# FROM POLICY TO PRACTICE:
# HOW ARE SCHOOLS CATERING FOR GIFTED AND TALENTED STUDENTS?

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# Acknowledgements

# Abstract

In 2005, the Ministry of Education in New Zealand released 'The Schooling Strategy, Making a Bigger Difference for all Students' (Ministry of Education, 2005). This is intended as a framework for ongoing effort and improvement in education for the five years from 2005 to 2010. One of the strategic priorities in this document, is to promote evidence-based practice.

With evidence-based practice, teachers combine evidence from a number of sources to inform their professional judgements and practice. This includes research evidence about effective pedagogy. Teachers, it states, need to be supported to 'base their practice on principles of "what works" from research evidence and adapting it to their classroom context' (p.39). In looking at the practices of schools in catering for gifted and talented students, therefore, it is appropriate, to look at the findings of research. This research is useful in underpinning 'best practice'.

This study reviews the literature concerning the education of gifted and talented children from both national and international perspectives. It then looks at current New Zealand practice, based on four case-study primary schools. There are very encouraging signs that these schools are well into the journey of catering for their gifted and talented students. Each school in this study has responded to the challenge of provision as best it can, within constraints of individual school situations. Each school also sees the development of this provision as an ongoing process.

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. The main findings of this study suggest that even before the amendment to this National Administration Guideline (NAG) 1(iii)c, there were some promising and effective provisions for gifted and talented children within schools. These included school-wide and withdrawal provisions. However, since the change to the NAG and the involvement of schools in gifted and talented professional development courses, there has been

increased awareness of the need for classroom teachers to differentiate their programmes in order to more effectively cater for this group of learners.

New Zealand primary school classrooms with a learner centred philosophy appear to be well suited to programme differentiation. There is increasingly an emphasis within general teaching practice on individualizing programmes based on assessment data which clearly shows where the child is at, and what the next learning step will be. Current professional development contracts promoting practices such as inquiry learning, curriculum integration and thinking skills seem to have particular promise for this group of learners. It is very evident, however, that a lack of time and energy is a significant barrier for classroom teachers wishing to provide for the specific needs of gifted and talented learners. It is also suggested that some schools, in particular low decile and small rural schools, may be unfairly disadvantaged in their ability to provide for gifted and talented learners.

The challenge for schools now, it is suggested, is to continue the journey towards a school-wide commitment to best practice in providing for this group of learners. Special consideration for this group of learners should be integrated into the context of all pre-service training and in-service professional development, as part of a differentiated programme for all learners. A vital component of this is ongoing practical support for teachers based on their expressed need, to enable them to effectively translate theory into practice, and thus implement and embed any appropriate approach, based on research findings, effectively.

# Table of Contents

# Chapter 1

## Introduction

My year three and four class, were having fun with the concepts of heavy and light. Comparisons were flying;

"As heavy as a rock….a BIG one !"

"As light as a feather !"

"As heavy as an elephant ! "

"As light as air !"

Sam (just turned seven), was watching me intently.

"Actually," he commented, "air does weigh something."

"Do you think so Sam?" I asked.

"Yes," he replied, "because helium balloons rise, so air must be heavier than helium, because they float up, so air must weigh something."

I had that familiar shock of recognition. Here was an exceptional child. This was not the first time Sam had shown maturity of thought. But did this indicate a gift? How could I be sure? And what should I be doing for him?

My interest in this area originates from many experiences like the one above, with children like Sam. As a classroom teacher for many years, I had always been aware of children with special abilities, those who would now be considered "gifted and talented". However, my provision for them was much more 'ad hoc' than planned – which often translated to keeping them busy, using them to facilitate group activities and calling on their knowledge and skills to lead discussion and activities. I wondered what 'best practice' would be for these children.

I was not alone in this. As the Ministry of Education (2000) states, "There is a growing awareness of the special needs of gifted and talented students and of the

importance of providing them with an educational environment that offers maximum opportunities to develop their special abilities" (p.6). I began to wonder how other schools and teachers provided for their gifted and talented learners. What were the common practices ?

"We have now begun to "design" our own indigenous response to meeting the needs of gifted and talented learners," comments Moltzen (2004c, p.26). Moltzen continues by pointing out that with the high levels of autonomy in New Zealand schools, one could predict that there is great variability across the country in the priority individual institutions give to educating their gifted and talented. How were individual schools responding to the challenge of meeting the needs of gifted and talented learners? I wanted to find out.

**Purpose of the project**

With the change to the National Administration Guideline (NAG) 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. Schools within New Zealand are unique in that they have the license to develop their own policies and practices within this guideline. I therefore anticipated that each school would have a different journey to share in responding to the new NAG. I was very interested to share in this journey of schools with a particular focus on classroom practice.

**Justification**

In 2003, Massey University was commissioned by the Ministry of Education to undertake research into the extent, nature and effectiveness of planned approaches in New Zealand schools in providing for gifted and talented students. (Riley, Bevan-Brown, Bicknell, Carroll-Lind & Kearney, 2004). This is the most significant base of research literature we have to refer to in determining the current educational provision for gifted and talented students in New Zealand.

There were 10 case studies undertaken as part of this research. The criteria for selection was in part, "schools that reported comprehensive approaches to identification, provision, and policies/procedures;" and "schools utilising promising

practices and different approaches to identification and provisions" (Riley et al., 2004, p.200).

Significantly, within the research of the Massey University case studies, a gap between policy and practice became evident.

> As this research study progressed, the potential gaps between paper and practice came to the fore. For example, it must be pointed out that the case study schools were selected based (in part) upon *self-reported* comprehensive identification practices and procedures and many of these schools had written documentation to support their programmes. However, during the case study visits, when asking about these promising practices, it became evident that their implementation was often more haphazard or accidental than planned and purposeful
>
> (Riley et al., 2004, p.272).

I felt, therefore, that there was a gap in the research undertaken by the Massey University in three areas.

1.  Of the 2689 schools surveyed, 1285 schools responded, a response rate of 48%. A significant number of schools did not respond. I made an assumption that the 52 % of schools that did not respond, did not see the educational provisions for the gifted and talented as a priority, or, alternatively, did not feel confident enough to share their practices. I was interested to know what was happening within these schools.

2.  The ten case studies were selected as 'best case scenarios,' and were, by the researchers' own admission, not a random or representative sample. I was interested in selecting a more representative sample of case studies, schools serving very different communities, including some who may not invite this sharing.

3. Riley et al., (2004) had identified, that implementation of promising practices, even in schools deemed 'best-case scenarios', was haphazard. What were the reasons for this? I wanted to explore further the barriers faced by schools in translating policy to practice.

My focus, therefore, was to look more closely at how policy was translated into practice in a variety of schools, and what those practices were.

**Research Questions.**
The specific research question underpinning this investigation was:

*How was the policy regarding the provision for Gifted and Talented students within the school, being translated into practice ?*

There were a number of supplementary questions that were appropriate to investigate. These addressed the areas of policy, definition, identification, provision, professional development, and other issues faced by the school and teachers in catering for their gifted and talented learners.

1. How did the school begin catering for gifted and talented learners? Who was involved in forming a school policy? What does this policy say?

2. How was the term, 'gifted and talented' understood by the teachers within the school? How was it defined within policy ?

3. Who was involved in identifying gifted and talented learners, and what types of formal or informal identification procedures were used in identification?

4. How was provision or programming decided? What types of provision or programmes were used to meet the needs of identified children, and how is this provision assessed?

5. What professional development have the school and/or teachers had? What professional development are they currently having? How well did this assist teachers in providing for gifted and talented learners within the school?

6. What are the barriers and enablers evident when catering for the gifted and talented learners in the school?

**7.** Were there any other significant issues for individual schools in providing for gifted and talented learners with regard to;

Translating policy to practice

Identification and programming

Assessment

Professional development/support

Community involvement / expectations

Teacher knowledge/skills

Time

Resourcing

For this research I chose a case study approach. Within these case studies, I anticipated being able to find examples of barriers to provision and hoped to be able to suggest strategies to address these. I expected it would be possible to share the journeys of four school communities and to make tentative applications to a wider educational context. The findings from this study, I anticipated, would be of interest to schools, teachers, and specialists such as gifted education advisers.

# Chapter 2
# Literature Review

**Introduction**

There is a growing body of literature pertaining to the education of the gifted and talented in New Zealand. This is largely the work of a finite number of professionals with an interest in the area. Bevan-Brown, Cathcart, Keen, McAlpine, Moltzen, Parkyn, Reid, Riley and Townsend, among others, have contributed significantly to literature unique in this field to the New Zealand context. Underpinning this, is a body of international but mainly American literature which has provided a theory base and models on which to build our own. It is necessary therefore, to look at literature within both the international and the New Zealand context, to help inform our practice.

I have organised the literature into three sections. The first section examines literature defining giftedness and identifying gifted individuals. It begins with explaining how, over time, the way we conceptualise giftedness has changed. It continues by detailing some behaviours that may indicate giftedness and ends with cultural considerations when identifying giftedness.

The second section examines literature dealing with educational provisions for gifted and talented learners. The importance of differentiation is discussed in catering for the gifted and talented learner. An explanation of role of the teacher and the creation of a learning environment follows. Enrichment and acceleration as components of provision are considered. Some of the most popular provisions in New Zealand, the use of Bloom's taxonomy, de Bono's Thinking Hats and Renzulli's Enrichment Triad Model are then examined as tools in differentiating the classroom programme. The choice of withdrawal or pull-out classes is discussed, and finally, the importance of evaluating programmes for gifted and talented learners is considered.

The third and final section looks at literature discussing a school policy in  the New Zealand context, and finally, the professional development of teachers.

**Section One.**

**Historical Notions of Giftedness.**

Throughout human history some people have stood out from their peers in a variety of forms of endeavour. If their gifts were valued in the cultural, economic, and political context of their time, these individuals were often given recognition by their peers. However, it was not until the early nineteenth century that the first significant research and writing devoted to intelligence, as an identifiable component of giftedness, first took place.

Sir Francis Galton (1822-1911) is credited with the earliest significant research and writing on intelligence and intelligence testing. Galton reasoned that intelligence was related to the keenness of one's senses, which would have survival value (Colangelo & Davis, 2003). He believed the basis of intelligence was hereditary, refuting the belief that people are born with similar aptitudes. This belief appeared to be confirmed by his observation of eminent men, who, it appeared, came from eminent families. This view resulted in the theory of fixed intelligence (Clark, 2002).

The notion of general cognitive ability was recognised in 1904 by Charles Spearman who used *g* as a neutral signifier that avoided the many connotations of the word intelligence. Spearman 'theorised that intelligence was a sort of faculty, a general capacity, present in all special abilities' ( Piirto, 1994, p.23). It was seen as a certain element that is genetic, or a 'gift'.

The measuring of this 'genetic something', began in France, in 1905. Alfred Binet was hired by the city of Paris, to devise a test of intelligence, as a means to identify' dull' children who would not benefit from inclusion in regular classes. Binet's intelligence test gave us the notion of mental age, an intellectual level said to be typical for any given chronological age. Later, in the early 1920's, an American, Lewis Terman modified Binet's test and produced the Stanford-Binet Intelligence Scale. This was also based on the belief of a fixed intelligence, an intelligence that

was innate and unchangeable. In 1912, the German psychologist William Stern proposed using the ratio of mental age to chronological age to yield the now familiar intelligence quotient (I.Q).

In 1921, when this belief in fixed intelligence dominated, Lewis Terman undertook the first longitudinal study of the characteristics and behaviours of gifted individuals. He chose 1528 gifted children, most, with IQ's exceeding 140 with an average age of 11 years (Clark, 2002). Although his sample was limited culturally, socio-economically and racially, he concluded that gifted individuals were physically, socially, emotionally and psychologically healthier than the general population. During the period of the 1930's and 1940's, the IQ test became the ultimate authority. So much so, that 'parents were not permitted to know the IQ of their children, as the belief prevailed that this gave evidence of capacity for mental development' (Clark, 2002, p.36).

The impetus to further refine a standard measure of intelligence continued. In 1958, David Weshler introduced intelligence scales for adults and children that have come to rival the Stanford-Binet in popularity. These yield three main scores: a verbal, a performance and an overall score. Another well known test is Raven's Progressive Matrices, aimed to test 'eductive' ability (stemming from what Charles Spearman in the 1920's had viewed as the ability to grasp associations). Along with this testing came the proposition that the distribution of intelligence followed a normal distribution, or the Bell Curve as it is commonly known. It is argued that many statistical analyses surrounding IQ testing have been designed to depend on this principle (Richardson, 1999).

As early as the 1940's, writers were pointing to the limitations of intelligence tests in defining and identifying the gifted. Witty, for example pointed out that the intelligence test was lacking in situations which disclose originality or creativity (Passow, 2004). Then in the late 1950's, work by Vygotsky, a Russian researcher, and Piaget from France, were translated for use in the United States. They theorised that intelligence was developmental, a result of the interaction of genes and environment (Piirto, 1994). Faced with the data, educators could no longer deny the possibility that the learners' active participation in the learning process could

influence intellectual growth. But it was not until well into the 1960's that the challenge against fixed intelligence reached significant proportions (Clark, 2002).

The publishing in 1972, of a national American report, signalled a significant change in the notion of intelligence. This report, published for the Congress of the United States, was titled, 'Education of the Gifted and Talented.' This report is commonly known as the Marland Report. The definition of giftedness in this report called attention to a wider variety of abilities (Passow, 2004).

The definition stated that the gifted and talented were those with demonstrated achievement or potential ability in any of the following areas:

- General intellectual aptitude
- Specific academic aptitude
- Creative and productive thinking
- Leadership ability
- Visual and performing arts
- Psychomotor ability (this was deleted in 1978)

(Piirto, 1994.)

This report gave evidence of a shift in perception of giftedness, as it acknowledged a wider definition of giftedness than the previous one of fixed intelligence. The mention of potential ability acknowledged the influence of the environment, which clearly had implications for the educational environment of schooling. This report led the way to increasingly broadened concepts of giftedness.

**Some Contemporary Concepts of Intelligence**

Many researchers continued to acknowledge Spearman's theory of 'g' within their models. Carroll (1996, cited in Feldhusen & Jarwin, 2000) provides one example. He proposed a three-stratum theory of intelligence in which *g* or general intelligence superceded all intellectual functioning. There is some debate, however, as to the existence of 'g'. Psychological researcher Horn (cited in Richardson, 1999) says, 'there are good reasons for discounting the idea that there is a single unitary capacity of general intelligence. Most of the evidence before us suggest that humans have

several different intellectual capacities for which there is no functional unity" (p.50). Thurston (1938, cited in Sternberg, 2000) also found no evidence of a general factor of intelligence. With his range of mental tests, in fact, he revealed seven independent factors of intelligence, namely: verbal comprehension, word fluency, number facility, space, perceptual speed, induction and memory. It is evident, therefore, that we need some consensus and clarification of 'g' in order to validate any theory underpinned by the assumption of its existence.

 A measure of genetic pre-disposition seems to be a generally accepted component in theories and models of today according to Ford (2003), and I.Q. testing can be an element within identification of gifts and talents in many countries. A number of researchers consider that a base of inert ability contributes to exceptionally high performance and accelerated acquisition in a specific field. However, as stated by Plomin and Thompson (1993, cited in Ford, 2003), 'it is also accepted that heritability amounts only to a probablistic genetic influence in a population, not an immutable, pre-determined outcome. Genes are no longer seen as destiny' (p.151). Even in making a compelling case for the existence of an innate, biological, genetically based human nature, Steven Pinker (2002) agrees, that genes are not everything. The effect, he attested, can vary according to the environment.

According to Feldman (2003), two theories have had a particular impact in conceptualising giftedness. Sternberg's triarchic theory and Gardner's theory of multiple intelligences, he says, have proven to be highly influential challenges to traditional notions of intelligence.

Sternberg's theory proposed three distinct forms of intelligence: academic (or componential) practical (or contextual) and creative (or experential). Each is given equal status within Sternberg's triarchy, and each may vary in strength in any person. It could be argued that academic intelligence is similar to traditional IQ. Practical intelligence refers to the person's ability to interpret situations and to form successful strategies for success, and creative intelligence is the ability to manipulate the known to 'solve certain problems, alleviate difficulties, enrich experience, transform environments, and the like' (Feldman, 2003, p.13). In all instances, the kinds of abilities that the triarchic theory proposed, are subject to

improvement through strategic intervention including self improvement. Thus, Sternberg contended, that the nature of giftedness and responses to it differ markedly from those derived from traditional I.Q. notions of intelligence.

Besides this explicit theory, Sternberg described an 'implicit' theory of giftedness. This is known as the Pentagonal Implicit Theory of Giftedness (Sternberg & Zhang, 2004). Whereas an explicit theory is a construction of psychologists or scientists based on collected data, an implicit theory is an intellectual construction that resides in the minds of individuals, it explains people's conception of giftedness. Sternberg and Zhang argue that implicit theories of giftedness are important because, 'they provide a dimension of understanding that can not be obtained through the study of explicit theories' (p.15). The five necessary and sufficient conditions that gifted persons have in common, they say, are;

- *Excellence*. A gifted person must be extremely good at something
- *Rarity*. This attribute must be uncommon relative to peers
- *Productivity*. The superior trait must lead to productivity.
- *Demonstrability*. The trait must be demonstrable through one or more valid tests
- *Value*. The superior performance must be in an area that is valued by society.

Implicit theories are relative to a culture, based on the values of that culture, and can guide the identification of gifted persons (Davis & Rimm, 1998; Sternberg & Zhang, 2004).

