *This isn't about robots. Go away! (MC 6/10).*

MC repelled peers through non-verbal language.

> MC is in the sandpit. He is frowning at a child who tries to play with him. He looks at his hat lying on the sand and looks at the child and frowns again at him. He drops the two spades on top of his hat and holds his hand on them and turns to the child and frowns. He looks at me and smiles. A parent arrives and he runs to her (abridged). (MC 6/10).

In his interview he articulated that he didn't want to share open-ended play and that he felt protective of ownership of his play.

> *ME- So which friends do you like to play with at (centre name)?*
> *MC- Nah. I don't wanna play with any of them and I don't want them to touch my tracks or my trains (MC Child Interview).*

He repelled peers for being too noisy using verbal and non-verbal language:

> *He frowns at the child next to him when he speaks and laughs.*
> *MC- be quiet! You're being noisy you are! (MC 6/10).*

MJ was also observed to repel his peers. On a trip outside the centre to post letters, a child attempted to hold hands with him. When the child moved closer to him and gestured this, MJ moved closer to his teacher.

> *MJ- I am only friends with SJH (MJ 15/9).*

He also repelled conversational interaction during play. A child next to him at the drawing table started to converse.

> *MJ- Leave it! I'm not talking to you. Stop trying to ask me things. I'm talking to the teacher (MJ 16/9).*

Sometimes he repelled his peers non-verbally also. Once I observed him use toy planes to push other children's planes away. Another time he threw a ball at a child that asked to play with him. What is unusual about the repelling of peers is how often it occurred and the context in which it occurred in that it was usually followed with language that indicated the children preferred to interact with the teacher. Both children were three and four years old. Others their age were interacting in small and larger groups.

4.2.3 Dominating and Leading Play with Peers

There was little opportunity to notice MC leading and dominating play as he played alone for the majority of time and only attended the centre twice a week. However, MJ was observed to be leading and dominating his peers on 20 occasions. Although MJ was seen to repel peers often, when he did initiate play interactions he soon became the leader of the play, dominating it and its direction. He could also be highly competitive. Evidence of this was noticed on several occasions.

> *I like games but I only like them if I can be the winner. I'm really good at tumbling monkeys. I always win. I want to win win win, what a spin that's what I want to do (MJ 5/10).*

> MJ is skateboarding and another boy is skateboarding alongside him.
> *MJ- I beat you*
> *Child- No you didn't*
> *MJ – Yes I did. You didn't win because you stopped short of the mark*
> *Child- Let's do it again then*
> *MJ- Yes let's do it again*
> They both travel down the concrete hill.
> *MJ- I went faster than you (looking at the child). I went faster than him. I won (looking at me) (MJ 17/9).*

> MJ has been skateboarding again on the concrete hill
> *Child- I beat you*
> *MJ- I can beat you quicker*

MJ- bring your skateboard up and let's have another race together. Let's do it again. Get your skateboard!
Whilst the other boy is getting his skateboard, MJ slides down the hill on his own.
MJ- I beat you! (shouting across to the boy) (MJ 17/9).

The rocket man has fallen off. I get to go quicker than you. Mine's got more power than yours. I'm faster than you and I can do it without holding with my hands (talking to another child about skateboard racing down the hill) (MJ 6/10).

MJ enjoyed winning. My impressions during data generation were that MJ found achievement satisfying and the process of competing, intellectually challenging, especially when he could enforce the rules. At times, MJ dominated 'from the side' of play, not directly involved in it, but just outside the parameters of it. If a peer hovered near to him whilst he was engaging in pretend play alone, MJ would read the body language of the child and interact dominantly.

Now listen <u>I've made this game</u> and you have to say gates or the gates won't open (MJ 6/10).

That's not the front of the fire truck. This is the front. This is my fire truck and you have to follow my directions (MJ 5/10).

MJ- You can hold it but you have to do what I tell you.
Child- OK
MJ- <u>This is my game</u>
Child-OK (MJ 5/10).
Child- let's sing row row row
MJ- No not yet. I've told you to wait. First we have to sing row row in full then we get to the screaming bit. When we get to that bit you can eat me. Right, let's sing (MJ 5/10).

He's in control (MC) and sets the game up. He gets upset and angry if someone tries to change anything (Teacher Anecdotal).

Dominance of play and leadership in play appeared attached to MJ's view of his ownership of the play frame. Peers accepted this dominance because they wanted to play with him. In short, MJ usually initiated play when he could lead that play. He appeared to be creating the rules of games and although this finding is linked to rules-orientated play also, this finding implies that interaction occurred in situations where MJ could dominate and lead.

4.2.4 Views Self as the Teacher's Peer and Helper

MJ saw himself as the teacher's peer and helper. Indication was also evident that MC viewed himself as the teacher's peer. MJ viewing himself as the teacher's helper is evident in the following observations.

Poor SJH (his teacher). I have to help her. She can't see everything all the time (MJ 17/9).

MJ bends down next to his teacher to look at one of the crying children. When his teacher goes to speak to the perpetrator, MJ follows her with his hands on his hips (MJ 6/10).

MJ was at the clay table with 12 other children his own age, MJ interacted with the teacher. His body was turned to where the teacher was sitting. He moved behind the child next to him to be right next to her. He whispered in her ear,

MJ- one of the babies is making a mess. He's got clay on him like a mask (MJ 10/10).

In that observation, I noticed that MJ saw other children his age as babies or younger than him. He viewed himself as a helper to the teacher for spotting the fact that one of the children had clay all around his mouth.

On occasion, MJ interacted with me as though he was an adult with some authority.

> *Now you can say it (controlling the interview). Now you can go back on your tape recorder (MJ Interview).*

Interestingly a teacher has commented on this type of adult conversation concerning MC.

> *At the odd time, the way he (MC) has said something, it's like he's my colleague or an adult (Teacher Anecdotal).*

There were no qualms for MC to refer to me as silly. I suggest that this is language that perhaps a child would normally use with his peers, not a teacher or researcher.

> *It's upside down silly (talking to me). Turn it right. Hurry up. Hurry up. Read it. Read it. ABCD (MC 21/10).*

MJ and MC have been observed to refer to their teachers or myself, as a 'pretty girl' or a 'girl' on several occasions. I suggest that the term 'girl' used, was evidence that these children viewed themselves as the peer of the adult and that it is unusual to refer to adults as a pretty girl.

> *MJ- Cat, Cat, poor Cat, she's such a pretty girl. You're such a pretty girl (MJ 10/10).*

> *MJ-I've been thinking about you this morning*
> *Me- That's nice*
> *MJ- Because you're pretty*
> *Me- Do you think SJH (his teacher) is having a nice holiday?*
> *MJ- Yes. She's one of the pretty girls too (MJ 5/10).*

> *MC- I like you writing stories about me because you are pretty. SH (teacher) is pretty too and SA (teacher) (MC Anecdotal).*

Me- Why do you like SH sitting on the chair? (talking about mat times)
MC- Because she's pretty (MC 21/10).

Results Summary

It is now appropriate to summarise the central points raised in this chapter. The two children were advanced in their knowledge and language, able to act as expert to others during play and conscious of keeping to rules in relation to play and other aspects of the curriculum. They exhibited many characteristics of cognitive and affective giftedness in their play. Play preferences have been identified. These children preferred open-ended play where there was little disruption to the play. Pretend play was engaged in frequently but this study highlights the unusualness of engaging in pretend play so frequently in isolation of others. The two children preferred to interact with the teacher and chose the teacher as play partner, sought out the teacher during play and had 'one eye and ear' on the teacher. However, due to the high incidence of repelling and ignoring peers and of dominating play when engagement did occur, I suggest that these children failed to have deep relationships with other children at the centre. Both children viewed the teachers and writer as pretty girls; terminology used to explain that perhaps no difference was seen cognitively. These findings are discussed in the following chapter, making direct links with information from the preceding literature review and other literature.

DISCUSSION

This chapter will discuss the findings of this study, where two children have been investigated in one early childhood setting and draw considerations from relevant perspectives, these being that:

- The characteristics of giftedness exhibited during play and in relation to play will provide insight for early childhood teachers and further assist their understanding of the phenomenon of giftedness. Evidence from the previous chapter demonstrates that these children have characteristics that are aligned with current definitions of giftedness and that these characteristics are exhibited during play and noticed by myself and early childhood teachers.
- This thesis recognises that young children who are gifted need a response from teachers that supports their play as part of the curriculum, particularly with regard to understanding their play preferences and interactional behaviours.

The three research questions were:

- What characteristics of giftedness are evident in young children's play?
- Do these children demonstrate particular play preferences?
- What interactions with teachers and other children can be observed during play?

The findings will now be discussed in relation to literature in the field of gifted education and early childhood education. Discussion will be guided by the three research questions rather than the emerging themes identified during analysis. This is due to the strong inter-linking of evidence and ideas within the findings, such as links between boredom and frustration, between solitary play and the repelling of peers and between pretend play and imaginative, abstract and conceptual thinking.

5.0 Characteristics of Giftedness Evident during Play

One fundamental implication of this research is that both children exhibit characteristics of cognitive and affective giftedness during play and in relation to play (pp.58-84). MJ and MC demonstrated an ease and speed of learning and outstanding abilities (pp. 39-40). These characteristics aligned with the definitions of giftedness by Gagne (2004) and Harrison (1999). In short, these children demonstrated distinctive profiles (Roedell, Jackson and Robinson, 1980) and this was observed through a range of observations taken and affirmed by teachers in the centre (p.37-41).

