

*“She’s like this diamond ...
you grab the right light and it reflects all through”*

Ruby – Interview participant 2009

**Primary teachers’ perceptions of the
social and emotional aspects
of gifted and talented education.**

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The truly creative mind in any field is no more than this:

A human creature born abnormally, inhumanly sensitive.

To him...

a touch is a blow,

a sound is a noise,

a misfortune is a tragedy,

a joy is an ecstasy,

a friend is a lover,

a lover is a god,

and failure is death.

Add to this cruelly delicate organism the overpowering necessity to create, create, create - - - so that without the creating of music or poetry or books or buildings or something of meaning, his very breath is cut off from him. He must create, must pour out creation. By some strange, unknown, inward urgency he is not really alive unless he is creating.

Pearl Buck (no date)

Abstract

This study investigates the impact that teacher attitudes and experiences have on their understandings of the social and emotional characteristics and needs of gifted and talented children. It addresses the issues within Aotearoa New Zealand Primary school settings. The study used a mixed methodology approach. Quantitative data was collected in the form of questionnaires to collect information from a range of participants and to identify potential participants for individual interviews. More in-depth qualitative data were collected through semi-structured interviews conducted with four teachers.

The findings suggest that many teachers are uncertain about the social and emotional characteristics and needs of gifted and talented children. Teachers expressed positive attitudes towards gifted and talented children while acknowledging their lack of personal knowledge about gifted and talented education. The findings also identified teachers' frustrations at barriers affecting their ability to support gifted and talented children's social and emotional needs in their classroom programmes, including, limited personal knowledge and skills, lack of professional development, lack of time to spend with gifted and talented children, and school directed priorities for meeting the needs of other children.

The findings of this study have implications for teachers wanting to support gifted and talented children, educators interested in the social and emotional needs of gifted and talented children, and those responsible for gifted and talented education (GATE) programmes and GATE professional development. It

would seem that it is highly desirable for all teachers to have professional development in gifted and talented education, in order to better understand social and emotional aspects, and thereby provide a more supportive environment where gifted and talented children can learn and grow.

Glossary

Affective characteristics: the feelings or emotions of the person. Attitudes, values, self-esteem, locus of control, self-efficacy, interests, aspirations and anxiety are all examples of affective characteristics.

Asynchronous development: Asynchronous development refers to uneven intellectual, physical, social and emotional development.

Decile rating: The MOE has developed a Targeted Funding for Educational Achievement indicator, commonly known as a 'decile rating.' The rating is intended to be a measure of socio-economic disadvantage, and is based upon several dimensions (Appendix 3).

Dyssynchrony: a term coined by Terrassier to describe the problems that gifted children have when two particular domains are very asynchronous in their development.

Gifted and talented: Gifted and talented students have exceptional abilities and certain learning characteristics that give them the potential to achieve outstanding performance (MOE, 2002).

Integrated schools: schools that used to be private and have now become part of the state system. They teach the New Zealand Curriculum but keep their own special character (usually a philosophical or religious belief) as part of their school programme. For example, Catholic schools.

Intermediate schools: New Zealand school with students aged 10-13, years 7 and 8.

Introversion: Introversion is a way of operating in which a person is more comfortable in their own inner world and have less need for engagement with others.

Ministry of Education (MOE): New Zealand Ministry of Education.

Kura kaupapa Māori schools: Māori-language immersion schools where the philosophy and practice reflect Māori cultural values with the aim of revitalising Māori language, knowledge and culture. The term Kaupapa Māori is used popularly by Māori to mean any particular plan of action created by Māori to express Māori aspirations, values and principles.

Overexcitabilities: The English translation of a term originated by Kazimierz Dabrowski to describe excessive response to stimuli in five psychic domains (psychomotor, sensual, intellectual, imaginal, and emotional) which may occur singly or in combination. Overexcitabilities are also known as super sensitivities.

Perfectionism: The desire to execute tasks flawlessly.

Primary School: New Zealand primary school with students aged 5-13, years 0-8.

Regular classroom: A mainstream classroom within a primary school with one teacher and 20-30 same aged students with varying levels of development.

State schools: Primary and intermediate schools fully funded by the Government.

Self concept: The mental image one has of oneself.

Self esteem: How much a person likes, accepts, and respects themselves as a person

Students: Primary school aged children attending a regular Primary school. (5 – 13 years)

Teachers: Primary school teachers who teach children in regular classrooms in New Zealand.

Treaty of Waitangi: New Zealand's founding document. It establishes the relationship between the Crown and Māori as tangata whenua (first peoples) and requires both the Crown and Māori to act reasonably towards each other and with utmost good faith.

Underachievement: A significant difference between ability and performance. A gifted underachiever is often defined as having superior intelligence, yet working below academic ability levels, even when their performance is acceptable for the age or class level they are in.

Chapter 1

INTRODUCTION

BACKGROUND TO THE STUDY

Cognitive complexity gives rise to emotional depth. Thus gifted children not only think differently from their peers, they also feel differently (Silverman, 1993, p.3).

In many ways, gifted children have the same social and emotional needs other children have, but their needs are often intensified by the characteristics that make them gifted. A commonly held belief by teachers is that gifted and talented children have social and emotional problems and therefore need to work on these skills. If educators fail to understand their needs gifted children can be at risk for academic underachievement social isolation and depression. Potentially resulting in a loss to the whole of society because of unrealised potential and contributions (Moltzen, 2004).

“In the past, educating gifted and talented students has been dominated by concerns about their learning, more recently, attention has been paid to aspects of their emotional and social development” (MOE, 2000, p 22). Many gifted and talented students show little evidence that their emotional and social development is anything but normal. Some may experience considerable difficulties, however they often skillfully use their exceptional ability to disguise their struggles. For some gifted students, these issues are far more obvious. “The

consensus of opinion is that, as levels of giftedness increase, so does the need for appropriate support in the emotional and social areas” (MOE, 2000, p 22).

Social and emotional issues for gifted and talented children can include: unrealistically high expectations of self and others; asynchronous development; perfectionism; sensitivity, and underachievement. *“It is important to recognise that the emotional and social development of these children is not necessarily problematic on its own but that it can become problematic if they find themselves out of step with their peers”* (MOE, 2000, p22).

The Ministry of Education (MOE, 2000) recognises that *“all teachers are teachers of the gifted and talented, in need of professional development that ensures they can cater appropriately for gifted and talented students”* (p.11), and this includes affective needs. In New Zealand, “Many teachers have the willingness to cater for the needs of these students, but lack the knowledge and skills to be able to do so successfully” (Moltzen, 1998/99, p. 62).

The topic for this study was selected after participating in a presentation given by Dr Tracey Riley, Massey University and Dr Catherine Rawlinson, University of Auckland, at the National Gifted and Talented Conference 2006: *Rising Tides - Nurturing our Gifted Culture*. The presenters made the call for further research into the role of teachers in gifted and talented education, in their paper: *Teacher Education in Gifted and Talented Education in New Zealand*.

In my role as a teacher educator and with a 20 year interest in Gifted and Talented Education (GATE) it was a natural marriage of my personal and

professional interests in formulating research to answer questions about teachers' attitudes towards the social and emotional aspects of GATE.

STATEMENT OF THE PROBLEM

Gifted students by their very advanced cognitive abilities and intensity of feelings deal with issues about self and others in ways that are different from those of the general population and therefore require specialized understanding.

Nicholas Colangelo (cited in Colangelo & Assouline, 2000).

Gifted and talented students are particularly vulnerable to social and emotional problems. Many gifted children are successful in the social area. However when they are placed in educational settings that are not conducive to intellectual, social and emotional development problems may occur. Teachers play a significant role in ensuring gifted and talented children receive appropriate education. It is therefore imperative that teachers be sensitive to the social and emotional states of gifted children and recognise their unique vulnerabilities. Gifted students social and emotional development can be affected by teacher attitudes and expectations. Although there may be awareness and recognition of the social and emotional needs of gifted and talented students by teachers, there is often a lack of understanding and ability to appropriately cater for these needs.

PURPOSE OF THE STUDY

The purpose of this study is to investigate the attitudes and perceptions of primary school teachers toward the social and emotional aspects of gifted and talented children's lives. Changes to the National Administration Guidelines

have meant that, since 2005, New Zealand schools must ensure gifted and talented learners are catered for in the same way as students who are not achieving or at risk of not achieving, and those with special needs (Appendix 1). Schools also have to demonstrate, to parents, Board of Trustees and the Ministry of Education (MOE), how they are meeting the needs of their gifted and talented children.

As there are conflicting opinions about the social and emotional development of gifted children it seems evident that more research needs to be undertaken in this field. Investigation in the area of social and emotional needs may facilitate a better understanding of the gifted population, better identification of those who could potentially be at risk of having emotional problems, and more effective intervention and guidance. Improved understandings may impact positively on teachers' perceptions and therefore their practice. New Zealand based research in this area will be valuable as we are still very reliant on international findings. It is important to have local research so that findings are appropriate and relevant to New Zealand's unique cultural, social, and educational contexts.

A crucial issue for gifted and talented education is that recommendations on future directions should be based on research. This preliminary investigation should add to the available research and suggest further investigations in this area. The outcomes could also guide future personal research in this topic.

SIGNIFICANCE OF THE STUDY

In a Ministry of Education national research project (Riley, Bevan-Brown, Bicknell, Carroll-Lind, & Kearney, 2004) researchers found that “*Definitions of giftedness and talent reported by schools were broad, however cultural, spiritual and emotional giftedness were often overlooked*” (p.3). The researchers identified several areas for improvement by schools including: meeting the social and emotional needs of gifted and talented students; providing individualised and appropriate education for them; and better provision for gifted and talented students from under-represented groups, especially Maori and other ethnic minority groups. They concluded that the success of gifted and talented education in New Zealand was reliant on educators reflecting the core principles of the gifted and talented education policy announced in 2002. The current research will therefore be based upon the core principles of gifted and talented education, in particular: “*Schools should aim to meet the specific social and emotional needs of gifted and talented learners*” (MOE, 2000, p.6). New Zealand educators are expected to meet the core principles (Appendix 2) outlined by the Government, in 2002, in the Government’s initiatives for gifted and talented learners.

In this study, it is hoped some insights will be gleaned concerning the match or mismatch between teacher perceptions of the issues addressed and the empirical evidence. The relationship between popular perceptions and some of the dominant themes addressed in recognised literature regarding the nature of the social and emotional aspects of giftedness will be explored. Consistency between

teachers' perceptions and the literature would seem appropriate in order to raise support for the needs of children who are gifted. More consistency would also seem necessary in order to diminish the harmful effects of perceptions that can raise self-doubt in children who are gifted, concerning their own competencies whether emotional, social, or academic.

RESEARCH QUESTIONS

To arrive at a deeper understanding of teachers' perceptions, understandings and attitudes towards the social and emotional needs of gifted and talented children, this study will attempt to answer the following questions:

1. What are primary school teachers' understandings of gifted and talented children's social and emotional needs?
2. What are primary school teachers' attitudes towards gifted and talented children?
3. Does professional development in gifted and talented education have an effect on teachers' perceptions, understandings and attitudes?

Chapter 2

LITERATURE REVIEW

CHAPTER INTRODUCTION

There is a growing body of literature pertaining to Gifted and Talented Education in New Zealand, although this is largely the work of a small number of dedicated professionals with an interest in the area, (see for example, Bevan-Brown, Cathcart, McAlpine, Moltzen, Parkyn, Reid, Rawlinson, Riley and Townsend). Underpinning this is a body of international, mainly American, literature which has provided a platform for New Zealand research and practice.

This literature review will examine the main issues surrounding the social and emotional needs of gifted and talented children. There is a focus on (a) social and emotional characteristics and needs of gifted and talented children; (b) teachers' knowledge, perceptions and attitudes of Gifted and Talented Education and (c) teachers' professional development in Gifted and Talented Education.

In the first instance, a sensible starting point is to investigate what is meant by the terms gifted and talented and social and emotional characteristics and needs. Additionally, teachers' perceptions and experiences will be explored. The place of professional development (PD) and the MOE's expectations of schools and teachers will help place the social and emotional needs of gifted and talented children in an Aotearoa New Zealand primary school context.

WHAT IS GIFTED AND TALENTED EDUCATION?

Gifted and Talented Education is often referred to as GATE in educational circles. GATE encompasses any learning, teaching, intellectual and socio-emotional development, characteristics, identification procedures and programmes that cater for gifted and talented students.

GATE programmes are a requirement of all New Zealand Primary schools. However, the Education Review Office (ERO), 2008, state that although schools provide a range of GATE programmes, they are of varying quality. Schools must also provide definitions of the GATE programme within their school. ERO (2008) reported that less than half of the surveyed schools had effective definitions. ERO determined that effective gifted and talented programme definitions are multi-categorical; multi-cultural; recognise multiple intelligences; and recognise potential and demonstrated giftedness and talent.

WHAT IS THE DEFINITION OF GIFTED AND TALENTED?

Gifted and talented children have exceptional abilities and certain learning characteristics that give them the potential to achieve outstanding performance (MOE, 2002). The concept of giftedness and talent is undergoing constant change. There have been a myriad of theories, numerous conceptions, and countless definitions of gifted and talented postulated by theorists and educators over the last century. Although there seems to be no universally accepted definition, MOE (2002) highlight the most commonly recognised and accepted definitions both internationally and here in New Zealand. These definitions have

provided a dynamic arena for discussion and debate. New Zealand schools are encouraged to use these as a basis for their own school's specific definition of giftedness and talent. Attached to most definitions is a set of common identifying characteristics of gifted and talented.

Terms

Many different terms have been used to describe the gifted and are often used interchangeably in literature. In deciding on an appropriate definition of giftedness and talent, the first dilemma is in fact which term to use. Terms used in New Zealand have included: children with special abilities; students with high potential; gifted; gifted and talented; able; more able; and exceptional. The term gifted and talented was regularly used internationally, for example in the USA's Marland Report, 1972. New Zealand and Australia once favoured "Children with Special Abilities" and the United Kingdom used the term "able". However, according to the literature "gifted and talented" was, and still is, the most widely used term internationally and explains the MOE acceptance of it. The term "gifted and talented" will be therefore be used in this study.

Definitions

Defining who the gifted and talented are is not an easy task. Once deciding on the term, the definition becomes the next issue. Over the last century there have been numerous definitions of the term gifted and talented. Definitions have varied greatly, and have been situated in many concept continuums: 1, biological

to environmental (nature/nurture); 2, conservative to liberal; 3, performance to potential; and 4, single to multi-category. These will be discussed more fully.

Biological to Environmental (nature/nurture) Definitions

Many definitions are clearly based on the author's beliefs about whether performance is dependent on innate biological factors or on environmental factors. Clark (1997) states "*Giftedness is a biologically rooted concept that serves as a label for a high level of intelligence and indicates an advanced and accelerated development of functions within the brain, including physical sensing, emotions, cognition, and intuition* " (p.26). In contrast, Tannenbaum (cited in Colangelo & Davis, 2003) states "*Giftedness requires social context that enables it to mature*" (p.54). However both, Tannenbaum and Clark agree that nature and nurture are complementary forces in determining intelligence and achievement and that neither can function without the other.

Conservative to Liberal Definitions

Historically, in the early 1900s, definitions were conservative and usually based on a single criterion, such as intelligence, and a high IQ score. These definitions usually limited giftedness and talent to a small percentage of the population, were restrictive, and limited to academic areas, for example Terman (1925). In contrast Liberal definitions, which are currently more common, are inclusive and have a wider definition, for example Renzulli (1978).

Performance to Potential Definitions

Some historical definitions focus on performance as the key defining feature of giftedness, for example Renzulli (1978). These performance based definitions have tended to be avoided, in recent times, as they only recognise one part of giftedness. More recent definitions refer to the potential or promise of performing (Clark, 1997). Gifted and talented children are those possessing or capable of developing traits and applying them to any potentially valuable area of human performance (MOE, 2004).

Some definitions differentiate between gifted and talented. Giftedness is high intelligence or natural aptitude and Talent is high level of performance or outstanding achievements. For example Gagné (1995 & 2003) developed a model which differentiates between giftedness and talent where he proposes that giftedness relates to distinctly above average competence in the ability domains of intellect, creativity, socio-emotional, sensory-motor and others, while talent relates to above average performance in talents, such as music, sport and art. He identifies the role of the environment and internal factors contributing to the transformation of talents into gifted performances.

Single to Multi-category Definitions

Traditionally, single category definitions were used to determine giftedness, usually relying on measures of IQ or intelligence, for example Terman (1925).

Multi-category definitions have become the norm as it is now accepted that the gifted and talented are not simply those with high intelligence. Multi-category definitions have a range of categories or domains where an individual can be gifted and talented for example sport, music, art, science, and mathematics. The range of abilities and characteristics listed in multi-category definitions has become quite broad. Some definitions are seen as so broad that every child might be deemed to be gifted and talented. McAlpine (2004) gives the example of Taylor's (1978 & 1986) multiple talent totem pole concept with nine talent areas, as reflecting a very broad view point, where *"nearly everyone can be 'Talented' in some field or other"* (p.34). Some would agree, however others would argue that there are only a small minority of children who are truly gifted and talented. These differing opinions depend on the beliefs and definitions one has about personal strengths or talents and giftedness.

The change from a single to a multi-category concept of giftedness and talent has been paralleled by changes in the concept of intelligence itself. No longer seen as a single entity, it is now viewed in terms of multiple intelligences. Foremost amongst the proponents of multiple intelligences is Gardner (1993), who has postulated eight intelligences. Gardner views intelligence as the capacity to solve problems or to fashion products that are valued in cultural settings. Gardner's theory proposes that intelligence, particularly as it is traditionally defined, does not sufficiently encompass the wide variety of abilities humans display. He argued that people have a unique blend of intelligences that differ in strength. Because of this people learn in different ways and can display giftedness in a

variety of domains, for example physical, musical, mathematical. Sternberg (1997, 2003, & 2004) also writes extensively on intelligence and giftedness. He formulated the Triarchic Theory of Intelligence, comprising of three parts: componential, experiential, and practical. He believes that intelligence is how well an individual deals with environmental changes throughout their lifespan.

New Zealand Definitions

The New Zealand MOE does not currently have its own definition. There have been several key definitions that have shaped New Zealand's current direction. These include The Marland Report, 1972; Renzulli, 1978; The New Zealand Department of Education policy for children with special abilities, 1986; The Jarvis Gifted and Talented Act, 1988; and the United States Office of Educational Research and Improvement Report on National Excellence and Developing Talent, 1993. The New Zealand MOE (2000, 2002, & 2004) highlights the work of Gagné, Gardner and Renzulli, and the need for multi-category concepts and multi-cultural and bi-cultural perspectives. Within New Zealand, individual schools are required to establish a school-based definition of giftedness and talent (MOE, 2000; 2002), *"Schools need to develop multi-categorical approaches to giftedness that are flexible enough to include the many characteristics that are typical of gifted and talented learners"* (MOE, 2002, p. 2). However, in recent studies, it was found that less than half of New Zealand schools have done so (MOE, 2004, New Zealand Educational Review Office (ERO), 2008). The case study schools, who had written their own definitions, reported multi-categorical definitions of giftedness and talent,

however there was a lack of recognition of cultural, spiritual, and social-emotional gifts and talents in many of these schools.

Māori Definitions

Māori gifted education is a unique aspect of New Zealand's gifted community. Leading the research in this area have been Bevan-Brown (1994, 1999, 2000a, 2000b); Cathcart (1994); Jenkins (2002); Reid (1989, 1990, 1991 & 1992); Rymarczyk-Hyde (2001); Macfarlane (2010) and Macfarlane & Moltzen (2005). These authors provide important research and considerations in respect of Māori GATE perspectives.

Māori conceptions of special abilities are holistic in nature and inextricably intertwined with other Māori concepts such as whanaungatanga (inter-personal relationships) and wairua (spirituality) (Bevan-Brown, 2004). Māori are underrepresented in GATE. Many writers have discussed the negative influences on the identification and provision of programmes for gifted students who are Māori (Bevan-Brown, 1994, 1999, 2000a, & 2000b; Cathcart & Pou & 1992; Reid 1989, 1990, 1991 & 1992). Mahuika (2007) argues that there are several long standing issues and themes in the field of Māori gifted and talented education, including the need for:

more appropriate definitions of what educators view as 'giftedness', and particularly the inclusion of Māori concepts of giftedness; how best to identify Māori students who are gifted and talented; how gifted and talented education programmes can be developed and implemented in ways that are culturally sensitive and supportive for these students; and the further development of theoretical frameworks and pedagogies in this area (p.1).

Bevan-Brown's (1994, 1999, 2000a, & 2000b) research has been pivotal in providing a foundation for understanding giftedness from a Māori perspective. She cautions, as with all cultures, Māori are a diverse people, and to impose an oversimplified conceptualisation of Māoriness as the predominant paradigm would be inappropriate and unrealistic. She explains:

The suggestions made for identifying and providing for gifted and talented Māori students will not apply to all Māori learners with special abilities. However, they are considered appropriate for many gifted Māori learners who identify themselves as Māori and adhere to their Māoritanga (Bevan-Brown, 2004, p.172).

New Zealand schools are expected to incorporate multi-cultural and bi-cultural perspectives in their GATE definitions and programmes (MOE, 2002). ERO (2008) reported that the majority of schools did not adequately account for Māori or multi-cultural concepts in their definitions of giftedness and talent. Some schools however included Māori beliefs and perspectives in their definitions, but there was little evidence of practical application in their GATE programmes (ERO, 2008).

Multi-cultural Definitions

Complementing the rise of the multi-category approach has been an increasing awareness of the importance of multicultural values in the formulation of the concept of giftedness. A teacher's culture can influence interpretations of concepts of giftedness.

The New Zealand MOE (2000) states that cultural values, beliefs, traditions and attitudes, as well as interpretations should underlie how giftedness and talent is defined. The concept of giftedness and talent that belongs to a particular group is shaped by its beliefs, values, attitudes, and customs. Parameters of giftedness determine who will be identified as gifted and therefore definitions must be culturally inclusive.

The majority of New Zealand schools have students from diverse ethnic and cultural backgrounds. Concepts of giftedness vary across cultures. It is therefore important to decide on an appropriate term and ensure the definition is accurate, accepted and understood by the school community in which it is used so that a child may be identified in order that their specific needs catered for. New Zealand schools need to ensure the definitions they are using are reflective of their school and community culture. McAlpine and Moltzen (2004) suggest that although there may be a commonality of meaning, it is the diversity of interpretation that causes debate.

Giftedness and talent is a living, breathing, ever-changing concept, one which has been, and continues to be socially constructed (Borland, 1997). What is valued in one community at a particular point in time and by a specific group of people will vary greatly from another community, time, and people. Definitions of giftedness are controversial. In conclusion, in the words of Keen (2004) *“Giftedness deals with surprises, not certainties”* (p.266).

Identification

Parameters of definitions determine who will be identified as gifted and talented. Clarity of definition would seem to be a necessary pre-requisite if gifted young people are to be identified validly and supported effectively in their development.

The MOE (2000) states that each school must develop its own set of characteristics that reflect its own definition of giftedness and talent and school culture. This can be an overwhelming task for schools; however there are many sets available to schools. The most recent set of characteristics used in the MOE's literature is McAlpine and Reid's (1996), and is used as a starting point for schools when writing their own lists. Many authors acknowledge the difficulty in limiting characteristics to a definitive list and that teachers and parents should see the lists as a starting point only. Some characteristics may only be displayed in a particular context and at a particular stage. *"It is important to remember that giftedness is a socially constructed concept and for this reason the characteristics associated with it can never be considered fixed"* (Moltzen 2004, p.88).

There are many barriers to overcome if accurate identification is to occur. Teachers' understandings and attitudes, and personal beliefs affect their ability to accurately identify gifted and talented children. Lack of training in recognising giftedness may also mean they miss accurately defining those who are gifted.

A number of issues impact on the accurate identification of gifted and talented individuals, including issues of gender, culture, underachievement, dysynchronous development, teacher attitude and knowledge, and identification methods. The literature suggests the identification of gifted and talented students is one of the most important aspects of gifted education confronting educators. The New Zealand MOE (2000) indicates that identification is often ranked 'number one' amongst critical issues in the field.

The purpose of identification is to accumulate a comprehensive range of information about a gifted and talented students learning, interests, qualities, abilities, strengths, and weaknesses in order to provide appropriate educational programmes. Identification is the connecting link between a school's definition of giftedness and talent and the programmes it provides. All three must be correlate for effective learning to occur for the Gifted and talented.

Many methods are available, to New Zealand schools, to assist in the identification of the gifted and talented. Both formal and informal methods of identifying gifted and talented learners are currently being used in New Zealand schools including in-class observations and assessments, standardised tests and psychological testing. ERO (2008) reported less than half the schools surveyed used an identification process that was multi-categorical, and very few used Māori theories and knowledge or multi-culturally appropriate methods.

The interrelationship between definitions, characteristics and identification methods are crucial if accurate identification of all gifted and talented children is to be achieved. It is the responsibility of every educational setting in New Zealand to ensure the definitions and identification procedures they employ are based on current theory, and are objective, comprehensive and robust in order for all children who are gifted and talented to be acknowledged and celebrated. Finally, in the words of McAlpine (1990, cited in McAlpine & Moltzen, 2004)

Identification should always be seen as a means to an end and not an end in itself. It is a means to offering students the opportunities to participate in relevant and challenging educational programmes which will enhance their emotional, social and cognitive development (p. 126).

What Does The Research Say About The Social And Emotional Characteristics And Needs Of Gifted And Talented Children?

Traditionally, education of the gifted has focused on children's cognitive abilities and has ignored their social and emotional needs (Cathcart, 2005; Clark, 2002; Silverman, 1998; Versteynen, 2005). During the last 20 years there has been a surge of research investigating the social and emotional adjustment of gifted learners (Versteynen, 2005). Three competing theories have emerged. Firstly, gifted children are more vulnerable to emotional difficulties (Morelock, 1996; Piechowski, 1991; Silverman, 1998). Authors Hollingworth (1942), Roedell (1986), Silverman (1983), and Tannenbaum (1983) all support the view that gifted children are more at risk for adjustment problems than their non-gifted peers and that giftedness increases a child's vulnerability to adjustment difficulties. Secondly, the opposing view, that gifted children are more advanced

in social and emotional development (Clark, 1997; Parker, 1996) and that gifted children are better adjusted than their non-gifted peers (Baker, 1995; Beer, 1991; Clark, 1997; Neihart, 1999). Gross (2000) argued that exceptionally gifted were not more likely to have social and emotional difficulties. Although she did acknowledge gifted children could have social and emotional issues arising as a result of society's response to them and not because of their exceptional intellectual abilities. The third theory suggests that gifted children are just as liable to emotional difficulties as all others (Feldhusen & Nimlos- Hippen, 1992; Freeman, 1991). It is therefore difficult to come to any conclusions about gifted children's social and emotional adjustment.