Another concept of intelligence, often used to guide identification of gifted and talented children is Gardner's Theory of Multiple Intelligences (Gardner, 1993, cited in Davis & Rimm 1998). Howard Gardner identified eight, distinct independent intelligences, no one which has inherent value beyond the others. It appears that one, or various combinations of these intelligences, are valued and promoted somewhere within different cultures (Feldman, 2003). The eight intelligences are: first, linguistic (verbal) intelligence, which includes verbal comprehension, syntax, semantics, and written and oral expression. A second intelligence is logical-mathematical intelligence, which includes, for example, inductive and deductive

reasoning and computing, as required by a mathematician or physicist. Spatial intelligence, is seen as the capacity to represent and manipulate three-dimensional configurations as needed by an architect, engineer, interior decorator, sculptor or chess player. A fourth intelligence is musical intelligence which includes such abilities as pitch discrimination, sensitivity to rhythm, texture and timbre and music composition. Bodily-kinesthetic intelligence, is said to be the ability to use all or part of your body to perform a task or fashion a product. The sixth, interpersonal intelligence, includes the ability to understand the actions and motivations of others. Intrapersonal intelligence is said to include a person's understanding of self, including the ability to use that knowledge in planning and carrying out activities. The final and eighth, naturalist intelligence, was added by Gardner in 1995.

This theory is popular with New Zealand schools because of its inclusiveness and acknowledgement and celebration of difference. The wider parameter by which children can be deemed to be gifted and talented also fits with the philosophy of egalitarianism in a New Zealand society that has traditionally prided itself on these ideals (Moltzen, 2003, 2004c). It corresponds with the current move away from the standardised measures of achievement and ability, and is culturally responsive. Strang (2001) saw the model as useful in identification and also in catering for gifted and talented learners in New Zealand classrooms. Gardner believes that this theory can also serve as a powerful framework for teacher training and development, in that it 'encourages teachers to find what is best *in* each child and *for* each child' (Von Karolyi, Ramos-Ford & Gardner, 2003, p.107).

Eysenck (1998) however, believes recognition is premature in that, 'the necessary empirical work has not been done to show that, say, Gardner's intelligences are truly independent' (p.11). Gardner's Multiple Intelligences of verbal, mathematical and musical intelligences, for example, supposedly separate, are believed to be correlated positively, and thereby linked to general mental ability (Deary, 2001). Eysenck believes a hierachical model, with a number of special abilities correlating together to give rise to a factor of general intelligence is more widely accepted. Feldhusen and Jarwin (2000, cited in McAlpine, 2004a) also point out that, 'while educators have embraced Gardners' Theory of Multiple Intelligences, its basis for assessment and identification of gifted students is much more problematic'(p.110).

The difficulty lies in teachers reliably and consistently identifying specific gifts and talents within a child, without a standardised or comparative measure. Fasko (2001, cited in McAlpine, 2004a) believes that if Multiple Intelligences is to be used as an identification method, teachers need additional resources and training in appropriate performance-based assessments.

Francoys Gagné (2000) proposed a clear- cut distinction between the concepts of giftedness and talent in his Differentiated Model of Giftedness and Talent.

> The term 'giftedness' designates the possession and use of and
> spontaneously expressed natural abilities (called aptitudes or gifts)
> in at least one ability domain. By contrast, the term 'talent'
> designates the superior mastery of systematically developed abilities
> (or skills) and knowledge in at least one field of human activity.
>
> (p.67).

According to Gagné, the transformation of these gifts into talents is facilitated (or hindered) by two types of catalysts; intrapersonal and environmental. The factor of 'chance' also interacts with the gift and with intrapersonal and environmental domains. Gagné determined that 10% of the population could be identified this way, however within that 10% he labelled four subgroups, those being moderately, highly, exceptionally or extremely gifted. Riley et al., (2004) found that his definition is sometimes adopted by New Zealand schools.

Another conceptual model of giftedness, used to guide identification of gifted and talented learners in New Zealand schools, was developed by Renzulli. His Three Ring Model illustrated his belief, that gifted behaviour reflected an interaction of three traits: above average and/or specific abilities, high levels of task commitment and creativity. He defined individuals capable of developing gifted behaviour, as those 'possessing or capable of developing this composite set of traits and applying them to any potentially valuable area of human performance in both general and specific areas' (Piirto,1994, p.31). While acknowledging the usefulness of this model in explaining gifted behaviour, Gagné (2000) argued that the presence of

motivation as a necessary factor, excludes gifted underachievers, and that creativity is not a necessary component in certain fields of endeavour, as in, for example, athletes.

Ellen Winner (1996) identified three characteristics similar to Renzulli, interacting to create a gifted person. These are expressed as precocity, a rage to master, and an insistence on marching to their own drum. Without discounting the powerful influence of environment, Winner suggests that these children are qualitatively different, that they are born with a neurological difference and a genetic blueprint predisposing them to giftedness. It is not enough, she asserts, just to have a high I.Q., or perseverance, in fact she has evidence which demonstrates that some individuals with very low I.Q.s are gifted in some domains. She points out that each gifted individual is different, due to the combination of genetic, neurological, environmental and personality peculiarities.

That emerging talents, aptitudes, and abilities are to a great extent, products of learning experiences, was written into another report from the United States Office of Education in 1993. This stated that the term 'gifted' no longer characterised well the children with special abilities and that there should be a shift of view to a broader range of talents in children (Feldhusen & Jarwin, 2000). As a result, according to Feldhusen and Jarwin (2000), 'the task of identification shifted from a search for the gifted few to assessment of the talent strengths and aptitudes of all students, and to identification of high level talent potential among those especially precocious or advanced in their talent development' (p.279).

It appears important that we cast our net widely in our search for gifts and talents within individuals. As Sternberg (2004) pointed out, "The way we conceptualise giftedness greatly influences who will have greater or lesser opportunities to contribute to society. Broadened definitions and conceptions of giftedness will result in more enlightened choices about the decisions we make about who is able to participate in the programmes we develop" (Sternberg, 2004, xxv).

**What does a gifted child look like ?**

In identifying children deemed gifted and talented it is useful to consider the behavioural characteristics of such a group. As Moltzen (2004a) points out, focusing on the gifted individual can be problematic and sometimes unproductive, and a much more straightforward approach is to focus on gifted behaviours. It is important however, to realise, that gifted and talented students are not a homogenous group (Davis & Rimm, 1998; Clark, 2002; Moltzen, 2004a). As Davis & Rimm (1998) state;

> Gifted children differ from each other not only in size, shape, and colour, but in cognitive language abilities, interests, learning styles, motivation and energy levels, personalities, mental health and self-concepts, habits and behaviour, background and experience, and any other mental, physical or experential characteristic that one cares to look for"

( p.26).

It must also be remembered that 'giftedness is a socially constructed concept and for this reason, the characteristics associated with it can never be considered fixed' (Moltzen, 2004, p88). In fact Freeman (1998) points out that checklists of characteristics, of children deemed to be gifted and talented vary considerably, and some of the items can be confusing. Some, she says, rather than being specific to aptitudes, may be socio-cultural. She also believes that American lists of characteristics of gifted and talented learners 'suggest a higher level of morality and leadership in the gifted, for both of which there is little evidence when social class, home support etcetera are recognised'(p.11).

There are, however, a number of common characteristics and traits that have appeared and reappeared in studies of gifted children and adults. For example, Davis and Rimm (1998), drawing on research from a number of sources, divided the characteristics of gifted children into intellectual, affective and creative. Clark (2002) organised 35 differentiating characteristics of gifted learners into cognitive (linear and spacial), affective (emotional and social), physical movement, and sensation and intuitive (approximating the functions available in the human brain). She stressed that it is their integration that creates high levels of intelligence and

optimal development of human potential. Freeman (1998) provided a research-based checklist of characteristics for very able pupils. The eight items listed are characteristics concerning, memory and knowledge, self-regulation, speed of thought, dealing with problems, flexibility (similar to creativity), preference for complexity, concentration and early symbolic activity. These, she asserted, summarises the most valid commonly identified characteristics of gifted children.

A model developed from overseas research, and appropriate to the New Zealand context is the Teacher Observation Scales for Children with Special Abilities (McAlpine & Reid, 1996, cited in Moltzen, 2004a). This model lists those behaviours observed in the typical classroom and school, by practising New Zealand teachers, and are believed to be reliable indicators of exceptional talent. It is recommended by the Ministry of Education (2000) as a guide to assist identification of gifted and talented children in New Zealand. The behaviours are organised into 53 characteristics of learning: creative thinking, motivation, social leadership, and self-determination. It is noted that no one gifted and talented student is likely to possess all the characteristics listed. A sample of behaviours representing each area in this list, is as follows.

Learning characteristics, it is said, may be seen in a child that displays logical and analytical thinking and reasons things out, masters information quickly has a wide range of knowledge, finds as well as solves problems, likes intellectual challenge and easily grasps underlying principles, is quick to see patterns and relationships and seeks to redefine problems, pose ideas and formulate hypotheses. Characteristics of creative thinking can be seen, for example, in the production of original ideas, the display of intellectual playfulness, imagination and fantasy, the generating of novel ideas and unusual insights, and an unusual or keen sense of humour. Some of the motivational characteristics of gifted and talented children can be seen in that they may strive for high standards, be highly self-motivated and persistent, and be self-directed and absorbed in tasks. The social leadership characteristics mean that a child may take initiative, communicate well, be adaptable and flexible, be socially mature, be self-confident and willing to take responsibility. Self-determination characteristics include questioning of arbitrary decisions or authoritarian

pronouncements, the expression of ideas, preferences and opinions forthrightly, boredom with routine tasks and a reluctance to practice skills already mastered.

It is evident from the McAlpine and Reid list, that some self-determination characteristics of gifted and talented children do not always manifest themselves positively, which may surprise those familiar with the work of Terman. Terman's longitudinal study beginning in 1922 had concluded that gifted and talented students were not only intellectually superior, but also psychologically and socially advantaged. This may have led one to believe that the characteristics of gifted children are invariably positive ones. However, Terman's selection of students to be studied was seriously biased, in that teacher nomination was his first selection criteria. Teachers, it has been widely determined, are more likely to select those who are prompt, conforming, high-achieving, neat, 'teacher pleasers', rather than those creative children who are less conforming. (Clark, 2002; Davis & Rimm, 1998; Freeman, 1998; George, 1992; Gross, 2004; Piirto. 1994).

That behaviours are not always positively manifested, was acknowledged by Torrance (1981, cited in Davis & Rimm, 1998). He suggested that disturbing traits are related to the confidence, independence, curiosity, interest in novelty, humour, and persistence of creative children. Some creatively gifted children, he continued, may have a tendency to be, for example, indifferent to common conventions, stubborn, resistant to domination, uncooperative, cynical, sloppy, disorganised, egocentric, demanding, overactive, emotional, withdrawn, and forgetful. Teachers identifying gifted and talented children, though, are less likely to overlook children with these behaviours, if they are aware that these negative traits can mask giftedness. A list of behavioural characteristics, therefore would appear to be a necessary aid in assisting teachers to identify gifts and talents in children.

**Cultural Considerations in Identification.**

Children from cultural minorities are under-represented in gifted programmes in many countries (Bevan-Brown, 2004; Borland & Wright, 2000; Cathcart, 2005; Davis & Rimm, 1998; Ford, 2003; Freeman, 1998; Keen, 2004; Gallagher, 2003).

This is of increasing concern. Possible reasons for this under-representation have been explored by a number of researchers.

'Giftedness is a social construct', explained Ford (2003). "What one culture values as intelligence or giftedness may not be valued in another culture" (p.146). Thus it appears that the effect of expectations, which vary considerably across cultures, can inhibit identification. If the children do not fit the stereotypes of the dominant culture, they are less likely to be recognised as potentially highly able. It may be suggested, for example, that the emphasis on hard work and attainment valued by some minority Asian cultures is advantageous to identification in a school environment that shares those values. But there can also be a dilemma faced by minority cultures, between maintaining cultural identity, and striving for academic honours (Borland & Wright, 2000; Rimm & Davis, 1998).

Traditional I.Q. tests may be an inappropriate measuring instrument for identifying gifted children from minority cultures, unless family, cultural and language differences, and testing circumstances are considered (Clark, 2002; Ford, 2003; Freeman, 1998; Rimm & Davis, 1998). More valid methods of identification, according to Freeman (1998, p.15), include;

- Using testing measures less dependent on words
- Tuning identification to specific cultural norms,
- Providing multiple opportunities for discovery,
- Recognising performance outside the school environment,
- Recognising multilingual capacity
- Including peer, self, and parent nominations.
- Looking for a broad range and wide variety of high-ability children.

In New Zealand, research by Jill Bevan-Brown (2004) has special relevance for our gifted and talented Maori learners. She identified eight common components of a Maori concept of giftedness, consistent in both traditional and contemporary settings. These are:

- Giftedness is widely distributed in maori society. It is not bound by social class, economic status, lineage, or gender.

- Special abilities can be exhibited in both individual and group contexts. Also, an individual's gifts can be "owned" by a group.

- The areas of giftedness and talent recognized are broad and wide-ranging

- Importance is placed on "qualities" and "abilities".

- The concept of special abilities is holistic in nature and inextricably intertwined with other maori concepts.

- There is an inherent expectation that a person's gifts and talents will be used to benefit others

- The maori culture provides a firm foundation on which special abilities are grounded, nurtured, exhibited and developed.

- Mana tangata is frequently accorded to people with special abilities especially in the areas of traditional knowledge and service to others.

(p.173)

There are identified differences between the Maori concept of giftedness and that of the majority European culture. Some examples of this difference are; the importance placed on the group rather than the individual, the emphasis placed on the value of intangible "qualities" in the affective, interpersonal and intrapersonal domains, and the expectation that gifts are used for service. Bevan-Brown found that the Maori concept of giftedness was holistically entwined with other strong cultural values,

and "Mana tangata" (which can be loosely described as 'acquired authority') was bestowed on those demonstrating advanced abilities in traditional Maori society.

Bevan-Brown (2004) detailed barriers to identifying, and providing for, gifted and talented Maori learners with special abilities. These are teacher attitude, in particular low teacher expectation, and teacher behaviour and practice. She identified the lack of processes, services, expertise and resources as compounding factors in effective provision for this group of learners. Recent research (Riley et al., 2004) found that not only are Maori students not being identified, but even when they are, culturally appropriate provisions were not being planned, implemented or evaluated. They found assumptions based on stereotypes, biases, negative attitudes and lack of knowledge. Many of the definitions, identification practices and provisions in schools, they found, do not embody Maori perspectives and values.

It may be, however, that cultural differences can not altogether account for the under-representation of gifted children from minority cultures, including Maori. The interacting negative influences of poverty and racism may also be a factor. Whatever a child's innate capacity for academic achievement, a child born into poverty, and who experiences the consequences of racism is likely to be at a disadvantage educationally (Borland & Wright, 2000; Clark, 2002). Gallagher (2003) also acknowledged that there is a differential in environmental advantages or disadvantages between minority cultures in our society, which created an uneven educational playing field. This environment disadvantage, is a causal factor in underachievement, and may, in part, account for the underrepresentation of minority cultures identified as gifted and talented. The fact that the majority of Maori children are in low-decile schools points to this environmental disadvantage (Hattie, 2000, cited in Bevan-Brown, 2004; Keen, 2004). So it may be that, 'low socio-economic status and not ethnicity is influential in this trend towards underachievement' [of Maori and Pasifika students in New Zealand] (Moltzen, 2004b p.388).

Fordum & Ogbu (1986, cited in Borland & Wright, 2000) have provided us with another possible explanation as to why those, whose minority culture status results from *voluntary* immigration, tend to be less educationally disadvantaged than those

he deems *involuntary* minorities (such as indigenous minorities). Although both groups experience primary cultural differences, (values and practices specific to the culture), involuntary minorities also experience what Ogbu calls 'secondary cultural differences' (p.588). These arise in reaction to negative contacts with the dominant culture and serve as coping mechanisms under oppressive conditions. Thus they can develop a subgroup identity directly oppositional to those of the dominant culture. Manifested behaviours of the subgroup identity, including low racial self-esteem can then lead to lower teacher expectation, another factor inhibiting the identification of gifted and talented learners from cultural minorities (Bevan-Brown, 2004; Ford, 2003; Moltzen, 2004b).

**Section Two**

**The Importance of Differentiation**

Whatever methods schools use to identify gifted and talented children, identifying children should not be an end in itself (McAlpine, 2004a). The primary purpose of identification should be the 'placement of children into educational programmes designed to develop their intellectual, emotional and social potential' (Richert, 2003, p.148). This requires an acknowledgement of the individual needs of a child. More and more educators are convinced that differentiating the standard curriculum is the key to effective education of gifted students (Gallagher, 2000). According to Piirto (1994), differentiating the curriculum is especially appropriate for this group of learners because of the gifted child's ability to learn faster and in more depth, and the fact that they often have different interests from other children.

Riley (2004) explained that 'differentiation refers to matching instruction to individual students; it is individualising and personalising education with the intention of developing the full potential of all learners' (p.345). She explained that in the case of gifted and talented students, qualitative differentiation is the key, and this includes changes to the content (what is taught and learnt), process (how the child is taught and learns), and product (the evidence or results and communication) of their learning.

Differentiating content, according to Clark (2002) means taking a multidisciplinary approach. Understanding our world, she continued, 'requires a view that considers the interdependence and interrelationship of all knowledge' (p.465). Riley (2004) agreed that content should be integrated, and centred around broad-based themes, issues and problems. This, she continued, should be embedded within methods of inquiry, with advanced depth and complexity.

Appropriate processes, according to Clark (2002), are those of fundamental basic skills combined with higher level thinking skills such as 'productive or critical thinking, research skills and learning to learn skills' ( p.451).The process should also be, according to Riley (2004), independent and self-directed, creative and include a service component.

The product is used to verify the learning, and should show the child's knowledge of learning. This may be verbally visually, orally or kinesthetically presented. Clark (2002) believed that the product should follow prescribed and agreed upon criteria for evaluation, including self-evaluation against a set of self-selected criteria. Riley (2004) added that the product should be designed for an appropriate audience, and that it shifts the students from 'the role of "consumers" to "producers" of knowledge' (p.355).

Van Tassel-Baska (2004) separated differentiation into three models, content, process-product, and epistemological. She contends that although differentiation will often be a combination of these models, some curriculum areas lend themselves more readily to one model than another.

The content model of differentiation, she says, enables the mastering of the skill-based curriculum in less time, and at an appropriate level of complexity and challenge. The process-product model, is a student directed, hands on, inquiry-based process of problem-solving. It is highly collaborative, with consultation and independent work dominating the instructional pattern. Student-interest is the mainspring for this model. The third model is an epistemological one. This is a need, she explains, to expose students to key ideas, themes, and principles within and across domains of knowledge, to enable children to make connections between

bodies of knowledge. Therefore, the exploration of issues, themes and ideas across curriculum areas is encouraged. When differentiating the curriculum, she adds, the motivational factor and learning preferences of individuals must be considered.