Findings showed that MJ and MC were capable of producing mature expressions of their learning (pp.58-61) and demonstrated advanced thinking and knowledge (pp.58-61) for their age. These findings concur with those of other research globally (Davis & Rimm, 1994; Harrison, 1999; Perleth, 1993). Teachers in this study perceived these behaviours as advanced and unexpected for children of this age. There was evidence that both MJ and MC had a sound general knowledge (p.60) and were very motivated to learn, particularly in the areas of numeracy and literacy (pp.80-82). These observations were apparent during play. This advancement could pose challenges for early childhood teachers. Rogoff (1990) emphasised the role of the teacher in order to help children with new learnings. Young children who are gifted require opportunities to be exposed to and use vocabulary and concepts typically used by much older children. Furthermore, the role of the teacher is to recognise and respond and co-construct in order to enhance learning.

According to Dockett and Perry (1996) appropriate challenges should be provided at a level beyond the reach of the child during play. This could be said for all children; however, as a characteristic of young children who are gifted is the ease and speed of learning (Gagne, 2004), the views of Dockett and Perry (1996) are particularly attuned to young children who are gifted, for the purposes of this study. Additional support offered during play, could match the interests and abilities of the gifted child.

Teachers indicated in this study that the two children get bored and need a faster pace of delivery (p.77). These findings concur with those of my earlier study (Murphy,

2004a) and those of Gross (2004) and Harrison (1999). Acceleration could be one type of response appropriate to the ease and speed of learning of gifted children. Acceleration is not a term used in early childhood education discourse, however in order to respond to the speed of learning demonstrated, a faster pace of play activity may be required and demonstrated, for example when playing dice games or learning new songs. Townsend (1996) suggested that acceleration provides mental stimulation which is required by young children who are gifted. Acceleration would align the abilities and learning needs of the child more closely during their playful experiences, such as when early childhood teachers are playing games such as guessing games. The type of differentiation that could be offered would be timing the answers, competing or playing off against the teacher. It could involve introducing concepts in play at a more advanced level, for example playing hide and seek counting in tens, rather than in ones. Acceleration is described as when children are exposed to new learning in their play at an earlier age, or learn a concept in a faster time (Townsend, 1996).

MJ indicated that delivery was slow at times for example at a cooking experience (p.76) and the springtime group project was progressing too slowly for him (p.63). Early childhood teachers can recognise the need to teach a particular skill for mastery at a faster pace than normally would be taught during playful experiences and at other times. During playful group experiences for example, other children may require repetition in instruction in order to grasp the concept of the play, whereas young children who are gifted will not require this. Acceleration differentiates the timing of the introduction of content and/or the rate of coverage (Ministry of Education 2000). Clearly this level of mental stimulation was not happening for MJ in the cooking experience. If acceleration is undertaken by teachers however, careful assessment practices would need to ensure that young children who are gifted do not have gaps in their learning created by this method of provision.

Enrichment is another option. Child-initiated learning during co-constructed project work is one way to achieve this in the early childhood environment (Jordan, 2003), providing more time for the application of exploration and discovery learning (Harrison, 1999). In the Springtime project, MJ could work at his own pace further

developing the wall montage at any time of the day, rather than during teacher-directed episodes.

It seems coincidental that both children were ambidextrous (p.72), This finding may promulgate the need for further research in this area. Both MJ and MC were highly visual children (p.66). Silverman (2002) suggested that gifted children with visual spatial ability tend to be ambidextrous and that this indicates "strong development of both hemispheres" of the brain (p.63). Other research in this area was not forthcoming. Silverman (2002) asserted that visual-spatial ability is another way of being smart. Both MJ and MC demonstrated a vivid imagination (see pp. 64-69) which according to Silverman (2002) is a "thin line between reality and fantasy" (p.128). The extent of the extraordinary spatial awareness of MJ when he shared his views of Peter being inside superman is apparent (see Results Introduction, p.57). He was able to clearly visualise and articulate the difference between reality and pretence.

Furthermore, Silverman (2002) suggested that gifted visual learners "can learn by auditory sequential methods, but learning that way often feels boring" (p.63). This could explain why boredom occurred at times (p.77). Teacher interviews were insightful in that they recognised that boredom existed for these children (p.77). Silverman (2002) stated that if integration of information between the two hemispheres of the brain are conducted well, "highly gifted individuals usually can rebel against drill and repetition because they don't learn from these processes" (p.63). MJ acknowledged that he was bored (p.76). In addition, MJ had a concept of whether things were easy or hard (pp.62-63). MJ viewed easy concepts and tasks as being boring and gained no satisfaction from them. According to the arousal seeking, modulation theory of play (Berlyne, 1960), the arousal levels for both children were at times below optimum levels. MJ found the idea of playing 'mummys and daddys' boring. He wanted to play 'kings and queens' (p.77). This suggests that play has to be more detailed in the play arrangements. He was bored inside both buildings (p.75) despite a wide variety of resources on offer, in particular in the larger building. I suggest that MJ saw outside as more stimulating because there were greater opportunities for open-ended play with the resources he enjoyed, such as hoops and

skateboards. In short, I believe that MJ viewed boredom as periods in play where he was not learning.

According to Silverman (2002) working hard concerns mastering a skill or concept, which is sufficiently challenging for gifted children and it is only through working through difficult or challenging material that true learning occurs. MJ associated high ability with working hard (see p.63). In an early childhood centre co-constructed authentic learning around topics of interest to the child could further facilitate this (Jordan, 2003, Rogoff, 1998).

MJ and MC both demonstrated an interest in abstract/conceptual themes and ideas (pp.64-69). MC demonstrated an interest in time, flying and surprise (pp.67-69). MJ demonstrated an interest in flying, time, speed, distance and surprise (see Appendix T). He had a keen interest on maps of the world which further identified his spatial abilities (p.66-68; see Appendix T) and broadened his interest in flying and treasure maps. This finding concurs with international gifted education research (Riley, 2004; Roedell, Jackson, & Robinson 1980; Hollinger & Kosak 1985; Lewis & Michaelson 1985; Parke & Ness 1988; Van Tassel-Baska 1988; Lewis & Louis 1991). It also provides insight to early childhood teachers who may give further consideration to the exploration of conceptual themes as topics of learning, where there can be sufficient discussion and exploration of the abstract and conceptual at more advanced levels of understanding. This type of response would offer further enrichment.

MJ and MC were highly imaginative during play, for example, MJ spoke of pictures in his head (p.66) and MC thought outside the square when asked to paint a flower picture (p.61). This finding concurs with those of Gagne (2004), Gross (2004), Harrison, (1999); Murphy (2004a) and Porter (1999). Silverman (2002) emphasised that "from the time they're young children until they reach old age, visual-spatial learners look at every object as raw material from which to construct something else" (p.246). This view explains MJ's imaginative ways of using resources in new ways such as the blocks he adapted as transporting skis to cross the water (p.90) and of his use of space as a raw material to create a home, without requiring props (p.64). Pretend play (which is discussed further in this chapter), guessing games with the

teacher, the telling of stories and promotion of child initiated open-ended play (also later discussed) are vehicles through which the high use of imagination can be nurtured in an early childhood setting.

High degrees of curiosity and a love of learning were characteristics evident at times across a variety of play experiences (pp.82-84), including mat times. Curiosity is recognised as a cognitive characteristic of giftedness (Allan, 1999; Gagne, 2004; Harrison, 1999) and is closely interlinked with being highly imaginative. Intense questioning was perceived by early childhood teachers to be challenging (Murphy, 2004a) and similar findings were evident in this study (pp.38-41). A teacher who provides answers or asks closed questions constrains opportunities for exploration and discovery (Maker et al 1996). Open-ended questioning and a willingness to co-construct learning during play, is crucial when engaging in critical thinking dialogue with young children who are gifted. Open-endedness implies that it's OK for a child to know more than the teacher. If creativity involves fluency, flexibility and originality of thought (Renzulli & Reis, 1986), then open-ended discussions stimulate the 'creative juices' of a child, encourage playfulness, allow full use of imagination and promote openness to new playful experiences. These skills are important for teachers to encourage in all children. However, in order to support intense curiosity during play, teachers can remain aware that gifted children may have advanced knowledge to the teacher or advanced development such as a heightened interpersonal awareness, therefore sensitivity and the avoidance of assumption are required. Riley (2004) highlighted the foundational strengths of critical and creative thinking skills by stating that these skills lay the foundation for learning. This researcher emphasised the importance of the higher order thinking skills of Bloom (1956) and the opportunity to encourage this thinking through engaging in open-ended enquiry.

Frustration and perfectionism are closely interlinked and evident in the findings (pp.61-64). Perfectionism is recognised as a characteristic of affective giftedness (Harrison, 1999; Moltzen, 2004) that may be evident in play. Play scenes or other playful experiences such as singing had to be re-enacted because they were incorrect or out of sequence (p.61). This can have huge implications for the child (frustration), the other children (who may not have the same understanding or reasoning) and for

the teacher (time and patience). There can be implications on the centre as a whole, for example MC taking a long time to wash his hands. Routines such as this, are commonplace in early childhood settings, but having a child be meticulous about this can lead to unnecessary queuing and possible conflict. In short, ways need to be found to allow the meticulousness of the young child who is gifted, without causing conflict.