What is more consistently agreed on however is that gifted children have unique affective characteristics and needs (Gross, 1997; Nugent, 2005; Piechowski, 2006; Silverman, 1990 & 1998). Gifted children not only think differently they feel differently (Winner, 1996). Some gifted individuals possess a level of emotional sensitivity and intensity that sets them apart from others. A frequently voiced concern, according to the literature and anecdotal evidence, of parents and educators is that children who are gifted are prone to developing social and emotional problems. Empirical evidence, however, does not support the perception that individuals who are gifted have higher levels of social or emotional problems than the general population, (Bain & Bell, 2004; Nail & Evans, 1997; Bain, Bliss, Choate, & Sager Brown, 2007).

Attitudes toward social problems of the gifted have historically been evaluated by gathering evidence that supported concerns about emotional and social

problems in children who are gifted (Bain et al, 2007). This may be due to the fact that it is only when a gifted and talented child is displaying problem behaviours that they are referred for specialist help and therefore the incidences of social and emotional problems are recorded. Freeman (2001) reported that teachers and parents seem more inclined to label children identified as gifted as difficult, odd, or unhappy. Again, is this because when gifted children are not displaying any negative behaviour they go un-noticed and simply meld into classroom instruction? Bain, Choate and Bliss (2006) found:

Perceptions that giftedness is typically associated with serious social and emotional problems may, indeed, cause harm in terms of expectations, as well as potential misallocation of resources to remediate a problem perceived as dominant across children who are gifted (p.5).

According to the literature, gifted children's social and emotional adjustment is related to the type of giftedness, educational fit, and personal characteristics (Versteynen, 2005). Children who have been identified as gifted and talented commonly report feelings of having difficulty making friends with age peers and of being estranged, different, alone, teased and rejected (Clark, 2002, Davis & Rimm, 2004, Gallagher & Gallagher, 1994). Gifted students have reported that they have difficulty making friendships and they often feel lonely (Braggett, 1992; Vialle, Heaven, & Ciarrochi, 2007). Many gifted children develop very close friendships with a limited number of people, often members from their own family. Gifted and talented children often feel different, and this difference is not always perceived in a positive light, which can lead to depression, poor self-concept, and antisocial behaviours, and withdrawal (Nugent, 2005; Moltzen, 2004; Piechowski, 2006; Versteynen, 2005).

Dabrowski's (1964) theory of Positive Disintegration is a particularly relevant theoretical perspective for understanding giftedness. Dabrowski presents a theory of personality development which describes how individuals go through a series of developmental stages that shape their emotional growth through their life experiences which have been guided by biological and societal factors. Dabrowski's theoretical framework views psychological tension and anxiety as necessary for growth. Positive disintegration refers to a process through which an individual's development can progress from a lower level of functioning to a higher one, through emotional disharmony and conflicts within the internal environment and with the external environment. Dabrowski hypothesized that gifted and talented students will disproportionately show strong overexcitability and therefore will be prone to the disintegrative process. Within Dabrowski's theory there are two facets relevant to affective development, the level of emotional development and overexcitabilities, which increase our understanding of the affective domain in gifted individuals. The affective domain is the area of learning involved in appreciation, interests, and attitudes and emotions.

Affective Characteristics

Although each gifted and talented child has their own unique pattern of characteristics Clark (2002) has listed several affective characteristics that are common to many, including: knowledge of own and others' emotions; sensitivity to others feelings and expectations, keenness of humour; heightened self awareness and feelings of being different; unusual emotional depth and intensity; heightened expectations of self and others; and perfectionism. Other researchers

(Gross, 1993; Renzulli, 1977, 2004; Silverman, 1990, 1993, 1998) have also explored the affective characteristics of gifted and talented children and reported common characteristics including super sensitivity and intensity of emotion; perfectionism; asynchronous development/ dyssynchrony; underachievement; difficulty making friendships, and loneliness.

Gifted individuals can be extremely sensitive and show intense emotions towards everyday occurrences (Dabrowski, 1964; Silverman, 1990, 1998; Piechowski 1991), for example bursting into tears while being read a sad story. Their emotional reactions can be hyper elevated or depressed (Clark 1997; Piechowski, 1991).

Overexcitabilities

Overexcitabilities are often used to describe certain characteristics of the gifted.

It is often recognized that gifted and talented people are energetic, enthusiastic, intensely absorbed in their pursuits, endowed with vivid imagination, sensuality, moral sensitivity and emotional vulnerability. . . [They are] experiencing in a higher key. - Michael Piechowski. (Heylighen, no date, p.5).

Dabrowski's overexcitabilities ("superstimulabilities") manifest in behaviours associated as a result of extreme sensitivity in a variety of areas of central nervous system sensitivity: psychomotor; sensual; imaginal; intellectual and emotional (Dabrowski, 1964; Piechowski, 2002). Gifted children can respond to stimuli and situations with 'over the top' reactions, for example screaming when there is a sudden loud noise. Some children showing overexcitability behaviours

are labeled as 'hyperactive'. Mendaglio and Tillier (2006) stated those who have higher abilities and a strong drive to be individualistic often exhibit strong overexcitabilities. Extreme overexcitabilities or a strong imbalance between them may reduce the individual's ability to function in society.

Piechowski (1991; 2006) proposes emotional intensity can be expressed in many different ways including: intensity of feelings, extremes of emotions, physical symptoms, inhibition, shyness, strong affective memory, fears and anxieties, feelings of guilt, feelings of being out of control; concerns with death, depressive moods, empathy and concern for others, loneliness, critical self-evaluation and self-judgment, feelings of inadequacy and inferiority.

Perfectionism

Perfectionism is often portrayed as one of the defining characteristics of gifted children. Perfectionism can result in children having unrealistic expectations of themselves to achieve at high levels in everything they do (Clark, 2002; Davis & Rimm, 1998; Gross, 1993; Reis, 1998; Silverman, 1994, 1998). Teachers, parents and other adults can also have inappropriately high expectations for gifted children which can reinforce and exacerbate perfectionist tendencies (Lind, 1998). Gifted children may develop perfectionism after entering school, as they perform better than their classmates. Later, such perfectionism may lead to avoiding challenges so as not to appear imperfect. As with any characteristic, perfectionism can range from being enabling to disabling for the gifted child. Attention to high standards can support achievement and aspirations, and can

motivate to keep children moving toward their goals and achieving their personal best (Neihart, 1999). However, perfectionism can also negatively impact on the gifted child's motivation. It can lead to not attempting tasks because of fear of failure or making a mistake. Frustration at falling short of their expectations can lead to emotional outbursts (Pfeiffer & Stocking 2000).

Dysynchrony

Dysynchrony is the term coined by Terrassier (1985) to describe the problems that gifted children have when two particular domains are very asynchronous in their development. Dysynchronous development occurs when there are uneven rates of development between intellect and fine motor skills, intellect and social skills, or intellect and emotional responses and may cause difficulties in performing and interacting well (Delisle & Galbraith, 2002; Silverman, 1990, 1998; Terrassier, 1985). The gifted child's uneven or asynchronous development is a significant risk factor that can render them particularly vulnerable to social and emotional problems (Roedell, 1984, 1986; Webb, 1993). In particular, Terrassier (1985) postulates that internal dyssynchrony effects social and emotional development which impacts on the gifted child's ability to relate to and interact with others. Unfortunately, gifted and talented children often meet the expectations of others at the cost of denial and suppression of their own passion, their own self (Grant & Piechowski, 1999). Trying to change or suppress the internal factors related to a gifted child's needs can result in alienation from the child's true self (Gross, 1997; Neihart, 1998; Silverman, 1994). Teachers do not perceive most internal issues, with the exception of unhealthy perfectionism, to

be problematic to any greater degree for gifted students than for average ability students (Greene, 2003).

A gifted child's social and emotional needs can be accommodated through changes in external factors. One may not be able to change the unique social needs of the gifted child, however one can provide opportunities for social development where the child's needs are accepted rather than suppressed (Valpied, 2001). Healthy social and emotional development, which contributes toward fulfillment of one's potential, is likely to occur through self-acceptance, in an environment where individual differences are valued (Silverman, 1992, 1998).

Underachievement

Gifted underachievers often perform at average levels for their age. More alarmingly many gifted underachievers are performing at very low levels (Colangelo, Kerr, Christensen & Maxey, 1993; Moltzen, 1996; Rimm, 2008). Underachievement is sometimes differentiated from non-production by including a psychological factor of perceived inability to succeed academically. Some underachievers may withdraw, others may become disruptive. Underachievement may occur when there are limits to the opportunities a child has to engage and be challenged by learning because of unsuitable content, materials or activities and when a child loses interest, motivation and commitment to performing well, or has a fear of failure (Assouline & Colangelo, 2006; McCoach & Siegle, 2003; Colangelo et al, 1993). Underachievement can

also occur because the gifted and talented child wants to hide their abilities (Freeman, 1994), in order to fit in with their same aged peers (Janos, Fung, & Robinson, 1985).

Introversion

Introversion is a way of operating in which a person is more comfortable in their own inner world and draws strength from it. The majority of gifted people show some degree of introversion. There is a correlation between the level of giftedness and the degree of introversion displayed (Silverman, 1994; Sword, 2002). That is, the more gifted an individual is the higher degree of introversion. The main difference between introverts and extraverts is the source of their energy. Extraverts get energy from people and objects outside themselves whereas introverts gain energy from within themselves. Well developed introverts can deal competently with the world around them when necessary however many prefer to work independently and are more productive when working alone. Introverts preference to be alone can sometimes be misinterpreted as anti social behaviour.

Undesirable Behaviours

Most general sets of characteristics of gifted and talented students consist of positive behaviours usually in relation to academic characteristics. However there are some behaviours that gifted and talent children exhibit, as a direct result of their abilities, that may be considered undesirable in classrooms, for example: domination of class discussions, inattentiveness, day dreaming, distractibility,

inappropriate use of humour, task avoidance, and resistance to working with others (MOE, 2000, pp.19-20). Some students' challenging behaviours may be due to frustration from not having their needs met or lack of understanding about their own needs. In addition to the characteristics already discussed Porter (1999) also includes: feeling different from others, being overly sensitive to criticism, having behavioural outbursts and being non conformist.

Self Concept

Research indicates that gifted students have mixed feelings towards their giftedness (MOE, 2000). While gifted students may be positive about being labeled gifted, they sometimes feel their peers and teachers have negative views of them. Both self esteem and self-concept are influenced by the positive or negative feedback the individual receives from significant others, such as teachers, parents or classmates. Gross (1993a, cited in Gross, 1997) found disturbingly low levels of social self esteem in highly gifted children whose placement in the mixed-ability classroom prevented them developing supportive relationships with age-peers of similar ability and interests. Maslow (1971, cited in Gross, 1997) acknowledges self esteem as an essential constituent in the growth towards self-actualization.

Delisle & Galbraith (2002) suggest that the characteristics of gifted and talented children can sometimes be over generalised:

Brighter doesn't necessarily mean happier, more successful, socially adept or more secure. Neither does brighter necessarily mean hyper, difficult, overly sensitive, or neurotic. In terms of

emotional and social characteristics, brighter may not mean anything 'different' at all (p. 62).

Whatever the research might suggest, it is important to realise the gifted are not a homogenous group, and any conclusions which appear to suggest a high degree of homogeneity must be called into question. Gifted children must be seen as human beings and not as a cluster of characteristics that need to be addressed. Every child is a unique individual with a unique combination of characteristics. However, it is important to accept that because of their giftedness children need special support in order to have their needs met.

How Can Schools And Teachers Meet The Social And Emotional Needs Of Children In Their Classrooms?

Schools should aim to meet the specific social and emotional needs of gifted and talented learners. There is some awareness and recognition of the social and emotional needs of gifted and talented children, however only isolated examples of provisions specific to these are reported by New Zealand schools (Riley et al, 2004). These authors are concerned that “*The nature and extent of reported planned programmes for gifted and talented students in New Zealand schools could have a negative impact upon students’ social and emotional well-being*” (p. 278). There are some schools however who are not providing any recognition of gifted and talented education. Some schools, despite the responsibilities to NAG 1 (iii) (c), see no need to provide gifted and talented programmes, while others give reasons of lack of availability of time and budget to investigate appropriate gifted and talented programmes (ERO, 2008).

Teachers need to provide a responsive learning environment if gifted and talented children's social and emotional needs are to be met. Clark (2002) describes the responsive learning environment as: "*The responsive learning environment is flexibly structured and presents a complex learning organisation for the student*" (p.379). This environment has the ability to meet all learners' needs at their present level of cognitive, emotional, social, physical, and intuitive development and to help them move on from that point. In this learning environment, gifted students can pursue interests in depth with a minimum of time limitations. They are no longer singled out, but they can be grouped flexibly with other students as their learning needs demand, or they can work individually whenever it is more appropriate. The responsive learning environment considers both the physical environment and the social/emotional environment of the classroom. The aim is to offer opportunities for higher level thinking, creative thinking and original student research. According to McAlpine (2004) if we accept that giftedness is something that is not fixed in an individual, and that it emerges and changes, then the creation of a responsive learning environment is fitting, in that it offers continual opportunities for these gifts and talents to surface.

Teachers need to create a caring, socially rich, and cooperative classroom where differences are accepted. Promoting children's social-emotional development requires a comprehensive approach that includes creating a social context, teaching social skills, and facilitating children's emotional development (Corso, 2007). Relationships are essential to implementing effective practices to support

children's social-emotional development. The social environment of the classroom provides the context for children to develop the social skills and emotional foundations that they will need to be successful in school and life. Important goals related to children's social-emotional development include initiating and maintaining relationships with others, resolving conflicts, making friends, and communicating feelings, emotions, and needs in appropriate and effective ways.

Research clearly shows that it is the individual teacher that plays the central role in identifying and providing for the gifted and talented child (Clark, 2002; MOE, 2000; Riley, 2004a, 2004b). It is therefore up to the individual teacher to identify and provide the appropriate programme for gifted and talented students within their class. There is debate as to whether gifted children should be made to adapt to fit in to the norms or taught coping skills so that they can live happily in a world where their ideas and views are regarded as different. A dilemma faced by gifted children is, should I work at a level I am capable of or work at the level of my age peers so that I will fit in and be accepted? Not only is a gifted child trying to be accepted by others she/he is trying to make sense of herself/himself. The gifted student is particularly vulnerable to social and emotional problems resulting from difficulties being accepted into their age peer grouping. Although many gifted children are successful in the social area, highly gifted children are most at risk for peer-related problems, particularly when they are placed in an educational setting that is not conducive to optimal development (Gross, 1992).

Teachers play the significant role in ensuring gifted and talented children receive appropriate education. The MOE (2008) found that where schools were providing appropriate programmes for gifted and talented the:

Teachers are able to appropriately identify gifted and talented students. They are aware of and recognise the diversity of characteristics and behaviours for gifted and talented students, including ways of learning, creative thinking, motivation, social leadership, and self-determination (p. 6).

It is to both the gifted child's and the teacher's advantage for the teacher to provide support for the child's holistic growth and development:

No teacher will be wasting their time by maximising gifted and talented children's self concepts. The benefits that flow from enhanced self concepts can only enrich gifted and talented children's educational experiences and contribute to maximising their full potential (Craven & Marsh, 1997, p.126).

What Qualities Make an Effective Teacher of Gifted and Talented Children?

Renzulli (2004) identified three major interacting components that he considers constitute the ideal teacher of the gifted. Firstly, he said, there is the importance of teacher knowledge. Secondly, the teacher needs to have the qualities of *“flexibility, openness to experience and new ideas, a high energy level, optimism, commitment to excellence and enthusiasm for living”* (p.85). Thirdly, teachers need to have a love of the material they are teaching, or their own passion for knowledge and learning. He calls this ‘romance with the discipline’ (p.86). It is therefore imperative that teachers possess these characteristics in order to provide appropriate educational environments for gifted and talented children.

Rogers' (2007) meta-analysis of research in gifted education found that the most frequently mentioned teacher traits, listed in order of their importance, were: high degree of intelligence; high degree of intellectual honesty; expertise in a specific academic area; genuine interest in and liking of gifted learners; recognition of the importance of intellectual development; strong belief in individual differences and individualization; highly developed teaching skill and knowledge of how to teach; self-directed in their own learning, with a love for new, advanced knowledge; level-headed and emotionally stable.

Clark (2002) reported that the personal-social characteristics of teachers were important to gifted and talented learners. Teachers who were flexible, tolerant, empathetic, inspirational, humane, enthusiastic, open, innovative, informed, knowledgeable, and those that valued intelligence, intuition, uniqueness and change, were valued by this group of learners. In addition to these Rogers (2002) adds characteristics gifted children stated were most important for a "good" teacher:

- *Being patient.*
 - *Having a sense of humour.*
 - *Moving quickly through material.*
 - *Treating each person as an individual.*
 - *Allowing others' opinions to be heard.*
 - *Consistently giving "accurate" feedback.*
- (p.14)

Although these are idealistic lists, these qualities are certainly not only valued by gifted and talented learners but also a necessary prerequisite for those teaching them if their learning and social and emotional needs are to be met. Integral with these abilities and qualities is a need for teachers to create a learning

environment, within the regular classroom, conducive to ongoing identification and provision for children with gifts and talents in all aspects of their development.

There is a need for teachers to be sensitive to the social and emotional states of gifted children and recognise their unique vulnerabilities. Unrealistic expectations by teachers for a gifted child's achievement and behaviour can lead to negative and anti social behaviours (Freeman, 1994; Webb, 1993).

Why are Teachers' Attitudes Toward Gifted and Talented Education Important?

All teachers have particular beliefs about teaching and learning that they have derived from their academic, professional and personal experiences. Researchers suggest that these beliefs have a powerful influence on the ways that teachers act in the classroom. This tendency to act in a particular way is called a disposition. The beliefs teachers hold influence their perceptions and judgments, which in turn, affect their behaviour in the classroom. Knowledge about teachers' beliefs is important because teachers' beliefs influence their practices and actions (Timperley, Wilson, Barrar & Fung, 2007). Understanding the belief structures of teachers is essential to improving professional preparation and teaching practices (Megay-Nespoli, 2001). Landvogt (1997, cited in Plunkett 2000) suggests:

Teachers' beliefs about education affect every aspect of their work. It sounds obvious, and yet much of recent theory and textbook practice has ignored the need to find out what teachers believe and, if necessary, challenge those beliefs (p.240).

Studies have shown that attitudes, beliefs, and dispositions determine how teachers define and respond to their specific teaching situations:

Prospective teachers' attitudes and subsequent dispositions and actions are not easily identified. However, latent fears, attitudes, and misconceptions may well shape the social-emotional climate in their future classrooms (Ribich, Barone, & Agostino, 1998, p.1).

The teacher is very important in meeting the needs of gifted and talented students, and in fact all students. Teachers have an important role in advocacy for gifted and talented students. Van Tassel Baska & Stambaugh (2005) states that many studies have proven that gifted students' performances are affected by teacher attitudes and expectations. According to Smith and Chan (1998):

There is a common consensus among gifted educators that appropriate identification of and programming for gifted and talented students depend greatly on teachers' attitudes, views and understanding of the nature of giftedness and issues regarding the education of the gifted (p.30).

Plunkett's (2000) study revealed that teachers were generally positive toward gifted students but had misconceptions and or ignorance regarding their educational needs. Of more concern, Davidson (1996) "*found teachers not trained in gifted education tend to be more apathetic and even hostile toward gifted students*" (p.242).

The attitudes of teachers toward gifted students also appear to be related to their belief in their own ability to teach these students successfully (McCoach & Siegle, 2007). Research on self-efficacy theory has shown that it is not simply a matter of how capable one is, but of how capable one believes oneself to be for effective practice to occur (Bangel, Enersen, & Capobianco, 2006).

Most people engage in tasks in which they feel competent and confident, and avoid those in which they do not.

McAlpine (2004) suggests that teacher belief and expectation can be a barrier to identification, planning and delivery of programmes for the gifted and talented children. As the literature suggests teachers' lack of knowledge and understanding, due to lack of training, is believed to be a main cause of negative beliefs and attitudes (Clark, 2002; Collins, 2001). Moon & Brighton (2008) add further convincing comment,

The picture painted by the literature suggests that while teachers express beliefs about the multidimensional nature of giftedness and the importance of supporting young gifted students, they may be unwilling or unsure of how to apply these beliefs in practice or may feel unable to do so in the context of broader school requirements. Further, their conscious or unconscious biases and assumptions may profoundly influence their beliefs and practices related to talent development in young children (p.451).

It is generally agreed that attitudes influence a person's behaviour, perceptions and judgments (Bohner & Wänke, 2002). If positive attitudes towards giftedness are developed by teachers, it is more likely that they will be supportive of gifted education, and effective in identifying and catering for gifted students (Lassig, 2003). Lassig (2003) in her study of Australian teacher attitudes found, in terms of acceleration, almost half of the teachers thought that gifted children who are accelerated would have difficulties with social adjustment. However, studies of accelerated gifted students have shown that they are often better adjusted than gifted students who are not accelerated, as well as non-gifted students (Braggett, 1994; Gross, 1993). Davis and Rimm (2004) also recognise the significance of attitudes towards the gifted when developing programmes. Teachers with

informed attitudes toward gifted students might be seen as more likely to create an environment that was conducive to achievement and social and emotional well being.

What are the Common Myths and Misconceptions Held by Teachers Associated with Gifted and Talented Children?

Collins (2001) found a lack of training and confidence, myths, and anti-elitist beliefs about gifted children and their education were major causes of teachers' negative attitudes towards giftedness in Australia. Her study found that the main misconceptions and stereotypes about giftedness that affect attitudes are related to equity, elitism, needs of the gifted, and preference for heterogeneous grouping.

Other researchers have found that many teachers view gifted education as elitist and inequitable (Clark, 2002; Davis & Rimm, 2004; Gallagher & Gallagher, 1994). However, equity often is viewed by teachers as synonymous with equal treatment to produce equal outcomes, rather than with equal opportunities in accessing an appropriate education to achieve one's potential (Collins, 2001; Feldhusen & Moon, 1992; Gross, 1997). Interestingly, while ability grouping or acceleration for academic reasons, or for instruction purposes, is criticised in many schools, it is not considered elitist to select sporting or other extracurricular teams on the basis of high ability or giftedness, or to 'accelerate' the training of talented sporting or performing arts students (Braggett, 1994; Collins, 2001; Gross, 1993).

Another common belief held by teachers is that special provisions, particularly ability grouping and acceleration, will lead to feelings of superiority and egotistical behaviours in gifted students (Clark, 2002; Collins, 2001). However research shows the opposite is true for gifted children who are challenged in programmes where they work alongside intellectual peers, for example, Fiedler, Lange and Winebrenner (1993) noted,

There is nothing quite so humbling to bright individuals as discovering that there are other students in the group who are equally capable or even more knowledgeable about given topics than what they are (p. 5).

Therefore, providing a differentiated program may in fact be an effective way of preventing gifted children becoming conceited and egotistical, whereas leaving gifted students in the regular classroom that may lead them to feel superior as they are almost always the best and brightest.

Many teachers assume that gifted and talented children will succeed without any special or additional help (Clark, 2002; Colangelo & Davis, 2003; Collins, 2001; Davis & Rimm, 2004). Collins (2001) cautions:

Gifted and talented children succeed at school without any special interventions. This is a commonly held belief of many teachers. While some gifted children will be successful regardless of the teacher, this does not justify the opinion that gifted children should not receive special intervention because it is a "further privilege for the already privileged (p. 3).

Teachers may feel that, because of her/his high intelligence, the gifted child will 'do fine' even without special attention or opportunities. Unfortunately, this practice often results in under stimulation, boredom, and even disengagement

from school, sometimes provoking the gifted student to engage in behaviours viewed as problems (Freeman, 1994; Plucker & McIntire 1996).

Collins (2001) recommends that gifted students require additional assistance because: (a) those who are already achieving highly should be able to fully develop their potential by receiving appropriate support; and (b) students with natural abilities, whose needs are not being met, can become unmotivated, resulting in underachievement, frustration, boredom, stress, poor self-esteem, and behavioural problems. There is also debate as to whether children should be withdrawn from their regular class to attend accelerate and extension programmes. Educators can be “*assured that self concept and/or self esteem are not likely to suffer or decline as a result of gifted students’ participation in a pullout programme*” (Vaughn, Feldhusen and Asher, 1991, p. 92, cited in Craven & Marsh, 1997).

Should Gifted and Talented Children Stay with Their Same-Age Peers?

There is the question of whether gifted children should remain with their chronological peers. Another belief common of teachers is that children need to be ready socially before they are moved up to the next group or class. Porter (1999), when talking about pre-schoolers, points out “*it is often inappropriate to wait for gifted children to be ‘ready’ socially before moving them up to the next group or on to school*” (p.66). This seems to be true for primary aged children also. Many teachers believe that gifted children should be working with children their own age for the majority of their time at school. However, it is generally

recognised that a child's social and emotional maturity is more closely linked to mental age than chronological age (Gross, 1997). Therefore, gifted and talented children usually prefer the company of, and are accepted by, children who are a few years older and are their intellectual peers (Gross, 1993, 1994, 1997). This association positively affects a gifted child's social and emotional well being by allowing them to find intellectual peer support and acceptance (Clark, 2002; Gross, 1994, 1997). Saunders and Espeland (1986, cited in Taylor, 2004) suggest, sadly, that the message being given to children is:

You are having trouble relating to peers. As a strategy for addressing this problem, we will place you in a room full of children from whom you feel different. We will then ask you to spend a great deal of time doing activities that you find repetitive and boring. When you get good and frustrated with this situation and act out toward your classmates and teachers, we will say, "See we knew you needed work on social skills (p208).

What Effect Does Professional Development In Gifted Education Have On Teachers?