Clark & Kaplan (1981, cited in Clark, 2002) agree that the assessed needs of the individual gifted learner is the best guide to appropriate differentiation. They provide a useful guide in specifying what an appropriately designed differentiated curriculum should look like.

- The curriculum should be planned and sequentially organised to include specific expectations for the acquisition of subject matter, mastery of skills, creation of products and development of attitudes and appreciations related to self, others and the environment.

- The curriculum should place emphasis on the interdependence of subject matter, skills, products and self-understanding within the same curricular structure.

- The curriculum should include provisions to meet the need for some type of instructional pacing by any of the following three means; by making it possible to accomplish a range of learning experiences in a  shorter span of time, assigning students to curricula at levels beyond those expected at the student's age/grade level and by eliminating from the curricular what is already learned and substituting curricular more appropriate to student interests, abilities, and needs.

- The curriculum should allow for the expression of some aspect of the individual's needs, abilities and learning preferences.

- The curriculum should provide opportunities to learn to re-conceptualise existing knowledge, to perceive things from various points of view, and to use information for new purposes or in new ways.

- The curriculum should provide learning experiences for students to address the unresolved issues and problems of society and apply personal and social data to analyse, clarify and respond to such issues and problems.

- The curriculum should incorporate learning experiences that foster development of the complex though processes that encourage the creation of unique products and develop strategies of productive thought. The curriculum should teach both fundamental and higher thinking skills as integral parts of every learning experience

- The curriculum should provide students to practice leadership and followership skills,and appropriate and varied forms of communication skills and strategies.

(p.451).

Creating the conditions to achieve differentiation, is a difficult task, according to George (1992). He stressed that differentiation is accessing the curriculum to the learning needs of the individual, so is not only about catering for the gifted and talented child, it is about every child. 'The needs of the client dictate the nature of the prescription' (p.108). The importance of differentiation, he concluded, is to maximise the potential of every child. With increasing awareness towards the need for ongoing continuous identification of gifts and talents within children, and the acknowledgement of a wider variety of gifts and talents, differentiation can be a powerful tool in maximizing the potential gifts and talents of every child.

**The Role of the Teacher and the Responsive Learning Environment**

In developing a qualitatively differentiated curriculum, one that meets the criteria cited in Clark (2002) above, the most important element is the teacher. It is the regular classroom teacher who assumes the primary responsibility for the learning of gifted and talented children (Clark, 2002; Croft, 2003; Gallagher, 2003; Ministry of Education; 2000; Piirto, 1994; Riley, 2004). This is expressed well by Clendening & Davies, (1983):

> It is the teacher, who breathes life into unit or course plan; who imbues words with meaning; who shapes thoughts into insight; who infuses the spirit of challenge and adventure into the day to day business of learning itself. It is the teacher who seizes the teachable moment, sparks interest, changes pace and emphasis to accommodate individual, group, and class reactions, and above all, brings that special excitement to learning that reflects the true artistry of creative teaching.
>
> (p.27.)

Teachers, especially in primary school, can not possibly be subject matter experts in every area in which their students show interest. Tomlinson (1995, cited in Riley, 2004) advises that teachers must make a shift from teaching, to facilitating, coaching or mentoring. This is essentially a role of a facilitator rather than a dispenser of information and ideas. As every class will include children with gifts and talents, every teacher must consider his or her role as a facilitator of differentiated learning (Riley, 2004). Riley contends that the teacher needs to have subject-based knowledge, teaching skills and expertise in developing materials and activities, and a professional knowledge of the unique behaviours, identification methods and teaching strategies for gifted and talented students.

Renzulli (2004a) 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, not just in facts, principles and theories, but also in being able to guide the students through the application of methodology in real problem situations. 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).

Clark (2002) found 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. These teachers had a 'love of learning and a joy of living' (p.224). George (1992) added the quality of humility.

Freeman (1998), summarising from research, identified four main recommendations for effective teaching of the very able. These were, firstly, improving task demand. This, she said, could be done by contextualising new knowledge, problem-posing and problem-solving, teaching for clear scientific thinking skills, emphasising abstract as well as basic concepts and high quality materials that demand complex responses. Secondly, she continued, the way language is used is important. The level, speed and quality of verbal interactions, she says, demonstrates the intellectual demands of a lesson. Language should be appropriately technical rather than simplified, and the teacher should encourage play with words and questioning, to stimulate thinking and creative problem-solving. Thirdly, she advised the teaching of research skills to promote pupil independence. Finally, a teacher must encourage excellence. Rewards of 'own-time' for their choice of projects, high goal-setting, the use of mentors, the nurturing of creative abilities and the completion and marking of projects are elements of this.

Integral with these abilities and qualities of teachers, 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. This is known as a responsive learning environment. Clark (2002) described the responsive learning environment this way:

> The responsive learning environment is flexibly structured and
> presents a complex learning organisation for the student. This

environment has the ability to meet all learners at their present
level of cognitive, emotional, social, physical, and intuitive
development and to help them move 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 gifted learner can function as a teacher, a
challenged student, a researcher, an apprentice, a resident expert or
a learning manager

(p379).

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. This
environment also aids identification practices. According to McAlpine, (2004a), 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.

**Enrichment and Acceleration as models of provision.**
Two components of a differentiated curriculum are enrichment and acceleration.
Acceleration can be described as the rapid movement through sequential sets of
concepts and skills normally prescribed for older learners. Subjects that are
sequential, are candidates for acceleration. Enrichment, is a more horizontal
intervention, involving a differentiation in content and process. It allows students to
expand their knowledge base while still remaining with age-mates, by facilitating
original student investigations, productive and critical thinking in content areas,
moral and ethical reasoning and advanced levels of analysis, synthesis and
evaluation.

It appears that both acceleration and enrichment should be engaged as
complementary components of a differentiated curriculum. Teachers using a blend

of enrichment and acceleration enables the gifted learner to proceed at a faster pace, to a higher level of content, and more abstract and evaluative thinking than his or her age peers (Fox, 1979, cited in Croft, 2003). Passow (1979, cited in Croft, 2003) asserts that 'good educational acceleration is always enriching…and solid enrichment programmes always advance the student's learning of new and relevant material and are consequently accelerating" (p.563). Other researchers agree that it is not a case of one or the other, and that any well-rounded, coherent, and long range gifted and talented programme will include both (Cathcart, 2005; Davis & Rimm, 1998; George, 1992; Ministry of Education, 2000; Schiever & Maker, 2003; Townsend, 2004).

There have been concerns that accelerative practices such as grade skipping, where children are learning with older students, can result in serious social adjustment problems. However, the current American research-based consensus is that in most cases, gifted students are quite comfortable with their intellectual peers and suffer no noticeable maladjustments or neurosis (Davis & Rimm, 1998). In fact, there are a number of reported advantages in improved motivation, confidence and scholarship (Clark, 2002; Gross, 2004; Van-Tassel-Baska, 1986, cited in Schiever & Maker, 2003). According to Freeman (1998), however, there have been doubts cast on the adequacy of the research instruments and methodology in some of this research.

Schiever & Maker (2003) remind us that unless the content, learning processes and products are changed, grade skipping can be an unsatisfactory accelerative practice. Renzulli (2004b) also points out that acceleration is often based on quantitative rather than qualitative differences in learning. This need for differentiation in quality is echoed by Keen (2004), who found that critics of acceleration centred on the fact that acceleration in their experience, differed only in quantity rather than quality. Freeman (1998) said that the success of acceleration in school is very dependent on the context in which it is done, for example, the flexibility of the system, how many others in a school are accelerated, the child's level of maturation and the emotional support provided by the teachers.

Benbow (1991, cited in Freeman, 1998) outlined factors, (consistent with those of Vernon 1977, cited in George, 1992) to take into account when accelerating. Only accelerate, he advises, if;

> …there is no pressure, the pupil is in the top 2% of intelligence, the receiving teacher feels positive about it, the parents feel positive about it and the pupil is advanced in the subject area, emotionally stable, understands what is involved and wants to be accelerated.
>
> (p.40).

If acceleration is used in New Zealand schools, practises commonly found are promotion of a class level during junior years, multi-age classrooms, or occasionally, some subject acceleration, however opportunities for this in New Zealand are very limited, according to Townsend (2004). Riley et al., (2004) found that less than 10 % of the schools reporting school-based provisions utilised accelerative practices. Lack of awareness and utilisation of sound theory and research, they said, seemed to be barriers to accelerative practices.

Enrichment is the provision most used in schools (Clark, 2002; Townsend, 2004). Enrichment moves away from the clearly defined, rote memory and comprehension based activities and the concept of attainment, towards bigger ideas that are more inclusive and abstract. Examples of this are independent projects, learning centres, opportunities to use higher level thinking skills, and mentoring. Keen (2004) found that the great majority of gifted students preferred to work in contexts which afforded them choice in, and ownership of, their work, especially hands-on, experiential learning situations.

There appears to be little robust research-based evidence of the effectiveness of enrichment according to Borland (2003). Research by Walberg (1995, cited in Freeman, 1998) found positive effects of enrichment, however, he stressed that the need for motivation was as important as aptitude. Townsend (2004) agreed that motivation is of prime importance. Shore, Cornell, Robinson & Ward, (1991, cited in Borland, 2003) concluded that the common recommendation that enrichment should be a programme component, was not supported by research, but was among

practices applicable to all children. Others agree that many enrichment activities are good for all students, not just the gifted (Davis & Rimm, 1998).

In New Zealand schools, however, Townsend (2004, consistent with Gross, 2004, writing in the Australian context) said enrichment commonly translates to 'busy work', which is extra work to keep children occupied. It can also, he says, take the form of irrelevant academic enrichment, which is work not related to the children's talent, relevant academic enrichment  that is, work designed to meet the interest and abilities of the child or cultural enrichment in an area not otherwise encountered, e.g. music or a foreign language.  Project or investigative work, he argues, may be interesting and enjoyable for many children, however may be simply work to keep them occupied.

To avoid enrichment becoming just more of the same, or 'busy work', any enrichment programme needs to be systematically planned for extended learning with clear goals.  Adopting approaches in which the three dimensions of content, process and product are qualitatively differentiated and integrated is advisable (Schiever & Maker, 2003). One well-known model comprehensive in this, is Renzulli's Enrichment Triad Model. It is one of the best known and most widely used models for gifted students (McAlpine, 2004a; Riley, 2004), and was found by Strang (2001) to be a successful tool in introducing differentiation to gifted students in New Zealand.

**Renzulli's Enrichment Triad Model**

Renzulli believed that gifted behaviours can be developed through systematic enrichment opportunities. He developed The Enrichment Triad Model in 1977 to 'encourage creative productivity on the part of young people, by exposing them to various topics, areas of interest, and fields of study, and to further train them to apply advanced content, process training skills, and methodology training to self-selected areas of interest'  (Renzulli & Reiss, 2000, p.370). Three types of enrichment are included in the Enrichment Triad Model, and each of these is interrelated and reliant upon a responsive, flexible environment for their success.

The first type of enrichment (Type I) consists of general exploratory enrichment activities. Students are exposed to a wide variety of disciplines, topics, occupations, hobbies, persons, places and events that would not ordinarily be covered in the regular curriculum.

The second type of enrichment (Type II) involves process oriented or training activities related to study and exploration. This includes the development of creative thinking and problem-solving, critical thinking and affective processes, 'how to learn' skills, and skills in the use of reference materials and communication skills. These are necessary skills for the undertaking of the third type of enrichment.

The third type of enrichment (Type III) involves small group investigations of real problems. Students self-select an area of interest and commit time for 'advanced content acquisition and process training' (Renzulli & Reiss, 2000, p.371). The goals, according to Renzulli and Reiss, of the third type of enrichment include,

- Providing opportunities for applying interests, knowledge, creative ideas and task commitment to an area of study.

- Acquiring advanced level understanding of the knowledge (content) and methodology (process) that are used within particular disciplines

- Developing authentic products directed towards a specified audience

- Developing self-directing learning skills in the areas of planning, organisation, resource and time management, decision making and self-evaluation.

- Developing task-commitment, self-confidence, and feelings of creative accomplishment.

(pg371)

It is this third enrichment type that may cater well for gifted and talented students, "It necessitates and enhances the acquisition of advanced level content, methodologies, product development and self-directed learning skills" (Riley, 2004, p.316). In this model, high intellectual ability is not given primacy in defining giftedness. It is further inclusive in that most children could participate in at least the first two forms of enrichment (Riley, 2004; Davis & Rimm, 1998). This model, therefore, enables the development of gifted behaviours, with ongoing identification and provision for individual gifts and talents.

**The Use of Bloom's Taxonomy and de Bono's Thinking Hats.**
Two tools, useful in the classroom when differentiating the curriculum, are Bloom's Taxonomy and de Bono's Thinking Hats. Although Bloom's Taxonomy was designed as a guide for writing instructional objectives, the common use in classrooms is as a guide for posing questions (Davis & Rimm, 1998). This taxonomy provides a useful framework for teachers wanting to challenge academically talented children to develop their higher mental processes. Bloom's Taxonomy focuses on a hierachy of intellectual behaviours found at various levels of complexity from lower level thinking to higher level thinking. These are knowledge, comprehension, application, analysis, synthesis and evaluation. Teachers, in general tend to ask questions of knowledge and comprehension (Piirto, 1994). For gifted and talented students, it is advised that more time should be spent at the higher levels of synthesis and evaluation although knowledge and comprehension are still valid processes for gifted and talented students (Davis & Rimm, 1998; Riley, 2004).

It needs to be remembered, that this was never intended to be a programme planning model for teachers constructing qualitatively instructional materials, as the enrichment learning process is not linear and sequential (Renzulli, 2004b). It does, however, assist in the differentiation of process, and can be integrated with other models.

Another tool often used in differentiating the curriculum is the Six Thinking Hats. Edward de Bono (1985) developed these, as a framework for directions of thinking. The six hats represent different ways of looking at a situation, involving

constructive, creative thinking. In order to design our way forward, de Bono contended, we need to be thinking about what can be, not just what is. The thinking hats are a tool to enable children to reflect on their thinking, and to realise that different thinking is required in different situations. Each hat signifies a different way of thinking, and is represented by a colour. White hat thinking identifies the known or needed information. Red hat thinking looks at a situation from the point of view of emotions, feelings and intuition. Black hat thinking examines the difficulties associated with a topic, while Yellow hat thinking focuses on the positive aspects of a topic. Green hat thinking is looking at new ideas, possibilities, alternatives, and Blue hat thinking focuses on reflection, metacognition, and the need to understand the big picture.

This framework is a popular tool in developing thinking skills with students. Using these directions of thinking, according to De Bono (1985), can 'focus and improve the thinking process, encourage creative and lateral thinking, improve communication, speed up decision-making, and avoid debate by diffusing the adversarial stance of right or wrong'(unpaged).

**Withdrawal, or Pull-out Programmes**

Many programmes for gifted take the form of withdrawal or 'pull-out' programmes. Students spend most of their time in a regular heterogenous classroom from which they are removed for a period of time to participate in a programme suited to their particular talents.  Usually, this is a form of enrichment programme. There is very little evidence, however, that this practice is an effective means of meeting the needs of gifted and talented students.

Selection for withdrawal programmes, means identification of a finite number of students. This is problematic, in that students who are gifted and talented are not a homogenous group.  Gifted behaviour in students manifests itself very individually, as a combination of intellectual, affective, and creative characteristics. So selection, and the judgement of 'who' is worthy of consideration and would benefit, becomes subjective. Additionally, the selection of a finite number of children can mean excluding other children who may benefit from the same opportunity. And

programmes that isolate gifted and talented maori children from their peers may be counterproductive. (Bevan-Brown, 2004).

There needs to be examination of the programme itself. Slavin (1990, cited in Borland, 2003) claimed that unless the programmes include acceleration, there are few effects for high achievers in separate programmes. And after gathering data for four years, Cox, Daniel and Boston (1985, cited in Clark, 2002), recommended against the use of withdrawal, viewing it as a part-time solution to a full time problem. The needs of a gifted and talented learner, as with any learner, can not be catered for, they said, on a part time basis. Additionally, withdrawal, does not acknowledge the inherent difference in the child, or as Cathcart (2005) explained, that the child is an intrinsically different kind of learner. Winner (1996), also suggested that these children are qualitatively different, which she believes is inborn, or neurological. A gifted and talented child, she argued, learns and processes information in a different way, necessitating a different approach to programming.

Clark (2002) and Cathcart (2005) saw an advantage in withdrawal in that gifted students have the opportunity to work at their level of ability and to interact with students of similar ability and interest. Clark pointed out, however, that the interruption can mean a fragmentation of the child's classroom programme, and as a consequence, the child often has to make up the missed work. Teachers, she said, can resent this interruption, It can also can cause isolation within the regular class, for the child.

In New Zealand, withdrawal programmes, seem to be rated more positively than in-class provision (Cathcart, 2005; Keen, 2004). Riley et al., (2004) concluded in their research that schools in New Zealand do not always demonstrate recognition and understanding that gifted and talented education is *more* than a pull-out or withdrawal programme. Moltzen (1998) noted that research confirming the positive effect of withdrawal programmes is minimal, and argued that, providing we equip regular classroom teachers to cater for the needs of the gifted and talented, provision should be directed within the regular classroom. There is a suggestion that regular classrooms in New Zealand with learner centred philosophies can be tailored to fit individuals (Ministry of Education, 2000).

**Evaluation of Provision.**

Good evaluation is the only way to determine the most effective way to enhance the education of gifted learners, according to Clark (2002). Although the word evaluation, she said, can imply judgement of 'success' or 'failure', the evaluation of gifted and talented programmes should be seen, as the process of gathering a variety of data to be used to improve programme planning and implementation.