MJ and MC had an unusually keen power to make connections and perceive relationships. The heightened interpersonal awareness of the two children in this study have been noticed (p.69-72) in particular their empathy for their teachers. This degree of interpersonal awareness demonstrates affective giftedness and concurs with the findings of other researchers (Gardner, 1993; Harrison, 1999; Porter, 1999). I suggest that young children who exhibit interpersonal giftedness can perceive people and situations with advanced and deeper clarity than other children. This sense of internal 'knowing' places them in a position where they can show their mature expressions, act as an expert in situations and connect with the teacher in ways that others cannot. This connection in turn further enhances the construction of intersubjectivity with the teacher. I believe that MJ's interpersonal giftedness demonstrated when discussing being a researcher with me was very advanced (pp.70-71).

Both MJ and MC were viewed by their teachers as either being advanced in their humour, or seeing humour in the unusual (pp. 73-74). Research about humour has its inconsistencies (Barnett & Fiscella, 1985). Harrison (1999), Murphy, (2004a) and Porter (1999) have all provided research-based evidence to suggest that this occurs during play. Silverman (1989, p.75) asserted that " a good sense of humour.....is a mark of giftedness, but the degree of sophistication of that humour increases with ability". It is my view that this level of sophistication aforementioned was seen in MJ, in particular on the occasion that he did not achieve intersubjectivity with his teacher about his comments concerning Spongebob (p.74). In addition, both children were observed using repetitive and rhythmical language during play, which I consider to be most unusual (p.75).

Evidence does suggest that the unique characteristics of young children who are gifted dictates the need for qualitative differentiation in some way (Walker et al 1999) so that maximisation of their learning potential during play and in relation to play can occur. The review of literature in this thesis acknowledged that play leads and influences development (Vygotsky, 1978). Qualitative differentiation is not a term commonly used in the discourse of early childhood education, but is widely used, discussed and researched in the international sector of gifted education and it can involve enrichment and acceleration (Van Tassel-Baska 1994; Patterson 2000). Meaning-making and co-construction (Jordan, 2003) could align with the concepts of enrichment. MJ indicated that quantitative differentiation would have stimulated him during play in the Busykids room (p.77) when he indicated that he wished there were more three dimensional floor puzzles to do. MJ's teacher was aware of this faster pace evident during play (p.39). MJ indicated he would be responsive to qualitative differentiation when he added *"or bigger ones or harder ones"* (p.77).

Early childhood curriculum does emphasise responding to individual needs (Ministry of Education, 1996) and as play is a major component of what a child experiences in an early childhood environment, personalising education for young children who are gifted can occur. Personalisation can take into account the atypical interests and constellation of abilities of the gifted child which become evident in their play (Wolfe, 1990). Furthermore, this personalisation can allow for differences in development, the individual's approach to learning, understanding and interests when teachers are planning their programmes, to ensure sufficient variety and depth to support these children during play experiences (Dodge & Colker, 1992). Experiences where young children who are gifted can apply themselves for long periods until their curiosity it satisfied (Renzulli, 1977) is one option (enrichment). Teachers being aware of engaging in a faster pace of thinking, facilitating and direct engagement during play is another (acceleration). In short, young children who are gifted require depth and breadth of knowledge and challenging complex learning experiences in order to be stimulated in their play (Harrison, 1999; Porter, 1999). Some of this falls within the free play they choose to engage in as for some children motivation may be strong enough to self-challenge during play. Some falls with the responsiveness of the teacher to giftedness as playful experiences are occurring.

5.1 Play Preferences

The second research question asked whether these children demonstrated particular play preferences. Motives underlying my questioning of play preferences were two-fold. Contextually, New Zealand early childhood play settings may differ in structure, function and play materials compared to overseas, where the aforementioned literature has been generated. In addition, play is a vehicle for a child's learning (Docket & Fleer, 2002; Parke & Ness, 1988).

The literature reviewed for this study emphasised that intellectual games and pursuits are preferred by young children who are gifted (Grant, 2002: Gross, 2004; Hollingworth, 1942; Silverman, 1989), however opportunity to observe these types of pursuits were not available during the observation periods. Five play preferences were identified and will now be discussed.

Open-ended play was preferred by both children in this study (pp.84-88). This finding differs from the findings of Grant (2002) who stated that young gifted children in her study preferred exploring where there was a clear goal or outcome. Open-ended play observed in this study involved physical play and concurs with the findings of Barnett and Fiscella (1985) who stated that young children who are gifted display advanced physical play patterns. There appeared to have been high use of the one hilly slope of concrete at the centre by MJ, more so than other children. This 'hill' was used regularly by MJ for movement, surprise, competition, schematic expressions and the generation of new games, usually using the skateboards, hoops or balls (pp.86-87). This finding provides insight for teachers who can investigate play spaces outside for a variety of gradients and textured surfaces on which young children who are gifted can explore speed, time and distance in particular.

MC engaged for long periods of episodic play (Fromberg, 2002) in the sandpit (p. 86). This open-ended play involved transporting, in-filling and dropping sand from a height. Other open-ended play observed involved him hanging from the geogym or the tree by his arms (p.86) Like MJ he also expressed a preference of balls and the trolley (p.85). MJ and MC acknowledged how much they enjoyed the element of surprise (p.65). Open-ended play in this study included play with small intricate

construction materials and blocks (p.87). MC and MJ were frequently observed using the blocks, trains, tracks and other construction materials (pp. 85-88). Torrance (1969) viewed open-endedness as creative. This preference is insightful for teachers who can support the play by allowing temporary ownership of certain resources with the space to use them e.g. one child gets a whole mat to use for blocks for one hour can also be a consideration. MC in particular spent many hours using the materials in the block area and showed concern for the disruption of his play which will be discussed further in this chapter.

Another finding of this study was that both MJ and MC engaged in pretend play very frequently (pp.90-92). This concurs with Gross, (2004) however, Wright (1990) suggested that there was a decrease in this type of play as gifted children got older. I also found that both children engaged in pretend play in isolation of others (pp.92-93) and this finding does concur with Wright's view (1990) that as young children who are gifted get older, they tend to move back to solitary play. Gross (2004) highlighted that the higher the level of giftedness, the more solitary play becomes. I suggest that intersubjectivity with peers was difficult to construct. MJ indicated this in his particular pretend play scenario that could not be tuned into by others (see Appendix T).

Another consideration is the nonagreement on play rules in pretend play evident in the findings (pp.91-92). Vygotskian theory (1978) concluded that shared understandings and agreements on rules are essential elements of pretend play episodes (Fleer, 1996). Another consideration is that solitary pretend play should not be assumed to be an immature expression of play, but perhaps a highly complex and elaborate one (Docket & Fleer, 2002). I therefore suggest how important it is that teachers do not assume that young children who are gifted are socially inept or engage in less mature forms of play.

Findings in this study showed a preference for <u>solitary play</u> (pp.88-90). Perhaps social play didn't occur often, because negotiating roles wasn't an option as in MJ's case where he dominated play when there was social engagement or else became competitive. Furthermore, negotiating rules wasn't an option because both children were keepers of rules and routines. Harrison (1995) linked this to the inability to

construct intersubjectivity with playmates during play, in that young children who are gifted think and play in a different manner to their non-gifted peers. There were differing play styles between the two children engaging in pretend play with a peer. MC engaged with his sister after school (p.91) and there was frequent use of props such as dolls (p.91). MJ however, was not seen to use props in pretend play but focused on the processing of the play by articulating his use of symbolism (see Appendix T).

Barnett and Fiscella (1985) found that young children who are gifted have a play style that is more socially advanced; however these researchers also asserted that gifted children solicit social engagement with their peers. This is not the finding of this study. Solitary play was very evident with MC in particular who spent his days playing alone (p.88). Teachers perceived that it was satisfactory practice to respect MC's desire to play alone (p.88) for the majority of his time at the centre. Embedded in early childhood historical discourse appears to be the belief that if one is not required to intervene, then one should not, despite having Te Whaariki (Ministry of Education, 1996) as a socioculturally underpinning paradigm. It appears that Piagetan theory has had " an immeasurable impact upon everyday common-sense conceptualisations of the child" (Jenks, 1996, p.29).

Furthermore, MJ appeared to engage in social play often, but when I closely examined play in groups, MJ was isolated from the group on many occasions and this impression was forthcoming from one of his teachers (p.89). This could be because intersubjectivity could not be constructed with peers. Barnett and Fiscella (1985) also found that young children who are gifted respond well to peers within the frame of play. In this study, findings demonstrate that intersubjectivity is not reached in social engagement with peers and that responding well within the play frame does not usually occur. Interactions will be further discussed in the next section of this chapter.

Vygotsky (1978) viewed intersubjectivity as integral to the learning process. In play, intersubjectivity is constructed through interactional processes from a 'meeting of minds' standpoint. These processes occur during play and include the many signs and symbols of language shared by the players. However, solitary play that is chosen

by the child should not be seen as problematic or hindering development. Sometimes differences in how these children functioned in comparison to their peers, may have been too great and social interaction might be seen as less satisfying (Harrison, 1995). This is particularly so for exceptionally gifted children (Gross, 2004). Solitary play from these considerations is meaningful play (Fromberg, 2002) to the child.