As it is the classroom teacher who is primarily responsible for the education of gifted and talented students, both pre-service and ongoing in-service teacher education is essential (Clark, 2002). According to Hansen & Felhusen, (1994), 'there is empirical evidence that teachers who receive special training in gifted and talented education, are more effective with gifted students than those who have not received training' (p.513). Ferguson (2006) and Riley et al, (2004) found that there was little compulsory pre-service PD, and most beginning teachers felt inadequate in providing for gifted and talented learners. Ferguson also reported that all schools in her study saw the need for PD to be ongoing.

The MOE (2002, 2004) recognises the vital importance of professional development, seeing it as a way of building the capability of schools to meet the needs of gifted and talented learners. Many pre-service teacher education institutions provide only one or two lectures on the education of intellectually gifted students, and this is insufficient preparation for teachers to reliably identify, and effectively cater for, gifted students (Collins, 2001, Riley et al, 2004, Riley & Rawlinson, 2006).

International studies have shown few pre-service and practicing educators have had the training and support necessary to work with gifted students (Westberg & Daoust, 2004, cited in VanTassel-Baska & Stambaugh, 2005). Sadly this is also the case in Aotearoa New Zealand. The MOE (2004) and ERO (2008) report that in most schools there was little or no participation in professional development for their teachers. And in the schools where there has been some PD it is mostly undertaken by teachers in charge of GATE within the school. Pre service teachers have limited knowledge and experiences of gifted and talented education in regards to definition, identification, programmes and teaching strategies (Needham, 2007). As well as lack of knowledge, lack of training can also lead to feelings of inadequacy and resentment.

Results from Riley & Rawlinson's (2006) research, in teacher education in GATE in New Zealand, showed that gifted and talented education was addressed to varying degrees at both pre-service and in-service levels. Further to this they found a consistency in the nature of the content and resources being used by

teacher education providers. They pointed out that “*New Zealand teacher educators are currently placed in a position to creatively and innovatively answer the demand for gifted and talented education*” (p.84). The participants in their study made several suggestions to improve pre-service GATE in New Zealand, these included:

- 1. A compulsory pre-service paper in gifted and talented education.*
- 2. Greater integration of gifted and talented education content across a range of appropriate papers (including those of a compulsory nature) at pre-service/undergraduate and postgraduate levels.*
- 3. A Masters degree endorsed in gifted and talented education, giving consideration to collaborative, cross-institutional development and delivery (Riley & Rawlinson, 2006, p.84).*

The literature suggests that both experienced and pre-service teachers who have had specialised training tend to have more positive attitudes and feel more capable of using various strategies with gifted students (Riley et al, 2004). This suggests that pre-service teacher education providers have a major responsibility for preventing and changing negative attitudes by providing comprehensive preparation (Gross & Slep as cited in Collins, 2001). Carrington & Bailey (2000) recommended that teacher educators need to ensure gifted education principles and strategies are encompassed throughout the whole pre-service education program, in addition to having specific gifted education courses. For practicing teachers, further in-service training on the characteristics, identification, educational and social and emotional needs of gifted students would be advantageous. Resentment may also be reduced if training generates awareness of how skills used for teaching gifted students are beneficial for all

children (Collins, 2001). Silverman (1990) suggests that in order for gifted students to receive appropriate provision, teacher training, teacher understanding of gifted students' emotional needs, and knowledge of appropriate identification and programming are essential.

All teachers need to know about identification, characteristics, resources, programmes and to have a shared understanding of how to deal with, and cater for the social and emotional needs of gifted and talented children. Smith and Chan (1998) found that teachers knew less about the social and emotional characteristics than the academic characteristics of gifted and talented students.

A current belief, based on results of studies, shows that teachers with training react more appropriately to gifted students (Hall, 1995; Kagan, 1992; Davison, 1996). Hall (1995) suggests that training and in-service education can certainly make a difference and *“teachers who desire professional growth can alter their dysfunctional conceptions about students if they are confronted with specialised training or experiences that challenge their beliefs”* (p.9). Thus the higher level of knowledge resulting from studying gifted education impacts not only attitudes but also practice (Plunkett, 2000, p.254).

Plunkett's (2000) research found that there were significant differences in teachers' attitudes toward gifted learners between those who had undertaken study compared to those who had received PD, stating this was because: *“Some PD simply fills the knowledge gap without providing any opportunity for*

application or synthesis, which is generally required in a post graduate course of study” (p.255).

School wide PD programmes, as recommended by ERO (2008) are needed to ensure the social and emotional needs of gifted students are being met by all teachers. The current starting point for many New Zealand schools in their provision for gifted and talented students is the MOE’s, 2000, publication, *Gifted and Talented Students: Meeting Their Needs in New Zealand Schools*. This resource provides guidance on developing a school-wide approach for defining and identifying gifted and talented students, as well as developing programmes and evaluating them. Unfortunately this publication is no longer in print. As mentioned earlier, the MOE expects all schools to cater for the needs of their gifted children.

What Professional Development Initiatives has the Ministry of Education Provided?

What has the MOE provided, in recent times, to encourage schools to undertake professional development to cater for the needs of Gifted and Talented children? The MOE has instigated several initiatives to provide for gifted and talented students. In 1998, following the publication of Education Review Office’s evaluation report, *Working with Students with Special Abilities*, the Ministry established an *Advisory Group on Gifted Education*. In 2000 *Gifted and Talented Students: Meeting Their Needs in New Zealand Schools* was published, giving schools and teachers information to help them identify and support gifted

and talented students to achieve to their full potential. Also in 2000 a gifted and talented community was added to the web site Te Kete Ipurangi (TKI) providing online resources for schools, teachers, and parents. School Support Services established an advisory group in 2001 to provide PD to schools. In 2001, the Ministry established the *Working Party on Gifted Education* to provide advice on a policy and funding framework for gifted education, and recommended the specific inclusion of gifted and talented students in NAG 1 (iii) [subsequently NAG 1 (iii)(c)]:

National Administration Guideline (NAG) 1 (iii) (c) requires boards of trustees, through their principals and staff, to use good quality assessment information to identify students who have special needs (including gifted and talented), and to develop and implement teaching and learning strategies to meet the needs of these students. Schools were notified about the inclusion of gifted and talented students in this NAG in December 2003, and have been required to implement provision for gifted and talented students since Term 1, 2005 (MOE, 2008, p.1).

In 2002, the MOE released *Initiatives for Gifted and Talented Learners*, which addressed the recommendation of the *Working Party on Gifted Education*. These initiatives included: the clear identification of gifted and talented students in the NAGs; a contestable funding pool for the development of innovative educational programmes targeted at gifted and talented students; PD initiatives, including additional Gifted Education Advisors and a National Coordinator, PD for educational professionals other than teachers, and pre-service gifted education training; a handbook for parents; Information and Communication Technologies (ICT) initiatives to support gifted education; and research on existing provision for gifted and talented students.

After the inclusion of gifted and talented students in NAG 1 (iii)(c) in December 2003, the Ministry produced *Gifted and Talented Education in New Zealand Schools* in 2004. This was a summary of the current status of identification of and provision for gifted and talented students in New Zealand schools. The report concluded that there was: a growing awareness of the need for provision for gifted and talented students; a need for PD, better access to resources and support, funding, time and cultural understanding.

Have these initiatives made a difference? *Schools' provision for Gifted and Talented* (ERO, 2008) reports, three years after the NAG 1 change should have been implemented, that less than half the schools surveyed were promoting positive outcomes for identified gifted and talented students. This, of course, does not take into consideration those students who have not been identified, which is another issue. The Educational Review Office (ERO), who undertook the research and writing of the report, recommendations for improvement included that teachers, “*develop awareness of the particular social and emotional characteristics of gifted and talented students, and promote their holistic wellbeing*” (ERO, 2008, p. 54). ERO (2008) also recommended that school leaders should “*promote ongoing participation in school-wide professional development, and specialist training and development for people specifically responsible for gifted and talented education*” (p. 54). Further, ERO (2008) also recommended that the MOE consider how best to: “*provide targeted, high quality professional development to rural and low decile schools on providing for gifted and talented students*” (p.54).

CHAPTER SUMMARY

The reviewed literature highlights the fact that there is a paucity of reported national or international research which evaluates teachers' understandings of the social and emotional development, experiences and outcomes for gifted and talented students. Although there is recent growth in New Zealand's literature and research in gifted and talented education, its dissemination and availability to practitioners is limited. There is awareness and recognition of the social and emotional needs of gifted and talented students; however, only isolated examples of provisions specific to these are reported by New Zealand schools (MOE, 2004). Additionally, some of the reported identification methods and provisions could have potential negative effects upon the social and emotional well-being of gifted and talented students.

The issue remains unresolved and the debate continues as to whether gifted children are better adjusted or are more maladjusted than the non-gifted in their social and emotional development. What is more conclusive from research is that giftedness does influence social and emotional outcomes for children, but whether these outcomes are positive or negative seems to depend on the type of giftedness, educational fit, and personal characteristics (Corso, 2007; Gross, 1997; Nugent, 2005; Silverman, 1990, 1998; Vialle & Geake, 2002).

The review of the literature stressed the need to understand what primary school teachers' understandings and perceptions of the affective aspects of gifted and talented learners are and how this will predict their success in meeting the needs

of gifted students in their classes. Unfortunately, research data on teachers' perceptions, understandings and attitudes towards the social and emotional needs of gifted children are limited.

Chapter 3

RESEARCH METHODOLOGY

CHAPTER INTRODUCTION

This chapter sets out the research methodology that underpinned the study. A research methodology not only describes and analyses the methods used to gather and interpret data, but also presents the philosophical framework within which the research project develops. Research needs to be guided by theoretical underpinnings, “*Theory without research is mere speculation; research without theory is mere data collection*” (Davidson & Tolich, 1999). Researchers’ beliefs about what can be known (ontology) and how it can be known (epistemology) influence the selection and use of different methods in the research process. Ontological and epistemological considerations will be outlined in the following sections.

ONTOLOGICAL AND EPISTEMOLOGICAL CONSIDERATIONS

Ontological and epistemological considerations affect the methodology and consequently the methods selected when designing and planning a research project, and it is important that they are considered.

Ontology is a world view, a way of seeing the world, with regard to the way in which reality is understood and how reality is defined. The two main competing research paradigms are Positivist and Interpretive. Positivists take the view that reality is to be discovered. It is objective, rational and

independent from the observer. A positivistic researcher seeks generalizations and 'hard' quantitative, measurable data by means of employing a scientific approach (Burton, Brundrett & Jones, 2008). Interpretivists view reality as a construct. It is a multi-dimensional and ever changing and is dependent on different frames of reference. Reality is perceived as a human construct. An interpretive researcher aims to explore perspectives and shared meanings and to develop insights and a deeper understanding of phenomenon occurring in the social world (Burton et al, 2008).

Epistemology is a world view with regard to the way in which knowledge is gained and produced. It includes the basic assumptions about what we can know about reality, and about the relationship between knowledge and reality. Positivists believe meaning exists in the world; knowledge reflects reality and exactly reflects the world as it is. Whereas interpretivists believe meaning exists in our interpretations of the world and that knowledge is interpretation. Knowledge provides suggestive interpretations by particular people at particular times.

Epistemologists generally recognize at least four different sources of knowledge. Research often makes use of all four of these ways of knowing. Intuitive knowledge is used when coming up with an initial idea for research. Authoritative knowledge is used when reviewing the professional literature. Logical knowledge is used when reasoning from findings to conclusions and empirical knowledge when engaging in procedures that lead to these findings.

The ontological and epistemological assumptions and beliefs of the researcher will affect how the research is carried out and how the findings are interpreted (Hitchcock & Hughes, 1989). Mutch (2005) states that researchers' personal beliefs, experiences and interests influence their world view and therefore the theoretical and methodological stances they will undertake. Denzin & Lincoln (1994) use the term "personal biography". Therefore, I need to state my personal biography in relation to this research. I have been involved in primary and tertiary education for the last 30 years. As a university lecturer in education, with a gifted and talented son, I have both a personal and professional interest in Gifted and Talented Education in New Zealand. I believe that as a researcher I am an interpretivist and therefore interpretivist assumptions underpin all aspects of my research.

RESEARCH DESIGNS

This study is guided by a combination of phenomenology, symbolic interactionism and grounded theory research designs.

Phenomenology

Phenomenological research is one of the most basic forms of research. This type of research involves the description of phenomena in our world. Descriptions are about what the phenomena "look like" from the perspective of the researcher and the participants in the research; it is not about how the phenomena function. In a phenomenological research design, the researcher is concerned with clarifying the specific and recognizing phenomena "through

the eyes” of the participants. Deep and rich descriptions of the phenomena are usually gathered through inductive, qualitative methods such as interviews, focus group discussions and participant observations. Phenomenological research is therefore appropriate for this study as it concerned with finding out the perceptions of the social and emotional needs of gifted and talented children through the eyes of their teachers, the participants.

Symbolic Interactionism

This research is also guided by the theoretical underpinnings of symbolic interactionism. Defined by Abercrombie, Hill and Turner (2000) as “*the study of the self-society relationship as a process of symbolic communications between social actors*” (p. 353). An assumption of the symbolic interactionism framework is that people largely act on their perceptions (Neuman, 2000). Thus symbolic interactionism will provide a way of analysing the teachers’ perceptions and these interpretations are central to the research question

Grounded Theory

The purpose of grounded theory is to generate theory that is grounded in or emerges from the field (Lichtman 2006). People also use grounded theory by studying how individuals react to a phenomenon (Creswell, 2007, cited in Lunenburg & Irby (2008). Those doing grounded theory are also interested in the actions, interactions, and social process of people (Lichtman 2006). Therefore as the current research is concerned with understanding how teachers perceive the phenomenon of gifted and talented education from their perspectives through

their social interactions with gifted and talented children it is appropriate to use grounded theory. Grounded theory also provides a process for data analysis.

Therefore, as explained, it is appropriate to use a combination of phenomenology, symbolic interactionism and grounded theory. Different aspects of the study will be underpinned by these research designs where appropriate. As well as research designs, research paradigms dictate the structure and process and approach to research.

RESEARCH PARADIGMS

Most research falls into the category of either quantitative or qualitative research. Quantitative research is a scientific approach to research, treating matter with 'hard, external and objective reality' (Cohen, Manion & Morrison, 2000, p.7). Quantitative studies emphasise the measurement and analysis of variables from within a value free framework (Denzin & Lincoln, 2005). In contrast to this, qualitative research stresses the importance of the subjective experience of individuals. The emphasis here is on processes that are not measurable 'in terms of quantity, amount, intensity or frequency' (Denzin & Lincoln, 2005, p.10).

Quantitative research uses methods that gather numerical data in order to generalise to a broader population. Quantitative data is data that can be counted and measured, and reduced to statistics. Qualitative research is an approach which looks in depth at fewer subjects through rich description of their thoughts, feelings and perceptions. This approach examines the patterns of meaning that

emerge from data gathered; such patterns are often presented in the participants' own words (Lunenburg & Irby, 2008). According to Creswell (2007, cited in Lunenburg & Irby, 2008)

A qualitative study is defined as an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting. (p.15)

Mixed Methodology

The use of different methods (including both quantitative and qualitative strategies) occurs most frequently in educational research, and is considered by Cohen et al, (2000) to be the strategy that has the most to offer. Multi-methodology is however criticized by purists, particularly post-structuralists and post-modernists, who argue that quantitative and qualitative research paradigms should not be mixed and that multi-methodology is inherently wrong (Burke Johnson & Onwuegbuzie, 2004; Smith 2008). According to Johnson and Onwuegbuzie (2004), mixed methods research is *“the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts, or language into a single study”* (p.17).

The current research has used a mixed methodology; both quantitative and qualitative methods. A combination of methods was used in order to get a more comprehensive picture and to ensure triangulation. The use of a mixed method approach is more likely to add breadth, complexity, and richness to research

(Johnson & Onwuegbuzie, 2004). A mixed methodology is effective in enhancing the validity of research outcomes, offers credibility and rigour (Burton et al, 2008; Lunenburg & Irby, 2008). Brannen (2005) argues convincingly for the use of mixed methods research, pointing out that qualitative and quantitative technique can be combined effectively to strengthen overall conclusions. Therefore both quantitative and qualitative approaches were used as the research questions were able to be answered by comparing and combining the data derived from each method.

VALIDITY AND RELIABILITY

Two central issues that underpin the quality of data collected in research are validity and reliability. Cohen et al, (2000) sees validity as an important key factor for both quantitative and qualitative research. Validity is concerned with the question: Does the research measure what it was supposed to measure? (Cohen et al, 2000). Internal validity, seeks to demonstrate that the explanation provided by the data, can be explained by the data itself. External validity refers to the degree to which the results can be applied to the wider population, cases or situations. Results from this research should not be generalised to the wider population of New Zealand primary teachers, as only a small sample of teachers from one city was used. Therefore external validity cannot be applied. However some implications will be able to be drawn from the number of respondents that may be of value.

Triangulation, or the use of multiple sources of data, is one way of increasing the validity of the research and is advocated by education methodologists, (Cohen et al, 2000; Denzin & Lincoln, 2005). This study uses both methodological triangulation (combining qualitative and quantitative approaches) and data triangulation (using more than one method of data collection, questionnaires and interviews).

Reliability refers to consistency and dependability in measurement over time; whether the research can be replicated; and whether the research is representative of the population being studied (Cohen et al, 2000). This research strived for both reliability and validity. To ensure validity and reliability I trialed the questionnaire with one school (10 teachers). The interviews were taped and then transcribed verbatim to assist with reliability. Transcriptions were reviewed several times to ensure accuracy and participants were given opportunity to read transcriptions. Validity was addressed as the transcriptions were verified.

The ontological and epistemological assumptions underpinning different research paradigms affect methodological considerations and consequently the methods and instruments selected and used to collect data (Hitchcock & Hughes, 1989).

DATA COLLECTION METHODS

There are a variety of techniques that can be used to gather information. The major consideration for choice is 'fitness for purpose' (Cohen et al, 2000, p.56). The main purpose of this study was to look at individual teachers' perspectives

of social and emotional aspects of gifted and talented learners. Therefore the appropriate approach for data collection in this study was through questionnaires, and individual interviews.

Specifically, data was designed to address the research questions:

1. What are primary school teachers' understandings of gifted and talented children's social and emotional needs?
2. What are primary school teachers' attitudes towards gifted and talented children?
3. Does professional development in gifted and talented education have an effect on teachers' perceptions, understandings and attitudes?

Questionnaires

Questionnaires are used to gather data from a specifically-defined group of individuals who all respond to identical questions. Questionnaires allow all respondents to be asked the same questions in the same circumstances. Questionnaires aim to gather enough quantitative data to be able to generalise to a population. They allow larger numbers of participants and therefore may allow generalised statements to be made with some degree of confidence. Generalisations concerning relationships and patterns may be able to be drawn. Questionnaires can generate a lot of information quickly and easily. They can be structured to provide comparable information in an easily collatable form. Questionnaires provide participants with privacy, and anonymity.

Burton et al, (2008) caution that there are issues that need to be addressed when designing and implementing questionnaires; including ensuring they are very carefully checked and trialed prior to use to ensure that instructions are unambiguous; that responses are in the form expected and that it is manageable for the respondent. They also warn that questionnaires can have very low response rates and are unlikely to produce detailed or profound information. To ensure high response rates I personally introduced and collected the questionnaires. Having open ended questions at the end of the questionnaire enabled participants to give a more detailed response.

The wording of the questions in a questionnaire strongly affects the usefulness of the findings. In order to be meaningful, questions must measure the concepts that the researcher intends them to measure, and they must mean the same thing to all respondents. They should be clear, simple, unambiguous and free of bias (de Vaus, 1991). Open-ended questions avoid the limitations of pre-set categories, and responses may contain the ‘gems’ of information that might not be captured with closed questions (Cohen et al, 2000). On the other hand, open-ended questions can be difficult to code and classify (Baker, 1999). Carrying out a pilot, or pre-test, of the questionnaire is essential to check the clarity of items, the appropriateness of response categories for closed questions, and the instructions and layout (Cohen et al, 2000). To overcome some of these issues the questionnaire was trialed at one school, with ten teachers, as stated earlier in this chapter. Both closed and open questions were used and definitions to terms were given.

In this study, the questionnaire provided a sample of the extent to which primary school teachers hold beliefs about the social and emotional characteristics of giftedness. The rationale in exploring these perceptions was to gather evidence to guide teachers and teacher educators. This in turn could assist to diminish the effects of potentially harmful misperceptions. Content for the questionnaire was based upon issues arising from personal and professional practice, from previous research, appropriate literature, as well as anecdotal statements acquired from discussions with gifted and talented children, parents, teachers, and individuals with interests in gifted education. The purpose of the questionnaire was to give the participants a variety of questions relating to their own experiences, understandings and perceptions of gifted education, in particular social and emotional aspects.

The questionnaire consists of seven sections (Appendix 4).

Section One: Introduction and Instructions

Section Two: Biographical data

Section Three: Professional Development – six questions, requiring a comment

Section Four: Characteristics of Gifted and Talented Children – 20 statements requiring a number ranking (Likert scale), 1. Strongly Agree, 2. Agree, 3. Uncertain, 4. Disagree, 5. Strongly Disagree

Section Five: Belief Statements – 10 statements requiring a number ranking (Likert scale) 1. Strongly Agree, 2. Agree, 3. Uncertain, 4. Disagree, 5. Strongly Disagree

Section Six: Personal Comments - space provided for open- ended written comments

Section Seven: Definitions - of terms used in questionnaire

Biographical data was sought, including years of teaching, PD received in gifted and talented education, and the number of identified gifted and talented children taught.

A Likert scale was used in Sections Four and Five where participants ranked questions and statements according to their personal beliefs; requiring responses based on a five point scale ranging from strongly agree to strongly disagree. The Likert scale can be considered a useful, effective, reliable and valid measure of attitude (Maurer & Andrews, 2000; Page-Bucci, 2003). After considering different forms of data collection and their limitations, I decided to use the Likert scale as it would be the most appropriate for showing participants attitudes towards the questions and statements in the questionnaire. Likert Scales were also used as they are relatively easy and quick for participants to complete (Neuman, 2000).

The questions used were evenly balanced between positive and negative statements with which the participant was likely to agree or disagree. This helped avoid the problem of bias and improve reliability, as anyone who answered 'agree' all the time would have appeared to answer inconsistently. Bober-Michel (2009) cautions that there can also be distortions and biases that need to be considered, for example, participants may avoid using extreme response categories (central tendency bias); agree with statements as presented (acquiescence bias); or try to portray themselves in a more favourable light

(social desirability bias). Participants may also be fence sitters by marking the most neutral answer, in this case by marking 3, Uncertain. At the end of the questionnaire there was a question asking if the participant would be prepared to have a face to face individual interview.

Questionnaire Implementation

The research and ethical procedures were introduced at a staff meeting in each of the participating schools. Participants were given instructions on how to complete questionnaires then asked to independently complete the questionnaire during the meeting. In four of the five schools the principals asked for the questionnaires to be filled in outside of the meeting time due to school related time pressures. Questionnaires from these schools were collected subsequently.

Interviews

Interviews enable researchers to gain in-depth information from interviewees through direct verbal interactions and questioning (Denzin & Lincoln, 2003). Because participants are able to discuss situations from their own point of view, interviews give the researcher access to the participants' own perspectives (Fraenkel & Wallen, 2005). Interviews are based on the view that knowledge can be generated by individuals through conversation, and that the perspective of others is meaningful (Patton, 2002). The main task in interviewing is to understand the meaning of what the interviewees say (Kvale, 1996). Interviews allow the interviewer to probe and pursue relevant themes. Interviews are most

effective when there is a positive relationship and the trust between interviewer and interviewee (Burton et al, 2008).

Interview structure varies according to the context and purpose of the interview, from structured through semi-structured to unstructured interview schedules. I chose to use individual semi-structured interviews as this was the best method to gather data on each individual's personal attitudes and perspectives. A semi-structured interview, or interview guide approach (Patton, 2002), is based around a set of predetermined questions but the order and wording of the questions can be modified based on the interviewer's perception of what seems most appropriate (Robson, 2002). This style of interview therefore ensures that the same basic lines or inquiry are pursued with each person interviewed, but there is some freedom to pursue new or unusual insights (Patton, 2002). Typically, such an approach has themes, possible questions to address, and allows for flexibility (Bell, 1993; Kvale, 1996; Taylor & Bogdan, 1998).

Individual interviews are used to encourage a conversation between interviewer and participant where the participant is able to express ideas and experiences in his/her own words, own voice, own language. Interviews are time consuming to arrange, perform, record and analyse (Lichtman, 2006; Patton, 2002). Interviewers require particular skills and abilities to be able to keep the interview focused by questioning, prompting and probing interviewees to gain required information (Burton et al, 2008). As the researcher, I needed to accept that I have my own filters through which information is gathered, processed, and organized. Patton (2002) argues interviewing is frequently poorly done. I was confident in

my skills as an interviewer, however I prepared carefully for the interviews. As part of my preparation, I read widely about qualitative interviewing.

Interview Implementation

My goal was to set up an interview where the interviewee felt comfortable to share his or her thoughts, feelings, perceptions and understandings about the social and emotional needs of gifted and talented children, in a non-threatening environment. Four interview participants were selected randomly from those who indicated positively to being interviewed on the questionnaire. Participants were put into two groups, those with more experience of gifted and talented education and those with less experience, as acknowledged in their questionnaires. Two participants were chosen from each pile. I chose to only interview four participants because I felt I would get enough data for the scope of this research and because of the limited time available. As mentioned earlier interviews are very time consuming in terms of preparation, implementation and analysis.

The interviews were conducted individually by me. The interviews were semi structured, face to face, having key questions that were open-ended. The key questions were determined after the questionnaires had been analysed. I wrote an interview guide to help keep the key questions standard across all participants (Appendix 5). Participants were e-mailed to arrange a meeting time and place suitable to them. Participants were not given questions prior to interview in an attempt to get candid answers and not researched answers.

Kvale (1996) suggests it is useful to consider the questions from a process perspective, i.e. that the questions used in an interview should be structured in such a way that they build up to provide a comprehensive picture on a topic starting with general to more specific questions. I used an interview questions process suggested by Lichtman (2006). I chose to use Lichtman's as it was an appropriate interview process for my research and gave me a structure for the interviews that I was comfortable with (Appendix 6). I firstly developed a rapport with the participants, connected with the participant through experiences then asked "grand tour" questions as recommended in Lichtman's interview process.