The programme goals or objectives should be the basis of evaluation, and evaluation plans made at the outset of programme planning (Davis & Rimm, 1998; George, 1992; Piirto. 1994; Reid, 2004). Borland (2003) and Reid (2004) advise limiting the scope of the evaluation to a manageable number of research questions. Testing, rating scales, self-evaluations, questionnaires, interviews, observations, samples of work and diaries, were some suggested methods of evaluation. Clark (2002) advised that if we determine firstly, *who* needs to know, and then *what* they need to know, we can choose useful data with instruments and tools to give that information, both formatively and/or summatively. She pointed out that there can be a number of stakeholders to consider, including teachers, students, parents, Board of Trustees and the local community. Borland (2003) argued that we need to broaden the focus of evaluation beyond the programme itself, and 'examine the larger effect the programme is having on the system within which it operates' (p.293). This includes considering other students and teachers, administrators, parents and the wider community. He believed we should also assess the moral and ethical consequences of the programme.

Programme evaluation appears to be an area of neglect in programmes for the gifted (Borland, 2003; Callahan, 2000; Clark, 2002; Reid, 2004; Rimm & Davis, 1998). A number of reasons for this have been proposed. It could be that the goals or objectives of the programme have not been clearly defined, so assessment poses difficulties. It could be that teachers feel time is better spent in planning and teaching. It may also be that there are few valid and reliable measuring instruments readily available to prove or disprove the 'success' of a programme with gifted and talented children. It may be that a teacher has a vested interest in the programme and feels data may be taken as evidence of programme failure, reflecting on their

competency or performance (Callahan, 2000; Reid, 2004; Rimm & Davis, 1998). Whatever the reason, the neglect evident in the area of evaluation is unfortunate, argued Borland (2003), because the result is, that there is not much in the way of good empirical evidence to substantiate the belief, that gifted programmes work.

**Section Three**

**The Place of Policy in New Zealand Schools.**

In New Zealand, National Administration Guidelines (NAGs) represent a set of Ministry of Education policy guidelines that schools are required to follow. These are few in number but are very important in guiding school practice (Moltzen, 2003). Recently, there has been a review of these guidelines to include gifted and talented students. From Term 1, 2005, all state and state integrated schools in New Zealand are required to show how they are meeting the needs of their gifted and talented learners.

Until recently, it was common practice in New Zealand schools to develop a written policy demonstrating how the school met this requirement. This is not a legal requirement however, and schools are increasingly replacing policies with written procedures and implementation plans. Whatever form the documentation takes, many writers stress the need for a clear and coherent 'plan of attack', to show how the needs of gifted and talented learners are met within the school.

 Even before the change in the NAGs, the importance of developing a relevant policy was stressed by the Ministry of Education (2000) in their publication written to guide New Zealand schools in their provision of gifted and talented learners. A policy, it states is a 'crucial component in establishing comprehensive and enduring provision for these students' (p.8). They advise consultation within the school and community. A policy, according to this handbook should include:

- Why provide differentially for these students?
- Who are our gifted and talented in our school, and who will co-ordinate our approach?
- What are we going to do?

- Where are we going to do it?
- How and when will we do it, and how will it be resourced?

<div align="right">(p.11.)</div>

Other New Zealand writers agree that a policy is a necessary component underpinning provision. Taylor (2004), stressed the importance of tailoring philosophy, policy and practices to reflect the nature and needs of the community. She believes the 'thinking through' process challenges staff and parents to consider a definition and identification, and represents a commitment by management. This, she asserted, led to co-ordination and continuity of programming throughout the school. Cathcart (2005) agrees that the collaborative writing of a policy, may help people to 'confront the issues and clarify their thinking' (p.177). Although a policy does not guarantee appropriate identifcation and provision, according to the Ministry of Education (2000), Cathcart believes it shows a school's commitment to gifted and talented students.

**The Professional Development of Teachers.**

According to Hansen & Felhusen, (1994, cited in Moon & Rosselli, 2000), '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). As it is the classroom teacher who is primarily responsible for the education of the gifted and talented students, both pre-service and ongoing in-service teacher education is essential (Clark, 2002). Riley et al., (2004) agree that the effectiveness of any approach rests in the hands of the teachers who are implementing it. Therefore, they say, there is a need for high quality teacher education and professional development to complement growth.

While there appears to be a general consensus as to the importance of professional development, there are different ideas about what that professional development should consist of. Ford, (2003), believes the principal of equity must be central to policies and practices. Teacher training, she believes, needs to include instruction in identification, including the recognition of gifted underachieving students assessment, characteristics of gifted children, curriculum and instruction for gifted students, multicultural education, social-emotional needs and development and

urban child development. Renzulli (2004b) argues that as gifted and talented learners can quickly outdistance their teachers in subject matter competency, teachers should become experts in skills that relate to the management of advanced level work. Teachers should know that 'all areas of knowledge are characterised by certain organisational patterns, human and material resources, research methods and techniques and vehicles for communicating findings' (p,61).

In a recent investigation of teacher education in gifted and talented education New Zealand, Riley & Rawlinson (2005), found that many teacher educators believed that there was insufficient time allowed pre-service, to give a comprehensive coverage of issues in gifted and talented education. It was reported, however, that in four out of six institutions, optional papers were offered both at a pre-service and post-graduate level, specializing in gifted and talented education. This enabled those with a special interest to further pursue it. Some teacher educators noted a tension, however, between offering specialized papers, and aiming for 'greater integration of gifted and talented education content across a range of appropriate papers, including those of a compulsory nature' (p.61). Greater specialization, it was felt, could in turn lead to a lack of integration.

Piirto (1994) points out that pre-service programmes may include only a cursory mention of needs of talented children because of time restraints. It is no wonder then, she continues, that teachers hold misconceptions that lead to unsatisfactory identification. She sees that the 'inclusion of pedagogy about the needs and characteristics of the talented in undergraduate and graduate education courses should be a given' (p.110).

George (1992), noted the insufficient time and competing pressures in pre-service education in England. As a result, he believes it is appropriate to deal with the issue of education for gifted and talented learners in the general context of catering for individual differences. This, he contended, is best left until the end of the degree course, after the general study of child development, individual differences and learning strategies. He contended that in-service is the best time to study the needs of gifted and talented learners, to build on the essential experience in the classroom.

As Moon and Rosselli (2000) pointed out, in the context of the United States, however, there is a distinction between in-service training and staff development. Staff development is preferable, they claimed, as this is a multi-year process focused on goals that include involvement, commitment and renewal. In-service, they said, tended to be a single event offered by an individual with expertise in gifted education.

Clark (2002) added that in-service programmes that give nothing but theoretical background, with little or no participation, can result in little or no change in the classroom. Actual strategies need to be included, she contended, for incorporating information into classroom practice. She advised that teachers need to have imput into whatever model is presented, as the 'imposition of models, ideas and strategies on teachers renders them powerless' (p.231). She saw that teachers and administators must become a community of learners, to empower the process. This is consistent with the findings of Strang (2001). Teachers in Strang's research saw the need for a collaborative, school-wide approach to professional development, rather than an imposition from 'above' with little consultation.

Clark (2002) gives us steps to effective staff development. These are consistent with components of effective in-service planning in general.
These are:

- Real needs as well as perceived needs must be included. Those planning in-service experiences must assess them to determine what is needed to improve the programme and what teachers want from in-service.

- In-service should follow an in-service model. The needs will be different depending on the level of knowledge and experience with gifted programming, and the in-service experiences should build on this growing expertise.

- Training should be targeted towards specific outcomes for individuals and groups. This type of attention to specific

46

needs has proved more effective than the wider service to large numbers of teachers.

- Follow-up observation and monitoring are critical to the effectiveness of the in-service.

- Techniques and ideas for continuing staff development are important to those involved.

(pgs.229 & 230.)

Clark's advice is consistent with the findings of Strang (2001), who researched in the New Zealand setting. Strang found that unless teacher development programmes catered for teachers' individual requirements and interests, and changes to classroom practice supported long-term, there was little change in classroom practice. Professional development, she contended, needed to include the theory behind the change as well as practical strategies or techniques to implement it. If change is to be embedded, she continued, there is also the need for a network of supportive colleagues. Croft (2003) concurred.

Other significant issues regarding professional development within New Zealand emerged within Strang's (2001) research. One concerned the number of professional development foci undertaken by schools. The three teachers within her study voiced concern, that the result of too many professional development foci within a school, frequently resulted in fragmented learning that lacked depth. This small group of teachers also felt that they lacked control of their personal professional development needs and relevant learning for them, within school-wide initiatives. This combination, she believed, produced short term alterations in classroom practice, rather than ongoing shifts in pedagogy and resulting practices that would enhance the learning of children.

# Chapter 3
# Methodology

In this chapter I will explain the methodology chosen for this study. In choosing the means, thought had to be given to the most appropriate method with which to provide answers to the key questions of the study. This chapter explains the choice of research paradigm, looks at the case study approach, profiles the participant schools, and describes the selection of participants within these. The process of data collection is outlined, and within each choice of method, issues of reliability, validity and triangulation are discussed. An examination of ethical considerations and a time frame complete this section.

**The Research Paradigm**

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).

In investigating the 'subjective, experiential lifeworld of human beings' (Burns, 1994, p.11), the choice of a qualitative approach to my research was appropriate. I am examining approaches to providing for gifted learners within schools. The experiences of schools and teachers are not fixed and stable entities, thus a quantitative approach would place unrealistic constraints upon the research, which involves understanding a how a variety of people, collectively, and individually, and within individual school contexts are responding to this challenge. The distinguishing underlying premises within qualitative research, according to Cohen, Manion and Morrison (2000), that are appropriate and applicable to those of my study are described below.

- Situations are fluid and changing rather than fixed and static; events and behaviour evolve over time and are richly affected by context – they are 'situated activities'

- Events and individuals are unique and largely non-generalisable

- The social world should be studied in its natural state, without the intervention of, or manipulation by, the researcher.

- People interpret events, contexts and situations, and act on the basis of those events.

- There are multiple interpretations of, and perspectives on, single events and situations.

- Reality is multi-layered and complex.

- Many events are not reducible to simplistic interpretation, hence 'thick descriptions' are essential rather than reductionism.

- We need to examine situations through the eyes of the participants rather        than the researcher.

<div align="right">(pgs. 21 & 22.)</div>

**The Case Study Approach**

I chose as the methodological framework for this research, a case study approach. I deemed this the most appropriate method as I was seeking to understand and interpret each unique context, to portray 'what it is like' for schools addressing the needs of gifted and talented learners. One of the strengths of this approach is that a case study enables me to observe the effects in real contexts, 'recognising that context is a powerful determinent of both causes and effects' (Cohen et al, 2000, p.181).

Nisbet and Watt's (1984, cited in Cohen et al, 2000, p.184) summarises the strengths of the case study approach..

Strengths;
- The results are more easily understood by a wide audience
- They are immediately intelligible; thy speak for themselves
- They catch unique features that may otherwise be lost in larger scale data
- They are strong on reality
- They provide insights into other similar situations and cases.
- They can be undertaken by a single researcher
- They can embrace and build in unanticipated events and uncontrolled variables.

One weakness in this approach is that the results of case studies may not be generalisable, and may be illustrative only. The results are also not easily open to cross-checking, hence they may be selective, biased, personal and subjective and may be prone to problems of observer bias.

Each case study presented in this research was instrumental. That is, it was 'examined mainly to provide insight into an issue…and it facilitates our understanding of something else' (Denzin & Lincoln, 2005, p,445). In this research, each school was examined as an individual case, which, it was anticipated would lead to a better understanding of how schools in general cater for their gifted and talented learners.

**Choosing a sample.**
In choosing the sample to be studied, the constraints of time and accessibility were considered. The result was that four primary schools, geographically close to each other were selected for the research. These schools were chosen to cover a decile range, from high to low, and to represent a range of school sizes and situations. The group of schools selected, was, as far as possible, designed to give a range of primary school settings.

School A:  Decile 1a, 167 students, Urban Primary. Years 1-6

School B:  Decile 8, 405 students, Integrated Urban Primary. Years 1-6

School C:  Decile 5, 670 students, Urban Primary. Years 1-6

School D: Decile 7 , 152 students,  Rural Full Primary, Years 1-8

The four schools were individual cases.

**Selection of participants**

Within the sample of case study schools, there were choices to be made about what sampling method was appropriate to select participant teachers within those schools, otherwise known as the internal sample. In each case, I chose to initially interview the principal and GATE (Gifted And Talented Education) co-ordinator. The focus of this interview was on policy development processes and resultant policy, identification procedures and educational provisions and programmes (Appendix F). The GATE co-ordinator was also asked for any policy and programming documentation relating to the provision of gifted and talented learners in the school, that she deemed appropriate to examine.

Additionally, between three to five teachers from each school were selected to undertake questionnaires and to participate in a single focus group interview. The principal and GATE co-ordinator assisted me to choose this focus group. I requested that this sample be a mix of male and female, and new and experienced teachers, with a variety of ages, teaching within different areas of the school (junior, middle and senior).

**Data Collection**

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. p.56). The main purpose of this study, was to look at the individual ways schools and teachers are responding to the needs of their gifted and talented learners. Thus, data collection in this study was through a questionnaire, individual and focus group interviews, and examination of documentation.

While constructing these tools, and in the actual data gathering, I needed to ensure that as far as possible, issues of validity and reliability were addressed. Validity, is a demonstration that a particular instrument measures what it purports to measure. In terms of quantitative and qualitative research, this can be both internal and external. 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. Reliablility, is essentially, a 'synonym for consistency and replicability over time' (Cohen et al, 2000, p.117). In qualitative research, however, this definition may be unworkable. Bogden & Biklen, 1992, (cited in Cohen et. al, 2000), explain that reliability in qualitative research, may be seen as a fit between what researchers record as data, and what actually occurs in the natural setting that is being researched.

As a case study approach 'can be described as interpretive and subjective' (Cohen, Manion & Morrison, 2000, p.181), it is almost impossible to eliminate bias altogether. The intent, however, was to minimize bias, by taking account of the issues of validity and reliability throughout the research process. These issues are examined in more depth within the following sections detailing the data-gathering tools.

**The Questionnaire**

The purpose of the questionnaire was to give an insight into the individual beliefs and practices of the focus groups of teachers (Appendix G). It was designed to help direct themes for the focus group interview to follow. The questionnaire also gave me an opportunity to hear the individual 'voice' of the teacher without the distraction of others. It also gave the respondent time to reflect about current practice, and to write his or her thoughts and ideas without pressure. These questionnaires were further examined for any individual or collective points of interest that could be further elaborated on within the focus group interview.

The questionnaire consisted of open-ended questions about the individual teacher's understanding of the characteristics of gifted and talented children, identification practices, and effective provision for this group of learners. Open-ended questions allowed me to capture authentic personal data within the research themes, in that the

respondents were able to demonstrate their individual and unique understanding of how gifted and talented learners were being catered for within the school. There was a clear structure, sequence and focus to the questions, but the format was open-ended, enabling the respondent to respond in his or her terms (Cohen et. al, 2000). The agenda was set, but the nature of the response was not presupposed.

To increase both the validity and reliability of the questionnaire, it was piloted with three teachers who were not part of the research schools, before being finalized. This was primarily to reduce ambiguity in wording, to identify misunderstood items, and to gain feedback on the appropriateness of the questions to the purpose of the research (Cohen et al., 2000).

**Interviews**

'Interviews [in case study research] are essential', states Burns (1994), 'as most case studies are about people and their activities.' (p.319). Silverman (1993, cited in Cohen et. al, 2000) add that interviews in qualitative research are useful for 'gathering facts, accessing beliefs about facts, identifying motives, commenting on the standards of actions, explaining behaviour and eliciting reasons and explanations' (p,146). Interviews, therefore, were an appropriate tool in gathering data to answer the research questions of this study. The purpose of the interview was to clarify and obtain in more depth, views and experiences with regard to classroom practice (Appendix H)

The individual and focus group interviews in this study, were semi-structured. I chose to conduct the interviews in an informal, conversational style. The participants were given a schedule of focus areas as a guide for discussion. These were given at the same time as the questionnaires, to enable time for them to reflect on their views and experiences before the focus group interviews. They were also encouraged to share anything else they felt was of significance and or interest (Appendices F & H). The choice of an open-ended or semi-structured interview, enabled the respondents to project their own experiences and beliefs. It is widely considered that this approach enhances the respondents opportunity to elaborate and clarify responses as necessary, thus taking more ownership of the data gathered. As

explained by Cohen & Manion, a semi-structured approach 'permits flexibility rather than fixity of sequence of discussions, and it also enables participants to raise and pursue issues and matters that might not have been included in a pre-devised schedule' (p.147). The advantage of the focus group interview is that it often produces rich data that is cumulative and elaborative, it can be stimulating for respondents, and the format is flexible (Denzin & Lincoln, 2005).

In achieving validity I needed to minimise the amount of bias as much as possible. The sources of bias in interviews, are, 'the characteristics of the interviewer, the characteristics of the respondent, and the substantive content of the questions.' (Cohen et al, p.121). I needed to be sure, as far as possible, that my personal opinions, attitudes and expectations did not impact on the process, and that the respondents were not misunderstood in their responses. This necessitated unbiased prompting and probing. Having the questionnaire responses before the interview was an aid, in that it gave me some idea of the beliefs and practices of the respondents for clarification and expansion within the interview. A transcript of the tape-recorded interviews was also made available to every respondent, in order for them to clarify or add to any response made and transcribed.

Reliability is more difficult to achieve with an open-ended approach to interviewing. As the intent of qualitative research is, as far as possible, for the respondent(s) to demonstrate their unique way of looking at the world, it may also be inappropriate to apply to this research, what is more suited to quantitative research (Silverman, 1993, cited in Cohen et al, 2000). It was important, however, to ensure, that the respondent(s) were allowed to tell their own story by not intrusively controlling the agenda or leading the response of the respondent. They were encouraged by prompts and probes, to elaborate and clarify their responses. They were also given time to explore their thoughts on an issue, before moving to further questions.

There are some specific considerations in facilitating the focus group interview. Merton and colleagues (1956, cited in Denzin & Lincoln, 2005) note that the interviewer must, at the same time; keep one person or a small group of people from dominating the group, encourage reluctant participants, and obtain responses from

the whole group. Where necessary, to facilitate this, I asked reluctant participants to begin discussion on a question, or asked them specifically, for their thoughts. I also maintained eye contact with those speaking, in order that others were less likely to interrupt and dominate.