Both MJ and MC preferred undisrupted play and were very sensitive to noisy environments around them (pp.92-96). MC showed concern at leaving his block construction (p.93) as did MJ (p.96). If play environments are supportive and flexible, play can be disrupted less by centre transitions and routines in particular. In that way, the learning environment can entice each young child to energetically and constructively pursue their own interests (Smutny 1997) in interaction with teachers and other children as appropriate, with minimal disruption. Greenman (1988) suggested that "an environment is a living, changing system. More than physical space, it includes the way time is structured and the roles we are expected to play. It conditions how we feel, think and behave and it dramatically affects the quality of our lives" (p.5). The climate of the early childhood environment dramatically affects the outcomes of play for young children who are gifted and how transitions are planned. These children may need as few transitions as possible or flexibility in the attitudes of teachers to allow play to continue. Space also plays a role here, to enable constructions to be left in the midst of being created and to revisit as they wish whilst retaining ownership. Children can take control of transitions themselves and this level of flexibility will support authentic learning and ensure empowerment.

Both MJ and MC were keepers of rules and routines and preferred rules-orientated play (pp.96-100). This finding concurs with other research in gifted and early childhood education (Gross, 2004; Harrison, 1999; Hollingworth, 1931; Murphy, 2004a). At times a mismatch about rules of play caused a divide amongst the players (pp.98-100) therefore successful play negotiations were not achieved and intersubjectivity during play not constructed. Sometimes, play became uneventful as a social experience perhaps due to the fact that peers wanted to just 'get on and play' whereas MJ in particular allowed rules of play to dominate his thinking. These differences in play interests and foci concur with the views of Janos and Robinson

(1985) who asserted that young children who are gifted have play interests that can be considerably different to other children.

5.2 Interactions during Play

The third research question asked what interactions occur during play. The focus of this question emphasises that relationships are a crucial element of play and in particular the pedagogical role of the teacher is central.

Evidence from this study suggests that both children had a preference for the teacher or older children during play (pp. 101-106). This finding concurs with other research (Harrison, 1999; Murphy, 2004a; Porter, 1999) and indicates that the social orientation of the child can be examined, as the teacher or older child is preferred as the play partner. Intersubjective understandings during play are based upon the mutual cognitive and affective states of the players. I suggest that in this study, the teacher was best suited to provide a cognitive match.

Preferences for the teacher were expressed in various ways. MJ sought his teacher out for play over others (p.104-105) and chose his teacher over others first thing in the morning (p.104). MC indicated he had a preference for his mummy, daddy and sister over other playmates at the centre (p.103). He wouldn't commit to having any friendships when I asked him (p.102).

Having 'one eye and ear' on the teacher during play indicated their preference for her and demonstrated the heightened interpersonal awareness that both children exhibited (pp.105-106). The two children observed ongoing and frequent activity of the teacher whilst playing a distance from the teacher. This could indicate a desire for further stimulation. It perhaps can be linked to their knowledge as a keeper of rules and routines in that they are aware of changes in routine and know that the teacher instigates this. It could also be that the teacher may at any time be willing to co-construct new learning and understanding through meaning-making.

Interestingly Resnik (1991) declared that advancement in a child's individual learning does not always come with social interaction and that "particular conditions

and forms of interaction are required" (p.17). Learning by observation also provides some of the stimulation these children require. One of MC's teachers was very aware of his observational abilities (p.40). Direct, active engagement and narration with the teacher alone was not enough and I believe that observation by the two children in the instance of this study was not a passive activity. Fleer (2001) made insightful comments about the present beliefs early childhood teachers may have about children observing elements of their play environment. She suggested that current discourse on how children learn during play, should be reconceptualised in order to consider other ways of learning. Early childhood teachers are currently exploring the ways in which young children, including the gifted are assessed in early childhood settings (Ministry of Education, 2005). 'Noticing' has been emphasised. Teachers can be aware of what gifted children are noticing during play. Observing the teacher intently when away from her is perhaps one way to maintain intersubjective connections.

Intersubjectivity was not achieved on two occasions. MJ did not reach intersubjectivity on one occasion with his teacher due to the busyness of mat time (p.74). MC showed exasperation during a conversation with his teacher in the sandpit (see Appendix U). This was the one occasion I noted intersubjectivity was not constructed between MC and his teacher. The facial expressions and gestures accompanied by the spoken language by MC demonstrated fast-paced 'outside the square' thinking for a child of his age. MC viewed himself as more expert to the teacher on this occasion and this is perhaps why I perceived there to be frustration for him. Meade (2000) reiterated Vygotsky's theory that learning through interaction with more expert others is a crucial component of development.

Findings were that these children viewed themselves as the teacher's peer and helper (pp.110-112). MJ sees himself as someone who can take responsibility and as the teacher's helper on equal terms as the teacher. His conversations reflect this through the manner in which he speaks and the interest he shows in teacher interactions and communications (p.110). White (1975) emphasised that "one of the characteristics of the well-developed three year-old is a tendency to hold conversations with adults as if they were peers" (p.173). This behaviour could indicate that the children viewed themselves as an intellectual match (p.111). MJ referred to one of his same-aged peers as a baby (p.110). In addition, it was most unusual to observe both of these

children describing their teachers and myself, as pretty, or a pretty girl (pp 111-112). This data supports the view that these children saw themselves as the teacher's peer. Clearly, a teacher is required to be willing to be the child's peer, fellow researcher and collaborator; someone who constructs intersubjectivity with the child. This teacher will also need to be accepting of the personal types of communication that can occur. Statements such as calling the teacher a 'pretty girl', should not be misinterpreted or misconstrued as too personal or potentially judgmental language.

Findings also showed that MC and MJ repelled and ignored peers, rarely choosing to actively engage with a peer (see pp. 106-108), but were approached by their peers frequently. I was unable to access research on the repelling of playmates in an early childhood setting.

Findings also showed that MJ and MC liked to dominate and lead play when engaging with their peers (pp.108-110). This finding concurs with that of Grant (2002) who observed this in dramatic play situations and of other researchers concerning the generation of games and the domination of play (Gross, 2004: Harrison, 1999; Murphy, 2004a). Young children who are gifted reflect upon their own ways of thinking and learning during play and the combination of their internal 'knowing' and general advancement of knowledge drives this domination. Particularly worth noting is how competitive MJ was when he did engage with a peer (pp.108-109). I also suggest that open-ended play can develop into competitive play when a peer approaches, shows interest or is playing adjacent to a gifted child. I am unable to make comparisons with other research in this area.

The results suggest that interacting with a responsive teacher is a single most meaningful characteristic of their needs during play and in relation to play. Gable (2002) stated that a critical skill for early childhood teachers is knowing how to form and sustain supportive relationships with the children in their care. In order for teachers to be responsive to them in ways that intersubjectivity can be constructed, teachers can further develop their own thinking. Hine and Newman (1996) suggested that if teachers are to promote thinking skills in children during play, then they need to develop and improve their own.

Implications of this study for teachers are considered in the following concluding chapter. This thesis will now conclude my arguments and assertions linking back to the main aims of the study.

CONCLUSION

This thesis offers an original contribution to New Zealand research and an understanding of how young children who are gifted play in an early childhood setting. As aforementioned in the introduction, much of the existing knowledge base about this particular phenomenon has been built up in countries such as the United States of America, the United Kingdom and Australia. These countries do not necessarily comprise similar structural and functional elements in an early childhood setting as New Zealand. This thesis will contribute to the current thinking and development of theories about young children who are gifted in early childhood settings in New Zealand.

The three research questions have been answered. The questions were:

- What characteristics of giftedness are evident in young children's play?
- Do these children demonstrate particular play preferences?
- What interactions with teachers and other children can be observed during play?

It was found that both MJ and MC exhibited a range of characteristics indicative of giftedness during play and in relation to play. Five play preferences were identified in this setting. In addition, how these children interacted during play has been discussed.

Dockett and Fleer (2002) surmised that teachers face many challenges in trying to understand play behaviour. Young children who are gifted exhibit characteristics during play that teachers or other children, may find challenging or difficult to understand. Research emphasises though that "the more the abilities of young children are examined by research, the more evident their capabilities become" (Parke & Ness, 1988, p.196) and "it is essential that people who help children make educational choices do so from an informed position" (Parke & Ness, 1988, p.198). It is hoped that by answering the research questions in this study, there will be an increased awareness of giftedness, which will promulgate response and reflection for early childhood teachers. Furthermore, noticing more detailed play arrangements in

young children who are gifted, may provide teachers with further measures and understanding of these children's capacity to learn.

6.1 Implications for Teachers

Implications of the thesis for early childhood teachers are broad ranging. In New Zealand, teachers have historically held an egalitarian view (Moltzen,1996) and giftedness has been seen to be elitist and the identification of it perhaps unnecessary (Holden, 1996). This study concludes that young children who are gifted require a teacher who understands the phenomenon of giftedness and recognises the characteristics of giftedness evident in play and the differences in play patterns and behaviours demonstrated by these children.

Early childhood teachers can be sensitive in their response to the needs of these children, in particular; respecting the need for little disruption in their concentrated play, their need for space and ownership of resources, their competitive nature and their need for one to one companionship of the teacher (or of a more advanced peer). It was most useful to examine play theory (Freud, 1959; Erikson, 1963; Berlyne, 1960; Bateson, 1955, 1976; Piaget, 1962; Vygotsky, 1978) and intersubjectivity (Goncu, 1993; Jordan, 2003; Rogoff, 1998; Verba, 1994; Wells, 2001) with regards to supporting children's learning. Social interaction is one of many elements required for a child's co-construction of knowledge. This study emphasises the lesser need for young children who are gifted to engage in social interaction with their peers (not gifted), in comparison to a high need for interaction with adults as a play partner and co-constructor of learning. I suggest that this is because the teacher can best provide a cognitive match and is perhaps viewed as a most suited play partner and pedagogical mediator, in order to achieve meaning-making for those in the play frame.