I already had a professional rapport with the three women participants which made the process easier. However it needs to be acknowledged that research has shown that there may also be disadvantages of knowing participants, for example power relationships and respondent expectations (Cohen et al, 2000; Davidson & Tolich, 1999; Denzin & Lincoln, 1994 & 2005; Kvale, 1996; Lichtman, 2006; Mutch, 2005; Neuman, 2000). The individual interviews were conducted at a venue of each participant's choice and were approximately 45 minutes in duration. Two participants chose to be interviewed in my office and two participants chose to be interviewed in their own school. Participants were reassured of the purpose of the research, confidentiality, and procedures to be undertaken.

Prior to interviewing, I gained participants' verbal approval to participate. Participants were then supplied with an information sheet that briefly outlined the study purpose and aims, participant requirements and conditions of anonymity and confidentiality (Appendix 7). Participants also received and signed a consent form thus indicating they understood all requirements and conditions of the study (Appendix 8).

The interview guide (Appendix 5) was used to keep the interview related to the research topic, but the wording and order of the questions was not fixed. I prompted the participants to further expand on issues relevant to the research as needed. This type of interviewing allowed for greater flexibility in the process. The interviews enabled the teachers' perspectives and understandings of the issues to be clarified. All interviews were audio taped and transcribed by myself. Participants were offered to view transcripts for verification.

Ethically, it is advised to let participants view transcripts so that they can question, verify or delete any information that they feel is an untrue representation. All accepted this offer and agreed that transcripts were correct. I wrote field notes to help formulate further questions while listening to participant's responses. Immediately post-interview, I reflected on the interviews and what I had learnt through field notes. As Patton (2002) explains it, field notes are descriptive in nature and generally consist of the researcher's perceptions of what occurred, reactions to this, insights and beginning analyses.

In hindsight, the individual semi-structured interview method had limits. I was the instigator of questions and although this gave me data on themes of interest to myself, I felt it influenced, perhaps even limited what the interviewees expressed. I was aware of this throughout the process and tried to get interviewees to extend on their answers and say anything they wanted about gifted and talented education.

Participants

The following section will describe the participants in the current study, including schools, questionnaire participants and interview participants.

Schools

Teachers from five Rotorua Primary schools participated in the questionnaires. Rotorua is a small city (70,000) located in the North Island of New Zealand, serviced by 26 state Primary schools. Ten schools were initially selected from the Rotorua schools database (Appendix 9).

Schools were approached via e-mail letter (Appendix 10). Schools were selected using criterion and convenience sampling based on their characteristics, to ensure a range of different schools were included in the sample. Characteristics included: decile, roll size, primary (years 0-6), full primary (years 0-8), intermediate (years 7& 8), urban, and rural. Schools selected were all state schools. Integrated schools and Kura kaupapa Māori schools were not included, because they have unique characteristics that need to be taken into account,

which was beyond the scope of this research. Teachers from the five positively responding schools were surveyed (the schools that agreed to participate in this research). Schools were given non-de-plumes to ensure anonymity. The five participant schools were representative of Rotorua state schools with a range of deciles; role size; urban and rural; and one intermediate school, as shown in Table 1.

Table 1: Participating Primary School Characteristics

School Name	Decile	Rural Urban	School Type	Pupils	Teachers	Participants Response Rate
Kapai	2	Urban	Intermediate (years 7-8)	564	31	16 (51.6 %)
Kool	9	Rural	Full (years 1-8)	227	10	10 (100 %)
Sunny	2	Urban	Primary (years 1-6)	544	30	9 (30%)
Okay	3	Urban	Primary (years 1-6)	380	20	3 (15%)
Wero	5	Urban	Primary (years 1-6)	601	32	6 (18.8%)
Total					123	44 (36%)

Questionnaire participants

Forty Four participants voluntarily completed the questionnaires. All questionnaire participants (39 women; five men) were primary school teachers (39 classroom teachers and 5 management). Participants were given codes using the first letter of the school's name and a number. It is unlikely that this sample is representative of all primary teachers in New Zealand. Participants were mostly of New Zealand European decent (36, 89%). Six (14%) identified themselves as New Zealand Maori and a further two (4%) as of both Maori and

European decent. Participants teaching experience ranged from two to ten plus years. The majority of participants had more than 10 years teaching experience (23.57%).

Interview Participants

The four selected interview participants (three women; one man) were representative of questionnaire participants in terms of gender and experiences. I used purposeful sampling to choose my interview participants. This form of sampling allows for selection of participants for a particular reason, such as selecting those considered likely to be especially informative (Bogdan & Biklen, 1998; Neuman, 1997; Patton, 2002). Each participant was asked to give themselves a non-de-plume to protect their identity.

Lara is a New Zealand European female teacher who teachers a year 3/4 in a decile 2 primary school. She has been teaching for eight years at the same school. There is a gifted and talented enrichment/withdrawal programme running at her school. Lara believes she has had 15 gifted and talented children in her class over the eight years. She has had professional development in gifted and talented education in the form of whole staff PD around the implementation of the withdrawal programme from a staff member within her school sharing information with the staff. She also attended a gifted and talented conference (one day).

Ruby is a New Zealand European female teacher who teaches a year 4/5 class in a small rural decile 9 full primary school. She is a beginning teacher and has been teaching for one and a half years at the same school. Ruby believes she has two gifted and talented children in her class currently. She has had PD in gifted and talented education in the form of mini conferences with the “Gifted Kids Programme” while she was in pre-service teacher education.

Tane is a New Zealand Maori male teacher who teaches a year 7 class in a decile 2 intermediate school. He has been teaching for three years at the same school. He does not believe he has had any gifted and talented children in his class over the three years. He has had PD in gifted and talented education in the form of three lectures while he was in pre-service teacher education.

Moana is a New Zealand European female who teaches a year one class in a large decile 5 primary school. She is currently on study leave. She has been teaching for 22 years in a range of age levels and variety of primary schools. Moana believes she has had only one gifted and talented child in her class during her teaching career. Her current school has a contract with Gifted Kids Programme (GKP), one day school, however no children from her class attend. Her school uses a checklist to identify gifted and talented students. She has had very little PD in gifted and talented education.

DATA ANALYSIS

Questionnaires

The raw data was collated and analysed. There were 44 respondents. Descriptive statistics were used in order to find themes and trends. Descriptive statistics describe the characteristics of the data numerically. Descriptive statistics do not aim to generalise beyond the particular group being investigated, in this case primary teachers. By asking respondents the same questions, statistical analysis of responses was able to be undertaken for the questions that used the Likert scale. Nominal measurements were used for biographical questions, i.e. percentages of each characteristic. Findings are shown in tables. (Appendix 11)

The respondents' answers to the open ended question were coded using a thematic analysis to enable themes to emerge that were further investigated in the interviews. Thematic analysis is also referred to as grounded theory. Grounded theory emphasizes a specific, systematic and detailed approach to coding data. "Open coding" is based on the concept of data being "cracked open" as a means of identifying relevant categories (Lichtman 2006).

Lichtman's (2006) six step process was used for coding data;

Three C's of Data Analysis: Codes Categories, Concepts

Step 1: Initial Coding. Going from the responses to some central idea of the responses.

Step 2: Revisiting initial coding.

Step 3: Developing an initial list of categories or central ideas.

Step 4: Modifying your initial list based on additional rereading.

Step 5: Revisiting your categories and subcategories.

Step 6: Moving from categories into concepts (themes) (p.108).

Firstly I transcribed all written comments for each participant. I coded each comment into categories and subcategories. This allowed me to find common categories. Initially there were twenty eight categories. The data was revisited several times and shuffled around. Some categories were discarded as they did not reoccur. Some categories were renamed to include other similar categories. I condensed the categories to seven themes by combining similar categories and deciding on those that were most relevant to the research questions. NVivo8 software was used to assist with this coding process. This software enabled data to be grouped and coded according to categories and themes. It made the process easier as the data was able to be easily manipulated and regrouped or recoded.

Interviews

As with the open ended questions in the questionnaire, themes, categories, and discrepancies were identified using a thematic analysis, using Lichtman's (2006) analysis process to analyse the interview data.

ETHICAL CONSIDERATIONS

Education research involves human participants, and ethical considerations are thus paramount. It is important to act ethically in order to protect the participants, the researcher and the credibility of the research (Mutch, 2005).

My intention was to conduct my research ethically. Research was undertaken in accordance with the University of Canterbury Educational Research Human Ethics Committee (ERHEC): Principles and Guidelines (2009) and was subject to ethical approval by the University Of Canterbury College Of Education Ethics Committee. The principles and values of ethical behaviour include justice, safety, truthfulness, confidentiality and respect. Appropriate regard is needed for ethical principles, cultural values, and the Treaty of Waitangi. Considerations include; informed consent of participants; guaranteed confidentiality of data and individuals; avoidance of unnecessary deception, minimization of risk to all participants; sensitivity to the needs and characteristics of the participants; and recognition of possible power relationships. Informed consent is considered to have been achieved if the participant knows what the study is about, understands what will be required in order to participate in the study, understands his or her level of confidentiality in the study, and subsequently agrees to participate (Baker, 1999).

These guidelines, principles and considerations were adhered to throughout the research process. In particular, two of the interviewees were my past pre-service teacher education students. I assured them that I would not judge their comments and wanted them to speak openly. Participants need to be convinced of your integrity and the value of your research before they decide whether or not to cooperate (Bell, 1999).

My initial contact to schools was verbally by phone call to the principal and then by email asking for permission to conduct research. All schools that responded

positively to the e-mail were then further contacted to arrange a suitable time to present questionnaires to teachers. I gave information to teachers regarding the research, process and participant requirements including, voluntary participation and informed consent. The teachers who verbally agreed to participate in the study received an information sheet about the study (Appendix 12). Written permission prior to gathering data was then obtained through use of a consent form (Appendix 13).

The teachers were guaranteed confidentiality. To this end, all records and data remained confidential with access to data restricted to my supervisors, and myself. All documentation is filed in a filing cabinet in the study at my home. Electronic material is stored on my personal computer and copies retained on memory stick. These materials will be retained in this manner, being used only for the purpose of this dissertation, conference presentations and publications.

In addition to confidentiality, the teachers were guaranteed anonymity. The teachers' real names and other identifying information were not used in this study. Questionnaire participants were given a code and interviewed teachers choose their own non-de-plumes. The teachers had the right to withdraw from the study at any stage and/or to withdraw information or data pertaining to them. While no real risk to the teachers was anticipated, I expected any concerns would be minimised by these guarantees of withdrawal.

In addition, the teachers were informed of the University of Canterbury complaints procedure. I ensured that the participants understood the purpose and

implications of their participation. I believe I used a low key, non threatening, inclusive approach to data gathering. At schools I provided an introduction of myself and my study. As I have professional relations with all participant schools I endeavoured to separate my roles. This was an advantage as well as a perceived disadvantage. On the one hand I had professional trust and respect from schools which meant they felt comfortable having me in the school. On the other hand I needed to dispel the potential power relationships through reassurance and expressions of valuing participants' contributions. This was particularly the case of past students as there may have been a feeling of compulsion to participate. As a koha (thank you gift), I provided schools with chocolates after questionnaires were collected.

During individual interviews I ensured ethical considerations were at the forefront. I contacted potential participants by e-mails giving them the option to participate or not. All approached participants agreed to take part. Participants were given the option of when and where to meet to allow for their personal circumstances. Lichtman (2006) recommends that it is important to firstly develop a rapport with the participants and then make connections through experiences. Burton et al, (2008) also state that interviews are most effective when there is a positive relationship and the trust between interviewer and interviewee. I already had a professional rapport with the three women participants which made the process easier. I made participants feel comfortable and firstly asked how they were doing and made general discussion about themselves and their families. I then asked interviewees to tell me about themselves and their teaching experiences. All participants were happy to answer

my questions and needed very little prompting and encouragement to expand on their answers. I expressed my thanks and gratitude for the participants' time and valuable insights. The koha for interview participants was a afternoon tea at a café for the females and chocolates for the male.

Stringer (1999, cited in Burton et al, 2008) states that ethical research involving human beings should not only develop and maintain relationships with researchers and participants but also enhance the social and emotional lives of those who participate. This is particularly relevant to the research topic. I believe participants have benefited in that they have been given a chance to express their own ideas, their contributions have been valued and they have been encouraged to think about their own beliefs and attitudes about gifted and talented education. All interviewee participants expressed enjoyment of the interview process.

LIMITATIONS

It is important that this research is situated against the backdrop of potential limitations. The timeframe and resources allocated for this research project limited the quantitative sample to five schools and the qualitative to four teacher interviews. I have professional relationships with teachers and schools in this study. There is therefore, already a degree of trust and familiarity; however this can also be seen as a limitation, as participants may feel obliged to participate or tell me what they think I want them to say. The limitations of questionnaires and interviews should also be kept in mind as there is always scope for misinterpretation of questions and results. Firstly, there is a potential

for bias amongst the responding sample. Secondly, the questionnaire results give an indication of the thoughts and attitudes of the teachers, but results could be swayed by what they think the researcher wants to hear. Also different people may interpret the same questions from a variety of perspectives. Finally, the limitations of survey research in general are relevant. Researcher bias must also be considered. It is impossible for research to be value free. The researcher's own preconceptions, values and beliefs do not cease to exist once research begins. However, as I endeavoured to account for this by remaining as neutral as possible, I recognised these influences and these were the steps I took. In the construction of the questionnaire I strived to avoid personal bias and in the interview I made every effort to not inject my own ideas or comments.

CHAPTER SUMMARY

The research presented in this study adopted a phenomenological methodology, congruent with the research questions and the epistemological underpinnings of the study. Data were generated through semi-structured interviews, and questionnaires. The trustworthiness of the data was ensured as far as possible using data triangulation (combining qualitative and quantitative approaches and using questionnaires and interviews); member checks (by returning interview transcripts to participants to verify that the data accurately represented their viewpoints) and pilot studies of questionnaires. The findings from the research are presented in the next chapter, followed by a discussion of findings in relation to the GATE literature, as well as implications for practice and further research.

Chapter 4

RESULTS AND INTERPRETATION

CHAPTER INTRODUCTION

This section will describe, summarise and analyse the results of research data collected. Descriptive statistics and thematic analysis of the questionnaires and interviews will be used, as previously discussed in the data analysis section. Firstly there will be analysis of participant responses from the questionnaire, of which there were 44. Secondly the four individual interview transcripts will be analysed. Lastly the results across all participants will be summarised. The results indicate that teachers believe gifted and talented children have unique social and emotional needs and despite a lack of PD in GATE believe they have the knowledge and skills to ensure that these needs can be identified and met in their classrooms.

QUESTIONNAIRE ANALYSIS

Social and Emotional Characteristics of Gifted and Talented Children

Table 2 shows participants' responses to the twenty statements about social and emotional characteristics of gifted and talented children. Statements with an asterix (*) are phrased negatively i.e. agreement with the statement means agreement with a negative trait. Responses for agree and strongly agree were combined and are treated as Agree. Responses for disagree and strongly disagree were combined and are treated as Disagree. Percentages were derived from the raw data. The bold figures show the highest percentage of responses for each statement and the italic figures show the majority of responses for each statement.

Table 2: Social and Emotional Characteristics of Gifted and Talented Children Participant responses

	Gifted and talented children...	Agree	Disagree	Uncertain
1	are mature socially and emotionally.	20.93%	51.16%	27.91%
2*	have trouble relating to peers (same age).	45.24%	21.43%	33.33%
3	have a keen sense of humour.	53.66%	12.20%	34.15%
4*	have emotional problems, e.g. anxious.	30.00%	15.00%	55.00%
5	have high expectations of others.	60.98%	12.20%	26.83%
6*	have behavioural problems, e.g. hitting.	12.50%	52.50%	35.00%
7	have special social and emotional needs.	58.54%	12.20%	29.27%
8	have emotional depth and sensitivity.	42.50%	10.00%	47.50%
9*	are easily frustrated.	60.98%	9.76%	29.27%
10*	have lower self –esteem.	15.00%	47.50%	37.50%
11	have greater self-awareness.	48.78%	12.20%	39.02%
12	have high expectations of themselves.	76.19%	7.14%	16.67%
13	show empathy to others.	20.51%	33.33%	46.15%
14	have social problems,	15.38%	33.33%	51.28%
15	are sensitive to the needs of others.	28.21%	20.51%	51.28%
16	worry about world issues.	60.98%	12.20%	26.83%
17	think other people view their talents positively.	46.34%	21.95%	31.71%
18*	view their talents negatively.	12.50%	42.50%	45.00%
19	are self motivated.	42.50%	20.00%	37.50%
20	make friends easily.	7.50%	47.50%	45.00%

Social and Emotional Characteristics: Results from all Participants

Positive Responses

As can be seen by Table 2 the statements where the majority of participants agreed were 2, 3, 5, 7, 9, 11, 12, 16, 17 and 19. Statements 2 and 9 were phrased negatively. The highest level of agreement was with statement 12. *Gifted and talented children have high expectations of themselves.*

Negative Responses

The statements with the highest disagreement are statements 1 and 6. Statement 6 is phrased negatively.

Uncertain Responses

The statements where the majority of participants responded with Uncertain were statements 4, 14, and 15. Statements 4 and 14 related to negative behavioural characteristics and statement 15 was a positive behavioural characteristic.

Belief Statements about Gifted and Talented Children

Table 3 shows participants' responses to the belief statements. Responses for agree and strongly agree were combined and are treated as Agree. Responses for disagree and strongly disagree were combined and are treated as Disagree. Percentages were derived from the raw data. Statements with an asterix (*) are phrased negatively i.e. agreement with the statement means agreement with a negative belief. The bold figures show the highest percentage of responses for

each statement and the italic figures show the majority of responses for each statement.

Table 3: Belief Statements Participant Responses

		Agree	Disagree	Uncertain
1	All children are gifted and talented.	26.83%	<i>63.41%</i>	9.76%
2	Gifted and talented students should be with students their own age.	<i>53.49%</i>	25.58%	20.93%
3	Gifted and talented students are better off if they spend some of the day with students with similar abilities.	<i>93.02%</i>	2.33%	4.65%
4	Being perfectly well rounded should be the primary goal for gifted and talented student development.	<i>46.34%</i>	31.71%	21.95%
5	Teachers need professional development in gifted and talented education.	<i>97.62%</i>	0.00%	2.38%
6	Gifted and talented will succeed even without special provision.	26.19%	<i>52.38%</i>	21.43%
7*	Being too clever in school is a problem.	25.58%	<i>51.16%</i>	23.26%
8*	Acceleration is harmful to the social and emotional development of gifted and talented children.	11.63%	<i>55.81%</i>	32.56%
9*	Teachers find gifted and talented students challenging.	<i>65.12%</i>	13.95%	20.93%
10	Being gifted is something you are born with.	<i>51.22%</i>	19.51%	29.27%
* denotes statements that are stated negatively				

Belief Statements: All Participants

Positive Responses

The statements with the highest agreement are statements 2, 3, 5, 9, and 10. The highest level of agreement was with statement 5. *Teachers need professional development in gifted and talented education.*

Negative Responses

The statements with the highest disagreement are statements 1, 6, 7, and 8. The highest level of disagreement was with statement 1. *All children are gifted and talented.*

Uncertain Responses

There were no statements where uncertain responses were the majority. However all statements had a level of uncertainty, many with over twenty percent of participants rating uncertain for statement.

ANALYSIS OF RESPONSES BY PROFESSIONAL DEVELOPMENT.

The participants were asked to indicate if they had undertaken professional development. The next section will report results where participants have been divided into two groups, those who had had professional development and those who had not.

Table 4: Professional Development

Do you have Skills? No	14	32%
Do you have Skills? Yes	30	68%
Are you aware of NAG change? No	15	34%
Are you aware of NAG change? Yes	29	66%
Have you had PD? No	16	36%
Have you had PD? Yes	28	64%

The majority (28) of participants indicated that they had PD in GATE, while 16 indicated that they had not. The majority of participants responded positively (30) in response to the question: *Do you believe you have the knowledge and skills necessary to cater for the social and emotional needs of gifted and talented children in your classroom?* The majority (29) were aware of the 2005 NAG change that included gifted and talented children. Twenty Eight participants reported that they have had PD on gifted and talented children. It is unknown what the extent of the PD was, i.e. a one off session with a staff member, or a full university course. Professional development was implemented by a variety of providers including: Gifted Kids programme teachers, university lecturers and advisors, and staff within participants' own schools. The majority of participants indicated that PD was undertaken because of a school requirement and for personal interest.

Agreement Social and Emotional Characteristics

Table 5 shows the percentage levels of agreement, with questionnaire questions about the social and emotional characteristics of gifted and talented children, for those participants who have had professional development and those who have not had professional development.

Table 5: Agreement Characteristics of Gifted and Talented Children

	Gifted and talented children...	Agree Professional Development	Agree No Professional Development
1	are mature socially and emotionally.	17.9%	26.7%
2*	do not have trouble relating to peers (same age).	19.2%	25%
3	have a keen sense of humour.	42.3%	73.3%
4*	do not have emotional problems, eg anxious.	15.4%	6.7%
5*	do not have high expectations of others.	20.8%	6.3%
6*	do not have behavioural problems, eg hitting.	0%	31.3%
7	have the special social and emotional needs.	64%	50%
8	have emotional depth and sensitivity.	29.2%	66.7%
9*	are not easily frustrated.	8%	12.5%
10*	do not have lower self –esteem.	58.3%	31.3%
11	have greater self-awareness.	56%	37.5%
12	have high expectations of themselves.	69.2%	87.5%
13	show empathy to others.	10%	18.7%
14*	do not have social problems, e.g. not being able to share.	25%	37.5%
15	are sensitive to the needs of others.	21.7%	37.5%
16	worry about world issues.	60%	62.5%
17	think other people view their talents positively.	31.6%	43.7%
18*	view their talents positively.	50%	31.3%
19	are self motivated.	34.8%	50%
20	make friends easily.	8.3%	6.2%

Table 5 shows, for most questions the percentage of agreement was very similar for both the teachers who had had PD and those who had not had PD. Both groups had relatively high levels of agreement in questions 12 *Gifted and talented children have high expectations of themselves* and 16 *Gifted and talented children worry about world issues*. Both groups had low levels of agreement for question 20 *Gifted and talented children make friends easily*. The majority of the teachers who had not had PD in GATE agreed with questions 3 *Gifted and talented children have a keen sense of humour* and 8 *Gifted and talented children have emotional depth and sensitivity*, whereas the majority of teachers who have had had PD did not agree with these statements.

Disagreement Social and Emotional Characteristics

Table 6, below, shows the percentage levels of disagreement, with questionnaire questions about the social and emotional characteristics of gifted and talented children, for those participants who have had professional development and those who have not had professional development.

Table 6: Disagreement Characteristics of Gifted and Talented Children

	Gifted and talented children...	Disagree Professional Development	Disagree No Professional Development
1	are mature socially and emotionally.	57.1%	40%
2*	do not have trouble relating to peers (same age).	38.5%	52.2%
3	have a keen sense of humour.	15.4%	6.7%
4*	do not have emotional problems, e.g. anxious.	29.2%	31.2%
5*	do not have high expectations of others.	76%	37.5%
6*	do not have behavioural problems	50%	56.2%
7	have the special social and emotional needs.	16%	6.3%
8	have emotional depth and sensitivity.	12.5%	0%
9*	are not easily frustrated.	64%	56.2%
10*	do not have lower self –esteem.	16.7%	12.5%
11	have greater self-awareness.	12%	12.5%
12	have high expectations of themselves.	11.5%	0%
13	show empathy to others.	45%	25%
14*	do not have social problems, e.g. not being able to share.	28.6%	18.7%
15	are sensitive to the needs of others.	30.4%	6.3%
16	worry about world issues.	20%	0%
17	think other people view their talents positively.	31.6%	18.75%
18*	view their talents positively.	12.5%	12.5%
19	are self motivated.	30.4%	6.3%
20	make friends easily.	58.3%	31.3%

Table 6 shows that there were several questions where the percentages of disagreement were very similar for both the teachers who had had PD and those who had not had PD. Both groups had relatively low levels of disagreement in questions 11. Gifted and talented children have greater self-awareness and 18. Gifted and talented children view their talents positively. No teachers who had not had PD disagreed with questions 8. Gifted and talented children have emotional depth and sensitivity, 12. Gifted and talented children worry about world issues and 16. Gifted and talented children have high expectations of themselves, whereas there were some teachers who had had PD who disagreed with each of these questions. The majority of the teachers who had had PD in GATE disagreed with questions 5. Gifted and talented children do not have high expectations of others and 20. Gifted and talented children make friends easily, whereas the majority of teachers who have had not had PD did not disagree with these statements.

Uncertain Social and Emotional Characteristics

Table 7, below, shows the percentage levels of uncertainty with questionnaire questions about the social and emotional characteristics of gifted and talented children, for those participants who have had PD and those who have not had PD.

Table 7: Uncertain Characteristics of Gifted and Talented Children

	Gifted and talented children...	Uncertain Professional Development	Uncertain No Professional Development
1	are mature socially and emotionally.	25%	33.3%
2*	do not have trouble relating to peers (same age).	42.3%	18.7%
3	have a keen sense of humour.	42.3%	20%
4*	do not have emotional problems, e.g. anxious.	50%	62.5%
5*	do not have high expectations of others.	24%	31.2%
6*	do not have behavioural problems, e.g. hitting.	41.7%	25%
7	have the special social and emotional needs.	20%	43.7%
8	have emotional depth and sensitivity.	58.3%	33.3%
9*	are not easily frustrated.	28%	31.2%
10*	do not have lower self –esteem.	25%	56.2%
11	have greater self-awareness.	32%	50%
12	have high expectations of themselves.	19.2%	12.5%
13	show empathy to others.	45%	56.2%
14*	do not have social problems, e.g. not being able to share.	46.4%	43.7%
15	are sensitive to the needs of others.	47.8%	56.2%
16	worry about world issues.	20%	37.5%
17	think other people view their talents positively.	36.8%	37.5%
18*	view their talents positively.	37.5%	56.2%
19	are self motivated.	34.8%	43.7%
20	make friends easily.	33.3%	62.5%

Table 7 shows, for most questions the percentage of uncertainty was very similar for both the teachers who had had PD and those who had not had PD. However those who had not had PD had higher levels of uncertainty than those who had had PD in most questions, in particular question 20 *Gifted and talented children make friends easily*. Both groups had relatively high levels of uncertainty in question 4 *Gifted and talented children do not have emotional problems*. Over twice as many teachers who had had PD indicated that they were uncertain about questions 2 *Gifted and talented children do not have trouble relating to peers (same age)* and 3 *Gifted and talented children have a keen sense of humour*.