**Documentation**

The final method of data collection was the examination of documentation held by each individual school. I asked to see the school policy for gifted and talented learners, and any other documentation deemed relevant in provision by the GATE co-ordinator. This included documentation within each school such as a register of identified gifted and talented learners, identification information and any programme planning or evaluation. Burns (1994) points out however, that although documents are important to corroborate evidence derived from other sources, it must be remembered that they may not be accurate or lack bias, and that they will have been written for a specific purpose with a specific audience in mind.

**Triangulation**

A technique to improve the internal validity of qualitative research is triangulation. Triangulation is the use of two or more methods of data collection in the study of some aspect of human behaviour (Burns, 1994; Cohen et al, 2000). It is a process of 'using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation' (Denzin & Lincoln, p.454). Exclusive reliance on one method may bias or distort the researcher's picture of reality. Studying behaviour from more than one standpoint improves the internal validity in qualitative research. As Laws (2003, cited in Bell, 2005) points out, 'the key to triangulation is to see the same thing from different perspectives, and thus be able to confirm or challenge the findings of one method with those of another' (p.116).

Triangulation within this study took a variety of forms. Methodical triangulation of information, was achieved through the gathering and analysis of data by three different methods: a questionnaire, interviews, and examination of documentation. There were also a number of different people providing data sources within these methods. The interviewing of principals, GATE co-ordinators and a focus group of

teachers provided a further triangulation. Space triangulation was also considered in selecting four schools with different decile ratings. This diversity was expected to provide a more meaningful picture of ways schools from different societal levels, identify and meet the needs of gifted and talented learners.

**Ethical Considerations**

To ensure ethical issues were fully explored and considered, the approval of the Ethics Committee of the University of Waikato School of Education was sought and obtained before any research began. Prior to beginning the data gathering process, schools were given an outline of the proposed research, and signed permission from the principal was obtained from each individual school approached. All participants within each school were given a letter of introduction and detailed information about the nature and aim of the research, the extent of their involvement and their signed consent obtained (see Appendices A, B, C, D & E). Those involved in interviews, were given access to the transcripts of the taped interviews, in order for them to edit any part necessary, before use in the research. All participants clearly understood that they could withdraw from participating in the research at any time up until three weeks after receiving the transcripts, should they wish. I consider all ethical requirements for the research were met.

**Timeframe**

The data gathering for this research took place over the school terms, two and three of 2006.

April, 2006
- Phone contact with possible schools made and indication of interest sought.

May, 2006
- Initial meeting with principals and information sheet left (Appendix A).
- On confirmation of interest, completed information sheets/consent forms for all participants were completed (Appendices B. C, D & E).
- Appointments were made for interviews with the principal and GATE co-ordinator.

- The first two interviews with the principal and GATE co-ordinator of each school took place (Appendix F).
- Focus group questionnaires (Appendix G), were distributed to each participating teacher, and collected by end of Term 2 (Friday, June 30$^{th}$)
- Dates/times for the focus group interviews (for Term 3) were made.
- The term holiday was used to examine the questionnaires.

July, August, 2006

- Focus group interviews took place within each school (Appendix H).
- Transcripts of the taped interviews, were delivered to the schools, for perusal by participants.

# Chapter 4

# Results

I have presented the results of the questionnaires and interviews, within each school surveyed according to themes of inquiry, in the hope that this will give an individual, unique and holistic picture of the individual school. These themes are namely, beginnings, policy, identification, provision, enablers/barriers and professional development. I have introduced each school with a broad brush description to help familiarise the reader to the individual context of each school.

**Case Study A**

**Introduction**

Decile: 1a

Roll No: 167

No. of full time classroom teachers: 8

Ethnicity of pupils: 81 % Maori, 10 % European 6 % Pacific Islander

Number on Gifted and Talented roll: 34

This is an inner city school. The school roll, although reasonably stable in number, has a high turnover of students each year. In preliminary discussions with the Principal, the Gifted And Talented Education (GATE) Co-ordinator and some staff, all expressed concern that it would not be useful for me to research gifted and talented education in their school, as there were very few children that they felt could be labeled truly gifted and talented. They felt that as a school, it took a very low priority. However, they were happy to be part of the research.

I conducted an interview with the Principal and GATE Co-ordinator of this school who then assisted in the selection of three teachers for the focus group interview. It is significant to note that five out of the eight classroom teachers had been in the school less than six months. The focus group of teachers comprised of two females and one male; a junior school teacher who had been in the school six years, a senior school teacher who had been in the school for 20 years, and a middle school teacher

new to the school, consistent with the methodology. They all completed the questionnaire prior to the focus group interview.

**Beginnings**

The GATE Co-ordinator of this school went to a GATE course conducted by a gifted and talented adviser attached to a University School of Education in 2003. Since then, she said, a register of children deemed gifted and talented was set up and has been updated every year since. According to the GATE Co-ordinator, the teachers select children to go on to a register based primarily on Gardner's Multiple Intelligences by passing the register from class to class and adding to it. There are 35 children on this register this year, she said, which is 20% of the roll. Ideally, the GATE Co-ordinator, continued, she will use a staff meeting to clarify the selection process using Gardeners Multiple Intelligences, however time and circumstance means this does not always happen. And ideally, she said, as a staff, they would discuss how they are going to cater for the children identified gifted and talented on this register.

The Principal and the GATE Co-ordinator acknowledged that the education of the gifted and talented was an important part of the GATE Co-ordinator role. The priority however for their particular school, they said, was very different. The Principal elaborated, "When dealing with special needs, these children have just as many needs as those who are at the bottom end. However, the high profile and priority here is at the lower end. It is demanded, it is not a choice".

**Policy**

A school policy was unable to be located, although both the GATE Co-ordinator and the principal remember a draft policy being discussed after the GATE Co-ordinator attended the GATE course in 2003. They are currently looking at re-introducing a gifted education policy.

**Identification**

Difficulties in identifying gifted and talented children, were reported by the Principal, the GATE Co-ordinator and the focus group of teachers. Both the

principal and the staff mentioned the advantage that ongoing professional development would provide in identifying children for the register. The Principal of the school reported that results of standardized testing, in this school, were severely weighted towards the lower end academically. Children they identified as gifted and talented, she felt, may not be identified at a Decile 10 school if you considered national norms in standardized testing, such as Progressive Achievement tests (PAT's). She also expressed the opinion that teachers' knowledge was a barrier to consistent identification, and that sometimes the classroom teacher was not able to see the gift and talent that a child had. She acknowledged that parents, other staff members and peers could also recognise gifted and talented children. She believed that identifying children by teacher observation, using Gardner's Multiple Intelligences as a guide could be unsatisfactory, as some intelligences, she felt, were misunderstood and needed clarification.

The focus group of three teachers also felt that identification was a difficulty. They mentioned that what they saw in their school as gifted, might be normal in another school. One teacher said that although she had children who she felt were very bright, "When you look at their levels, they are just at their age, but compared to everyone else they seem to be gifted".

Another teacher said that he had identified one person in his class as being gifted and talented in reading and writing. He identified her through a running record, the Peters Spelling Test and by the Assessment Tools for Teaching and Learning (AsTTle). He concluded, "She was about a year and a half above her chronological age for those things. In the context of my class, she is gifted and talented". More commonly, however, as the Principal and GATE Co-ordinator alluded to, comparing standardised norms in reading, writing and mathematics to the results of children at this school meant they were not considered for the register in terms of academic giftedness.

The areas of ability most frequently identified were in the arts, particularly music and visual art, and in physical pursuits. The GATE Co-ordinator explained, "Rhythm and singing is a gift evident here. We have had soloists at the regional music

festival. We have got kids that are superbly physically able, who in the past could compete easily with anything that other schools had".

The Principal and teachers agreed. One focus group teacher said, that although the students did not have the opportunity for extra tutoring, a large number could carry a true tune without accompaniment and picked up guitar chords easily. However, the same teacher also voiced the opinion that as they did not have anything to compare these apparent gifts to, that is, because there were no ready norms available in the area of the arts or the physical domain, she could not be sure that this would be true in a wider context. Identification for the arts seemed easier, another focus group member commented, where there was schoolwide assessment data, as they then had some comparative measure. She gave the example of a child identified from the school wide assessment data on sketching, which clearly showed him to be exceptional.

In other contexts, there was confusion as to whether children should be on the register or not, as illustrated with the following comment by a focus group teacher.

> I can remember two boys who were really fascinated with the world and nature, and they were always asking questions, always in the library and saying 'look at this' and 'how does this work' and so on. But they couldn't read it themselves, they were very low in reading ability. They had such inquiring minds and they retained everything you told them. They had a wide knowledge because of what they had been told. Their reading and writing was very poor though, they struggled. So perhaps they could be deemed gifted and talented. But I wasn't sure if they were [gifted and talented], or what I could do for them.

The Principal, the GATE Co-ordinator and every focus group staff member mentioned the strong kapahaka group at the school. However, once again, the teachers questioned whether this was evidence of a gift, or, as one teacher reflected, "Is it just that the teacher who takes them is passionate? So is it just good teaching?" They all agreed, however, that whatever the reason for kapahaka success, culturally,

this provision was appropriate. One teacher lightheartedly queried whether the soloists for the regional music festival were chosen because they, "sing loudly where as children from other schools are quiet".

**Provision**

The focus group of teachers explained that in the school, children received differentiated delivery of the curriculum through ability grouping within the classroom. Each class is grouped for reading, writing, spelling and mathematics, with teachers evaluating accordingly. Because there are so few academically gifted children on the gifted and talented register, and because each class contained children of more than one class level, the great majority of those children in the school, they believed, were able to be catered for in this way. A teacher explained it this way, "My little boy on the register is 6 [years old] and loves Maths. Of course we are still in the early stages of Maths, but I just encourage him. I am accelerating him and have the resources to do this. There are still children he can work with within the class who are older than him, so he is still part of a group".

According to one focus group member, however, there can still be difficulty in catering for the few children with academic talent in these classrooms who do not fit easily into a group. The following comment gives an insight into this issue.

> With the child I identified as being gifted and talented in reading and writing, she is in a group but she does exercises by herself. When I give her a task, she does it to a level that is above the others. She tries to extend herself. She still needs me to help her. But my time goes in to managing the behaviour of the lower children, so I haven't got the time I want with her. The class is not self-managing. I mean you can not leave them for any time, because they will wander around the classroom distracting others.

Every focus group teacher spoke of the need for structure and the importance of management. The following comments, from focus group teachers were typical. "Management is so important with these children. A disproportionate amount of time goes in to management depending on the day. Some days are fine, but some

days you can tell before the day starts what kind of day it is going to be, depending on how much sleep they have had and so on".

"You have to set up strong routines and follow those routines".

The Principal agreed, and explained that, "The education of the gifted and talented in this school takes a lower priority than things such as basic educational skills and behavioural issues".

The GATE Co-ordinator explained that the school makes the most of the opportunities offered to individual children on the gifted and talented roll. Some of these in the past, have been scholarships offered by places such as Kip McGrath, Numberworks and the George Parkyn One Day School. Children were selected to go to the Young Leaders Conference in Auckland. However, she explained, these are random opportunities gratefully taken rather than planned opportunities for particular children. Because parents could not often afford to fund their child for other withdrawal opportunities that may arise, she added, there was always the consideration of whether the school was able to cover the costs of such an opportunity.

One area that was an ongoing opportunity in terms of tuition in the school is kapahaka and music. Guitar, ukelele and choir tuition was offered every year, and was driven by dedicated and knowledgeable staff. The kapahaka group involved almost a quarter of the school, and according to the Principal, the GATE Co-ordinator and the focus group of teachers, performed with pride. Children, they said, with gifts in these areas were encouraged to take leadership roles. According to the Principal, there were awards to recognise gifts in the area of sports, and also opportunities for children to take on leadership roles within the school, with a teina/tuakana (buddy) system operating, road patrol and monitors.

**Barriers/Enablers**

The most significant enabler, according to the principal, has been personnel willing to drive programmes to cater for the gifted and talented. She continued that as this school has a predominantly Maori roll, the staff able to deliver culturally appropriate programmes are valued. An experienced and long serving bilingual teacher skilled in kapahaka and instrumental tuition, another teaching a bi-lingual class and a third

skilled in choral work have made long term provision in these areas. Another enabler mentioned, was a number of scholarships provided by various organisations, as mentioned previously.

An area of giftedness predominantly recognised in this school has been in the physical domain. There have been barriers identified in catering for those gifted and talented in this domain. One of these, was seen by the Principal and GATE Co-ordinator, as a lack of financial or time commitment from the home. Focus group teachers commented that these children could once compete physically and hold their own against anything that other schools had. However, as one teacher commented, '…now they are competing against those children who have had swimming club training or athletics or gymnastic club experience or whatever and they are lost. This doesn't help their self-esteem'.
The Principal illustrated the difficulties with this example.

> One child who I can think of would have made a brilliant gymnast but he will never get the opportunity. The opportunity is there, but it won't be taken because home doesn't support it. The financial and time commitment seems beyond them. I mean his dad hasn't even got a car. Because there is absolutely no parent imput you are very personnel reliant when it comes to catering for the gifted and talented. You find yourself running the children around yourself.

This reliance on the particular interests, talent and goodwill of staff, according to the Principal, was problematic. The school had run the PREP (Primary Enterprise Programme) for two years very successfully. Three staff members were trained but they had moved from the school. Staff turnover, she continued, means continuity of programmes, utilizing staff expertise is difficult. As mentioned previously, five out of the eight current classroom teachers are new to the school. As the Principal commented, "The benefits of PREP were immense. It even brought in some parents that wouldn't normally be involved. But somebody has to drive it. And these things fall over if you lose the personnel driving it".

There was also a barrier, according to the Principal, in the lack of stability in the roll. She explained that this was a very transient community, with around 30% turnover of students on the school roll each year. Lack of stability in the roll meant that continuity in identification and provision was difficult. The Principal commented, "It is difficult to establish and maintain provision when the roll changes so quickly". Additionally, she added, although the roll is predominantly Maori, they are not a united community, as there was no common marae within the community, to identify with. Many families, she believed, particularly the transient ones, did not identify with any marae. Thus, the principal stressed, it was important in this school not to make assumptions about cultural values and practices, as these also varied from family to family and did not always reflect ethnicity.

Lack of knowledge as to how to cater for children with gifts and talents, was cited by the principal, and two of the three focus group teachers as a barrier in provision. One, a first year teacher, had attended lectures on gifted education within a Special Needs paper during pre-service training. However, he subsequently chose not to take the offered optional papers on gifted education. He felt his special interest was in helping children on the lower end of the spectrum. The other teacher expressed doubt that she would have the skills or knowledge to cater for a truly gifted child, especially in the senior part of the school which is where she taught.

Time and energy were consistently seen as barriers in catering for identified children by all focus group teachers, particularly academically. Dealing with the very real demands of struggling to raise low academic achievement combined with managing the severe behavioural issues of the children, meant that these teachers felt they simply did not have the time or the energy to differentiate for what they saw as the very small group of academically gifted and talented children in their classrooms.

**Professional Development**

All participants recognised that specific professional development in catering for gifted and talented children would be useful. However, according to the Principal it was not a priority for the school or the staff. The GATE Co-ordinator did attend a GATE professional development course, however her role was more defined within her other, Special Educational Needs one, catering for those with special educational

difficulties within the school. She said that the intent she had to raise the profile of gifted and talented children within the school, generated by the GATE programme, had been diluted by the demands of running targeted programmes in an attempt to raise academic achievement in the school.

The principal saw herself as a gatekeeper for the professional development of teachers, and although opportunities had never been denied, she said it came down to time and priorities. "Being a gatekeeper", she said, "means trying to ensure that the workload of staff is manageable". The following comment by her further illustrated this..

> There are a number of contracts available in literacy, numeracy, thinking skills, ITC and so on. We have to decide our focus according to the need of the children. Schoolwide our focus is on literacy, especially writing. We are into the second year of our contract. We have got such a large number of new teachers, they need to be up to speed with this too. We are also doing 'chunk, check, cheer'. And our next focus will be to get on to the mathematics contract.

The focus group of teachers agreed. They felt that it was much more relevant to put their energies into addressing the low academic and behavioural issues in the school. While acknowledging the special needs of those gifted and talented, the reality of catering for a community like theirs, they believed, meant that gifted education may never be a priority.

Significant issues facing this school in providing for gifted and talented learners within their community, were elaborated by the principal:

> The decline in the community feeding this school has been marked over the years. If it was a decile 1a, it should be a decile –3 now. We are fighting against factors that make it seemingly impossible for children to reach their potential. The quality of raw material of the children entering school is alarming. No oral language, can't sit

still, absolutely no social skills, no home support. We seem in New Zealand schools now to have the real 'haves' and the 'have nots'. These are the 'have-nots' in all senses. All the money from the government targeted to addressing these concerns has made no change. In this school they use their talents to become very skilled in the area of crime. It is a reality and a great shame. And it is encouraged, modelled and nurtured through the home. It is a culture that pervades their home, the culture they are brought up in. Having all the kids of the same ilk in the same school is a major barrier to change. The class structure of this community means that children have nowhere to go. In a Decile 5 school, these children would have role models of achievers which means that they could move more comfortably into leadership roles. They don't [have models of achievers] here. Maybe if some of these children were at a higher decile school, their gifts and talents would be easier to develop.

**Case Study B.**

**Introduction**
Decile: 8
Roll No: 405
No. of full time classroom teachers: 15
Ethnicity of pupils: 76 % European, 10 % Maori, 5 % British, 3 % Asian
Number on Gifted and Talented roll: 76

This is an integrated school, and the special character of this school is very evident. It was built to serve the Catholic community, and has very strong links to the parish community. The roll is at its maximum, there is a negligible turnover of students and there is a waiting list of non-Catholic families wanting to enroll their children.

I conducted an interview with the GATE Co-ordinator, who is also the deputy principal of the school. She helped me select a focus group of four teachers for the questionnaire and subsequent interview. The school has a very stable staff, and all

but one focus group member, a first year teacher, had been at the school for a number of years. Those selected to participate in the study were three females and one male. This group consisted of a first year teacher in the middle area and experienced teachers in each of the junior, middle and senior areas.