An appropriate response to these children requires differentiation. This can incorporate elements of either acceleration or enrichment. Teachers can further enrich play experiences by giving additional attention to abstract and conceptual themes during play and other authentic learning experiences. Furthermore, teachers can use enriching and factual knowledge and language as a tool to extend the child's

thinking and language; in particular critical thinking and divergent thinking skills. This authentic learning can be experienced through co-constructed learning experiences.

Being willing to gain advanced subject knowledge to meet the interests of young children who are gifted would be helpful. So too would be a willingness to co-construct learning with the child at a more advanced level, than perhaps teachers would with other children. A sense of enquiry promotion and critical thinking ability are skills that teachers of the gifted may need help in further developing. If one considers again a characteristic of giftedness as ease and speed of learning (Gagne, 2004), and the fact that in this study boredom has been indicated, the pace of facilitation of learning and the depth of learning provides challenge for early childhood teachers and focus for reflection. All children require teachers as powerful language mediators to assist them through the zone of proximal development. This theory (Vygotsky, 1978) is not new to us. However, I suggest that young children who are gifted require differentiation of a qualitative, rather than quantitative nature and that flexibility in the attitude of the teacher and the provision of authentic learning experiences, reflecting the child's social and cultural world, are possibly the most significant factors that could be addressed in professional development within this field.

Refining one's own knowledge is also a crucial step. Changes in attitude concerning flexibility within the programme is another. Being a flexible teacher, who is open to change, is one of the core 'essentials' of qualitative differentiation (Van Tassel-Baska, 1994). Young children who are gifted need a co-constructed environment where they can utilise higher-order thinking skills of analysis, synthesis and evaluation as play experiences occur. Critical thinking therefore, is a basis for the effective engagement of these children during play.

Maker et al (1996) highlighted the differences in convergent versus divergent thinking by explaining that in convergent thinking the right or best answer is attempted by an individual whereas in divergent thinking many, varied and unique possibilities or answers are generated by the individual. Both types of thinking have an important place in everyday life. Open-endedness however, implies a difference in

teacher attitude. Maker et al (1996) wrote that this is reflected in the content of questions and the actual questioning techniques, the design of materials and learning experiences and in the willingness to critically analyse and reflect upon children's responses to questions. Open-endedness also encourages group interaction rather than teacher/child interaction. They elicit more complete and more complex responses, allowing children to give knowledgeable answers and encouraging children to question themselves (Maker et al 1996). In other words, open – ended discussion stimulates further thought, learning and exploration. These are key elements of critical thinking.

Intersubjectivity has been a focus of this study's discussion. Teacher response can be one of quality engagement and interaction whereby the teacher utilises her/his own critical thinking skills to transfer open-ended enquiry and growth of understanding in these children. Listening to children's thinking is a crucial phase (Jordan, 2001). According to Meade (2000) this view supports that of Vygotsky who "saw such transference as central to children's thinking.....that teachers need to have extensive knowledge themselves to transfer aspects appropriately when children seek to learn more" (p.19). This brings to light the much deeper implications of teacher education programmes in reference to the teaching of the young and gifted in our care. The implications of social justice that are realised through the education of society are profoundly at the coalface in this regard. Teacher trainees and teachers lacking professional development in this field, may not have the critical enquiry, understanding or passion for the abstract and the unknown, which these children require. As every service has a gifted child (Ministry of Education, 2002), teaching staff can be carefully selected to work with these children and develop a co-constructive relationship with them in order to achieve meaningful play experiences. Meade (2002) commented on the needs of early childhood teachers to engage, to offer guided participation and offer joint attention and these insights are most thought provoking for teachers of the gifted. Not all teachers are naturally competent at quality engagement with children and teachers of the gifted need to be particularly attuned to the intellectual capacity of these children. Young children who are gifted need quality engagement with a responsive teacher but that engagement needs to be stimulating, thought provoking and contain elements of divergent thinking.

In short, reciprocal, responsive adult- child interactions are crucial in order for children to develop working theories of the world. A reflective question for teachers could concern how to engage in quality interactions with these children, as a cognitive match, pedagogical mediator and play partner.

6.2 Policy Implications

It would be useful to view these issues from a Ministry of Education perspective, concerning the dearth of professional development specific to early childhood, gifted education and the lack of a National Early Childhood Advisor for Gifted Education in this country. Despite advisory positions and policy being active in 2005 for the primary and secondary sectors, what of the early childhood sector? The New Zealand position in this area is currently in need of clarification and further consideration.

This thesis seeks to advance the theory that young children who are gifted have special needs and supports the view that these children require additional support, primarily from one responsive teacher and differentiation of the programme in action. These children have the right to be recognised and responded to by early childhood teachers, who have had professional training in this field and are sensitive to the phenomenon of giftedness. Attention to professional development on a national scale would better prepare early childhood teachers to notice, recognise and respond to these children in their services.

There are also considerations for mixed-age groupings in early childhood centres. For young children who are gifted, mixed-age groupings would be most beneficial. There appears to be a trend in early childhood settings for segregation where age is the primary determinant of appropriate educational experiences. Perhaps ages of children should not become cages. Mixed-age groupings would give young children who are gifted the opportunity to engage in playful experiences with older children, who may provide a much-needed cognitive match. It is possible that the children in this study would have benefited from access to experiences designed for older children and maybe would respond more positively to socially interacting with their peers in that situation (Harrison 1999).

6.3 Limitations of the Research

I acknowledge the limitations of the study, in that only two children from one early childhood centre have been investigated. These two children attended the centre at different times and were not of the same age. The study could have been improved by gaining access to more case study children at the centre, however, due to the fact that children were nominated by teachers, this would have taken considerable preparation time. In addition, both case study children were boys. Girls may have exhibited differing play patterns and behaviours.

Another limitation concerns the fact that play was observed in the early childhood setting only, as the aim of the study was specifically focused. Play patterns and behaviours may have differed in the home or in other settings.

Identification occurred at the centre, but the processes were relatively informal. The use of teacher observation scales (Allan, 1999) and further input from parents would have enhanced the process and more case study children may have been utilised in the study.

6.4 Recommendations for Future Research

Play patterns of young children who are gifted could be further explored in a new study using other methodological approaches. An action research approach for example, could investigate play and include proposals for curriculum differentiation. Ethnography could be utilised as a research design to examine ways in which young children who are gifted become enculturated in an early childhood setting. Ethnographic case study could further explore slices of relational interaction with the teacher and this would include a study of home influences on young children who are gifted.

Further research could link with other studies such as those conducted in Australia, perhaps exploring specific aspects of giftedness such as creativity or examining the play of children who are highly or profoundly gifted. In the absence of further evidence, ambidexterity is another phenomenon that could be explored.

MJ- I love maps. If I could choose any type of map I want, I'd choose a treasure map.

Me- How exciting! I wonder what sorts of things the treasure map would tell us?

MJ- Don't you know? (tutting) We would be on an adventure for ever and ever and ever and ever and ever, how clever and we'd have to read it backwards to get home which would take for ever and ever, how clever (MJ 10/10).

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Appendix A

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

Dear .....

Thank you for your support concerning my interest in conducting research in your early childhood centre. The title of my project is:

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

I would now like to officially request your consent for me to conduct the research at .....centre. I enclose an information sheet and consent form for your perusal. If you have any questions please do not hesitate to contact either myself or one of my supervisors.

Please would you complete the research consent form below and return it to me in the stamped, addressed envelope enclosed by .....

Yours Sincerely,

Caterina Murphy
Postgraduate Student – Massey University.

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

INFORMATION SHEET for centre manager

My name is Caterina Murphy (Cat) and I am a postgraduate student at Massey University. I have been an early childhood teacher for many years and I am currently employed as a lecturer at Te Tari Puna Ora O Aotearoa/New Zealand Childcare Association. I am also a fully registered teacher.

I would like to identify the play patterns and behaviours of young gifted children in an early childhood setting and I propose to use case study methodology in order to answer my research question. This thesis is a part requirement for the Master of Education degree.

My contact details are [redacted] or [redacted] My supervisors are Dr. Barbara Jordan and Dr. Tracy Riley and they can be contacted at the Department of Teaching and Learning, at Massey University on tel. 06 356 9099 ext 8625. Their email addresses are: B.J.Jordan@massey.ac.nz and T.L.Riley@massey.ac.nz.

Participant Recruitment

I will request from you, the centre manager, details of which children have been identified as gifted learners in the centre. At this point in time, I do not know the total number of participants involved, as this will depend on the number of gifted learners in the centre at the time of commencement of the research and the number of staff willing to participate. Selection criteria will be based upon which children have been identified through centre identification processes, as having special abilities in any given area, therefore children who have not been identified will be excluded as a direct participant. There will be no reimbursement offered for participation, but participants and the centre will be respectfully thanked for their contributions upon conclusion of the research. I do not anticipate any discomfort or risks to participants as a result of participation in the study.