Agreement Belief Statements

Table 8, below, shows the percentage levels of agreement with belief statements about gifted and talented children, for those participants who have had professional development and those who have not had professional development.

Table 8: Agreement Belief Statements

		Agree Professional Development	Agree No Professional Development
1	All children are gifted and talented.	11.54%	57.14%
2	Gifted and talented students should be with students their own age.	59.26%	43.75%
3	Gifted and talented students are better off if they spend some of the day with students with similar abilities.	88.89%	100.00%
4	Being perfectly well rounded should be the primary goal for gifted and talented student development.	50.00%	40.00%
5	Teachers need professional development in gifted and talented education.	100.00%	93.75%
6	Gifted and talented will succeed even without special provision.	18.52%	35.71%
7*	Being too clever in school is not a problem.	51.85%	50.00%
8*	Acceleration is not harmful to the social and emotional development of gifted and talented children.	55.56%	56.25%
9*	Teachers do not find gifted and talented students challenging.	7.41%	25.00%
10	Being gifted is something you are born with.	62.96%	41.18%

Table 8 shows one hundred percent of teachers who had not had PD agreed with statement 3 *Gifted and talented students are better off if they spend some of the day with students with similar abilities*, as well a high majority of teachers who had PD. One hundred percent of teachers who had had PD agreed with statement 5 *Teachers need professional development in gifted and talented education*, as well a high majority of teachers who had no PD. The majority of the teachers who had not had PD in GATE agreed with question 1 *All children are gifted and*

talented, whereas there was a low level of agreement with teachers that had had PD.

Disagreement Belief Statements

Table 9, below, shows the percentage levels of disagreement with belief statements about gifted and talented children, for those participants who have had professional development and those who have not had professional development.

Table 9: Disagreement Belief Statements

		Disagree Professional Development	Disagree No Professional Development
1	All children are gifted and talented.	76.92%	35.71%
2	Gifted and talented students should be with students their own age.	25.93%	25.00%
3	Gifted and talented students are better off if they spend some of the day with students with similar abilities.	3.70%	0.00%
4	Being perfectly well rounded should be the primary goal for gifted and talented student development.	34.62%	26.67%
5	Teachers need professional development in gifted and talented education.	0.00%	0.00%
6	Gifted and talented will succeed even without special provision.	62.96%	35.71%
7*	Being too clever in school is not a problem.	25.93%	25.00%
8*	Acceleration is not harmful to the social and emotional development of gifted and talented children.	14.81%	6.25%
9*	Teachers do not find gifted and talented students challenging.	66.67%	62.50%
10	Being gifted is something you are born with.	18.52%	17.65%

Table 9 shows that there were several statements where the percentages of disagreement were very similar for both the teachers who had had PD and those who had not had PD. Both groups had low levels of disagreement in statements 3 *Gifted and talented students are better off if they spend some of the day with students with similar abilities* and 5 *Teachers need professional development in gifted and talented education*. Both groups had relatively high levels of disagreement in statement 9 *Teachers do not find gifted and talented students challenging*. The majority of the teachers who had had PD in GATE disagreed with statement 1 *All children are gifted and talented*, whereas the majority of teachers who have had not had PD did not disagree with this statement.

Uncertain Belief Statements

Table 10, below, shows the percentage levels of uncertainty with belief statements about gifted and talented children, for those participants who have had professional development and those who have not had professional development.

Table 10: Uncertain Belief Statements

		Uncertain Professional Development	Uncertain No Professional Development
1	All children are gifted and talented.	11.54%	7.14%
2	Gifted and talented students should be with students their own age.	14.81%	31.25%
3	Gifted and talented students are better off if they spend some of the day with students with similar abilities.	7.41%	0.00%
4	Being perfectly well rounded should be the primary goal for gifted and talented student development.	15.38%	33.33%
5	Teachers need professional development in gifted and talented education.	0.00%	6.25%
6	Gifted and talented will succeed even without special provision.	18.52%	28.57%
7*	Being too clever in school is not a problem.	22.22%	25.00%
8*	Acceleration is not harmful to the social and emotional development of gifted and talented children.	29.63%	37.50%
9*	Teachers do not find gifted and talented students challenging.	25.93%	12.50%
10	Being gifted is something you are born with.	18.52%	41.18%

Table 10 shows, for most statements the percentage of uncertainty was lower for those participants who had had PD and those who had not had PD, in particular statements 2 *Gifted and talented students should be with students their own age*, 4. *Being perfectly well rounded should be the primary goal for gifted and talented student development*, 10 *Being gifted is something you are born with*. Both groups had relatively low levels of uncertainty in statements 3 *Gifted and talented students are better off if they spend some of the day with students with*

similar abilities and 5 Teachers need professional development in gifted and talented education.

Personal Comments

Participants' written answers to the open ended question at the end of the questionnaire were coded into categories. This allowed me to find common themes. Initially there were twenty eight themes (Appendix 14). I have reported on the seven most recurrent themes, giving examples of participants' responses.

Each Child is an Individual

The majority of written statements pertained to this theme. Participants expressed their difficulty in filling out section 4, the social and emotional characteristic questions and section 5, the belief statements, as they saw a gifted and talented child, like any another child, as a unique individual with their own distinctive characteristics and traits. The following examples are representative of participants' comments, *"Trying to say "all" gifted and talented children are this or that is impossible. They can be as different and individual in their strengths and weaknesses as any other group of children."*; *"Students cannot be put in boxes. Each child has their own giftedness and it affects each one differently."* and *"Every gifted child I have taught has been different from every other."*

Uncertain Responses

Many participants justified why they had used the 3 rating on the Likert scale questions in sections 4 and 5. Some felt that the statements should have been separated to refer to gifted and talented separately while others thought the statements should start with the word some. The following statements show an overview of the comments made. *“Difficult to answer some of these questions beyond 3 (uncertain) as I do not believe all gifted and talented children fit the same mould.”*, *“I marked uncertain, not because I was uncertain but because Gifted and Talented is so broad and the ratings would be different for gifted vs talented.”*, *“Looked at gifted angle when answering this part of questionnaire even with definition I find it hard to answer honestly for both gifted and talented because I believe they are two different cases.”* and *“I find this section difficult to fill out as I read each statement as all gifted/talented children whereas if it was most/some I could give a more accurate opinion.”*

Comparisons with Low Ability Learners.

Several participants made comments comparing the characteristics and needs of gifted and talented children with those of children with special needs at the opposite end of the spectrum, i.e. those with lower level abilities. For example *“I feel gifted and talented children can have similar social problems as those children who struggle in the school system”* and *“Mostly tend to feel that their needs can be close to the strugglers too.”* Participants expressed that gifted and talented children had just as much need for special programmes as low ability children, *“Am interested in seeing these children catered for within the school system as we do the students with “special needs”* and *“Gifted and talented*

students can be difficult in class if they are not kept stimulated and challenged just as lower learners can be if work is too hard". They also expressed concerns about lack of time to cater for needs of gifted and talented as they have lower ability children needing support, *"However, my time is taken up meeting the needs of low-level learners"*.

The Term Gifted and Talented

Several participants questioned the use of the term Gifted and Talented and saw them as two separate qualities, *"I found it hard to differentiate because gifted is different from talented."* and *"I am unsure about the terminology re GATE. I see giftedness relating to a very small minority of people with extraordinary abilities in an area. I see talentedness as a second tier with more people included. Given the concept of multiple intelligences I am still really unsure whether every human being has a gifting or talent."* Other participants remarked they had difficulty answering the ranked questions as they wanted to separate gifted and talented, *"Ratings are based on gifted and talented being placed together. If I only looked at giftedness my ratings would have been quite different."* and *"Looked at gifted angle when answering this part of questionnaire even with definition I find it hard to answer honestly for both gifted and talented because I believe they are two different cases."* Some commented on the need to understand what the definition of gifted and talented is, *"The first issue to tackle is defining gifted and talented"* and *"What is the definition of "gifted and talented"?"* While another participant added his thoughts to the definition,

“Giftedness can also be in one or more area e.g. we can say Dan Carter is a gifted rugby player (and athlete).”

All Children are Gifted and Talented

Some participants agreed with the statement: All children are gifted and talented, *“Personally believe every child has a talent”* and *“All students are gifted at something I believe”*. One participant questioned the use of the term Gifted and Talented, *“Also of course all children have gifts and talents and perhaps the term “gifted and talented” unfairly credits only the “outstanding” students with gifts and talents.”*

Teacher Knowledge

Several participants admitted to having a lack of knowledge in the area of gifted and talented education, however most commented positively to the desire and need to learn more, *“It’s an area of primary education that I know little about”* and *“I find this really interested area of learning and one I would like to learn more about”*. Some made comments about their lack of knowledge of the NAG change and the documents in section 3. One participant’s response to NAG 5 was *“Where is it? I need to read it! ”*. In reference to the awareness of the documents one participant stated *“Obviously not enough as I don’t remember”* while another said *“Feeling pretty stupid right now!”*

Professional Development

Most participants expressed positively that there was a need for teachers to have professional development in gifted and talented education and were willing to

take up opportunities if it was offered , *“Teachers need to have professional development so we know how to cater for their needs”, “ PD for staff is essential”* and *“I would love some”*. However some expressed the concern that PD was not made available to them or that they had had minimal exposure, *“This PD offered to those who teach accelerate students, not related to the needs in the room”* One participant stated she had attended PD because of her own personal interest in gifted and talented education.

INDIVIDUAL INTERVIEW ANALYSIS

Results from the interviews are summarised for each individual and then compared for common themes. There were several repeated themes throughout the interviews; including lack of knowledge about gifted and talented education; lack of PD in gifted and talented education; common characteristics of gifted and talented children. Interviewees discussed the importance of developing positive relationships with each child, the need for providing programmes that incorporate higher level thinking strategies and the difficulty of catering for gifted and talented children’s needs.

Lara

Lara is a New Zealand European female who teaches a year 3/4 class in a decile 2 primary school. She has been teaching for eight years at the same school. There is a gifted and talented enrichment/withdrawal programme running at her school. Lara uses a school checklist for identifying gifted and talented children in her class. Lara reports she has had approximately 15 gifted and talented children

in her class over the eight years. She believes there is a difference between gifted and talented, *"I probably had more talented rather than gifted"*. Throughout the interview she gave examples of the characteristics of the gifted and talented children she has taught, including: high general knowledge, musically talented, mathematically talented, extremely literate, higher comprehension, thinking outside the square and thinking differently. She illustrates this,

They often didn't react in the same way as the other children, they had a totally different perspective, that I just didn't know where they were coming from at times, but once you sort of talked more with them you kind of could see that they just thought differently.

The behavioural characteristics she reported were: challenging, difficult, unusual behaviours, perfectionism, highly emotional, emotionally immature, difficulty in making friends, strong sense of justice, isolate themselves, ostracised by peers, temper tantrums, frustration, and highly strung. Lara illustrates one boy's characteristics,

I can remember one boy in particular that he cried virtually every day and yet he was an extremely capable boy but he was probably bordering on perfectionist. And even if he got one mark wrong in a test it would be the end of the world. And that boy's gone on at high school and is doing so well, playing eight instruments, he was one out of the hat. He was just different right from the word go.

Lara has had PD in gifted and talented education in the form of whole staff PD, around the implementation of a withdrawal/extension programme, from a staff member within her school. This was mainly about the identification of gifted and talent children. She has also attended a gifted and talented conference (Reaching Forward, Rotorua, 2009). She admits to not having enough knowledge about gifted and talented education and feels she would benefit from some professional

development. In particular she would like to learn how to cater for gifted and talented children within her classroom programme as she feels they miss out. This she reports is due to the time and support that the “*ones that struggle*” need. She refers to these as the “*target children*” and appears frustrated at the fact that gifted and talented children are not seen to be such a priority. Lara feels other professional development areas have supported her understandings of gifted and talented children, in particular multiple intelligence papers and inquiry learning. She is unaware if her school has a policy on gifted and talented education, however says that the school has made it explicit that every teacher has responsibility for catering for the gifted and talented children in their classroom.

In response to the question: How can teachers best meet the social and emotional needs of gifted and talented children in their classrooms? she suggests teaching and learning strategies such as De Bono’s thinking hat’s and Bloom’s taxonomy. She explains that both these cater for high level thinking.

In reference to a child she had in her own class she gives a recount of how she acknowledged the child’s differences and praised his “*different ways of thinking*” which saw a decrease in behavioural issues and also encouraged the other children in the class to be more accepting of his differences. She let this child do things in his own way. She also credits a good relationship between herself and the child as really helping. In response to my final interview question: *Is there anything you’d like to add that we haven’t talked about in the field of gifted and talented education, anything you’d want to share?* Lara

discussed her hope that teachers in her own school would become more accepting of gifted and talented children and to the extension programmes held within her school. She felt many teachers had negative attitudes towards gifted education and saw the withdrawal programmes as an interruption to their own class programmes. She also admitted that she had to change her own way of thinking, as at first she was worried about “*catching the children up*” with the regular class programme

I have had moments when I think oh gosh when am I going to catch them up? But take it in my mind that these children are usually quite capable of catching up anyway. I have to say to myself, is the catch up really that important?

She said she needed to adapt her class programme to support the children going to extension so that they didn’t always miss the same curriculum area.

Ruby

Ruby is a New Zealand European female who teaches a year 4/5 class in a small rural, decile 9 full primary school. She is a beginning teacher and has been teaching for one and a half years at the same school. Ruby believes she has three gifted and talented children in her class currently. Her school has a contract with Gifted Kids Programme (GKP), one day school, however no children from her class attend. Her school uses a “Talent detector” to identify gifted and talented students. She has had professional development in gifted and talented education in the form of mini conferences and after school workshops with GKP, while she was in pre-service teacher education. Ruby has also attended a gifted and talented conference, where the focus was gifted and talented boys. She funded

this professional development herself. Ruby states she learnt techniques to use with gifted and talented children, but also remarked that the techniques would benefit all children at some level,

But it was quite golden because it gave me a lot of questioning techniques and random ideas to put in place specifically for gifted and talented children but it actually really worked with the whole class.

She expressed her feelings of lack of knowledge of gifted and talented education and what it was like attending professional development, *“I felt like I was catapulted and all of a sudden I was in this different world where they were speaking a different language”*. She felt it was a privilege to be able to attend the variety of sessions she has and thought she had been given a diverse education as a beginning teacher. She was disappointed in the lack of gifted and talented education in her beginning teacher courses,

Just in the numeracy pick up course they’ve touched on a little bit of that and ... there’s always a smattering “and with your gifted kids, gifted children... this is a good idea... But to me it’s not soulful it’s not whole person.

Ruby described the gifted children in her class as incredible thinkers, quirky, naughty, defiant, non conformist, attention seeking, dynamic and having a sense of humour,

I think they know that they’re a little bit different and they don’t fit in, and so they do push boundaries or do something outrageous to just get an effect.

One gifted and talented boy in her class had particularly negative behaviours when he entered her class,

The boy, I’ve had to refer him because his behaviour was just ... violent ... really he was such a risk taker with other children and absolutely no empathy that I could see.

Despite the many negative behaviours the children exhibit, Ruby points out their positive ones *“it’s like she’s like this diamond ... you grab the right light and it reflects all through”*. She also expresses the children’s deficits in academic areas such as inability to spell and add, *“but they can’t write a full sentence with correct grammar”*.

She shows empathy towards her gifted and talented children and lets them know she believes in their abilities academically and behaviourally, *“she knows I really believe in her.”* Ruby has a unique insight into her role in supporting gifted and talented children, *“you have to as the teacher unlock a new door of affirmation...“you’re just flicking on a light switch”*. Ruby has run an emotional literacy unit within her classroom programme to enable the children to learn to be empathetic towards everyone in their class. She sees this as one way of supporting the social and emotional needs of her gifted children. She uses specific teachable moments to support these children in their social and emotional growth, for example,

OK drop your pens come on up kids I’ve got something to teach you... And especially last year when this kid would just go and poke someone up the bottom with a pencil, or he’s just leaps over a desk and grabbed a throat... Just nasty stuff and it’s just out of sheer frustration. And I said to him we’re your team you’re going to be with us for the next five or six years... the rest of you you’re gonna be in his class so you need to like him. But you need to be likeable. We need to want to like you and at the moment you’re not being nice you’re being really mean and it’s breaking my heart because I want us to get on. Cause you’re wasting a lot of precious time when we could be having fun, we could be learning. But I need you to look around and see these peers, these friends. And they can be your friends, but they don’t want to play with you right now because they’re not sure what you’re gonna do next. That was a real key for him to change and he got invited to a

birthday party, about six weeks later and his mother was just about crying and he's been invited once to another friend. But those kids took it on board.

Ruby commented on the debate within her staff about the value of children being withdrawn to attend a GKP one day school. She spoke of some parents wishes that the child not go while others desperately wanting their children to go. Ruby also spoke of her disappointment at the negative attitudes and behaviours of some of her colleagues towards the gifted children in her class. Ruby expresses concern at the lack of empathy and knowledge of other teachers within her school towards gifted and talented children,

Some personalities just box children and that's just what they're like and that's how they manage themselves as teachers and they manage children like that but they don't let children grow. They put a lid on the box. It's just too hard.

She discusses the conversations she has had with other staff members in order to get them to understand her gifted and talented children's needs,

And I've just said to the staff BACK OFF him and expect the leopards will change their spots. He is going to change if we let him I am doing everything I can to let him grow.

She believes that much of one boy's negative behaviour is due to self fulfilling teachers' beliefs, *"Most of teachers expected him to be badly behaved at lunchtime and he was always on detention always booked... always."*

Tane

Tane is a New Zealand Maori male who teachers a year 7 class in a decile 2 intermediate school. He has been teaching for three years at the same school.

Although initially Tane states he has not had any experiences with gifted and talented children he gives examples of several children he thinks may be gifted and talented. He admits his lack of understanding of the characteristics of gifted and talented children have made him question his ability to identify gifted and talented children. He questions

how do we know when we see a gifted and talented person because there's a lot of other...factors that come into it, So I was... just unsure. Whether I was seeing or I had a gifted child or whether I was a lot of hot air...

Despite having, what Tane calls, “no formal experience” he admits he may have had some gifted and talented children. He gives examples of characteristics of children, he believes in hindsight, may have been gifted and talented. He mostly refers to negative behaviours, for example, gifted children can be a

pain in the backside”, they don't like doing the work they are given, they cry out for help, they are painful because they want your attention and they want you to recognise what they're good at, and they often have bad behaviour.

Other characteristics he mentions were mainly academic traits, for example, brainy, top students, scored stanine 8's and 9's, scored above 90% in PAT tests, bright, they pick things up really fast, and finish work before others. He openly and honestly expresses his lack of knowledge and understanding of gifted and talented education and expresses regret that he is unable to give these children what they need, “Really didn't know what to do with them.” He also expresses the difficulty catering for gifted and talented children when other children in the class are needier, *it's not impossible but it's just very difficult when I've got to...when I've got 20 other students in the class demanding my attention all the time.”*

While in pre service teacher education Tane states he had several sessions/lectures within one paper on gifted and talented education. He has not had any professional development since he started teaching. He believes that the teachers at his school who teach in the 'accelerate classes' would have first option at attending any PD offered in gifted and talented education, but states he would like PD on recognising the characteristics of gifted and talented children. He believes experience is needed if he is to be able to effectively cater for the needs of gifted and talented children. He also states that if he researched a particular area and showed interest then his Board of trustees would fund PD.

Moana

Moana is a New Zealand European female who teaches a year one class in a large primary school, decile 5. She is currently on study leave. She has been teaching for 22 years in a range of age levels and variety of primary schools. Moana believes she has had only one gifted and talented child in her class during her teaching career. Her current school has a contract with Gifted Kids Programme (GKP), one day school, however no children from her class attend. Her school uses a checklist to identify gifted and talented students. She has had very little PD in gifted and talented education; one two hour staff meeting with a GKP teacher.

Moana expressed her feelings of lack of knowledge of gifted and talented education and was apologetic of her lack of ability to identify and cater for gifted children within her class, "*Oh I don't even think I knew what gifted was*". She

said she felt challenged by Donny, the child she did consider to be gifted and talented. Moana described the characteristics of Donny as: super super bright, a little bit odd, quite advanced, often corrects teacher, a sweetheart, a real orator, doesn't mix well with other children, enjoys his own company, loves adult company, very serious, doesn't have a sense of humour, well behaved, important that he was doing the right thing, likes to be calm and quiet, and doesn't like noisy activities. In addition to this she illustrates his writing abilities:

...and he could write like I've never seen a child write! He could write fiction and he wrote nonfiction as well he would write like I'd expect some at high school would do... apart from the technical stuff with all the paragraphing and just the words he would use and ideas he brought to the paper was amazing! Incredible!

During the interview she also mentions some other characteristics of gifted and talented children, referring to them as: odd, well behaved, naughty if not challenged, easily bored, emotional and having feelings of superiority: *"I think some gifted kids are up themselves and their parents are too!"*

She admits that she has had beliefs and attitudes in the past that have been influenced by assumptions:

... and think they've got so much going for them that they'll be ok... and that's probably wrong and it is in fact a wrong assumption, because they do need something else.

Moana feels she does not have the skills she needs to cater for gifted and talented children's academic development. She also explains that because she doesn't believe she has had many gifted and talented children she has made a conscious

decision not to have PD in this area. She states that if she did have a gifted child in her class she would seek help from experts:

I would like to know from someone like you or some sort of expert to know what to do because I don't think that I'm equipped, I can support them with Awhi, I can do that, but to take them onto the next step, I don't think I'd be very good at that. So I would want someone to help me, I'd need someone to come in and give me guidance on that. But what could I do? ...I guess call in an expert.

She continues in almost a whisper, holding her head in embarrassment: “Well it just doesn't turn me on”, in reference to learning about GATE. She comments on the PD she has done:

And I don't just cater for the lower achievers but I feel for them and I feel for their parents...you know there is nothing worse! When I think of the kids struggling... I guess I have more of an affinity for them and why I've done reading recovery training and SPELD training... That's where my heart is.

Moana believes that if she did get PD in GATE then she would need development in identification methods and ways of extending the bright/gifted group while meeting the needs of the “low achievers”:

so what I'd like is ideas to challenge my kiddies my bright ones, my gifted ones but also having my programme still going and me still being able to help the others the middle of the road and the lower achievers.

In response to the question, *What can teachers do to support gifted children in the classroom?* she replied that she would support them with awhi [support], seek expert guidance; schedule one on one time with teacher; have conversations about “*how things are going*” and co-operatively plan the child's programme. To conclude Moana laments, “*Well I hope I haven't let children down over the*

years because of how I think. But if I have, I think I've also helped the other spectrum" [referring to low achievers].

Individual Interview Analysis Summary

There were several repeated themes throughout the interviews. All interviewees expressed feelings of lack of knowledge, understanding and skills about gifted and talented education. All interviewees have had very little PD in gifted and talented education and believed they would benefit from PD. The common characteristics of gifted and talented children reported by interviewees were: high intelligence; specific talents; thinking skills; odd behaviours; emotionality; lack of social relationships with age peers; and 'naughty' behaviours.

The interviewees suggested the best way to meet the social and emotional needs of gifted and talented children in their classrooms was to be supportive of their affective and intellectual needs by providing high level thinking/learning strategies. They also discussed the importance of developing positive relationships with each child. They expressed the difficulty of catering for gifted and talented children's needs when other children at the lower end of the spectrum were perceived as 'needier'. Another common theme from the interviews was the perceived negative attitudes of other teachers within the interviewees' schools.

SUMMARY OF RESULTS

What are Primary school teachers' understandings of Gifted and Talented children's social and emotional needs?

The overall perception was that teachers were uncertain about the social and emotional characteristics and needs of gifted and talented children. The results showed that participants ranked one third of the statements as uncertain. *Gifted and talented children have emotional problems*, showed the highest level of uncertainty amongst the participants. There were some contradictory results between the statements, however the majority thought that *Gifted and talented children have special social and emotional needs*. Most participants agreed that *Gifted and talented children, have high expectations of themselves; have a keen sense of humour; have high expectations of others; are easily frustrated; and worry about world issues*. Participants did not believe that; *Gifted and talented children are mature socially and emotionally*. They also disagreed with the statement; *Gifted and talented children have behavioural problems*.

Many participants made comments comparing the social and emotional characteristics and needs of gifted and talent children with those of children with special needs, at the opposite end of the spectrum, i.e. those with lower level abilities. Participants expressed that gifted and talented children had just as much need for special programmes as low ability children. They also expressed concerns about lack of time to cater for needs of gifted and talented as they have lower ability children needing support.

What are Primary school teachers' attitudes towards Gifted and Talented children?

The results from the questionnaires and interviews show that most teachers expressed positive attitudes towards gifted and talented children. However many had a genuine concern for their lack of personal knowledge about GATE, and therefore expressed apprehension and uncertainty about answering the questions. The highest level of disagreement was with the statement, *All children are gifted and talented*. The majority of participants viewed every child as a unique individual with their own distinctive characteristics and traits. Several participants questioned the use of the term Gifted and Talented and saw them as two separate qualities. Some commented on the need to understand what the definition of gifted and talented was. The majority of teachers agreed that: *Gifted and talented students are better off if they spend some of the day with students with similar abilities; Gifted and talented students should be with students their own age; Teachers find gifted and talented students challenging; and Being gifted is something you are born with*. Whereas the majority disagreed with, *All children are gifted and talented; Gifted and talented will succeed even without special provisions; Being too clever in school is a problem; and Acceleration is harmful to the social and emotional development of gifted and talented children*.

The interviewed teachers' shared their views which were reflected in their metaphors and anecdotes. The common themes were dedication to meeting children's social and emotional needs; professionalism; desire to do the best they

can despite their lack of PD; and frustrations at barriers to being able to support gifted and talented child in their classroom programme.

Does Professional Development in Gifted and Talented education have an effect on teachers' perceptions, understandings and attitudes?