**Beginnings**

The school had always recognised that there are students who have potentiality in specific fields. This point was initially made by the GATE Co-ordinator, and then confirmed by the focus group of staff. They reported that catering for these traditionally took the form of in-class grouping or between class grouping according to ability, and opportunities such as Future Problem Solving, school counsellors, Technology Challenge, choir, out of class music lessons, orchestra, speech and drama lessons. There have been school-wide opportunities in sport, according to the GATE Co-ordinator, with a large number of weekend school teams in a wide variety of sports. There have also been opportunities, she reported, for children to enter the Australasian Mathematics, Science and English exams, and Problem Challenge competitions.

However, in recent years, according to the GATE Co-ordinator, she has become conscious of understanding the pedagogy behind either separating these students out or catering for them within a differentiated class programme. She has since pursued the belief that it was best to meet the differentiated needs of the children by using an integrated curriculum or inquiry learning process and teaching them what she considers is "critical and creative caring thinking." In the process of that shift in thinking and the professional development that has been pursued, she continued, some of those withdrawal opportunities have been discontinued.

The GATE Co-ordinator explained that,

> In the past, we have identified groups and pulled out groups by
> using mentoring or expertise and we will continue that model. But
> we believe the philosophy that best fits our students is that they are
> allowed to pursue their own potentiality by following their own

interests and choice, by framing their own questions about learning.

**Policy**

The school policy for gifted and talented students was still in draft. It was begun after a teachers only day facilitated by an adviser. It was based on the Ministry of Education guidelines and and (2002) initiatives.

The policy defined gifted and talented learners as:

> those with exceptional abilities within a wide range of areas relative to their peer group. These students have certain learning characteristics that give them the potential to achieve outstanding performance.

There was written into the policy a purpose and guidelines and a timeline for implementation. The purpose of the policy, it said, was to provide gifted and talented learners opportunities within the guidelines of the school's special character. In brief, the guidelines detailed an intention to review definition and identification processes, to ensure enrichment and acceleration opportunities are provided to students, to utilise strengths of existing staff members and to provide funding to meet additional programme opportunities. The focus group of teachers were aware that there 'probably was a policy somewhere,' but were unable to recall it. One commented; "We probably talked about a draft policy. No, I can't remember or recall a policy".

**Identification**

There is a register kept of the schools's gifted and talented children. This register was established after a professional development day with a gifted and talented adviser attached to a University School of Education in 2004. There is, according to the GATE Co-ordinator, a combination of identification procedures using a variety of information with which to identify students. The register is ongoing, and as information is gathered, it is updated each year. As this process takes time, she said, the updating may not be completed until later in the year.

According to a focus group teacher, parents are given the opportunity, as part of the New Entrant pack that goes home, to complete a questionnaire asking about their observations, and whether their children reached milestones such as walking and talking, early. The GATE Co-ordinator added that a questionnaire, made available at an informal meeting of parents and children also enabled parents to share their knowledge of their children. Teachers also identified students using Gardner's Multiple Intelligences as a guide, through their own observations. There were a number of formal tests the GATE Co-ordinator said, that were used as indicators of giftedness within the school's identification process. Progress and Achievement Tests (PAT's) were used, including the revised Mathematics PAT tool which the National Council of Educational Research (NCER) marked. They used the Assessment Tools for Teaching and Learning (asTTle) for writing and for reading. They also used Supplementary Tests of Achievement in Reading (STAR) and Probe, a running record tool, for reading. These, she said, all helped confirm the identification gifted and talented students, and triangulated information.

The four teachers selected for the focus group interview felt that they could recognise a gifted child by observation and intuition. One commented, "I just go with my intuition in spotting kids that have gifts and talents". Another added that, "Once you have been teaching for a while you come across kids and you think, 'whoa ! You are different !' They cotton on to jokes really quickly. Sometimes their handwriting is terrible. Sometimes it is their emotional levels, but something is different about that child". A third teacher mentioned she remembered from the teachers' only day professional development that bad behaviour could also indicate a child that needs to be challenged.

The four focus group teachers all felt that it was important to reflect on hard data such as standardised test results. One teacher believed that she had a better understanding of what gifted and talented was after re-reading the notes from the professional development provided by a gifted and talented adviser on teachers' only day. The teachers agreed that they also needed to think about the information provided by parents, although one teacher felt that parents tended to over-exaggerate their child's ability.

The teachers felt that identifying children from their observations, using Gardner's Multiple Intelligences and a characteristic checklist, made it easier to look at all factors when identifying children who were gifted and talented. However each of the four teachers agreed that they were unsure as to whether they were identifying gifted and talented children from other cultures effectively, as the large majority of the roll were white and monocultural, and they had little experience of other cultures.

**Provision**

As mentioned previously, the focus in this school, is in moving provision more firmly into the classroom. The analogy of a rising tide lifting all ships was used both by the GATE Co-ordinator and by a teacher in the focus group interview to explain the school's philosophy. The management team of the school, according to the GATE Co-ordinator, had a strong vision involving the establishment of a schoolwide 'thinking curriculum', based on the inquiry or integrated curriculum model, and this they believed, would enable every child to reach his or her potential, and cater better for the gifted and talented children.

The whole staff, the GATE Co-ordinator explained, have had four years of professional development in this. It started, with inquiry learning, following Gwen Gawith's model of Infolink. There was importance, she said, placed on social action or transformation within that inquiry, to fit the special character of the school. She believed professional development in curriculum integration has complemented the inquiry learning model. According to the GATE Co-ordinator, teachers were required to differentiate in their planning using Blooms Taxonomy and De Bono's Six Thinking Hats to stretch and challenge students. There was a great emphasis, she continued, placed on formative assessment and the aim is that students will use thinking tools in peer and self assessment.

The GATE Co-ordinator explained that school also held a parent education evening in order that families could share in the school's philosophy and support their children. The management of the school, she explained, felt it was important that parents understood how schooling was changing and aimed to educate parents about their move from the traditional model of teaching and learning, to what the GATE

Co-ordinator sees as 'one that continues to meet the student's needs'. This, she reported, was received extremely well.

Gifted and talented children, the GATE Co-ordinator continued, were still withdrawn for specific learning opportunities. This included Future Problem Solving and a gifted writers group using journalists from the parent community. They withdrew musically able students for choral and instrumental tuition, and intended withdrawing those who had oral language strengths. A group of children were also withdrawn, she continued, for a specific community art project. These opportunities, she said, are assessed informally by observation and feedback from teachers, children and parents.

At the point in time this study was undertaken, the GATE Co-ordinator considered that the school was not catering as well for the mathematically or scientifically gifted children. The school, she clarified, tended to use withdrawal opportunities that present themselves and utilised the gifts of the staff and community. They were personnel reliant. For example, she said, the person who drove opportunities in the Sports/P.E. field had now left the school, which meant that there was less focus on providing additional opportunities for these children. The Technology Challenges and the Australasian Competitions were not running at that time either, she explained, as at the present, staff time and energy is otherwise directed. However, both the GATE Co-ordinator and the focus group of teachers mentioned the richness of community expertise, and the willingness of the parent and parish community to assist in providing opportunities for children.

**Barriers/Enablers**

One enabler mentioned by all, was a community committed to providing the best education for their children, and who made themselves available to provide additional opportunities for them. Another advantage, according to the GATE Co-ordinator, was that both the management and staff understood the need to provide and differentiate for gifted and talented children, and embraced opportunities that came up. There was, she said, a shared commitment to provision.

Money was not seen as a barrier to providing for gifted and talented learners in the school, by the GATE Co-ordinator or the focus group of teachers. The school, they said, is very open to opportunities for their gifted and talented children. The GATE Co-ordinator made assurances that the school is happy to spend their resources in this area. The focus group of teachers agreed that financial restraints were not a barrier.

At the time the study was conducted, according to the GATE Co-ordinator, the management of the school sees that the greatest challenge in catering for the needs of their gifted children, is 'getting a schoolwide thinking curriculum established, using an integrated inquiry approach'. As the GATE Co-ordinator stated, "Problem-solving based activities, and giving them individualised learning programmes based on an inquiry or integrated curriculum model is where we are putting our energies, to get that established in every classroom". The amount of professional development this requires, she said, is enormous, and she understood that it would take time before this vision was established. She also understood that because of the amount of professional development happening, the staff were time-poor, and so she was conscious of not putting too much additional pressure on staff. She considered that time would be the greatest barrier. Time was also seen as a barrier by the staff focus group, as the demands of day to day teaching combined with the intense ongoing professional development schedule meant a lack of time and energy to specifically cater for the gifted and talented children. However two out of the four teachers in the focus group understood that their current professional development would help serve the gifted and talented students in the school.

The focus group of staff talked about the difficulty in finding time to differentiate the programme. Even after grouping students according to ability, they agreed there were children wanting to 'bust out' of the top group. The following comments by the teachers illustrated this issue:
"It's hard when you have got 30 children in your classroom. The good ones, well you think, they are going to be fine, I need to help these ones that are struggling and you put your energy into them."

"I am focusing on my target children and trying to move them. So the top children just get lumped together, but what do you do? I rationalise that they are going to do well anyway".

"I have children who could shoot up, but I almost just hold them back because they can fit into a group and it is more convenient to keep them there. It's terrible I know. But the logistics of setting up groups so that they can move above or between them is almost impossible".

"Yes, curriculum integration may help, but it is just time in terms of planning. Because you can't just give them [gifted and talented children] sheets to give them busy work. You have to be excited about what they are doing, and in terms of where they are going".

Each member of the focus group was aware that they could be doing more for children who were gifted and talented, but felt that logistically, there just wasn't the time. They also believed that there should be a purpose to the extra work they prepared for the children who were gifted and talented. One teacher mentioned the difficulty in trying to monitor any independent work given to a gifted and talented child who had no self-management skills.

**Professional Development**

According to the GATE Co-ordinator, in 2003, the Principal and the GATE Co-ordinator participated in a GATE course run by a gifted and talented adviser from a University Schoolof Education. Whole school professional development, with a gifted education adviser took place on a teachers' only day at the beginning of 2004. This, she said, focused mainly on identification of gifted and talented children. A register was set up after this, and this has been maintained and updated every year since.

Specific professional development in terms of catering for the gifted and talented, she continued, has taken the form of whole school professional development in inquiry learning and curriculum integration with a focus on thinking skills. Every focus group teacher agreed that the current professional development schedule was time consuming and that there was little room for additional professional development. They also agreed that there were times when having a better practical

toolbox to cater for the gifted and talented children would be useful. This is illustrated by the following comment from a focus group teacher.

> I have a girl, and I thought, I am going to do something. So I gave her a novel, and she read it in one night. So I found some stuff on the Internet to follow up. She did a character comparison, and she had it exactly down pat. And I thought, this is scary, I don't know what to do with you anymore.

Another focus group teacher added:

> I had the same girl last year, and I was the same with her, but I was just helpless really. I tried to help her get a bit of a balance in her life, because being socially isolated may be O.K. at this age but as they get older I think that could cause problems if they want to fit in.

One teacher felt that the professional development provided during teachers only day had been very useful for her in enabling her to identify children who were gifted and talented. Another focus group teacher commented that, "Yes, we have had some professional development in this. But as something else comes along, it gets knocked off the table and the priority changes. Next thing the year goes by and you haven't revisited it. It stays in holding mode". Two teachers saw that the current whole school professional development would help cater for the gifted and talented. "We are increasingly being scaffolded, well we have got clear direction. The more experience you get, you do focus more on the learner and the learning rather than the teaching. So there must be better outcomes for the gifted and talented through this".

**<u>Case Study C</u>**

**Introduction**
<u>Decile:</u> 5
<u>Roll No:</u> 670

No. of full time classroom teachers: 25

Ethnicity of pupils: 85 % European, 12 % Maori, 3 % Pacific Islander

Number on Gifted and Talented roll: 65

This school is in an area of growth within the city, and the roll has grown significantly in the last five years, increasing from 500 to 670 pupils. The principal reported that there is a negligible student turnover and that the staff is a balanced mix of gender, and of younger and more experienced staff.

I interviewed the principal and GATE Co-ordinator together. They then assisted me to select a focus group of four teachers to complete the questionnaire and to be subsequently interviewed. There were three females and one male teacher selected. All had joined the staff within the previous six years. One teacher was from the senior area, two were from the middle area and one was a second year junior school teacher.

**Beginnings**

The GATE Co-ordinator was also the Co-ordinator of Special Educational Needs (SENCO), and this was a full time position for her. She attended a two day course in 2005 facilitated by a University School of Education. She said this was a very useful beginning. Particularly useful, she said, was a list of websites given to her, which she has accessed often. From that, she continued, she reported back to staff at a staff meeting. There she defined her role as GATE Co-ordinator, explained how gifted and talented children may be identified, and provided the staff with a list of characteristics of gifted and talented children to assist them in the identification of these children.

**Policy**

The GATE Co-ordinator has taken on the responsibility of drafting a policy. She began this process, she said, by looking on the websites for school policies in gifted education that she could adapt to suit the individual situation of her school. This adapted policy is now in draft.

This draft will follow the usual process, the Principal added, of going first to the management committee, then the staff, then the Board of Trustees approval meeting. The GATE Co-ordinator stressed that although formulating the draft has taken much time, it is still generic, and in particular, she explained, the guidelines may need to be more specific.

It includes a rationale, definition, purposes, and guidelines. The rationale details the right of every individual to receive the best educational opportunities in order to achieve their potential. Gifted and talented students, it continues, 'have needs and characteristics which require learning programmes and opportunities to develop their special abilities. The school recognises this need for identification and provision'.
The policy has adapted Gagné's definition.

> Giftedness is usually associated with high intelligence or aptitude, whereas talent is usually related to a high level of performance.

There are six purposes detailed in the school's gifted and talented policy. These include identification, professional development, support from management, provision, and also the incorporation of relevant cultural values.

The six guidelines, state who has specific responsibility, how the children will be identified, how they will be tracked and monitored, staff access to professional development, approaches to provision to be adopted and budgeting. These guidelines, according to the GATE Co-ordinator, may be further specified during the process of ratification by the staff and the Board of Trustees.

**Identification**
A register of children identified gifted and talented was set up by the GATE Co-ordinator after she had attended the GATE course in 2005. This, she said, had been updated in 2006. The means by which each child was identified was detailed beside the child's name on the register. Gifted and talented children on the register, it was evidenced, were identified by using testing data, teacher observation (using a

characteristic checklist as a guide), or by parent, community or peer nomination, or by past referral. Parents, she explained, have had the opportunity to detail the strengths and weaknesses of their children, and they are currently looking at how this can be adapted to use as part of the enrolment process. She felt the checklist of characteristics of gifted and talented children was very useful in guiding teachers' observations, and commented that, 'it turned up some real surprises…it turned up some children who you wouldn't think [were gifted and talented]. This was one of the major successes [for us] because the Ministry wanted us to identify the [Gifted and Talented] children in the school, including those who may not always be recognised'.

There are 65 children on the register (around 10 % of the roll). The register, the GATE Co-ordinator said, was seen as a working document. Any programme participation from the individual child was added to the register, so that a picture of withdrawal provision was developed. The Principal said that the identification process and the resulting register were really useful, in that he realized that there were almost the same number of children identified gifted and talented, as already identified having learning difficulties (there were 72 of those). He was now looking at making a shift in time allocation within the role of full time GATE Co-ordinator/SENCO. Previously 80% of her time was spent with those children with learning difficulties and 20% of time with those identified gifted and talented. He reported that he was looking to a 60/40 time allocation for the GATE Co-ordinator/SENCO role next year.

The focus group of teachers confirmed all that the Principal and GATE Co-ordinator had said, and approved of the range of means used in identification. This was necessary, one focus teacher commented, as she believed the list of characteristics of gifted and talented children identified some children but not others who she felt were equally gifted and talented. The others agreed that the characteristic checklist, if used in isolation, could identify children who were not gifted and talented. Two focus group teachers felt that parents often over estimated their child's ability.

A focus group teacher told of a child new to the school in her class who had been identified gifted in Mathematics and was involved in a GATE withdrawal

programme at another school. At this school, she continued, he was seen as barely average. She concluded:

> So there needs to be something so that all teachers can be confident about consistency. Then it would be good if they were moving between schools. The criteria would be used for all schools so there would be consistency.

The others agreed that identification methods and tools needed to be more definitive and consistent nation wide. After discussion between them they concluded, however, that while academically, standardized testing and clear benchmarks may be possible, there would be difficulty in testing for the wide range of gifts and talents a child might have, and that observation was often appropriate. They did not feel confident in recognising gifts and talents in a broad cultural context, although two focus group teachers felt they would recognise gifts in a Maori context.

**Provision**

The GATE Co-ordinator reported that the primary responsibility for provision for gifted and talented children lay with the classroom teacher. She was also aware, however, that the teachers needed professional development in this area, which she said she felt ill-equipped to provide personally. The main purpose of the register, she felt, was to make teachers aware of these children in their class and to provide a selection base for withdrawal programmes, which she facilitated.

Selection for withdrawal programmes, she said, began with her examining the children on the gifted and talented register, and where possible, grouping identified children according to areas of giftedness. She then began organising withdrawal opportunities for these children using staff and community expertise. Some of the children, she explained, went to another school, to the technology department to do a three session programme with their GATE children. She had personally organised a 'Don't Bug Me, I'm Reading' extension programme, she continued, using their full time librarian in the library and is also taking a Technology Challenge group herself. A teacher at the school, she said, is teaching the Japanese language to a group of children. She reported she is also looking at outside agencies and

networking with other schools. At the moment, she explained, it is all very new, and she is working the timetable term by term.

Assessment procedures for these programmes, according to the GATE Co-ordinator, were developing. She reported that she has found useful self-assessment and observation assessment templates, in various sources which she is trialing. She also took photos of children participating in each programme, she said, as a record of provision.

The Principal reported other school wide opportunities for children on the register. Selected children, he said, participated in Future Problem Solving. There were the Australasian Tests in Mathematics, Science and English and an art extension group, provided by the full time art teacher at the school. There was, he explained, a music specialist who is looking at providing extension opportunities for appropriate pupils. There was a choir, and an orchestra being planned. There were also sports extension opportunities, for example, someone training their cross country elite, and there was a group attending an out of school gymnastics venue. Coaches out of the school are also employed, and tennis coaching and hip hop dance are offered, although these, he clarified, are open to all children and incur a cost to the parent.