Project Procedures

Data will be collected through observation of the children (written and video-tape), interviews (written and audiotape) of children and staff and the analysis of various

documents at the centre. *All data will be coded to ensure that participants are not identified.* The centre will also be allocated a pseudonym so that risk of centre identification will be minimised. Data will be held by myself only and the only persons, who will have access to the data other than myself, will be my two supervisors. The data will be stored in a locked cabinet at my home for the duration of the research. The data collected will be used for the purposes of the research. Once my thesis is presented, assessed and accepted for pass, the data will be retained for a period of five years in a locked cabinet, then disposed of by one of my supervisors or a person delegated by them, in my presence. Providing that consent to be video-taped is given, these videos will not be disposed of, will be retained for a period of five years and will be used for educational purposes only in the future e.g. educational seminars. I will ensure to the best of my ability that if showing the videos at educational seminars, the participants will not be shown in a negative light. Participants have the right to access any findings summarised at the conclusion of the research. I will provide you with a summary of the findings of the research should you request it.

Participant Involvement

Staff

I would like to conduct interviews with staff and I have allocated one hour for each staff interview. Staff interviews will be requested of any key staff working directly with these children. I envisage only interviewing staff once. Staff interviews will be audio taped and I will give written transcripts to staff to check them and a form to sign so that staff can release the transcripts to me. These interviews will take place at the centre or any other place agreed upon for the staff member's comfort. Staff are not the focus of my observation, however if videotaping I may include those staff that have consented to being videotaped when working with these children.

Children

I intend to observe the focus children as unobtrusively as possible. I will be collecting data by way of observations and have allocated three centre days per child. Observations will be written or typed and will also involve videotaping should parent consent be given. I will also be conducting interviews with children and I have allocated 15 minutes for child interviews. Interviews will be audio taped and I will give the written transcripts of the interviews to the parents to check and a form to sign so that they can release the transcripts to me. Interviews will take place at the centre. I will also be conducting an analysis of documentation. Document analysis will involve examining staff meeting minutes and obtaining curricular information from each target child's portfolio. *Consent allowing permission to access staff minutes and child portfolios will be requested.* I will provide a consent form for those parents whose children are not target children of the research but may be playing with or interacting with target children in some way, as I will not be able to include these non-target children in any video footage without parental consent.

Participants Rights

Participants are under no obligation to accept this invitation. If they decide to participate they have the right to decline to answer any particular question or to withdraw from the study in the first month of the study in progress. Questions about the study may be asked at any time during participation. During interviews, the rights of participants will be respected. It is my intent that participants feel comfortable at all times and may decline to answer any question asked. If participants agree to audio taping on the consent form, participants have the right to ask for the audiotape to be turned off at any time during the interview. All participants will be shown the on/off button of the tape-recorder, be able to replay their own voices and have direct access to turning it off should they wish to. Confidentiality is assured and participants provide information on the understanding that names will not be used. Participants may have access to a summary of the study's findings when concluded, should they be requested. I offer you a summary of the findings should you require it on completion of the study.

Support Processes

I do not envisage any adverse physical or psychological risks to participants. Support can be accessed from either of my two supervisors at Massey University.

Project Contacts

I invite you to contact either myself directly or either of my supervisors if you have any questions about the research (see researcher introduction).

Committee Approval Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Application 04/92. If you have any concerns about the conduct of this research, please contact Professor Sylvia Rumball, Chair, Massey University Campus Ethics Committee: Palmerston North, Ph. 06 350 5249 or email humanethicspn@massey.ac.nz

Thank you for your time.

Caterina Murphy
Postgraduate Student – Massey University

Appendix B

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

CONSENT FORM (for the Manager)

THIS CONSENT FORM WILL BE HELD FOR A PERIOD OF FIVE YEARS

(Please read and circle statements below as applicable)

I agree/do not agree to the researcher, Caterina Murphy, conducting the proposed research as outlined in the information sheet attached, in .....centre.

I authorise the researcher to communicate directly with me, the centre manager regarding the commencement of the research.

I agree/do not agree to the researcher gaining access to staff meeting minutes and the portfolios of the children.

I understand that I may ask questions of the researcher at any time and can request a summary of the research once it has been completed, assessed, and marked.

I understand that to the best of the researcher's ability the staff will not be identified without their permission and that the centre will not be identified and will be given a pseudonym.

Signature ..... Date .....

Full name ..... Position .....

Appendix C

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

INFORMATION SHEET (for staff)

My name is Caterina Murphy (Cat) and I am a postgraduate student at Massey University. I have been an early childhood teacher for many years and I am currently employed as a lecturer at Te Tari Puna Ora O Aotearoa/New Zealand Childcare Association. I am also a fully registered teacher.

Thank you for having me in your centre. I want to identify the play patterns and behaviours of young gifted children in an early childhood setting and I propose to use case study methodology in order to answer my research question. This thesis is a part requirement for the Master of Education degree. I welcome your participation.

My contact details are [redacted] My supervisors are Dr. Barbara Jordan and Dr. Tracy Riley and they can be contacted at the Department of Teaching and Learning, at Massey University on tel. 06 356 9099 ext 8625. Their email addresses are: B.J.Jordan@massey.ac.nz and T.L.Riley@massey.ac.nz.

Participant Recruitment

I have requested from the centre manager, details of which children have been identified as gifted learners in the centre. I invite your consent to participate in the research. At this point in time, I do not know the total number of participants involved, as this will depend on the number of gifted learners in the centre at the time of commencement of the research and the number of staff willing to participate. Selection criteria have been based upon which children have been identified through centre identification processes, as having special abilities in any given area, therefore children who have not been identified will be excluded as a direct participant. There will be no reimbursement offered for participation, but participants and the centre will be respectfully thanked for their contributions upon conclusion of the research. I

do not anticipate any discomfort or risks to participants as a result of participation in the study.

Project Procedures

Data will be collected through observation of the children, interviews of children and staff and the analysis of various documents at the centre, such as minutes from staff meetings and information from child portfolios. All data will be coded to preserve both the anonymity of the participants and the centre. All participants will be unidentifiable to the best of my ability. The centre will also be allocated a pseudonym so that risk of centre identification will be minimised. Data will be held by myself only and the only persons, who will have access to the data other than myself, will be my two supervisors. The data will be stored in a locked cabinet at my home for the duration of the research. The data collected will be used for the purposes of the research. Once my thesis is presented, assessed and accepted for pass, the data will be retained for a period of five years in a locked cabinet, then disposed of by one of my supervisors or a person delegated by them, in my presence. Providing that consent to be video- taped is given, these videos will not be disposed of, be retained for a period of five years and will be used for educational purposes only in the future e.g. educational seminars. I will ensure to the best of my ability that if showing the videos at educational seminars, the participants will not be shown in a negative light. Participants have the right to access any findings summarised at the conclusion of the research.

Participant Involvement

I would like to conduct interviews with staff and I have allocated one hour for each staff interview. Staff interviews will be requested of any key staff working directly with these children. I envisage only interviewing staff once. Staff interviews will be audio taped and I will give written transcripts to staff to check them and a form to sign so that staff can release the transcripts to me. These interviews will take place at the centre or any other place agreed upon for the staff member's comfort. Children may be videotaped and staff may appear in any video footage.

Participants Rights

You are under no obligation to accept this invitation. If you decide to participate you have the right to decline to answer any particular question or to withdraw from the study in the first month of the study in progress. Questions about the study may be asked at any time during participation. During interviews, the rights of participants will be respected. It is my intent that participants feel comfortable at all times and may decline to answer any question asked. If participants agree to audio taping on the consent form, participants have the right to ask for the audiotape to be turned off at any time during the interview. All participants will be shown the on/off button of the tape recorder, be able to replay their own voices and have direct access to turning it off should they wish to. Confidentiality is assured and participants provide information on the understanding that names will not be used. Participants may have access to a summary of the study's findings when concluded, should they be requested.

Support Processes

I do not envisage any adverse physical or psychological risks to participants. Support can be accessed from either of my two supervisors at Massey University.

Project Contacts

I invite you to contact either myself directly or either of my supervisors if you have any questions about the research (see researcher introduction).

Committee Approval Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Application *04/92*. If you have any concerns about the conduct of this research, please contact Professor Sylvia Rumball, Chair, Massey University Campus Ethics Committee: Palmerston North, Ph. 06 350 5249 or email humanethicspn@massey.ac.nz

Thank you for your time.

Caterina Murphy
Postgraduate Student – Massey University

Appendix D

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

CONSENT FORM (staff)

THIS CONSENT FORM WILL BE HELD FOR A PERIOD OF FIVE YEARS

I agree to participate in this study under the conditions set out in the information sheet.

I have read the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction and I understand that I may ask further questions at any time.

Please read and circle each statement as applicable.

I agree/do not agree to be interviewed.

I agree/do not agree to any interview with me being audio taped

I agree/do not agree to being videotaped during centre time

I agree/do not agree to any video footage taken of me during centre time, to be used for educational purposes by the researcher e.g. presentations at educational seminars

Signature ..... Date ..... Full Name (printed)

Appendix E

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

INFORMATION SHEET for children

Hi ! My name is Cat and I am a teacher and a mummy. I have three children, a dog and I like drawing, painting and cooking. I hope you like my picture.

I am going to be in your centre sometimes, writing stories and taking videos of some of your friends and maybe you. I need to know how you feel about me writing stories about you and your friends and taking videos of you when you are playing at the centre with some of your friends. I have given a letter to your parent about me being in the centre so that he/she knows all about it. I hope you will let me write some stories about you and maybe put you on my special video sometimes when you are playing. Talk with your parent about it and tell them what you think. Bye Bye.....