The majority of participants reported that they had professional development on gifted and talented children. The extent of the PD is unknown, that is, whether the participants had had a one day PD at their school or undertaken a university course. Most participants expressed positively that there was a need for teachers to have PD in gifted and talented education. Many also expressed the desire and need to learn more and would therefore take up PD opportunities if they were offered. Some expressed concern that PD was not made available to them or that they had had minimal exposure.

Several participants admitted to having a lack of knowledge in the area of gifted and talented education. Despite this the majority of participants believed they had the knowledge and skills necessary to cater for the social and emotional needs of gifted and talented children in their classrooms and were aware of the 2005 NAG change that included gifted and talented children.

The results showed little difference in responses between those that had had PD and those that had not. There was agreement in half the questions. The majority of teachers who have not had PD in GATE were more uncertain about statements. The majority of the teachers who have had PD in GATE disagreed

with the statement, *All children are gifted and talented*, whereas the majority of teachers who have not had PD in GATE agreed with this statement.

CHAPTER SUMMARY

The results of both questionnaires and interviews have been analysed and summarised in order to answer the research questions. In response to Question 1 *What are Primary school teachers' understandings of Gifted and Talented children's social and emotional needs?* the results show that there was a general uncertainty about the social and emotional characteristics and needs of gifted and talented children and that teachers believed gifted and talented children have unique social and emotional needs. In response to Question 2, *What are Primary school teachers' attitudes towards Gifted and Talented children?* participants were found to have generally positive attitudes. In response to Question 3, *Does Professional Development in Gifted and Talented education have an effect on teachers' perceptions, understandings and attitudes?* it was found that there was very little difference in participant responses.

Chapter 5

DISCUSSION

CHAPTER INTRODUCTION

In the preceding chapter, the presentation and analysis of data have been reported. Chapter 5 consists of a discussion of the findings and the limitations of the research.

The goal of my study was to evaluate the perceptions of primary school teachers' towards the social and emotional characteristics and needs of gifted and talented children. In general, it was found that teachers were positive towards gifted and talented children and GATE. Teachers, despite a lack of opportunities for PD were positive about their abilities to meet the needs of gifted and talented children. In addition, the participants tended to be unsure of the social and emotional characteristics and needs of gifted and talented children but willing to learn more.

Previous researchers (Clark, 2002; Dabrowski, 1964; Davis & Rimm, 1998; Gross, 1993; Neihart, Reis, Robinson, & Moon, 2001; Piechowski, 1991 & 2006; Reis, 1998; Silverman, 1994 & 1998; Sword, 2002 & 2005; Van Tassel Baska & Stambaugh, 2005) have studied the affective area of gifted and talented children's development and highlighted the need for teacher awareness of the social and emotional aspects of GATE.

The New Zealand Educational Review Office (ERO) recommended that teachers need to “*develop awareness of the particular social and emotional characteristics of gifted and talented students, and promote their holistic wellbeing*” (ERO, 2008, p. 54). Although there is awareness and recognition of the social and emotional needs of gifted and talented students, by some teachers in some schools, there are very few schools providing appropriate support in this area. In fact there is concern that some of the identification methods and provisions provided by schools could have potential negative effects upon the social and emotional well-being of gifted and talented students (ERO, 2008, p. 54).

Many educators believe that children who are gifted and talented have social and emotional problems. These beliefs may cause harm in terms of ensuring gifted and talented children receive appropriate education. The appropriate identification of and programming for gifted and talented students depend greatly on teachers’ attitudes, views and understandings of gifted and talented education. The beliefs teachers hold influence their perceptions and judgments, which in turn, affect their behaviour in the classroom. It is essential therefore that we understand what primary school teachers’ understandings and perceptions of the affective aspects of gifted and talented learners are and how this will predict their success in meeting the needs of gifted and talented students in their classes.

Few would argue that underachievement and unrealised potential among gifted and talented children has devastating costs to the individual but also represents

an immense waste to society. It is important therefore for the social and emotional, as well as the academic needs of gifted and talented children to be met in regular classes. When these needs are met these children will be able to reach their full potential and in turn their gifts and talents can be realised as taonga (valuable contributions) in all aspects of society in Aotearoa New Zealand.

DISCUSSION OF THE FINDINGS

Terms and Definitions of Gifted and Talented Education

As stated in the literature review there are contentions and misunderstandings between educationalists over the definitions and appropriateness of the term Gifted and Talented (ERO, 2008; MOE, 2002; Clark, 1997; McAlpine & Moltzen, 2004). Not surprisingly this was reflected in this study also. Many participants were concerned with the use of the term gifted and talented, despite being given written and verbal definitions, and expressed difficulty in responding to the questionnaire as they did not fully understand or agree with the term. This could be because of an elitist view of the terms or possibly contempt toward the myriad of terms and labels that pervade classrooms. It could also be that they were unsure of the meaning of the term. Another reason for the reluctance of using this term was that they thought the two terms should be separate. This was clearly the case with those who stated they saw a difference between gifted and talented and saw them as separate concepts.

The majority of participants viewed every child as a unique individual with their own distinctive characteristics and traits and therefore did not want to generalise for all gifted and talented children. This is in line with New Zealand's National curriculum (2007) in terms of respecting and promoting diversity and individuality.

There was a high level of disagreement with the statement; *All children are gifted and talented*, with teachers who had had PD in GATE and those teachers who had been teaching for more than 10 years. This may be because teachers understand the term and realise that not all children are in this category. However many participants, particularly those who had less years teaching experience and those who had not had PD, agreed with this statement, which has also been reflected in previous research. This may reflect teachers' beliefs about accepting every child for the "gifts" they have and not wanting to be elitist (Clark, 2002; Davis & Rimm, 2004). It could also reflect the New Zealand's National curriculum in terms of Equity.

Social and Emotional Characteristics and Needs of Gifted and Talented Children.

Gifted and talented children have unique social and emotional needs. The findings indicate that the majority of teachers thought that gifted and talented children have special social and emotional needs, however were uncertain about what these needs were. The implication here is that if teachers understand that gifted and talented children have special social and emotional needs then they

need to ensure that they understand what those needs are in order to provide children with appropriate support within their classrooms.

Many teachers think of gifted and talented students' characteristics, such as overly sensitive, introversion, preference for adult company, and unusual sense of humour, as being peculiar. In line with Freeman's (2001) findings, interview participants in this current study labeled children, identified as gifted, as quirky and odd. However the participants were eager to express that the "oddness" was accepted by them. Participants explained how other children find some of gifted and talented children's behaviours as "weird" and therefore find it hard to relate to them so can ostracize or make fun of them. It is therefore imperative that teachers understand these "odd" behaviours and help the children in the class be aware and accept differences, which clearly many of the interview participants were doing well.

Silverman (1998) cautions that traits such as intensity, sensitivity, perfectionism and introversion need to be seen as typical manifestations of giftedness rather than as dysfunctional characteristics, because the sense of self of a gifted person is injured immeasurably when strengths are perceived as defects. As Taylor (2004) points out, there is the need to educate teachers, parents, children and all of society about gifted and talented children's needs, which can only be met if society reacts to gifted children in a positive way, *"If this proactive approach was to be taken, then less time could be spent dwelling on the problems of these children"* (p. 446).

Unlike researchers (Collins 2001; Freeman, 1994; Webb, 1993) who found that gifted children engaged in behaviours viewed as problematic by teachers, the majority of participants in this study did not think gifted and talented children have behavioural problems. This could be due to the fact that these studies were all international. It could also be due to the fact that the teachers in the current study had positive attitudes towards gifted and talented students and saw their behaviours as acceptable, given their special needs, rather than viewing their behaviours as problematic. One interview participant however, Lara, referred to particular gifted children who were 'quite difficult', 'unusual in their behaviours', 'challenging' and had 'blow outs'. Another interview participant, Ruby, indicated how other teachers at her school saw a gifted child's behaviour as naughty and sneaky and another gifted child as 'badly behaved'. Ruby explains the later child had out bursts of violent behaviour that were fuelled by frustration.

In line with the review literature (Clark, 2002; Davis & Rimm, 2004; Gallagher & Gallagher, 1994) the majority of questionnaire participants indicated that they believed gifted and talented had trouble relating to same age peers and difficulty making friends. This was reinforced by the interview participants who expressed the gifted children's feelings of 'being different', 'not fitting in', 'having difficulty with friendships', 'preferring adult company', 'not mixing well with other kids', 'isolating themselves' and 'enjoying own company'. Sometimes teachers perceive an inability to form friendships with age peers as emotional immaturity but it may actually be that the gifted child has reached a stage characteristic of older children (Gross, 1999).

Teachers' Attitudes Towards Gifted Children and Their Education

Many studies have found that teachers' attitudes towards gifted and talented children and GATE are negative (Clark, 2002; Collins, 2001; Davidson, 1996; MOE, 2000). The findings of this current study were contrary to the prior research as the majority of participants' expressed positive attitudes towards gifted and talented children. This could be due to the fact that participation was voluntary, therefore it could be more likely that people with interest in GATE would participate and correspondingly have positive attitudes. Plunkett (2000) also found that the participants in her study, in Australia, were generally positive toward gifted students. However they were prone to misconceptions and uncertainties. In New Zealand research, Riley & Rawlinson, 2006, found participants to have a "*commitment to and enthusiasm for gifted and talented education shown in their responses, many of whom used terms like "passion" to describe their interests*" (p.85). Needham (2007) also found pre-service teachers had positive attitudes towards gifted and talented children.

Some of the main misconceptions and stereotypes about giftedness that affect attitudes are related to equity and elitism. It is commonly suggested that gifted education is elitist and inequitable (Clark, 2002; Davis & Rimm, 2004). Collins (2001) found that anti-elitist beliefs about gifted children and their education to be one of the major causes of teachers' negative attitudes towards giftedness. Townsend (2004) discusses the wariness of teachers to provide acceleration for gifted children because of a history of egalitarianism and elitism in New Zealand

education, and the argument from teachers that “every child is gifted in his or her own way” (p.294). Taylor (2004) states

The social and emotional development of gifted is influenced by the attitudes of teachers, peers, parents and society towards them. Their special cognitive and affective characteristics need to be recognised and valued. Educational provisions should be based on their needs (p.441).

Research states that a commonly held belief by teachers, despite research evidence to the contrary, is that acceleration is harmful to the social and emotional development of gifted and talented children and is a reason it should not be used (Braggett, 1994; Cross, 2002; Reis & Renzulli, 2004; Rogers, 2002a & 2002b; Townsend, 2004). However the participants did not agree with this. One reason could be because New Zealand teachers are familiar with the concept of grouping children in order to meet their instructional needs based on their level of ability. It is therefore accepted that if a child needs to be accelerated in a particular area it is beneficial for the child academically, socially and emotionally.

Researchers (Bain et al, 2007; Cross 2002a; Rogers, 2002; Winner, 1996) have indicated that popular myths affect the attitudes and practices of teachers where GATE is concerned. This current study looked at several of these myths and found many teachers did indeed hold many of these understandings. The findings in this current study indicated that many teachers believe that all children are gifted and talented, and that being gifted is something you are born with. Evident also were the opinions that gifted and talented children are socially

and emotionally immature, and they have trouble relating to their same aged peers and therefore should be with students their own age.

“Nothing is more difficult than competing with a myth” (Chinese proverb). It is therefore important that these myths be dispelled by providing teachers with research evidence to negate the assumptions that are commonly made. In particular, the myth: “gifted and talented children do just fine on their own without any special help”. It is commonly reported that teachers believe that gifted and talented children will succeed even without special provisions (Cathcart, 1996 & 2005; Riley, 2000a & 2000b; Silverman, 1990 & 1998). For instance, a commonly held belief (that is discredited by research) is that gifted students will be successful regardless of the quality of their education (Henderson, 2007). Another example of this is referred to in the regularly quoted metaphor “Cream always rises to the top”.

This was not the case for participants of the current study, who clearly indicated that there was indeed a need for special support and programmes needed for gifted and talented children.

While there was no specific mention of Māori GATE perspectives by participants, teachers during interviews relayed the importance of the Māori concepts of relationships (whanaungatanga), respect (whakaute), love (aroha) and support (awhi).

As the literature suggests, lack of knowledge and understanding (from lack of training) are believed to be a main cause of mistaken beliefs and negative attitudes (Clark, 2002; Collins, 2001).

Role of Professional Development in Supporting the Social and Emotional Needs of Gifted and Talented Children

The role of professional development in GATE was a prominent part of much of the previous research (Clark, 2002; ERO 2008; Ferguson, 2006; Hansen & Felhusen, 1994; MOE, 2002 & 2004; Rawlinson & Riley, 2006; Riley et al, 2004) and therefore it seemed fitting to add research question 3 to the first two original questions. Unlike other research (Plunkett, 2000; Timperley et al, 2007) which found that significant differences occurred in teachers who had studied and had had PD, the results showed little difference in responses between those that had had PD and those that had not. This could be because those that had had PD may have only had limited PD and therefore very little difference would be expected. Timperley et al, (2007) found that teachers who engaged in professional learning and development had a substantial impact on student learning, however also found that listening to inspiring speakers or attending one-off workshops rarely changed teacher practice sufficiently to impact on student outcomes.

For practicing teachers, further in-service PD on the characteristics, identification and educational needs of gifted students would be advantageous, especially in the affective areas. Professional development, which increases confidence to support gifted and talented students, should be undertaken in

conjunction with research findings that refute the stereotypes and misconceptions, to assist teachers to recognise their misunderstandings and consequently improve their practice. Professional development should generate awareness of how skills and understandings used for teaching gifted and talented students are beneficial for all children.

Previous New Zealand research, (MOE, 2004; ERO, 2008) found that only half the participants reported that they had had PD in GATE. In the current study a higher number (68%) were found to have had PD. This could be due to the small sample size and the fact that participation was voluntary. As in ERO's (2008) findings the participants who had not had PD gave reasons of lack of availability of time and budget to undertake appropriate gifted and talented programmes and attend PD because of school priorities in other areas.

It is unknown what the extent of the PD was, i.e. a one off session with a staff member, or a full university course. Professional development was implemented by a variety of providers including: Gifted Kids programme teachers, university lecturers and advisors, and staff within participants' own schools. In hindsight it would have been advantageous to include a space in the questionnaire where participants could describe the type and length of their PD.

The majority of participants indicated that PD was undertaken because of a school requirement and for personal interest. From the data provided I am unable to make any conclusions about the effects PD on attitudes and knowledge about GATE as the depth and degree of the PD was not recorded. Timperley et al,

(2007) research findings are of relevance here as they found that in general the type and duration of PD does have an effect on teachers' attitudes, knowledge and consequently their practice.

It was expected that the results would show significant differences between those who had and had not had PD. As was seen in the results section this was generally not the case as results were very similar. It was particularly surprising that teachers who had had PD did not agree with the common characteristics of gifted and talented children having a keen sense of humour and having emotional depth and sensitivity, whereas, those who had not had PD agreed with both statements. Again this may be because the extent and quality of the PD is unknown or it could be from personal experience. However one would expect that some PD was better than no PD and that those who had PD would agree with the more common known characteristics of gifted and talented children. Further research is needed to determine whether the type and duration of PD has any effect on teachers' attitudes and knowledge in GATE.

The MOE (2004) highlighted the need for ongoing PD in GATE in the face of competing PD priorities. It was found a third of schools surveyed had not undertaken any gifted and talented PD, and said that it was a "huge challenge" to provide school-wide PD. While a very few schools had offered PD in GATE to all teachers, they had found it a challenge to maintain any ongoing training. When teachers with expertise left the school this created a knowledge gap. The main challenge facing schools was staff turnover and keeping all teachers' skills

updated. Most of these schools had prioritised other PD that used teacher release time and funding.

I was impressed that the majority of participants were aware of the 2005 NAG change that included gifted and talented children. I wondered whether this was an example of participants telling me what I wanted to hear! Less participants however indicated that that were aware of or had read *Gifted and talented students: Meeting their needs in New Zealand schools* (2000); *Initiatives for Gifted and Talented Learner* (2002); *Gifted and Talented Education in New Zealand Schools* (2004), and *The Extent, Nature and Effectiveness of Planned Approaches in New Zealand Schools for Providing for Gifted and Talented Students* (2004).

From the questionnaire results, it appears that there is agreement with other research that there is a need for all teachers to have PD in gifted and talented education (Clark, 2002; ERO 2008; Ferguson, 2006; Hansen & Felhusen, 1994; MOE, 2002 & 2004). Indeed, in the current study, one hundred percent of the teachers teaching for more than ten years agreed that there is a need for all teachers to have PD in gifted and talented education. Contrastingly the majority of teachers with less than ten years teaching experience disagreed! Is this because their pre –service providers gave them sufficient PD in GATE? Is it because GATE has been more visible in the last 10 years? Could it be in fact a result of the MOE initiatives have ensured teachers have an awareness of GATE? Or could it be that these teachers don't feel that every teacher needs PD

in GATE because they are unlikely to come across many gifted and talented children in their classrooms?

Not surprisingly, as other research indicates (Plunkett, 2000), those teachers who had not had PD in GATE were more uncertain about GATE. Paradoxically, despite several participants admitted to having a lack of knowledge in the area of gifted and talented education most believed they had the knowledge and skills necessary to cater for the social and emotional needs of gifted and talented children in their classrooms. This was also a finding in the author's prior research (Needham, 2007). Again could this be due to the belief that they feel can teach according to the needs of individual children in their classroom or is it a possible naivety about the special needs of gifted and talented children?

Participant teachers, as was also found in other research (MOE, 2004; Needham, 2007, ERO, 2008) had the desire to learn more about GATE and would therefore take up PD opportunities if they were offered. Some expressed concern that PD was not made available to them or that they had had minimal exposure, as was also highlighted in MOE (2004) and ERO (2008).

In hindsight, a question relating to pre-service education may have added to the findings as it would have been interesting to compare those who had and had not had PD during their studies. However, this was originally not part of the focus for this investigation. In relation to pre-service teacher training, the MOE (2004) reported that most current New Zealand undergraduate education

degrees provide only one or two lectures on the education of intellectually gifted students, and this is insufficient preparation for teachers to reliably identify, and effectively cater for, gifted students. Needham (2007) also found pre-service teachers felt the courses they have taken, during their studies, had limited content about gifted and talented education. Rawlinson & Riley (2006) found that gifted and talented education is addressed to varying degrees at both pre-service and in-service levels in and suggest that

It is timely for New Zealand teacher education providers, as individual institutions and collaboratively, to carefully examine their current and future offerings in gifted and talented education through internal investigations and planning (p.84).

Barriers to supporting the social and emotional needs of gifted and talented children

Despite teachers being keen to support the social and emotional needs of gifted and talented children there are barriers to them achieving this, including lack of personal knowledge, lack of time and school priorities.

Lack of teacher knowledge of the social and emotional characteristics and needs of gifted and talented children is an obvious barrier. Teachers cannot cater for what they don't know about. Many participants had a genuine concern for their lack of personal knowledge about GATE, and therefore expressed apprehension and uncertainty about answering questionnaire questions.

One of the barriers to supporting gifted and talented children that teachers expressed was the need to support children at the lower end of the behavioural

and ability spectrums. Consistent with prior research was the finding that concerns were expressed about lack of time to cater for needs of gifted and talented as they have lower ability children needing support (ERO, 2008; Riley et al, 2004). Many participants expressed that gifted and talented children had just as much need for special programmes as low ability children. There was a sense of higher priority given by schools to getting the slower children “up to speed” and therefore gifted and talented children were not seen as a priority as they were “doing ok” without any specialist help, as discussed earlier. An implication here is that NAG states that all schools must cater for the special needs of children including gifted and talented and therefore schools need to provide programmes that support gifted and talented children as well as any other special needs child.

LIMITATIONS

There are a number of limitations to the present study, including the small sample size that was drawn from only one city. However, as discussed previously, results were not intended to be generalised to a wider population. The use of criterion and convenience sampling ensured the school sample was representative of the city. The fact that participation was voluntary could have resulted in sampling bias. The resultant sample may have had an interest in gifted and talented education and therefore more likely to participate, and this point needs to be taken into consideration when interpreting data.

In terms of the questionnaire itself, the high frequency with which the participants chose the uncertain response could be seen as a weakness. The fact that I constructed the questionnaire myself, as a novice researcher, with my knowledge at the time of conducting this study also needs to be considered. I have since become aware of validated instruments that could have been used, for example Gagné and Nadeau's (Gagné, 1991) attitude scale. In addition, the PD aspect of the questionnaires did not qualify the quality and extent of the PD and so was unable to be assessed. This was not originally included as the questionnaires were prepared before this aspect became apparent in the literature review and results.

CHAPTER SUMMARY

The discussion of the findings included reasons why teachers found terms and definitions of GATE confusing. Teachers are unsure about many of the social and emotional characteristics and needs of gifted and talented children. However teachers' attitudes towards gifted children and their education are relatively positive. It is an established fact that the role of PD in supporting the social and emotional needs of gifted and talented children is an important factor; however the current study was unable to add to this. Teachers expressed that there are barriers to supporting the social and emotional needs of gifted and talented children in their classrooms, including a lack of personal knowledge, a lack of time and the school have other priorities. Limitations discussed included, small sample size, sampling bias, and the use of uncertain response.

Chapter 6

CONCLUSIONS

CHAPTER INTRODUCTION

This concluding chapter will summarise the significance of the study. It will highlight implications for teachers and their practice. Finally recommendations for further research will be made in the area of teachers' perceptions and attitudes towards GATE, particularly the social and emotional aspects.

SIGNIFICANCE OF STUDY

This study brought out a number of important points in relation to the social and emotional characteristics and needs of gifted and talented children. An examination of the literature identifies the general social and emotional characteristics of gifted and talented children and suggests that gifted children have unique affective characteristics and needs which are often characterised by overexcitabilities; perfectionism; dyssynchrony; underachievement; introversion and difficulty making friendships.

The first step toward helping these children is to acknowledge that their social and emotional characteristics and experiences are different to non-gifted children and therefore their needs are also different. To be effective in supporting gifted and talented children's social and emotional needs teachers need to understand these unique characteristics and ways of effectively meeting these

needs within their regular classroom programmes. If gifted children are to achieve their potential, the social and emotional aspects of giftedness must be recognized and developed in these classroom programmes.

Effective gifted and talented programmes help students to be healthy, innovative, creative and confident learners who achieve to their potential. These programmes recognise giftedness and talent in specific academic subjects, thinking, arts, sports, culture, creativity, spirituality, and leadership. Through these programmes students are encouraged to take pride in who they are and in their abilities, and to use these attributes in contributing to New Zealand society (ERO, 2008, p.3).

Although respondents had generally positive attitudes toward gifted and talented children, they were prone to misconceptions and uncertainties in relation to the social and emotional requirements for this group. The attitude of the teacher is an important starting point from which identification and provision will take direction. Knowledge and attitude seem to be inextricably interwoven, yet, the knowledge base of the social and emotional aspects of GATE is hardly, if at all touched in teacher pre-service and in-service PD.

The present study showed there were few differences in attitudes between the teachers who had undertaken PD in GATE and those who had not. More difference was found between teachers with more experience and teachers with less experience, particularly with the statements gifted and talented children are mature socially and emotionally, and all children are gifted and talented.

The quantity and quality of the PD that some teachers had had was unclear, but what was clear that the majority of teachers expressed their desire to partake in

further PD to enhance their understandings in order to improve their teaching and accordingly improve outcomes for gifted and talented children.

The small sample does not allow generalization of the findings beyond the study's participants. However, the study has highlighted the need to investigate further, with a larger and more representative sample, teachers' perceptions and attitudes towards the social and emotional need of gifted and talented children. Because teacher attitudes are crucial to appropriate provisions and social and emotional support, more research is needed about how teachers perceive gifted and talented children. Future research should investigate the impact of PD on teacher attitudes and practice.

IMPLICATIONS FOR PRACTICE

The findings of this study have implications for educators interested in supporting the social and emotional needs of gifted and talented children. This study identified several attitudes and perceptions of teachers that both help and hinder gifted and talented children.

Teachers need to be aware of their own beliefs and attitudes towards GATE and how this impacts on their interactions and practice. Teachers interested in up-skilling their own understandings of the social and emotional needs of gifted and talented children will find the evidence very useful. Although this study doesn't specifically look into successful teaching strategies and programmes that support social and emotional development it provides anecdotal information from

teachers as to how they have attempted to support their gifted and talented children within their regular classroom programmes. It also highlights research on the characteristics and needs of gifted and talented children that teachers will find helpful.

For teacher educators, those responsible for PD in schools, school management and GATE co-ordinators, this study offers insights into what teachers are currently thinking and what they perceive as their needs in order to appropriately cater for the needs of gifted and talented children in their classrooms. It gives a good idea of the frustrations and barriers facing classroom teachers. In particular this study suggests that many teachers feel under prepared to meet gifted and talented children's needs but willing to do the necessary PD in order for them to become more knowledgeable.

The data suggests that even though there is definite need for PD in GATE many teachers feel confident in being able to meet the social and emotional needs of gifted and talented children in their classrooms as they already endeavour to cater to the needs of every child's unique needs.

Another important finding that relates to school management is the fact that teachers are overwhelmed by meeting the needs of the children at the lower end of the spectrum and therefore leave the gifted and talented to "fend for themselves" as they "are already doing well academically". What really matters is the fact that these gifted and talented children are not always meeting their full potential and in fact may be underachieving. Teachers therefore must consider

the need for meeting the requirement of NAG 1 (iii) (c) that requires schools to identify and implement teaching and learning strategies to meet the needs of gifted and talented.

This research supports the recommendations for improvement proposed by ERO (2008), that schools develop awareness of the particular social and emotional characteristics of gifted and talented students and promote their holistic wellbeing; that school leaders develop and foster a school-wide understanding of gifted and talented education; promote ongoing participation in school-wide PD and specialist training and development for people specifically responsible for gifted and talented education. The current research also supports (Riley & Rawlinson, 2006) call for teacher education providers to carefully examine their current and future offerings in gifted and talented education through internal investigations and planning.

ERO (2008) highlight the need for schools to develop inclusive and appropriate definitions and identification processes for gifted and talented students that reflect student diversity and encompass a variety of gifts and talents. ERO recommends that the MOE consider how best to provide high quality PD to teachers, in particular in rural and low decile schools on providing for gifted and talented students.

RECOMMENDATIONS FOR FURTHER RESEARCH

Research in GATE in New Zealand is growing. However it is a relatively new area. There is a growing awareness for the need for research in the affective areas of gifted and talented children, as the research is still sparse.