The classroom teachers acknowledged and appreciated the efforts of the GATE Co-ordinator. The children, they said, really enjoyed the withdrawal opportunities facilitated by her. The following comments from focus group teachers were typical.
"My children have come back from withdrawal opportunities buzzing".
"She loved the technology programme, loved it, it was the problem-solving stuff and the practical stuff".
"My boy comes back and says, "Oh we made this and we added this to it" and he's a very manipulative boy, loves doing things with his hands".
There was also a general belief amongst the focus group of teachers, that technology opportunities and other withdrawal programmes offered, would benefit more than just the gifted group chosen.

Within the classroom, the focus group of teachers reported that they differentiated the curriculum by ability grouping children, for maths, writing, spelling and reading.

Staff, they said, are required to show differentiation in their planning. Two of these teachers reported that they planned activities in maths and reading to extend those at the very high end of the top group. These, they elaborated, take the form of higher order thinking and problem solving activities. They commented that managing the monitoring of these activities was difficult. Assessment for the gifted and talented, the focus group of teachers explained, takes place within the usual assessment procedures of the classroom.

One teacher in the focus group reported that Correspondence School was accessed in the past for children gifted in Mathematics, and had been useful, although the monitoring of the individual work provided had been difficult. One child, another teacher said, currently went to a one day school. Teachers in the focus group commented that they had doubts that this child, or others that had previously attended one day school venues, was truly gifted and talented. They felt that psychologists often identified giftedness as a service to paying parents. Inquiry learning was mentioned as a possible provision for gifted and talented learners by a focus group member, however others felt a school culture of inquiry learning was needed if that approach was going to be successful. The children gifted in the physical domain the teachers felt, were also being catered for externally through the sports they played. There were avenues for children gifted in physical pursuits they said, through various representative teams out of the school.

**Barriers/Enablers**

The most significant enabler, according to the focus group of teachers, was having a principal and a GATE Co-ordinator committed to providing opportunities for the gifted and talented. The Principal also stressed that being able to have a teacher in the full time position of SENCO/GATE Co-ordinator was an advantage. There has also been a very generous budget provided to set up provision, according to the GATE Co-ordinator. This, she said, had been used for professional development courses, the employment of relievers, and resources for withdrawal programmes.

Time and energy were cited by the focus group members as the biggest barriers to providing for gifted and talented children within the classroom. Every teacher in the focus group mentioned that even with grouping, the children who needed extending

from the top group get little of their time and energy, and that some of these children did not have the self-management or social skills to maximise extension activities. Any extra time they did have, they reported, was spent on the children with learning difficulties, as they felt there was pressure to move these children on.

Both the focus group of teachers and the GATE Co-ordinator were aware of the difficulty of withdrawing specific groups of children from the class programme. As far as possible, the GATE Co-ordinator reported, she fitted her programmes around the syndicate timetable in order to minimise disruption to key classroom programmes and testing.

Another barrier mentioned by the GATE Co-ordinator, was getting access to suitable programmes and personnel in order to meet some of the specific needs of a student gifted and talented in one area only. The focus group of teachers also mentioned the difficulty in catering for some specific gifts in withdrawal. The programming, they said, was reliant on what is offering, and grouping doesn't always meet specific needs. The GATE Co-ordinator agreed, and explained that she saw provision for the gifted and talented learner as a journey, and that the school are really at the beginning of it.

**Professional Development**

The GATE Co-ordinator said she found the GATE course invaluable. From it, she said, she looked for resources on the Internet and purchased books to help her set up the GATE programme.  She commented that she would like more staff to be able to access professional development, as she saw her role as a co-ordinator rather than an in-service provider. She understood, she said, that the classroom teacher had the biggest role in provision.

The Principal agreed that professional development school-wide would be beneficial. However, he said, balancing and prioritising were important. He felt that his staff had just completed a mathematics contract and were currently involved in an intense literacy contract, which was currently their main focus. He did not want to burden staff, he said, so the timing of additional contracts had to be considered if they were to do justice to them. He was satisfied, he continued, that the in class

provision of identification and differentiation, catered for the gifted and talented learners to a large extent. He also commented that a recent commitment to a new contract on thinking skills, for 2007, would help fine tune this differentiation.

The focus group of teachers felt that although professional development school-wide would be useful, they were reasonably satisfied that the children that had been identified as gifted and talented and were on the register, within time and energy constraints were largely being catered for. They said that the combination of school-wide opportunities, withdrawal and in class grouping was satisfactory provision.

The Principal commented on the pressures he felt his school, and schools in general faced, when meeting Ministry of Education requirements.

> The Ministry needs to trial different provisions before they are implemented on a national basis. We would like better direction as to what is best practice in this area. You shouldn't just introduce a requirement without proper scoping. There are issues we face in our schools when establishing and running a GATE programme. We are lucky that our roll enables us to employ a full time SENCO/GATE Co-ordinator. It is a very big job. She is working with children all of the time, but if we didn't have that, we wouldn't be halfway down the path we are now. This is an area within the National Curriculum where we can stamp individual needs. We have to admire and get kids to aspire and achieve, to encourage children to be the best they can be. But if we are going to embrace this, it needs to be resourced properly. By this, I mean funding personnel in charge, with the time and the money. If you don't have that, it just won't get done. Unfortunately we strive for mediocrity in New Zealand. The Ministry seems to fund the bottom end rather than look at the people at the top end.

The GATE Co-ordinator explained that "It's [gifted and talented education in the school] still in its infancy. There is plenty of help out there for people who want to

develop gifted and talented education within the school. You just have to get your head around it, get organised and then do it".


**<u>Case Study D</u>**

**Introduction**
<u>Decile:</u> 7
<u>Roll No:</u> 153
<u>No. of full time classroom teachers:</u> 8
<u>Ethnicity of pupils:</u> 88 % European, 10 % Maori, 2 % Pacific Islander
<u>Number on Gifted and Talented roll:</u> 13

This is a rural school, with a stable roll and staff. Most children are transported by bus to the school, predominantly from neighbouring orchards, farms and lifestyle properties.

I held an interview with the principal who is also the GATE Co-ordinator. She then helped select three teachers for the focus group questionnaire and interview. Two females and one male teacher were selected, one from the senior end of the school, another, a first year female from the middle area, and a third teacher selected was from the junior school.

**Beginnings**
Specific provision for gifted and talented learners within the school, according to the Principal, began with a school-wide contract in 2005 with a gifted and talented adviser from a University School of Education. The staff, she said, had professional readings and held meetings to talk about issues surrounding definition and identification. The staff, she continued, were then asked to use a number of identification methods discussed to make a list of children in their class, that they deemed gifted and talented. From there she said, a draft policy was formulated.

**Policy**

A draft of the policy was formulated, by the Principal (who is also the GATE Co-ordinator), and senior management of the school. It is a generic policy, the Principal explained, closely following the Gifted and Talented Handbook supplied by the Ministry of Education. The policy defines gifted and talented learners as:

> those with exceptional abilities relative to most other people of the same age and cultural background. These individuals have certain learning characteristics that give them the potential to achieve outstanding performance. They require different learning opportunities and may need emotional and social support to realise their potential.

Methods identifying gifted and talented learners within the school are detailed within the policy. Teachers, it says, identify children by observation and the results of testing, in areas based on Gardner's Multiple Intelligences. It states the need to recognise multicultural values, beliefs, attitudes and customs, and that giftedness is evident in all societal groups regardless of culture, ethnicity, socio-economic status, gender or disability (learning, physical or behavioural). The staff were aware of the policy the focus group of teachers said, as it had been discussed with them while still in draft. The Principal explained that the draft policy had been displayed on the school noticeboard, so that parents could comment on it, before ratification by the School Board of Trustees.

**Identification**

The first stage of identification, according to the focus group of teachers, was discussion in a staff meeting. This discussion, they said, clarified what a bright child was, as opposed to a gifted and talented child, and how each could be recognised. After this discussion, they said, the staff were given a list of characteristics of gifted children, and asked to identify children in their class they thought met the criteria, using information from formal testing and also from observation. They then came back to a staff meeting where they discussed the children identified.

Both the Principal and the focus group of teachers agreed that staff discussion of individual children identified gifted and talented was useful. Because the children

had been through the school, they explained, previous teachers could contribute their observations and perceptions of individual children. As one teacher commented:

> It was interesting, because there were question marks about children. Were they really gifted children or were they just very conscientious? There is so much you can get hung up about, there are so many definitions and interpretations. But what we found [that] was really good, was that if the teacher was in a little bit of doubt, then the prior teachers shared how they felt which was really helpful.

According to the Principal, the greatest number of children identified, were gifted academically. One, she continued, had been identified as technically gifted, in construction, and one girl was identified as gifted in the arts, singing and dancing. One child who has a speech impediment, she said, had been identified by his teacher as having potential. She explained that the New Entrant teacher did not feel confident that she could accurately identify children who were gifted and talented until she had worked with them, and so at the time of this study, had not identified any child.

Currently, the focus group of teachers explained, the parents had the opportunity to identify their child's potentiality through a sheet in the enrolment package. Parent identification had proved problematic in a couple of instances, according to the Principal, where the parents had identified gifts not seen by the teachers. In two cases, she elaborated, the children were taken offsite by the parent for a psychologist report, which identified them as being gifted. The principal acknowledged that this was a dilemma for the staff. Lack of specific knowledge in identifying gifted and talented children from other cultures was not a barrier to identification, according to the focus group of teachers, as each child was discussed as an individual.

Triangulating the formal testing, parent nomination and observation by staff, the Principal said, produced a register of 13 children. It helped, according to the Principal, to know from the contract that they could expect that around 17 % of the

school roll could be deemed gifted and talented, although, she added, this did not drive them. The register, she said, has been updated in 2006.

**Provision**

Traditionally, the Principal said, there have always been children from this school who have attended a one day school for gifted and talented children in two different venues. There are House Leaders, and Future Problem Solving is run school wide. However, the onus, she explained, for providing for gifted and talented children, is on the individual class teacher.

The teachers reported that they are asked to differentiate the class programme, and to show within their planning, how they are catering for the children that have been identified. The Principal explained, "There is an expectation that we do differentiate within our class programme. It is something we have always done though, it is not really a new expectation." The focus group of teachers were aware of this expectation. A focus group teacher commented, "Those children are in your head when you plan. You do not need necessarily to write their names down, you are always aware they are there". The teachers reported that children are ability grouped for spelling, reading and mathematics.

Although differentiating material for ability groups was not new to these teachers, they commented that they were still to learn how to show specific differentiation for individual children, and as of yet, they had not been shown any specific model that may help them do this. They said they were looking forward to further professional development in this area.

At the time of this study, the staff were involved in a school-wide contract which aimed to incorporate thinking skills and ICT into their teaching. The focus group of teachers reported that they are using De Bono's Thinking Hats and Blooms Taxonomy as tools to assist planning. All classes were using an inquiry learning approach to topic work, and the teachers felt this catered very well for the gifted and talented children in their classes, because of its degree of open-endedness. The following comments illustrate this belief:

"It demands higher order thinking, it's based on Blooms Taxonomy. And that is really going to give these children some challenges and the scope to develop talents".

"This is creating lots of higher order questioning from the children. We are stretching them."

"A lot of what we are doing applies to the gifted and talented children anyway. They go the extra mile when we are doing contract work and use their higher order thinking".

One day school was recommended to a parent where there will be benefit, particularly for social reasons, according to one focus group teacher. She elaborated on the referral for one of her children. "I could see she was withdrawn and unhappy. She felt she didn't fit in. She was accepted there and it did help. She felt normal. She was mixing with like minds of a similar age".

Assessment of the gifted and talented children took place, according to the Principal and the focus group of teachers, within the normal classroom assessment practices. One focus group teacher commented, "They have the same set criteria. However, your expectation of what they produce is different. Giving these children a degree of freedom and choice means that they produce the most amazing work. A less prescriptive approach seems to work well".

However, there was also a consensus amongst the focus group of teachers that some of the gifted and talented children did not have the necessary skills to cope with individual programmes, freedom and choice. They agreed that careful scaffolding was required in many instances.

**Barriers/Enablers**

One factor seen as an enabler, both by the staff and the principal in catering for the gifted and talented, was the small number of children in each class. Most classes, they reported, have small numbers of children, the largest class number is 25, and therefore children were able to get more individual attention.

Other enablers seen by the Principal, were the size of the school and the stability of staff. These meant, she said, the children and their families are well known by the majority of staff, which assisted identification. The children, it was said by the focus group of teachers, were also in general, well motivated, and their learning was supported at home. This was seen by the focus group of teachers as having an impact on what these children are able to produce.

Professional development, both in identification from the initial adviser, and now, continuing with ongoing professional development to assist in class provision from another, was also seen as an enabler by the Principal and the three focus group teachers. The initial contract, they said, was useful in forming an overview, a policy and in looking at identification procedures. Ongoing professional development by another provider, they said, enabled them to identify specific difficulties in terms of provision. The Board of Trustees, the Principal added, had also created a gifted and talented budget to enable teachers to buy resources.

A barrier mentioned by the principal was the lack of space within the school if deemed necessary for withdrawal. All space, she explained, was utilized within the school, and there was no school hall. Another barrier, she continued, was the distance from other schools, which could enable clustering of withdrawal provision between schools, and also inhibited use of community expertise. Off site opportunities, she explained, always incurred travel costs. A small school, she said, also meant fewer staff to share expertise, and fewer gifted and talented pupils to group for provision.

Time was seen as the biggest barrier to specific provision for the gifted and talented children by the focus group of teachers. Involvement in contracts such as inquiry learning, thinking skills and I.C.T, combined with the Numeracy Project contract, meant that these, they said, took priority. The focus group of staff said, however, that these contracts also enabled them to cater better for the gifted and talented children within their classroom. The following comment from a focus group teacher, illustrated the feeling among the group.

The aim of education today seems to be very much individualised, with lots of conferencing and so on. Teaching is expected to be tailored to the individual child, which is difficult to manage easily. Through our current contracts though, I feel the outcomes for our gifted and talented children are better overall than they were before the new NAG. It's just that teachers are constantly pressured.

**Professional Development**

Prior to the contract, it was reported by the focus group of teachers, one of the teachers in the school had taught in a gifted and talented class, and another had completed a graduate paper on the gifted and talented as part of a teaching qualification upgrade. Other staff, according to the Principal, were themselves gifted in various areas, and were therefore attuned to that giftedness in children.

Whole staff development, the Principal explained, began in 2005 with a gifted and talented adviser attached to a University School of Education. She helped the staff primarily with definition and identification. Since then, the Principal explained, the school has employed an advisor from a local provider once a term, to attend staff meetings. The teachers, she said, formulate questions which are emailed to the adviser, who comes back with some answers and practical solutions. This ongoing professional development has been very useful according to the three focus group teachers. As one teacher commented:

She is a great help. We were struggling with the terminology, and with being able to make the GATE programme more practical and down to earth. The intellectual level was hard for us to translate to effective practice.

The focus group teacher who had completed a paper pertaining to the gifted and talented said she supports other teachers with her knowledge, on a buddy basis. She also provides additional contacts for teachers and parents when needed.

The Principal says she is keen to continue to provide opportunities for staff to keep them informed, updated and enthused. She reported that she also subscribes to the gifted and talented publication, Tall Poppies, to help ensure she is informed too.

## Summary

Each of the four schools surveyed had a very individual response to the provision of gifted and talented learner within their school. There were, also, however, a number of common features.

Each school had used gifted and talented advisers to help begin the process of provision. In three schools, A, B, and C, the GATE Co-ordinator attended courses run by gifted education advisers attached to a University School of Education. In school B, the adviser was then asked to run a teachers' only day within the school to introduce aspects of provision to the whole staff. In the other two cases, the GATE Co-ordinator provided feedback to staff within staff meetings. In Case Study D, a gifted adviser was contracted to provide whole school professional development, using a number of staff meeting times to do this.

The process of policy formation process was at a different stage in every school. School D had an established policy that had been through the process of staff and community consultation, and was familiar to staff. Two schools, B and C, had policies that were still in draft. One of these policies was drafted with the help of an adviser after a teachers' only day, the other was drafted by the GATE Co-ordinator after perusing models on the Internet. Neither of these had been through the process of consultation and were not familiar to staff. The fourth school, Case Study A, could not find a written policy.

All schools used formal academic standardised testing, and teacher observation as indications of giftedness. Teachers in each school also used Gardner's Multiple Intelligences to help guide their observation in the identification process. In every school, this information was triangulated by other identification procedures. In three schools, B, C and D, a checklist of behaviours was provided to further assist teacher

observation in identification. These schools also employed some form of consultation with parents in identification. School D had employed a number of staff meetings to clarify the process of identification and to collectively discuss individual cases. Apart from School A, there were few reported cultural considerations made in identification of gifted and talented learners.

A degree of miscomprehension, and uncertainty about identification procedures was expressed among many focus group teachers. The lack of definitive benchmarks by which to judge the degree of giftedness, particularly in the arts, was seen as problematic by some focus group teachers in two schools. Some teachers reported a desire for specific nation wide identification procedures to improve the confidence of teachers and to aid consistency between schools. In school D, staff discussion about individual children identified gifted and talented was reported to be useful in the process of identification. All schools kept a register of gifted and talented children, which was being, or had been, updated. In each school, the GATE co-ordinator believed a register helped create a school-wide awareness of gifted and talented children. In the case of school C, the register was used actively in grouping and selecting students for withdrawal programmes. In school B, the register was consulted where an opportunity for a withdrawal programme presented itself.

In each school, there was a reported expectation that the classroom teacher held the primary responsibility in providing for the gifted and talented learner within his or her classroom. All focus group teachers in each of the four schools were aware of the need to differentiate their classroom programme to cater for these children. In Case Studies A and D, the onus was almost exclusively on the classroom teacher to provide for this group of learners. Programme differentiation, as reported by all focus group teachers in every school, commonly took the form of ability grouping for mathematics, reading and writing. In two schools, focus group members reported that school-wide contracts in inquiry learning, curriculum integration and thinking skills showed promise in better differentiating the programme for gifted and talented learners within the classroom. Classroom provision for gifted and talented learners, in each of the four schools was reported to be evaluated within the regular class context.