Appendix F

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

INFORMATION SHEET (for parents of target children)

My name is Caterina Murphy (Cat) and I am a postgraduate student at Massey University. I have been an early childhood teacher for many years and I am currently employed as a lecturer at Te Tari Puna Ora O Aotearoa/New Zealand Childcare Association. I am also a fully registered teacher.

I am looking forward to conducting research in your child's centre. Your child has been chosen as a prospective participant in the research. I want to identify the play patterns and behaviours of young gifted children in an early childhood setting and I propose to use case study methodology in order to answer my research question. This thesis is a part requirement for the Master of Education degree. I welcome the participation of your child and ask for your consent to observe and talk with your child. Please would you explain to your child that I wish to observe them and talk with them in the centre. I enclose a separate information sheet for your child, that you can read and share with them.

My contact details are [redacted] My supervisors are Dr. Barbara Jordan and Dr. Tracy Riley and they can be contacted at the Department of Teaching and Learning, at Massey University on tel. 06 356 9099 ext 8625. Their email addresses are: B.J.Jordan@massey.ac.nz and T.L.Riley@massey.ac.nz. Please do not hesitate to contact me or my supervisors if you have any questions or concerns.

Participant Recruitment

I have requested from the centre manager, details of which children have been identified as gifted learners in the centre and your child's name has been selected by the centre as a possible candidate for the project. At this point in time, I do not know the total number of participants involved, as this will depend on the number of gifted learners in the centre at the time of commencement of the research and the number of

children/parents willing to participate. Selection criteria have been based upon which children have been identified through centre identification processes, as having special abilities in any given area, therefore children who have not been identified will be excluded as a direct participant. There will be no reimbursement offered for participation, but participants and the centre will be respectfully thanked for their contributions upon conclusion of the research. I do not anticipate any discomfort or risks to participants as a result of participation in the study.

Project Procedures

Data will be collected through observation (written and videotape), interview (written and audiotape) and the analysis of various documents at the centre. All data will be coded to preserve both the anonymity of the participants and the centre. All participants will be unidentifiable to the best of my ability. The centre will also be allocated a pseudonym so that risk of centre identification will be minimised. Data will be held by myself only and the only persons, who will have access to the data other than myself, will be my two supervisors. The data will be stored in a locked cabinet at my home for the duration of the research. The data collected will be used for the purposes of the research. Once my thesis is presented, assessed and accepted for pass, the data will be retained for a period of five years in a locked cabinet, then disposed of by one of my supervisors or a person delegated by them, in my presence. Providing that consent to be video- taped is given, these videos will not be disposed of, will be retained for five years and will be used for educational purposes only in the future e.g. educational seminars. I will ensure to the best of my ability that if showing the videos at educational seminars, the participants will not be shown in a negative light. Participants have the right to access any findings summarised at the conclusion of the research.

Participant Involvement

I intend to observe the focus children as unobtrusively as possible. I will be collecting data by way of observations and have allocated three centre days per child. Observations will be written or typed and will also involve videotaping should parent consent be given. You may consent to both or either of these types of observation if you wish (writing and videotaping). I will also be conducting interviews with children and I have allocated 15 minutes for child interviews. As a parent(s) you are most welcome to be present when I am interviewing your child. Interviews will be audio taped and I will give the written transcripts of the interviews to you to check and a form to sign so that you can release the transcripts to me. Interviews will take place at the centre. I will also be conducting an analysis of documentation. Document analysis will involve examining staff meeting minutes and obtaining curricular information from your child's portfolio.

Participants Rights

You are under no obligation to accept this invitation. If you decide to consent to participation on your child's behalf, you (or your child) have the right to decline to answer any particular question or to withdraw from the study in the first month of the

study in progress. Questions about the study may be asked at any time during participation. During interviews, the rights of your child will be respected. It is my intent that your child feels comfortable at all times and may decline to answer any question asked. If you and your child agree to audio taping on the consent form, your child will have the right to ask for the audiotape to be turned off at any time during the interview. Your child will be shown the on/off button of the tape recorder, be able to replay his/her own voice and have direct access to turning it off should they wish to. Confidentiality is assured and your child will provide information on the understanding his/her name will not be used. You may have access to a summary of the study's findings when concluded, should they be requested.

Support Processes

I do not envisage any adverse physical or psychological risks to your child. Support can be accessed from either of my two supervisors at Massey University at any time.

Project Contacts

I invite you to contact either myself directly or either of my supervisors if you have any questions about the research (see researcher introduction).

Committee Approval Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Application 04/92. If you have any concerns about the conduct of this research, please contact Professor Sylvia Rumball, Chair, Massey University Campus Ethics Committee: Palmerston North, Ph. 06 350 5249 or email humanethicspn@massey.ac.nz

Caterina Murphy
Postgraduate Student – Massey University

Appendix G

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

CONSENT

Dear .....,

I would like to request your consent to be a participant (or for your child to be a participant) in the proposed research for my Master of Education thesis. The title of my project is:

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

I enclose the attached information sheet outlining the proposed research for your perusal. Should you have any questions, please do not hesitate to contact either myself or one of my supervisors at Massey University. If you are satisfied with the information provided and would like to participate, please answer the questions attached, sign and date this consent form. Thank you for your time.

Yours faithfully,

Caterina Murphy
Postgraduate Student – Massey University

Appendix H

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

CONSENT FORM (parents of target children)

THIS CONSENT FORM WILL BE HELD FOR A PERIOD OF FIVE YEARS

I agree to my child participating in this study under the conditions set out in the information sheet.

I have read the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction and I understand that I may ask further questions at any time.

(Please read and circle statements below as applicable)

I agree/do not agree to my child being interviewed.

I agree/do not agree to any interview with my child being audio taped

I agree/do not agree to my child being observed during play

I agree/do not agree to my child being videotaped during play

I agree/do not agree to any video footage taken of my child during centre time, to be used for educational purposes by the researcher e.g. presentations at educational seminars

I would like/would not like to be present when you are interviewing my child

I agree/do not agree to my child's portfolio being accessed for the purposes of this research.

I have shared information about your research in the centre with my child and read the information sheet to my child with your photo on it. My child makes this special mark to show some understanding (Drawing, or hand print can be placed here).

Signature ..... Date ..... Full Name (printed) .....

Appendix I

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

INFORMATION SHEET for parents

My name is Caterina Murphy (Cat) and I am a postgraduate student at Massey University. I have been an early childhood teacher for many years and I am currently employed as a lecturer at Te Tari Puna Ora O Aotearoa/New Zealand Childcare Association. I am also a fully registered teacher.

I am looking forward to conducting research in your child's centre. I want to identify the play patterns and behaviours of young gifted children in an early childhood setting and I propose to use case study methodology in order to answer my research question. This thesis is a part requirement for the Master of Education degree. I will only be working with a small sample of children and your child has not been chosen as a prospective participant in the research on this occasion. However, I welcome the involvement of your child and ask for your consent to observe your child if playing with other children that are being observed. If you are in agreement, please would you explain to your child that I may wish to include them in any videotaping. I enclose a separate information sheet for your child, that you can read and share with them.

My contact details are [redacted] My supervisors are Dr. Barbara Jordan and Dr. Tracy Riley and they can be contacted at the Department of Teaching and Learning, at Massey University on tel. 06 356 9099 ext 8625. Their email addresses are: B.J.Jordan@massey.ac.nz and T.L.Riley@massey.ac.nz. Please do not hesitate to contact me or my supervisors if you have any questions or concerns.

Participant Recruitment

I am not directly recruiting your child for the research on this occasion.

Project Procedures

I will not be collecting data from your child. Data of some children in the centre will be collected through observation (written and videotape). Your child may occasionally be playing with a child that I am videotaping or observing. If I record

any of your child's conversations with a child that I am observing, your child will be given a code name. I will not record any conversations or videotape your child without your written consent. If you do consent, all children in the videos will be allocated a code or unique identifier. Video footage will be held by myself only and the only persons, who will have access to it other than myself, will be my two supervisors. The videos will be stored in a locked cabinet at my home for the duration of the research. Providing that consent to be video- taped is given, these videos will not be disposed of, be retained for five years and will be used for educational purposes only in the future e.g. educational seminars. I will ensure to the best of my ability, that if showing the videos at educational seminars, the participants will not be shown in a negative light.

Participant Involvement

There is no expectation of your child to be involved in the research. Involvement will only occur when I am video taping other children who your child is playing with, and only if you have given your consent.

Participants Rights

You are under no obligation to provide consent. If you do decide to consent to involvement on your child's behalf, you (or your child) have the right to withdraw your consent in the first month of the study in progress. Questions about the study may be asked at any time during involvement.

Support Processes

I do not envisage any adverse physical or psychological risks to your child. Support can be accessed from either of my two supervisors at Massey University at any time.

Project Contacts

I invite you to contact either myself directly or either of my supervisors if you have any questions about the research (see researcher introduction).

Committee Approval Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Application……. If you have any concerns about the conduct of this research, please contact Professor Sylvia Rumball, Chair, Massey University Campus Ethics Committee: Palmerston North, Ph. 06 350 5249 or email humanethicspn@massey.ac.nz

Caterina Murphy
Postgraduate Student – Massey University

Appendix J

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

30th August 2004

CONSENT FORM (parents)

THIS CONSENT FORM WILL BE HELD FOR A PERIOD OF FIVE YEARS

I agree to my child participating in this study under the conditions set out in the information sheet.

I have read the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction and I understand that I may ask further questions at any time.