Future research into this subject should include the social and emotional needs of gifted children and how well they are being met in early childhood, primary and secondary sectors. Case studies of children and teachers across a variety of settings could be analysed to ascertain if there are any common practices across sectors. There could also be comparisons made of how the social and emotional needs change as children age and transition from pre-school to primary to secondary.

As mentioned earlier the Gagné and Nadeau's (1991) attitude scale could also be used to understand teachers' attitudes in GATE. The scale would draw attention to the main areas in which teachers have unfavourable attitudes, misconceptions and mistaken beliefs, as well as the areas in which the majority of teachers have more positive attitudes.

Another topic worthy of concentrated study by educational professionals is that of the impact of teacher attitudes towards desirable outcomes for gifted and talented children, particularly on the ability for teachers to meet their social and emotional needs. Future studies should investigate the impact of the varying

types of pre-service and in-service PD on teacher attitudes towards GATE and gifted and talented children.

CHAPTER SUMMARY

Teachers have positive attitudes towards gifted and talented children however have a lack of personal knowledge about the social and emotional characteristics and needs of gifted and talented children. They are uncertain about the social and emotional characteristics and needs of gifted and talented children, but willing to learn. Barriers affecting their ability to support gifted and talented child's social and emotional needs in their classroom programmes included lack of understanding, lack of time, and other school priorities.

If proposed recommendations for a greater awareness and support of the social and emotional characteristics and needs of gifted and talented students are implemented in classrooms and schools then there will be progress towards dispelling the misconceptions and negative attitudes of teachers. Further research into the social and emotional needs of gifted children and how the attitudes of their teachers' impacts on them can only enhance GATE in Aotearoa New Zealand and improve outcomes for individuals and society as a whole.

Finally, this study leaves the researcher optimistic that teachers have positive attitudes towards GATE and are willing to improve their understandings and

practices in order to support gifted and talented children in becoming all that they can be - “where there’s a will there’s a way”.

REFERENCES

- Abercrombie, N., Hill, S., & Turner, B. S. (2000). *The Penguin dictionary of sociology* (4th ed.). London; New York: Penguin Books.
- Assouline, S. G., & Colangelo, N. (2006). Social-emotional development of gifted adolescents. In F. A. Dixon, & S. M. Moon (Eds.), *The handbook of secondary gifted education* (pp. 65 – 86). Waco, TX: Prufrock Press.
- Bain, S. K., & Bell, S. M. (2004). Social self-concept, social attributions, and peer relationships in fourth, fifth, and sixth graders who are gifted compared to high achievers. *Gifted Child Quarterly*, 48, 167-178. Retrieved March 20, 2008 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=716959651&SrchMode=1&sid=1&Fmt=6&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280297496&clientId=13346>
- Bain, S. K., Bliss, S. L., Choate, S. M., & Sager Brown, K. (2007). Serving children who are gifted: Perceptions of undergraduates planning to become teachers. *Journal for the Education of the gifted*, 30(4), 450-478, 535-537. Retrieved February 2, 2008 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=1303448821&SrchMode=1&sid=2&Fmt=6&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280297657&clientId=13346>
- Bain, S., Choate, S., & Bliss, S. (2006). Perceptions of developmental, social, and emotional issues in giftedness: are they realistic? *Roeper Review*, 29(1), 41-48. Retrieved March 20, 2008 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=1148968501&SrchMode=1&sid=3&Fmt=6&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280297788&clientId=13346>
- Bangel, N. J., Enersen, D., & Capobianco, B. (2006). Professional development of pre-service teachers: Teaching in the super Saturday program. *Journal for the Education of the Gifted*, (29)3, 339-361. Retrieved February 2, 2008 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=1078823031&SrchMode=1&sid=4&Fmt=6&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280297923&clientId=13346>
- Bell, J. (1999). *Doing your research project: a guide for first-time researchers in education and social science* (3rded.). Buckingham [England]; Philadelphia: Open University Press.
- Bevan-Brown, J. (1994). Special abilities: A Māori perspective. *APEX*, 7 (2), 5-9.

- Bevan-Brown, J. (1996). Special abilities: A Māori perspective. In D. McAlpine, & R. Moltzen (Eds.), *Gifted and talented: New Zealand perspectives* (pp. 91-110). Palmerston North: ERDC Press.
- Bevan-Brown, J. M. (2000a). *Running the gauntlet: A gifted Māori learner's journey through secondary school*. Retrieved August 1, 2008 from http://www.tki.org.nz/r/gifted/pedagogy/running_e.php
- Bevan-Brown, J. (2000b) *What is happening for gifted students in kura kaupapa Māori?* Retrieved February 2, 2008 from http://www.tki.org.nz/r/gifted/pedagogy/twopage_e.php
- Bevan-Brown, J. (2004). Gifted and talented Māori learners. In D. McAlpine, & R. Moltzen (Eds.), *Gifted and talented New Zealand perspectives*. (2nd ed.) (pp. 171-197). Palmerston North: Kanuka Grove Press.
- Bober-Michel, M (2009) *How to Design and Report Likert Scale*. Retrieved May 3, 2009 from http://edweb.sdsu.edu/courses/ed690new/documents/week8Newfiles/ClassUse_ReportExample_LikertScale.doc
- Bogdan, R., & Biklen, S. (1998). *Qualitative research for education: An introduction to theory and methods* (3rd ed.). Needham Heights: Allyn & Bacon.
- Bohner, G., & Wänke, M. (2002). *Attitudes and attitude change*. East Sussex, United Kingdom: Psychology Press.
- Borland, J. H. (1997). Evaluating gifted programs. In N. Colangelo, & G. Davis (Eds.), *Handbook of gifted education* (2nd ed.) (pp. 253-266). Boston: Allyn & Bacon.
- Braggett, E. (1994). *Developing programs for gifted students: A total-school approach*. Victoria: Hawker Brownlow.
- Brannen, J. (2005). Mixing methods: The entry of qualitative and quantitative approaches into the research process. *International Journal of Social Research Methodology*, 8(3), 173-184.
- Buck, P (n. d.). *The Rhode Island State Advisory Committee on Gifted and Talented Education*. Retrieved June 10, 2010 from http://www.ri.net/gifted_talented/character.html
- Burton, N., Brundrett, M., & Jones, M. (2008). *Doing your education research project*. Los Angeles: Sage.
- Carrington, N., & Bailey, S. (2000). How do pre-service teachers view gifted students? *Australasian Journal of Gifted Education*, 9 (1), 18-22.

- Cathcart, R. (1994). *They're not bringing my brain out*. New Zealand: Reach Publications.
- Cathcart, R. (1996). Educational provisions: An overview. In D. McAlpine & R. Moltzen (Eds.), *Gifted and talented: New Zealand perspectives* (pp. 121-138). Palmerston North, N.Z.: ERDC Press.
- Cathcart, R. (2005). *They're not bringing my brain out: understanding and working with gifted and talented learners* (3rd ed.). Auckland, N.Z.: Hodder Education.
- Cathcart, R., & Pou, N. (1992). The gifted child who is Māori. *NZAGC Gifted Children Their Future: Our Challenge*, 17 (3), 13-17.
- Clark, B. (1997). *Growing up gifted* (5th ed.). Columbus: Macmillan.
- Clark, B. (2002). *Growing up gifted* (6th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education* (5th ed.). London; New York: Routledge Falmer.
- Colangelo, N., & Assouline, S. G. (2000). Counseling gifted students, In K. A. Heller, F. J. Mönks, R. Subotnik and R. J. Sternberg (Eds.), *The international handbook of giftedness and talent* (2nd ed.), (pp.595-608). Waco, TX: Prufrock Press.
- Colangelo, N., & Davis, G. A. (2003). *Handbook of gifted education* (3rd ed.). Boston: Allyn and Bacon.
- Colangelo, N., Kerr, B., Christensen, P., & Maxey, J. (1993). A comparison of gifted underachievers and gifted high achievers. *Gifted Child Quarterly*, 3 (7), 155-160. Retrieved March 20, 2008 from <http://www.eric.ed.gov/PDFS/EJ769918.pdf>
- Collins, J. (2001). *Inquiry into the education of gifted and talented children: Submissions*. Canberra, ACT: Senate Employment, Workplace Relations, Small Business and Education References Committee. Retrieved March 22, 2009 from http://www.aph.gov.au/senate/committee/eet_ctte/completed_inquiries/1999-02/gifted/report/contents.htm
- Corso, R. M. (2007). Practices for enhancing children's social- emotional development and preventing challenging behavior. *Gifted Child Today* 30 (3). Retrieved March 20, 2008 from http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=EJ769918&ERICExtSearch_SearchType_0=no&accno=EJ769918

- Craven, R.G., & Marsh, H.W. (1997). Threats to gifted and talented students' self-concepts in the big pond: research results and educational implications, In W. Vialle & J. Geake (Eds.), *The Gifted Enigma: A Collection of Articles* (pp.105-130). Melbourne: Hawker Brownlow Education.
- Cross, T.L. (2002). Competing with myths about the social and emotional development of gifted students. *Gifted Child Today Magazine*, 25(3), 44-45. Retrieved August 1, 2008 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=146514021&SrchMode=1&sid=14&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280302641&clientId=13346>
- Dabrowski, K. (1964). *Positive Disintegration*. Boston: Little, Brown.
- Davidson, J. (1996). Meeting state mandates for gifted and talented: Iowa teacher preparation programmes. *Roeper Review*, 19(1), 41-43.
- Davidson, C., & Tolich, M. (Eds.), (1999). *Social science research in New Zealand: Many paths to understanding*. Auckland: Longman.
- Davis, G. A., & Rimm, S. B. (2004). *Education of the gifted and talented* (5th ed.). Boston: Pearson.
- Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research*. Thousand Oaks: Sage Publications.
- Denzin, N. K., & Lincoln, Y. S. (2003). *Strategies of qualitative inquiry* (2nd ed.). Thousand Oaks, CA: Sage.
- Denzin, N. K., & Lincoln, Y. S. (2005). *The SAGE handbook of qualitative research* (3rd ed.). Thousand Oaks: Sage Publications.
- Delisle, J., & Galbraith, J. (2002). *When gifted kids don't have all the answers: How to meet their social and emotional needs*. USA: Free Spirit publishing.
- Department of Education (1986). *Draft policy statement on children with special abilities*. Wellington: New Zealand Government Printer.
- de Vaus, D. A. (1991) *Surveys in Social Research*. Sydney, Australia: Allen and Unwin.
- Education Review Office (2008) *Schools' Provision for Gifted and Talented Students*. Wellington: Crown.
- Feldhusen, J.F., & Moon, S.M. (1992). Grouping gifted students: Issues and concerns. *Gifted Child Quarterly*, 36, 63-67. Retrieved May 3, 2009 from

<http://gcq.sagepub.com.ezproxy.canterbury.ac.nz/content/36/2/63.full.pdf+html>

- Feldhusen, J. F., & Nimlos-Hippen, A. L. (1992). An exploratory study of self-concepts and depression among the gifted. *Gifted Education*, 8, 136-138.
- Ferguson, M. (2006). *From policy to practice: How are schools catering for gifted and talented students?* Thesis. University of Waikato. Retrieved May 8, 2009 from <http://adt.waikato.ac.nz/uploads/approved/adt-uow20070316.085812/public/01front.pdf>
- Fiedler, E., Lange, R., & Winebrenner, S. (1993). In search of reality: Unravelling the myths about tracking, ability grouping, and the gifted. *Roeper Review*, 16 (1), 4-7.
- Fraenkel, J., & Wallen, N. (2006). *How to design and evaluate research in education* (6th ed.). New York: McGraw Hill.
- Freeman, J. (1994). Some emotional aspects of being gifted. *Journal for the Education of the Gifted*, 17, 180-197.
- Freeman, J. (2001). *Gifted children grown up*. London: David Fulton Publishers.
- Gagné, F. (1995). From giftedness to talent: A developmental model and its. *Roeper Review*, 18(2), 103.
- Gagné, F. (1991). Brief presentation of Gagné and Nadeau's attitude scale: *Opinions about the gifted and their education*. Montréal: GIREDT Center, Université du Québec à Montréal.
- Gagné, F. (2003). Transforming gifts into talents: The DMGT as a developmental theory. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (3rd ed.) (pp.60-74). Boston: Allen & Bacon.
- Gallagher, J. J., & Gallagher, S. A. (1994). *Teaching the gifted child* (4th ed.). Boston: Allyn and Bacon.
- Gardner, H. (1993) *Multiple intelligences: the theory in practice*. New York: Basic Books.
- Grant, B. A., & Piechowski, M. M. (1999) Theories and the good: toward child-centered gifted education. *Gifted Child Quarterly*, 43(1). Retrieved September 1, 2008 from <http://gcq.sagepub.com.ezproxy.canterbury.ac.nz/content/43/1/4.full.pdf+html>

- Greene, M.J. (2004). Gifted adolescent social and emotional development: teacher perceptions and practices. *Roeper Review*, 26(4). Retrieved May 3, 2009 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=670716781&SrchMode=1&sid=11&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280301418&clientId=13346>
- Gross, M. U. M. (1993). *Exceptionally gifted children*. London: Routledge.
- Gross, M.U.M. (1994). Responding to the social and emotional needs of gifted children. *Australasian Journal of Gifted Education*, 3(2), 77 - 83.
- Gross, M.U.M. (1997). How ability grouping turns big fish into little fish—or does it? of optical illusions and optimal environments. *Australasian Journal of Gifted Education* 6(2),18–30.
- Gross, M. U. M. (2000). Exceptionally and profoundly gifted students: An underserved population. *Understanding Our Gifted*. Retrieved September 12, 2008 from <http://www.hoagiesgifted.org/underserved.htm>
- Gross, M.U.M., & Slep, B. (2001). *Literature review on the education of gifted and talented students*. Retrieved September 1, 2008 from http://www.aph.gov.au/Senate/committee/eet_ctte/gifted/submissions/sub032.doc
- Hall, J. M. (1995). Influences on teacher understanding of giftedness in young children. *Gifted, August*, 7-10.
- Hansen, J. B., & Feldhusen, J. F. (1994). Comparison of trained teachers of gifted students. *Gifted Child Quarterly*, 38(3), 115-121.
- Henderson, L. (2007). Multi-level selective classes for gifted students. *International Education Journal*, 8(2), 60-67.
- Heylighen, F. (undated). *Gifted people and their problems*. Retrieved September 12, 2008 from <http://pespmc1.vub.ac.be/papers/GiftedProblems.pdf>
- Hitchcock, G., & Hughes, D. (1989) *Research and the teacher*. Routledge: London.
- Hollingworth, L. S., & Hollingworth, H. L. (1942). *Children above 180 IQ, Stanford-Binet*. New York: World Book Company.
- Janos, P. M., Fung, R. C., & Robinson, N. M. (1985). Friendship patterns in highly intelligent children. *Roeper Review*, 8(1), 46-49. Retrieved September 1, 2008 from http://www.davidsongifted.org/db/Articles_id_10163.aspx

- Johnson, R. B., & Onwuegbuzie, A. J. (2004) *Mixed methods research: a research paradigm whose time has come*. Retrieved September 1, 2008 from
<http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=1&did=738091191&SrchMode=1&sid=2&Fmt=4&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280298791&clientId=13346>
- Kagan, D. M. (1992). Implications of research on teacher belief. *Educational Psychologist*, 27(1), 65-90.
- Keen, D. (2004) Talent in the new millennium: Gifted education, as perceived by participating educators, children, students, parents and caregivers. In D. McAlpine, & R. Moltzen, R. (Eds.), *Gifted and talented, New Zealand perspectives* (2nd ed.), pp263-288. Palmerston North, New Zealand: Kanuka Grove Press.
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.
- Lassig, C J. (2003) Gifted and talented education reforms: Effects on teachers' attitudes. In B. Bartlett, & F. Bryer, and D. Roebuck (Eds.), *Proceedings 1st Annual International Conference on Cognition, Language, and Special Education Research: Reimagining Practice: Researching Change* (pp. 141-152) Retrieved May 14, 2009 from
<http://eprints.qut.edu.au/14299/1/14299.pdf>
- Lind, S. (1998). *A Parent's Guide to Perfectionism*. Communicator, 29(3).
- Lichtman, M. (2006). *Qualitative research in education: A user's guide*. Thousand Oaks, CA: Sage.
- Lunenburg, F.C., & Irby, B. J. (2008) *Writing a successful thesis or dissertation: tips and strategies for students in the social and behavioral sciences*. Thousand Oaks, CA: Corwin Press.
- Macfarlane, A. (Ed.). (2010). *Above the Clouds: Ka rewā ake ki ngā kapua. A collection of readings for identifying and nurturing Māori students of promise*. Christchurch: University of Canterbury.
- Macfarlane, A., & Moltzen, R. (2005). Whiti ki runga! Gifted and talented Māori learners. *Kairaranga Journal of Educational Practice*, 6(2), 7-9. Retrieved September 16, 2009 from
http://nutritionlab.massey.ac.nz/massey/fms/Colleges/College%20of%20Education/Documents/C&P/Kairaranga/Volume%206_%20Issue%202_2005.pdf
- McCoach, D. B., & Siegle, D. (2003). Factors that differentiate underachieving gifted students from high achieving students. *Gifted Child Quarterly*, 47, 144 – 154. Retrieved February 2, 2008 from

<http://gcq.sagepub.com.ezproxy.canterbury.ac.nz/content/47/2/144.full.pdf+html>

- McCoach, D. B., & Siegle, D. (2007). What predicts teachers' attitudes toward the gifted? *The Gifted Child Quarterly*, 51(3), 246-255. Retrieved February 2, 2008 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=1325216961&SrchMode=1&sid=4&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280299121&clientId=13346>
- McAlpine (2004) what do we mean by gifted and talented? Concepts and definitions. In D. McAlpine, & R Moltzen (Eds.), *Gifted and talented: New Zealand perspectives* (2nd ed.) (pp.33-65). Palmerston North, New Zealand: ERDC Press, Massey University.
- McAlpine, D., & Moltzen, R. (2004). *Gifted and talented: New Zealand perspectives* (2nd ed.). Massey: ERDC Press.
- McAlpine, D., & Reid, N. (1996). *Teacher observation scales for identifying children with special abilities*. Wellington: NZCER.
- Mahuika, R. (2007) Māori gifted and talented education: A review of the literature. Retrieved February 2, 2008 from <http://www.review.mai.ac.nz>
- Maurer, T & Andrews, K (2000) Traditional, Likert and Simplified Measures of Self-efficacy. *Educational and Psychological Measurement*, 60(6).
- Mendaglio, S., & Tillier, W. (2006). Dabrowski's theory of positive disintegration and giftedness: Overexcitability research findings. *Journal for the Education of the Gifted*, 30, 68-87.
- Megay-Nespoli, K. (2001). *Beliefs and attitudes of Novice teachers regarding instruction of academically talented learners*. Roper Review, 23(3), 178-182. Retrieved February 2, 2008 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=71974779&SrchMode=1&sid=5&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280300153&clientId=13346>
- Ministry of Education. (2000). *Gifted and talented students: Meeting their needs in New Zealand schools*. Wellington: Learning Media.
- Ministry of Education. (2002). *Initiatives in gifted and talented education*. Wellington: Ministry of Education.
- Ministry of Education. (2003). *National Achievement Guidelines*. Retrieved June 3, 2007 from <http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/PolicyAndStrategy/PlanningReportingRelevantLegislationNEGSAndNAGS/TheNationalAdministrationGuidelinesNAGs.aspx>

- Ministry of Education. (2004). *Gifted and talented education in New Zealand schools*. Wellington, New Zealand: Ministry of Education.
- Ministry of Education. (2004). *The extent, nature and effectiveness of planned approaches in New Zealand schools for providing for gifted and talented students*. Retrieved June 3, 2007 from <http://www.minedu.govt.nz/index.cfm?layout=document&documentid=8912&data=1>
- Ministry of Education. (2007). *New Zealand curriculum*. Wellington, New Zealand: Learning Media.
- Moltzen, R. (1998/99). Young, gifted and living in New Zealand. *APEX The New Zealand Journal of Gifted Education*, 11/12(1), 57-68.
- Moltzen, R. (1998). Maximising the potential of the gifted child in the regular classroom: A professional development issue. In *Gifted Education International*, 13, (pp 36-46). Great Britain: A.B. Academic Publishers.
- Moltzen, R. (2004). Historical perspectives. In D. McAlpine, & R. Moltzen, R. (Eds.), *Gifted and talented, New Zealand perspectives* (2nd ed.) (pp. 1-33). Palmerston North, New Zealand: Kanuka Grove Press.
- Moon, T. R., & Brighton, C. M. (2008). Primary Teachers' Conceptions of Giftedness. *Journal for the Education of the Gifted*, 31, (4), 447-480. Retrieved July 18, 2008 from <http://proquest.umi.com.ezproxy.canterbury.ac.nz/pqdweb?index=0&did=1504074671&SrchMode=1&sid=6&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1280300287&clientId=13346>
- Morelock, M. J. (1996). On the nature of Giftedness and talent: Imposing order on Chaos. *Roeper Review*, 19 (1), 4-9.
- Mutch, C (2005). *Doing educational research: A practitioner's guide to getting started*. Wellington New Zealand: NZCER Press.
- Nail, J. M., & Evans, J. G. (1997). The emotional adjustment of gifted adolescents: A view of global functioning. *Roeper Review*, 20, 18-21.
- Needham, V. (2007) *Pre-service teachers' perceptions about gifted education in New Zealand*. Unpublished research.
- Neihart, M. (1998). Preserving the true self of the gifted child. *Roeper Review*, 20 (3), 187-191.
- Neihart, M. (1999). The impact of giftedness on psychological well-being: What does the empirical literature say? *Roeper Review*, 22, 10-17. Retrieved July 28, 2008 from

- Neihart, M., Reis, S. M., Robinson, N. M., & Moon, S. M., (Eds.), (2002). *The social and emotional development of gifted children: What do we know?* Waco, TX: Prufrock Press.
- Neuman, W. L. (1997). *Social research methods: Qualitative and quantitative approaches* (3rd ed.). Boston: Allyn and Bacon.
- Neuman, W. L. (2000). *Social research methods: qualitative and quantitative approaches* (4th ed.). Boston, MA: Allyn and Bacon.
- Nugent, S. A. (2005). Affective education: Addressing the social and emotional needs of gifted students in the classroom. In F. A. Karnes & S. M. Bean (Eds.), *Methods and materials for teaching the gifted* (2nd ed.) (pp. 409–438). Waco, TX: Prufrock Press.
- Page-Bucci, H. (2003). *The value of Likert scales in measuring attitudes of online learners*. Retrieved May 10, 2009 from <http://www.hkadesigns.co.uk/websites/msc/reme/likert.htm>
- Parker, W. (1996). Psychological adjustment in mathematically gifted students. *Gifted Child Quarterly*, 40 (3), 154-157.
- Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*. Thousand Oaks, CA: Sage.
- Pfeiffer, S. I., & Stocking, V. B. (2000). Vulnerabilities of academically gifted. *Special Services in the Schools*, 16, 83-93.
- Piechowski, M.M. (1991). Emotional development and emotional giftedness. In N. Colangelo and G.A. Davis (Eds.), *Handbook of gifted education* (pp. 285-306). Boston: Allyn and Bacon.
- Piechowski, M. M. (2006). "Mellow out," they say. *If I only could: Intensities and sensitivities of the young and bright*. Madison, WI: Yunasa Books.
- Plucker, J. A., & McIntire, J. (1996). Academic survivability in high potential, middle school students. *Gifted Child Quarterly*, 40, 7-14.
- Plunkett, M. (2000). Impacting on teacher attitudes toward gifted students. In W. Vialle & J. Geake (Eds.), *The Gifted Enigma: A Collection of Articles*. (pp.240-259). Melbourne: Hawker Brownlow Education.
- Porter, L. (1999). *Gifted children and youth: A guide for teachers and parents*. St Leonards, Australia: Allen and Unwin.
- Porter, L. (2004) Giftedness in early childhood. In D. McAlpine, & R Moltzen (Eds.), *Gifted and talented: New Zealand perspectives* (2nd ed.) (pp.199-238). Palmerston North, New Zealand; ERDC Press, Massey University.