(Please read and circle statements below as applicable)

I agree/do not agree to my child being observed during play

I agree/do not agree to my child being videotaped during play

I agree/do not agree to any video footage taken of my child during centre time, to be used for educational purposes by the researcher e.g. presentations at educational seminars

I have shared information about your research in the centre with my child and read the information sheet to my child with your photo on it. My child makes this special mark to show some understanding (Drawing, or hand print can be placed here).

Signature ..... Date ..... Full Name (printed) .....

Appendix K

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

CONFIDENTIALITY AGREEMENT

(For centre owner, manager and staff)

I..... (Full Name)

agree to keep confidential all information concerning the project being conducted by Caterina Murphy concerning the play patterns and behaviours of young gifted children in an early childhood setting.

I will not disclose, retain or copy any information involving the project.

Signature: ..... **Date:** .....

Appendix L

Running Record **Date**

Code name **Time Start**

Number of children in near vicinity **Time Finish**

Number of adults in near vicinity

Focus of the observation

Observation	**Decoding**

Appendix M

Anecdotal Observations **Date**

Code name **Time**

From Staff or Parent or Child **Focus**

Recording

Anecdotal Observations **Date**

Code name **Time**

From Staff or Parent or Child **Focus**

Recording

Anecdotal Observations **Date**

Code name **Time**

From Staff or Parent or Child **Focus**

Recording

Appendix N

Time Sample **Date**

Code Name **Time Start**

Number of children in the vicinity **Time finish**

Number of adults in the vicinity

Focus of the observation

Observation

Am/pm

Am/pm

Am/pm

Am/pm

Am/pm

Am/pm

Am/pm

Am/pm

Am/pm

Am/pm

Appendix O

Teacher Interview Questions

Thank you very much for agreeing to be interviewed. I believe you have children at this centre who have been identified as gifted learners and I'm keen to find out about their curricular experiences at the centre . I have some specific questions I'd like to ask you concerning the play patterns, play experiences and play needs of those children. I envisage that the interview will take approximately one hour. Your responses will be recorded in handwriting and your responses will be audiotaped. Your confidentiality is assured. You can withdraw from the interview at any time and decline to answer any question(s) asked of you. Do you have any questions?

Q1) I believe you have some young gifted children here at the centre. What criteria have you used to identify these children as gifted?

Q2) If I were to ask you, in general terms, whether you think that gifted children prefer engaging in certain types of learning experiences, in an early childhood setting, what would be your gut reaction?

Q3) What specific aspects come to mind, when you think of the play you have observed these children engaging in?

Q4) Have you observed these children utilising resources in ways that differ from their peers? (If yes, then how?)

Q5) Have you observed these children initiating or repelling adult involvement during their play? (If yes, then how?)

Q6) Have you observed these children initiating or repelling peer involvement during their play? (If yes, then how?)

Q7) Are requests for help during play, similar to that of their peers or do these children demonstrate a need for more or less assistance?

Q8) When you observe these children playing in a specific learning area e.g. dramatic/fantasy play, do you find the games created by these children, to be more imaginative, less imaginative or similar to their peers?

Q9) Have you observed these children engaged in play for longer periods than their peers, despite distractions, and if so, what do you think determines this?

Q10) Which areas of play/aspects of learning appear to be of most interest to these children?

Q11) Have you found that questions generated from play and during play are different to their peers? (If yes, then how?)

Q12) Have you observed any direct links between the types of learning experiences gifted children choose to engage in and the types of thinking that these learning experiences generate?

Q13) In your experience, what types of learning experiences do these children most often engage in?

Q14) Why do you think they engage in these experiences more so than others?

Q15) Do you think they choose these experiences for particular reasons? E.g. the people participating with them, the challenge of resources, etc.

Q16) What sort of games do you see them generating?

Q17) Is there anything else you would like to share concerning the learning experiences of gifted children that I haven't already asked?

Appendix P

Child Interview Questions

When you are playing at .....what are some of the things you most like to do?

Which are your favourite play places?

When you first arrive, where do you like to go or what do you like to do?

Which toys do you like the most?

What sorts of things are hard to do and which are easy to do?

Who are your favourite friends?

Can you point them out to me?

Which grown ups do you like playing with?

Do you like playing with your friends or the grown ups more?

Where are your favourite places to play at .....?(centre name)

What would you like to do more of?

What sort of games do you like to play at .....(centre name)?

If your friends have made up a game do like joining in?

What sorts of games do you like making up?

Who gets to play in your games?

Are there any places you don't like to play? Why?

What would you like to do more of at .....?

Tell me about mat-times?

Tell me about busy times?

Tell me about the quiet times?

If the teacher said to you, ...(child's name) you can do whatever you want today, what would you like to do?

Is there anything else you want to tell me about all your favourite things you like to do at .....?

Appendix Q

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

TRANSCRIBER'S CONFIDENTIALITY AGREEMENT

I ..... (Full Name - printed)

agree to transcribe the tapes provided to me.

I agree to keep confidential all the information provided to me.

I will not make any copies of the transcripts or keep any record of them, other than those required for the project.

Signature: ..... **Date:** .....

Appendix R

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

[Printed on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

AUTHORITY FOR THE RELEASE OF TAPE TRANSCRIPTS (PARENTS)

This form will be held for a period of five (5) years.

I confirm that I have had the opportunity to read and amend the transcript of the interview/s conducted with my child.

I agree that the edited transcript and extracts from this may be used by the researcher, *Caterina Murphy* in reports and publications arising from the research.

Signature: ..... **Date:** .....

Full Name printed

Child's Full Name printed .....

Appendix S

Play Patterns and Behaviours of Young Gifted Children in an Early Childhood Setting.

AUTHORITY FOR THE RELEASE OF TAPE TRANSCRIPTS (STAFF)

This form will be held for a period of five (5) years.

I confirm that I have had the opportunity to read and amend the transcript of the interview/s conducted with me.

I agree that the edited transcript and extracts from this may be used by the researcher, *Caterina Murphy* in reports and publications arising from the research.

Signature: ..... **Date:** .....

Full Name printed .....

Appendix T

Running Record – MJ. Outside. Two teachers and 14 children

MJ is sitting on a piece of carpet outside. He is making loud noises and waving his arms around in the air.

Me: What you are doing looks exciting!

MJ: I'm flying to the moon on my flying carpet

Me: I wonder if I could come too

MJ: No you can't. The carpet is only big enough for one of us and it won't take the heaviness of more than one person, even though it's magic.

Me: OK. I'll watch you on your journey then.

MJ: You can't watch me. You won't see me. I'll be flying far too fast (looks irritated)

Me: How fast do you think you'll be going?

MJ: (looking exasperated) Don't you know how far the moon is away? Cat, Cat poor Cat, she's such a pretty girl (talking to himself and laughing). I have to work everything out.

Me: Why? Is there are a problem?

MJ: Yes there's a problem. I've got to, got to um, think of two things.

Me: Mmmn. Sounds interesting.

MJ: I've got to imagine all the things I'm going to see along the way and and and I've got to work out how far I have to go and at what speed

Me: Gosh! You've got a lot to think about then.

MJ: Three things actually. I wish SJH could help me (his teacher).

Me: I could help you if you like?

MJ: (laughing) You're such a pretty girl. You can't help me.

Me: Maybe one of the other children could help you?

MJ: Nah. They don't understand my adventures. I need SJH (his teacher) to help me.

Appendix U

Running Record – MC. Outside

MC continues to play alone. He holds the bucket high in the air from his sitting position and watches the sand falling. This behaviour is repeated nine more times. MC continues to focus on how the sand moves when falling. Two other children move right next to him. He looks sideways at one of them. Using his left hand, he places sand gently in each patty tray by holding the sand up high and letting it fall.

MC: These are the muffins (to the teacher in the sandpit)

Tchr: What do they taste like?

MC: Like muffins! (facial expression looks like that of disbelief/irritation)

Tchr: Are you going to cook them in the oven?

MC: The oven's not there. We don't have ovens in the sandpit.

Tchr: What will we do without an oven?

MC: Eat them cold. You can eat raw eggs.

Appendix V

Running record – MC. Outside. Four adults, 30 children

All the children outside slowly gather around the calf. MC continues to play in the sandpit until another child calls him over. MC gets up and stands by the calf smiling. He runs excitedly on one spot on tiptoes as more animals are introduced. 22 children are now surrounding the calves and goats. MC leaves the area and picks up a ball. He kicks it down a sloping hill and chases it. He catches it and kicks it again. He runs to the other side of the playground and fins a small yellow ball. He kicks it over to the bark area. He is distracted by a goat and a calf that approach him. He stands clasping his two hands together watching them. He walks away over to a tree and climbs the tree then jumps out of it. He then climbs up a rope ladder and jumps down. He finds another ball and picks it up and throws it in the air. He picks it up again and rolls it down the sloping bark. MC makes his way through farm animals and children to get a moonhopper. He bounces up and down through all the children and animals. He carries the moonhopper down the path and onto the fort. He bounces on it until he reaches the slide. He rolls the moonhopper down the slide, slides down after it and gets on it again. He bounces his way to a trough, then to a group of four children with a black sheep. He accidentally squashes some children with his moonhopper. MC sits on the concrete next to the four children and the sheep and starts singing a song about a boat. All the children leave and MC gets up and walks over to the grass and sits down. He starts singing to himself. MC talks to himself. He mumbles conversation for four minutes. He is smiling and talks to himself (or an imaginary friend) for three minutes more.