- Reid, N. (1989). Contemporary Polynesian conceptions of giftedness. *Gifted Education International*, 6 (1), 30-38.
- Reid, N. (1990). Identifying the culturally different gifted in New Zealand. *APEX* 3 (3), 3-10.
- Reid, N. (1991). Gifted and disadvantaged in New Zealand. In B. Wallace and H.B. Adams (Eds.), *World perspectives on the gifted disadvantaged*. Bicester, England: AB Academic Publishers.
- Reid, N. (1992). Correcting cultural myopia. In E. Le Sueur (Ed.), *Proceedings of the Guiding the Gifted Conference, July 6-7th* (pp. 49-63) Auckland: Conference Publishing Limited.
- Reis, S.M., & Renzulli, J.S. (2004) Current research on the social and emotional development of gifted and talented students: Good news and future possibilities. *Psychology in the Schools*, 41(1). Retrieved August 4, 2009 from www.interscience.wiley.com/
- Robinson, N.M., Reis, S.M., Neihart, M., & Moon, S.M. (2002). In M. Neihart, S.M. Reis, N.M. Robinson and S.M. Moon (Eds.) *The social and emotional development of gifted children: What do we know?* Waco, Texas: Prufrock Press.
- Renzulli, J.S. (1977). *The Enrichment Triad Model: A guide for developing defensible programs for the gifted and talented*. Mansfield Center, CT: Creative Learning Press.
- Renzulli, J.S. (1978). What makes giftedness: Reexamining a definition. *Phi Delta Kappan*, 60, 180–184.
- Renzulli, J. S. (2004). What makes a problem real: stalking the illusive meaning of qualitative differences in gifted education. In J. VanTassel-Baska, (Ed.), *Curriculum for gifted and talented students*. (pp45-65). California. U.S.: CorwinPress.
- Ribich, F., Barone, W., & Agostino, R. (1998). Semantically different: Pre service teacher's reactions to the gifted student concept. *Journal of Educational Research*, 91, 308-312. Retrieved July 12, 2008 from <http://web.ebscohost.com.ezproxy.canterbury.ac.nz/ehost/pdf?vid=10&hid=102&sid=2c13335d-d56c-414d-afdb-69b3aac402a5%40sessionmgr107>
- Riley, T. L. (2000a). *Gardening in New Zealand: do I really have a green thumb or is that just another tall poppy?* Retrieved July 18, 2008 from http://www.tki.org.nz/r/gifted/reading/confpapers/gardening_e.php

- Riley, T. L. (2000b). *Shifting your mindset: Teachers of gifted and talented students*. Retrieved June 15, 2007 from http://www.tki.org.nz/r/gifted/pedagogy/mindset_e.php
- Riley, T. L. (2004a). *Gifted and talented education in New Zealand schools: a summary of research on the extent, nature, and effectiveness of planned approaches in New Zealand schools for identifying and providing for gifted and talented students*. Wellington, N.Z.: Ministry of Education.
- Riley, T.L. (2004b). *Qualitative differentiation for gifted and talented students*. In D. McAlpine, & R Moltzen (Eds.), *Gifted and talented: New Zealand perspectives* (2nd ed.) (pp. 345-370). Palmerston North, New Zealand: ERDC Press, Massey University.
- Riley, T. L., Bevan-Brown, J., Bicknell, B., Carroll- Lind, J., & Kearney, A. (2004). *The Extent, Nature and Effectiveness of Planned Approaches in New Zealand Schools for Providing for Gifted and Talented Students*. Report to the Ministry of Education Institute for Professional Development and Educational Research, Massey University.
- Riley, T., & Rawlinson, C. (2006) *Teacher education in gifted and talented education in New Zealand* in National Gifted and Talented Conference 2006 Handbook.
- Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers*. (2nd ed.). Oxford: Blackwell.
- Roedell, WC. (1984). Vulnerabilities of highly gifted children. *Roeper Review*, 6(3), 127-30.
- Roedell, WC. (1986). Socio-emotional vulnerabilities of young gifted children. *Journal Of Children in Contemporary Society*, 18(3-4), 17-29.
- Rogers, K.B. (2002a). Effects of acceleration on gifted learners. In M. Neihart., S. Reis., N.M. Robinson., & S.M. Moon (Eds.), *The social and emotional development of gifted children: What do we know?* (pp. 3–12). Waco, Texas: Prufrock Press, Inc.
- Rogers, K.B. (2002b). Grouping the gifted and talented. *Roeper Review*, 24(3), 103-108.
- Rogers, K.B. (2007). Lessons learned about educating the gifted and talented: a synthesis of the research on educational. *Gifted Child Quarterly*, 51, 382. Retrieved February 2, 2003 from <http://gcq.sagepub.com/cgi/content/abstract/51/4/382>

- Rymarczyk-Hyde, C. (2001). *Māori children with special abilities (MCWSA). Recognising and providing for: Nga pohutukawa roa – tall pohutukawas*. Retrieved February 2, 2003 from http://www.tki.org.nz/r/gifted/pedagogy/maori_students_e.php
- Silverman, L.K. (1983). Personality development: The pursuit of excellence. *Journal for the Education of the Gifted*, 6(1), 5-19.
- Silverman, L. K. (1990). Recognising giftedness. Denver, CO: Gifted Development Centre.
- Silverman, L. K. (1993). The gifted individual. In L.K. Silverman (Ed.), *Counseling the gifted and talented* (pp. 3-28). Denver: Love.
- Silverman, L. K. (1994). The moral sensitivity of gifted children and the evolution of society. *Roeper Review*, 17(2), 110-116.
- Silverman, L. K. (1998). Through the lense of giftedness. *Roeper Review*, 20(3), 204-210.
- Smith, S. R., & Chan, L. K. S. (1998) *The attitudes of Catholic primary school teachers towards educational provision for gifted and talented students*. In W. Vialle & J. Geake (Eds.), *The Gifted Enigma: A Collection of Articles*. (pp.201-228). Melbourne: Hawker Brownlow Education.
- Sternberg, R. J. (1997). A triarchic view of giftedness: theory and practice. In N. Colangelo & G. A. Davis (Eds.), *Handbook of Gifted Education* (pp. 43-53). Boston, MA: Allyn and Bacon.
- Sternberg, R. J. (2003). Giftedness according to the theory of successful intelligence. In N. Colangelo & G. Davis (Eds.), *Handbook of Gifted Education* (88-99). Boston MA: Allyn and Bacon.
- Sternberg, J. (2004) *Definitions and conceptions of giftedness*. Thousand Oaks, California : Corwin Press.
- Sword L. K. (2002). *The gifted introvert*. Retrieved February 2, 2008 from <http://talentdevelop.com/articles/GiftIntro.html>
- Sword L. K. (2005). *Emotional intensity in gifted children*. Retrieved February 2, 2008 from <http://www.giftedservices.com.au/handouts/index.html>
- Tannenbaum, A. J. (1983). *Gifted children: Psychological and educational perspectives*. New York: Macmillan.

- Taylor, S. (2004). Providing a sense of direction: Needs analysis, policies and action plans in schools and early childhood in D. McAlpine, & R. Moltzen (Eds.), *Gifted and talented: New Zealand perspectives* (2nd ed.) (pp. 289-308). Palmerston North: ERDC Press, Massey University.
- Taylor, S. and Bogdan, R. (1998). Introduction to qualitative research methods: A Guidebook and Resource (3rd ed.). New York: John Wiley & Sons.
- Terman, L. M. (1925). *Genetic studies of genius: Vol. 1. Mental and physical traits of a thousand gifted children*. Stanford, CA: Stanford University Press.
- Terrassier, J-C. (1985). Dyssynchrony - uneven development. In J. Freeman (Ed.), *The psychology of gifted children* (pp. 265-274). New York: John Wiley.
- Te Kete Ipurangi (TKI). Retrieved March 18, 2008 from <http://www.tki.org.nz/e/tki/>
- Timperley, H., Wilson, A., Barrar H., and Fung I. (2007) *Teacher professional learning and development: Best evidence synthesis iteration (BES)*. Retrieved April 10, 2010 from http://www.educationcounts.govt.nz/_data/assets/pdf_file/0017/16901/TP_LandDBESentire.pdf
- Townsend, M. (2004). Acceleration and Enrichment: A union rather than a choice in D. McAlpine, & R. Moltzen (Eds.), *Gifted and talented: New Zealand perspectives* (2nd ed.) (pp. 289-308). Palmerston North: ERDC Press, Massey University.
- University of Canterbury (2009). Educational Research Human Ethics Committee (ERHEC): Principles and guidelines. Christchurch
- Valpied, J.L. (2001). Social and emotional needs of the gifted child. Paper presented at the 25th National Conference of the Australian Association of Special Education, Melbourne, Australia. Retrieved March 18, 2010 from www.jvalpied.com/downloads.php?cmd=get&code=GS01X
- VanTassel-Baska, J., & Stambaugh, T. (2005). *Challenges and possibilities for serving gifted learners in the regular classroom. Theory into Practice*, 44(3), 211-217. Retrieved February 2, 2008 from ProQuest Education Journals database.
- Versteynen, L. (2005) *Issues in the social and emotional adjustment of gifted children: what does the literature say?* Retrieved June 3, 2008 from <http://www.giftedchildren.org.nz/apex/v13art04.php>
- Vialle, W., & Geake, J. (Eds.), (2002) *The gifted enigma: A collection of articles*. Melbourne: Hawker Brownlow Education.

- Vialle, W., Heaven, P. C. L., & Ciarrochi, J. (2007) On being gifted, but sad and misunderstood: Social, emotional, and academic outcomes of gifted students in the Wollongong Youth study. *Wi Educational Research and Evaluation* 13(6), pp. 569 – 586.
- Webb, J. T. (1993). Nurturing social-emotional development of gifted children. In K. A., Heller, F. J., Monks, & A. H. Passow, (Eds.), *International Handbook of Research and Development of Giftedness and Talent* (pp. 525-538). Oxford, England: Pergamon Press.
- Winner, E. (1996). *Gifted children: Myths and realities*. New York: Basic Books.

APPENDICES

Appendix 1: Change to National Administration

Guideline 1(iii) c

From Term 1 2005, all state and state-integrated schools must be able to show how they are meeting the needs of their gifted and talented learners. This new requirement matches the obligations already in place for schools to meet the needs of students who are not achieving, who are at risk of not achieving, and who have special needs.

NAG 1(iii) now reads:

1(iii) on the basis of good quality assessment information, identify students and groups of students:

- a. who are not achieving
- b. who are at risk of not achieving
- c. who have special needs (including gifted and talented students), and
- d. aspects of the curriculum which require particular attention.

Appendix 2: Core Principles

The Government believes that the following core principles provide a solid basis for supporting the achievement and well-being of gifted and talented learners. Schools should aim to provide all learners, including those who are gifted and talented, with an education matched to their individual learning needs.

Gifted and talented learners are found in every group within society. Māori perspectives and values must be embodied in all aspects of definition, identification, and provision for gifted and talented learners.

The early childhood and school environments are powerful catalysts for the demonstration and development of talent.

Schools and early childhood centers should provide opportunities for parents, caregivers, and whānau to be involved in the decision making that affects the learning of individual students.

Programmes for gifted and talented learners should be based on sound practice, take account of the research and literature in this field, and be regularly evaluated.

Gifted and talented learners should be offered a curriculum that has been expanded in breadth, depth, and pace to match their learning needs. Schools and early childhood centers should aim to meet the specific social and emotional needs of gifted and talented learners.

Provision for gifted and talented learners should be supported by ongoing high-quality teacher education.

Appendix 3: Decile Ratings.

The Ministry of Education has developed a Targeted Funding for Educational Achievement indicator, commonly known as a 'decile rating.' The rating is intended to be a measure of socio-economic disadvantage, and is based upon several dimensions:

Equivalent Household Income;

Parents' Occupation;

Household Crowding;

Parents' Educational Qualifications;

Income Support Payments Received by Parents; and

Māori and Pacific Islands Ethnicity (Ministry of Education, 1997).

The combination of these dimensions results in each school being ranked into deciles 1 (lowest socio-economic group) to 10 (highest socioeconomic group). Each decile rating comprises approximately a tenth (10.0%) of New Zealand schools.

Appendix 4: Questionnaire

Social and Emotional Aspects of Gifted Education

Vicki Needham University of Canterbury

Section One: Introduction and Instructions

The purpose of this survey is to collect data on the understandings and beliefs primary teachers have about the social and emotional aspects of Gifted Education.

Please indicate with a ✓ and/ or comment.

Section Two: Biographical data

Position	Classroom teacher		Management	Specialist teacher			Other
Gender	Male	Female	Number of years teaching	0-2	2-5	5-10	10 +
Ethnicity			Number of Gifted and Talented Students taught (estimate)				

Section Three: Professional Development

	Yes	No	COMMENT
Do you believe you have the knowledge and skills necessary to cater for the social and emotional needs of gifted and talented children in your classroom?			
Are you aware of the 2005 NAG change that includes gifted and talented children?			
Have you had professional development on Gifted and talented children?			
If you answered Yes to the previous question please answer the following questions			
Who provided the Professional development?	Staff member	Advisor	University Other
Why did you do the professional development?	Personal interest	To gain qualification	Gifted and talented child in own class
	School requirement	Whole school PD	Other

Are you aware of the following Ministry of Education documents?	I have read this document	I have had professional development using this document
<i>Gifted and talented students: Meeting their needs in New Zealand schools (2000).</i>		
<i>Initiatives for Gifted and Talented Learner.(2002)</i>		
<i>Gifted and Talented Education in New Zealand Schools (2004).</i>		
<i>The Extent, Nature and Effectiveness of Planned Approaches in New Zealand Schools for Providing for Gifted and Talented Students.(2004)</i>		

Section Four: Characteristics of Gifted and Talented Children

Circle the number that best fits your opinion of the following statements.

1. Strongly Agree 2. Agree 3. Uncertain 4. Disagree 5. Strongly Disagree

1	Gifted and talented children are mature socially and emotionally.	1	2	3	4	5
2	Gifted and talented children have trouble relating to peers (same age).	1	2	3	4	5
3	Gifted and talented children have a keen sense of humour.	1	2	3	4	5
4	Gifted and talented children have emotional problems, e.g. anxious.	1	2	3	4	5
5	Gifted and talented children have high expectations of others.	1	2	3	4	5
6	Gifted and talented children have behavioural problems, e.g. hitting.	1	2	3	4	5
7	Gifted and talented children have the special social and emotional needs.	1	2	3	4	5
8	Gifted and talented children have emotional depth and sensitivity.	1	2	3	4	5
9	Gifted and talented children are easily frustrated.	1	2	3	4	5
10	Gifted and talented children have lower self –esteem.	1	2	3	4	5
11	Gifted and talented children have greater self-awareness.	1	2	3	4	5
12	Gifted and talented children have high expectations of themselves.	1	2	3	4	5
13	Gifted and talented children show empathy to others.	1	2	3	4	5
14	Gifted and talented children have social problems, e.g. not being able to share.	1	2	3	4	5
15	Gifted and talented children are sensitive to the needs of others.	1	2	3	4	5
16	Gifted and talented children worry about world issues.	1	2	3	4	5
17	Gifted and talented children think other people view their talents positively.	1	2	3	4	5
18	Gifted and talented children view their talents negatively.	1	2	3	4	5
19	Gifted and talented children are self motivated.	1	2	3	4	5
20	Gifted and talented children make friends easily.	1	2	3	4	5

Section Five : Belief Statements

Circle the number that best fits your opinion of the following statements.

1. Strongly Agree 2. Agree 3. Uncertain 4. Disagree 5. Strongly Disagree

1	All children are gifted and talented.	1	2	3	4	5
2	Gifted and talented students should be with students their own age.	1	2	3	4	5
3	Gifted and talented students are better off if they spend some of the day with students with similar abilities.	1	2	3	4	5
4	Being perfectly well rounded should be the primary goal for gifted and talented student development.	1	2	3	4	5
5	Teachers need professional development in gifted and talented education.	1	2	3	4	5
6	Gifted and talented will succeed even without special provision.	1	2	3	4	5
7	Being too clever in school is a problem.	1	2	3	4	5
8	Acceleration is harmful to the social and emotional development of gifted and talented children.	1	2	3	4	5
9	Teachers find gifted and talented students challenging.	1	2	3	4	5
10	Being gifted is something you are born with.	1	2	3	4	5

Section Six: Personal Comments

Please make any further comments you would like to make about Gifted and Talented Education. This could be from personal experience, professional development, discussions with gifted and talented students, parents or other educationalists.

Please indicate if you would be willing to participate further in this research by attending an interview with me.

I will only be interviewing one teacher from your school, so I will let you know within a week if you will be interviewed.

Yes I would be happy to help. ☐ My first name is _____

My contact email or phone number is _____

Thank you for completing this survey.

Vicki Needham

Definitions

Gifted and Talented

Gifted and talented students have exceptional abilities and certain learning characteristics that give them the potential to achieve outstanding performance (Ministry of Education, 2002)

NAG 1(iii)c - Change to National Administration Guideline

From Term 1 2005, all state and state-integrated schools must be able to show how they are meeting the needs of their gifted and talented learners. This new requirement matches the obligations already in place for schools to meet the needs of students who are not achieving, who are at risk of not achieving, and who have special needs.

1(iii) on the basis of good quality assessment information, identify students and groups of students:

- a. who are not achieving
- b. who are at risk of not achieving
- c. who have special needs (including gifted and talented students), and**
- d. aspects of the curriculum which require particular attention.

Appendix 5: Interview Guide

Questions for Individual Interviews

Tell me a little bit about yourself and your teaching experiences.
Tell me what experiences you've had with Gifted and talented education.

Professional Development

Tell me about any professional development in Gifted and talented education you have had.
What professional development do you feel you need?

Social and Emotional

What Social and Emotional characteristics are common to Gifted and Talented children?

How can teachers' best meet the social and emotional needs of gifted and talented children in their classrooms?

Discuss any interesting individual questions from questionnaire.
Is there anything else you would like to add?

Appendix 6: Lichtman's Interview Questions Process

1. Grand Tour Questions. This question gives the participant an opportunity to be open and it should be nondirective.

2. Specific Examples Questions. This type of question gives the participation an opportunity to be concrete and specific and provide relevant information.

3. Comparison/ Contrast Questions. This type of question challenges the participant to think about other times, situations, places, events, or people and draw comparisons with them. Contrasts and comparisons provide additional insight and serve to highlight what you are studying.

4. New Elements/Topics Questions. Shifting to a new topic must be done in a very subtle. Introduce topics not previously mentioned by participant.

5. Closing Questions. This type of question provides a chance for the participant to add anything else that has not been mentioned.

Appendix 7: Information for Interviews

Project Title

New Zealand Primary teachers' perspectives of social and emotional aspects of gifted and talented learners.

Background Information

My name is Vicki Needham and I am investigating this topic in order to further understandings of the social and emotional needs of gifted and talented children. I am undertaking this research as part of the requirements for a Master of Teaching and Learning degree at the University of Canterbury. I will be working under the supervision of **Faye Parkhill** and **Jenny Smith**.

Participant Requirements

Participants will be asked to participate in a face to face individual interview. Participants will be interviewed using a semi-structured format with an emphasis on allowing participants to determine the content of the interview. Key themes drawn from the questionnaire data will be used to determine question and to stimulate discussion. Interviews will be conducted at a venue of each participant's choice and will be approximately 45 minutes duration. Suitable times for the interviews will be negotiated upon receipt of consent forms and are expected to occur December 2008. Interviews will be audio taped. Transcripts of the interviews will be sent out to participating teachers for comments and/or corrections to assist in the accurate recording and interpretation of views.

Ethical Considerations

The University of Canterbury College of Education Ethics Committee has reviewed and approved this study.

Participation is voluntary. Participants will have the right to withdraw from the study at any stage and/or to withdraw information or data pertaining to them without penalty. Participants will be guaranteed anonymity; real names and other identifying information will not be used. All records will remain confidential and access to data will be restricted to myself, my supervisors the typist and transcriber. Both records and data will be securely stored and retained for up to three years. Data will be used specifically for the purposes of this study and any related conference papers or journal articles that may follow.

Complaints Procedure

The College requires that all participants be informed that if they have any complaint concerning the manner in which a research project is conducted, it may be given to the researcher, or, if an independent person is preferred, to chair of ethical clearance committee.

If you are willing to participate, please complete the attached consent form and return to me.

Yours sincerely

Vicki Needham

Lecturer

College of Education, University Of Canterbury

Waiariki Institute of Technology, Private Bag 3028, Rotorua

Phone 07 3468895 Mobile 027 404 7262, vicki.needham@canterbury.ac.nz

Supervisors: **Faye Parkhill** University of Canterbury 03 3642987 extn 44291
faye.parkhill@canterbury.ac.nz

:Jenny Smith University of Canterbury 03 3642987 extn 44274
jenny.smith@canterbury.ac.nz

Complaints may be addressed to:

Dr Missy Morton, Chair, Ethical Clearance Committee

College of Education, University of Canterbury

Private Bag 4800, CHRISTCHURCH

Telephone: 345 8312

Appendix 8: Consent Form for Interviewees

New Zealand Primary teachers' perspectives of social and emotional aspects of gifted and talented learners.

Consent Form for Interviewees

I have read and understood the Information Sheet for Vicki Needham's research.

I understand that the study involves a tape recorded interview.

I am aware that I will have the opportunity to request that clarification, changes or deletions to the transcribed text of the interview is carried out according to my requests before the material is used by the researcher.

I understand that I may withdraw at any time.

I am aware that this study has been reviewed and approved by the College of Education Ethics Committee and that if I have any concerns about the content or conduct of this study I can contact the Ethics Committee.

Name of Participant:

Participant's signature:

Date:

Appendix 9: Rotorua schools Data Base

First four schools SECOND CHOICE SCHOOLS

Integrated schools Kura Kaupapa Māori

Rotorua Primary Schools	Code	Roll Number	Decile
<u>Aorangi Primary</u>	A		
<u>Broadlands Primary</u>	B	75	9
<u>Galatea Primary</u>	C	158	3
<u>Glenholme Primary</u>	<u>D</u>	377	3
<u>Horohoro School</u>	<u>E</u>	60	3
<u>Kaharoa Primary</u>	F	227	10
<u>Kaingaroa Forest</u>	G	77	1
<u>Kaitao Middle</u>	H	564	2
<u>Kawaha Point Primary</u>	I	340	5
<u>Lake Rerewhakaaitu Primary</u>	J	100	7
<u>Lake Rotoma Primary</u>	K	60	2
<u>Lynmore Primary</u>	L	646	8
<u>Malfroy Primary</u>	M	380	3
<u>Mamaku Primary</u>	N	169	2
<u>Mihi School</u>	O		
<u>MOKOIA INTERMEDIATE</u>	P	372	5
<u>Murupara Primary</u>	Q	256	1
<u>NGAKURU PRIMARY</u>	R	74	10
<u>Ngongotaha Primary</u>	S	290	4
<u>OTONGA PRIMARY</u>	T	546	9
<u>Owhata Primary</u>	U	380	3
<u>Reporoa Primary</u>	V	130	8
<u>Rotokawa Primary</u>	W	200	4
<u>Rotorua Intermediate</u>	X	618	5
<u>Rotorua Primary</u>	Y	286	2
<u>Rotorua Seventh Day Adventist</u>	Z	29	6
<u>SELWYN PRIMARY</u>	AA	544	2
<u>St. Mary's Primary</u>	BB	340	5
<u>St. Michael's Primary</u>	CC	157	4
<u>Sunset Primary</u>	DD	160	1
<u>Te Kura Kaupapa Maori O Te Rotoiti</u>	EE	63	2
<u>Te Kura O Te Koutu</u>	FF	151	3
<u>Te Kura O Ruamata</u>	GG	139	2
<u>Te Kura O Te Whakarewarewa</u>	HH	365	2
<u>Upper Atiamuri Primary</u>	II	62	7
<u>Waikite Valley Primary</u>	JJ	56	9
<u>Westbrook Primary</u>	KK	601	5
<u>Western Heights Primary</u>	LL	325	2
<u>Whangamarino Primary</u>	MM	105	3

Appendix 10: Principals Email

Dear (Principal's name)

I would like to ask for your permission to survey your teachers by a questionnaire on the social and emotional aspects of gifted and talented learners.

The title of my research project is

New Zealand Primary teachers' perspectives of social and emotional aspects of gifted and talented learners.

I am investigating this topic in order to further understandings of the social and emotional needs of gifted and talented children. I am undertaking this research as part of the requirements for a Master of Teaching and Learning degree at the University of Canterbury.

I will be working under the supervision of Faye Parkhill and Jenny Smith.

Participants will be asked to complete a questionnaire during a staff meeting, during March 2009. Questionnaires will take approximately 15 minutes to complete. Completed questionnaire will be collected after completion. Participation will be voluntary.

I have attached a copy of "Information for Questionnaire Participants" which I will give participants before they complete questionnaires.

Do not hesitate to contact me if you have any questions.
Please let me know when it would be appropriate to survey your staff.

Thank you
Kind regards

Vicki Needham

Appendix 11: Biographical Data

	Number	Percentage
Participants	44	100%
Males	10	23%
Females	34	77%
Teachers	39	88%
Management	5	12%
Maori	6	14%
Maori/New Zealand European	2	4%
New Zealand European	36	82%
Years Teaching 0-2	9	20%
Years Teaching 2-5	8	18%
Years Teaching 5-10	4	9%
Years Teaching 10+	23	57%

Appendix 12: Information for Questionnaire Participants

New Zealand Primary teachers' perspectives of social and emotional aspects of gifted and talented learners.

Information for Questionnaire Participants

My name is **Vicki Needham** and I am investigating this topic in order to further understandings of the social and emotional needs of gifted and talented children. I am undertaking this research as part of the requirements for a Master of Teaching and Learning degree at the University of Canterbury. I will be working under the supervision of **Faye Parkhill** and **Jenny Smith**.

Participants will be asked to complete a questionnaire during a staff meeting, during March 2009. Questionnaires will take approximately 15 minutes to complete. Completed questionnaire will be collected after completion.

Participation is voluntary. Participants will have the right to withdraw from the study at any stage and/or to withdraw information or data without penalty. Participants will be guaranteed anonymity as real names or any identifying information of teachers and schools will not be used. All records will remain confidential and access to data will be restricted to myself, my supervisors and the transcriber. The questionnaire and data will be securely stored and retained for up to five years following completion of the study. Data will be used in my MTchLn thesis and may be presented at conferences and published in articles.

The University of Canterbury College of Education Ethics Committee has reviewed and approved this study. If you have any complaint concerning the manner in which a research project is conducted please contact Dr Missy Morton, Chair of Ethical Clearance Committee, details below.

If you have any questions about involvement in this research you may contact myself on 07 3468895 or vicki.needham@canterbury.ac.nz. Alternatively you may wish to contact my supervisors Faye Parkhill faye.parkhill@canterbury.ac.nz or Jenny Smith jenny.smith@canterbury.ac.nz

If you are willing to participate, please complete the attached consent form and return to me.

Yours sincerely
Vicki Needham

Appendix 13: Consent Form for Questionnaire Participants

*New Zealand Primary teachers' perspectives of social and emotional aspects
of gifted and talented learners.*

Consent Form for Questionnaire Participants

I have read and understood the Information Sheet for Vicki Needham's research.

I understand that the study involves completing a questionnaire.

I understand that I may withdraw at any time.

I am aware that this study has been reviewed and approved by the UC College of Education Ethics Committee and that if I have any concerns about the content or conduct of this study I can contact the Ethics Committee.

Name of Participant:

Participant's signature:

Date:

Appendix 14: Themes

Categories for Open ended questionnaire responses

acceleration	4
all children are gifted and talented	10
behavioural needs	3
challenging behaviours	2
characteristics	6
each child is an individual	17
emotional needs	5
extension	4
grouped together	2
labelling	1
low ability children	6
negative behaviours	1
negative teacher attitudes	2
nurtured	1
parents of gifted	3
perfectionism	1
positive teacher attitudes	4
professional development	14
role model	2
school policy and programmes	1
social and emotional needs	9
specifically catered for	3
stimulating programmes	1
teacher knowledge or experience	13
teachers positive experiences and attitudes	1
teaching and learning styles	4
term gifted and talented and definitions	15
uncertain response	12

Condensed Themes

low ability	6
social and emotional needs	9
all children are gifted and talented	10
uncertain response	12
lack of teacher knowledge or experience	13
Professional development	14
definitions of giftedness	15
each child is an individual	17