Some form of withdrawal was used in each school. Withdrawal programmes in each case were dependent on personnel, funding and time available, and there were more withdrawal programmes operating in the larger schools (B and D). In each school, it was reported, as withdrawal programme opportunities arose, a group of children were selected from the gifted and talented register to participate. School C had a full time GATE Co-ordinator/SENCO who actively grouped and searched for withdrawal opportunities for identified children. Evaluation of withdrawal programmes in the four schools was almost entirely anecdotal and informal. The GATE Co-ordinator in Case Study C reported exploring and developing a variety of tools with which to evaluate withdrawal programmes.

A lack of teacher time and energy were mentioned in all cases as barriers to effectively providing for gifted and talented learners. Contracts being undertaken in other areas, particularly those aimed at improving levels of literacy and numeracy, often took precedence. The number of contracts being undertaken concurrently within a school was seen as a causal factor in the lack of time and energy of teachers. Additionally, every focus group of teachers reported that the day to day demands of teaching, and in the case of school A, the behavioural issues inherent in the school, meant a lack of time and energy to specifically plan for individual gifted and talented students within the classroom. A significant number of teachers also mentioned personal confidence and knowledge, particularly in identifying and providing for gifted and talented children from other cultures, as barriers to provision.

The importance of pre-service and ongoing in-service professional development, in providing for gifted and talented learners, was stressed by all. Pre-service training in this area had in all cases been seen as inadequate, and only one teacher had completed an optional paper in gifted and talented education, as part of her degree upgrade. One school (D) had timetabled GATE issues into a staff meeting once a term, and was continuing to use an adviser. This ongoing assistance, driven by teacher need, was seen as necessary and invaluable by the focus group of teachers in this school. Both management and teachers of all schools acknowledged the usefulness of advisers in providing an umbrella of theory, and for generating thought. Most focus group teachers in each of the four Case Study schools, however,

mentioned the desire for a more practical toolbox. These teachers reported that they needed further and ongoing help in identification of students with gifts and talents, and in specifically differentiating the class programme for this group of learners.

# Chapter 5
# Discussion

In the review of literature, and also in presentation of the results, the content has been organised into 'themes', and it was clearly logical to discuss the findings in a similar manner. In the first section of this discussion, features of case study schools are examined. In the second section of this discussion, I examine barriers evident within individual contexts of two case study schools, which may have wider implications for schools in the same situation. The barrier of teacher time and energy is also discussed. Some recommendations are included in this chapter, and limitations of the investigation and areas for further investigation are identified.

**Section One**

**Policy**

In New Zealand, written policies are commonly developed to demonstrate how schools are meeting the requirements of the National Administration Guidelines (NAGs). Although it is not a legal requirement to have a policy, many New Zealand writers stress the importance of a written school policy for gifted and talented learners from which identification and provision can be underpinned (e.g. Cathcart, 2005; McAlpine, 2004; Ministry of Education, 2000; Taylor, 2004). This process, these writers suggest, should be collaborative, and reflect the nature and needs of the school and its community.

In this study each school saw the need for a policy to demonstrate how they would meet the amended National Administration Guideline. Gifted and talented advisers helped begin the process of forming a policy in three schools. In the fourth school, the GATE Co-ordinator searched the Internet for appropriate models. The Ministry of Education (2000) publication, 'Gifted and Talented Students; Meeting Their Needs in New Zealand Schools', was also used as a guide in forming this policy by management personnel in all four schools.

However although each school had a register of gifted children and provision for these children was being made to some extent, only one school (D) had completed the process of consultation and ratification of a policy to underpin identification and provision. As Taylor (2004) notes, this is not ideal, as programming without a written policy, 'runs the risk of being ad hoc, and "add on", and may only continue as long as dedicated personnel remain on the staff' (p.142).

The school with a ratified policy was a small rural school. It may be that the process of developing a policy in school D was made simpler by the fewer number of people involved in the process. It is possibly more significant however, that all staff in school D had been involved in a school-wide contract in the gifted and talented, facilitated by an adviser from a University School of Education. This was the only school surveyed that had made this commitment. The teachers in this school had been actively consulted in the formation of the policy, and therefore felt a degree of ownership. The focus group of teachers were familiar with the policy content, as formation had been preceded and followed up by discussion, time set aside in staff meetings and ongoing staff professional development. It appeared that as a result of this process, the teachers had a more united understanding of what a gifted child was, and felt a collective responsibility in provision.

Collaboration and consultation with the community in the formation of the policy in school D had taken the form of placing the draft policy on the school noticeboard, and asking for feedback. The principal acknowledged that although this was not an uncommon practice for schools, this was not the ideal. The importance of community input in every step of policy-making for the gifted and talented, is highlighted by numerous writers (e.g. Cathcart, 2005; Clark, 2002; Taylor, 2004). A community has a right to be involved in tailoring policy that affects it (McAlpine, 2004). The difficulty it could be suggested, is the time and energy it takes to facilitate the consultation and collaboration so that it is not just 'lip service'. The practice of community consultation and collaboration also presumes, to some extent, that the community will have the time, knowledge and desire to engage in the process. This will be true in some cases. Difficulties occur for example, where a community may not feel qualified to comment, in encouraging representative community involvement, where there is a high roll turnover indicative of a changing

school community, and/or, where the links between the community and the school are not strong. The Principal in school D acknowledged that newsletters are not always received or read, so this was not a reliable means of communication for consultation. There is also the need for the commitment of staff in terms of time and energy to initiate and sustain meaningful consultation. The process of consultation, therefore, may be difficult to manage, and feel unsatisfactory.

Two schools (B & C), had policies that were still in draft, so the process of developing a policy had begun, but was not completed. These were drafted by the GATE Co-ordinator in one school, and by the GATE Co-ordinator in association with management personnel in the other. The content of these school policies differed to some extent, however in each case closely followed the guidelines of the Ministry of Education (2000) handbook. They contained a rationale, a definition and identification procedures. At the time of this study these did not link with specific programming and classroom strategies within the school to show provision for gifted learners. It may be that this will be developed during the process of consultation with staff and the community. However, even the ratified policy in school D did not detail programming intentions. The principal of this school acknowledged that the school's policy in gifted education was 'generic', yet she felt it served the purpose of formalizing an intent to provide for this group of learners. Some schools may feel that a policy that is too specific will not be flexible enough to respond to ongoing change within a school's procedures, staff, or in their budgeting priority. However it could be argued that a gifted education policy that only details a rationale (why we should cater for gifted students), a definition (who are the gifted) and identification procedures, ignores the most important questions of what are we going to do, how are we going to do it and how effective is it? Specific programming, strategies, and evaluation procedures may more effectively set the direction of the school's efforts in a clear and purposeful manner.

A written intent or policy does not always mean provision will follow, according to the Ministry of Education (2000). A policy however, does signal an awareness of the specific needs of gifted and talented children, an awareness that in New Zealand's past has not always been evident (Moltzen, 2004c). The implication of no policy was illustrated in school A, where a policy on gifted and talented children was

unable to be located. Developing a gifted policy was a low priority within the school, as staff reported there were more pressing concerns of low literacy and numeracy, and behavioural issues, concerns also noted by Hattie (2000, cited in Bevan-Brown, 2004), in his study. It could be argued that because of this low priority and resulting lack of policy, there was a lack of teacher knowledge and awareness of the needs of gifted and talented children within the school. The focus group of teachers in this school reported that they were not confident in their ability to recognise a gifted child, needed clarification of identification procedures for gifted and talented learners, and felt unsure as to how they were expected to provide for the identified children within the school. Thus the lack of a policy or written intent within the school could be seen as a signal that this group of learners were not clearly acknowledged or provided for.

*The GATE Co-ordinator*

Each of the four schools had a designated GATE Co-ordinator. Ideally, according to Riley et al., (2003), the person driving the GATE programme in a school, needs to have strong leadership and organisational skills, and possibly be in a management position within the school. This was the case in each of the four schools.  In schools A & B, the GATE Co-ordinator was the deputy principal and in school D, the principal. School C, the case study school with the largest roll, was able to employ a full time SENCO/GATE Co-ordinator. A disadvantage of individual people in management positions, also driving the GATE programme could be the many other priorities for their time. In school A, in particular, the deputy principal and GATE Co-ordinator was also the Special Educational Needs Co-ordinator (SENCO). Her position was more defined by her role in managing behaviour of children and monitoring programmes targeted to lift the levels of numeracy and literacy. A principal of a small school such as D, it could be suggested, would also have a raft of other pressing responsibilities with leading and managing a school.

 Although a team approach in schools is advised by writers, in order to maintain impetus in co-ordinating and forming policy (e.g. Ministry of Education, 2000; Taylor, 2004), this approach was not employed by any of the participant schools. This was perhaps due to the fact that there are many other responsibilities staff members in every school assume over and above their role of class teacher, for

example, in curriculum teams and with extra-curricular activities. Volunteering to become a member of another 'team' will add to the workload of that volunteering teacher. However the responsibility for gifted and talented education is too large a responsibility to fall to one person. As the Ministry of Education (2000) explains, short-lived educational initiatives for the gifted and talented often occurs when the impetus resides with a single staff member. Should that individual leave the school, the initiatives often leave with them. A team of teachers led by the GATE Co-ordinator could see a variety of teaching expertise assisting in planning provision. Sharing of the responsibility would also allow the GATE Co-ordinator more time and energy to lead initiatives to provide for this group of learners. A team approach, with a number of staff advocating for this group of learners, may also have enabled a more school-wide commitment to the needs of gifted and talented learners than was evidenced in some of the case study schools in this study.

*Resourcing*

Resourcing in terms of money, was not seen as a primary concern in three of the four schools surveyed. School B was a decile 8, and drew from a community that had money they were happy to spend on their gifted and talented learners. School D, a decile 7, also reported a financially supportive community. School C, although a lower decile (5), was a large school that appeared to enjoy a greater degree of flexibility in funding. The principal at this school acknowledged that it was fortuitous that he could manage the funding of a full time Gate Co-ordinator/SENCO, however he also commented that the Ministry of Education needed to consider extra resourcing to fund new NAG requirements. School A, was a decile 1a, and could not rely on financial assistance from the pupils or its community.

Resourcing in terms of committed and knowledgeable people with time and energy, both in terms of co-ordinating, and/or in providing appropriate withdrawal programmes was, in some aspects, an ongoing concern in every school, as acknowledged by Keen (2004). The most advantaged school was school B, who reported a community rich in expertise and a willingness to share this. However this community strongly contrasted with the reported community of school A, described by the principal as one where the "financial and time commitment seems beyond

them". It was suggested by this study therefore that the higher the school decile, the more advantaged you were both financially, and also in community expertise when providing for gifted learners. The community in the higher decile school was also more likely to be able to pursue out-of-school opportunities such as athletics and swimming clubs, music and dance tuition for children with gifts. This may suggest that policy-makers need to continue to consider their resourcing formula to schools in order to help address this possible inequity.

**Identification**

Focus group teachers in two schools had not yet had the opportunity to discuss and develop a shared understanding of what a gifted and talented child was, or to discuss the direction the school took in provision. These discussions, according to McAlpine (2004b), 'are at the very heart of gifted education' (p59). In school D, staff discussion had clarified teachers' perceptions of giftedness and had facilitated a shared understanding of what a gifted and talented child might look like. In school B, a teachers' only day provided the same opportunity. However, as there was no further or ongoing opportunity for staff in that school to collectively clarify any misconceptions in this school, any shared understanding may not have been consolidated. The opportunity for ongoing discussion would appear from this study to be beneficial. School D reported that their confidence in identifying gifted and talented children had increased with the opportunity in subsequent staff meetings for discussion of individual children. Focus group teachers in schools A and C, as a whole, were less confident about identification procedures employed within their school, and were more likely to believe that the results of some form of standardised testing were the most valid forms of identification. Riley et al., (2004) also found that teachers less confident with identification procedures were more likely to rely on the results of standardized testing as a means of identification of gifted and talented students.

*Methods of identification*
Each school surveyed initially used formal standardised testing and teacher observation to identify their gifted and talented students. Teacher observation was structured in each case by considering Gardner's Multiple Intelligences. The

tendency to give weight to one or two methods is not uncommon (Keen, 2004; Masse 2001, cited in McAlpine, 2004). "Educators, generally, are conservative in their procedures", says Keen (2004, p.267). McAlpine (2004) recognized that many teachers preferred to use the results of nationally recognised standardised testing within school-wide data, as these tools were more reliable, objective, and valid between schools. This was the case with the four case study schools. The results of Progressive Achievement Tests (P.A.T.) results, Junior Oral language Survey Testing (JOST), the Assessment Tools for Teaching and Learning (asTTle), Supplementary Tests of Achievement in Reading (STAR), and Probe reading assessments, running records, National Numeracy Project (NNP) interview assessments and 6 year Nets (Observation Survey) were among those used by schools in identification. This emphasis on formalised testing, as the first step in identification, would reveal demonstrated rather than potential performance. If solely used as a method of identification, there would be a danger of excluding many gifted students for whom this method may be inappropriate, for example, creatively gifted students or those from different cultures. These results, however, were not used as stand alone data in any school surveyed.

 Teacher observation, as a means to identification was another method used in each school. Teacher observation has its limitations too, as teachers are likely to choose compliant 'teacher-pleasers', gifted and talented children whose behaviour manifests positively. (Clark, 2002; Davis & Rimm, 1998; Freeman, 1998; George, 1992; Gross, 2004;  Piirto,1994). Some commentators maintain that gifted and talented students with learning difficulties, disabilities or underachieving students, are more likely to be identified by looking at behavioural characteristics of gifted and talented children (Ministry of Education, 2000; Moltzen, 2004a). Three schools in this study did use a list of behavioural characteristics as an aid to identify giftedness. Teachers at School C, however, while using a list of behavioural characteristics, expressed doubts as to the validity and usefulness of this method, unless confirmed by formal assessment data. This indicated their faith in what could be seen, rather than what could be. It could be argued that the current emphasis in New Zealand schools on hard assessment data in order to underpin provision in literacy and numeracy, as evidenced by the Numeracy Contract, and asTTle, may promote this attitude. Teacher practice in these areas is based on evidence from testing and interviewing.

It may also be, as Riley et al., (2004) found, that teachers who have a limited knowledge of gifted education, 'tend to rely on the more formal indicators and tests to identify specific children' (p. 234).

Gardner's Multiple Intelligences was used by three schools in this study, to provide focus and structure to teacher observation of gifted and talented learners in the classroom. This may also be an inadequate tool unless further professional development is provided (Fasko, 2001, cited in McAlpine, 2004). If teachers are just provided with a list of intelligences and a short explanation of these, without the opportunity for further direction or clarification, individual interpretation of these 'intelligences' could result. The Principal in school A reported that in her experience, some 'intelligences' were misunderstood and needed clarification. Teachers in this school (and also in school C) reported difficulty for example, in identifying gifted and talented children in the arts and the physical domain, and felt a need for ready testing tools or norms in these areas for comparative purposes. The use of Gardner's Multiple Intelligences, however, appears useful in that it forces the consideration of a wider range of giftedness than may have been traditionally recognized in schools.

The opportunity to discuss and to clarify observations of individual children with other staff was reported to be beneficial in school C, and this practice, if adopted by others, may increase the confidence of teachers in identifying gifted children by observation. It could also be considered that teachers are familiar and comfortable with the common practice of using the results of standardised testing to identify intellectually or academically able children. If this study reflects growth in the application of Multiple Intelligences for defining, identifying and catering for the gifted and talented, teachers may need more time to become familiar and confident in using this within a variety of identification tools.

Three out of the four schools had some form of parent input in identification, as advised by the Ministry of Education (2000). This came from, in two cases, a questionnaire included in the new entrant pack, and in two cases, an opportunity at a later stage to share information, one by filling out a questionnaire, and one during parent /teacher meetings. Interestingly enough, as noted by Keen in his research,

(2004), a proportion of teachers in each of the four focus groups of schools, expressed doubts as to how well parents were able to identify giftedness in their own children. They felt that some parents over-estimated their child's ability, and did not have the knowledge or experience of a wide range of children with which to judge their own child. This belief is not confirmed by literature (e.g. Cathcart, 2005; Fraser, 2004). In school D, in the past, this had caused a "dilemma", in that parents in two cases had taken their child off site for testing by a psychologist who confirmed giftedness in each of those children unrecognised by the staff. The reluctance of the staff to accept the psychologist report proved an uncomfortable situation. It may be that the psychologist, as a specialist, was able to recognise a form of giftedness in a way that teachers are not qualified to do. Teachers in school C were also skeptical that psychologist reports confirming giftedness were valid, believing that psychologists often identified giftedness as a service to paying parents. It may be that teachers doubt that the results of a child tested in isolation, are valid in the context of a school. It may also be that interpreting the language of another professional poses problems for teachers. Presented with a report they do not fully understand giving a judgement in opposition to their own considered one, teachers may, it could be suggested, feel a lack of confidence and professionally undermined. Additionally, teachers may have difficulty in finding the time to contact psychologists about reports on individual children.

Many writers advise that identification of gifted children should begin early. (e.g. Keen, 2004; Ministry of Education, 2000; McAlpine, 2004a). Information about children provided from pre-schools to schools was reported in each case to have been considered, but not weighted in identifying gifted children within these schools. That information from pre-schools was considered, is worthy, as this may not have been a common practice in the past. Individual focus group teachers explained, however, that the pre-school experiences of children varied. Some, for example, had attended kindergartens, some play centres, others day cares or private pre-schools, and in some cases children had no pre-school experience at all. Information from these providers also varied, they said, from comprehensive reports to little or no information. They felt it wise, therefore, to see how children presented in the school situation before identifying giftedness, a practice also found in research by Riley et al., (2004). Although the practice of 'waiting to see' is understandable, it

could be suggested that pre-school teachers are professionals, and their valid and valuable insights into children transitioning to school would aid early identification of gifts and talents in primary schools. Considering information from pre-schools appears particularly important when identifying disadvantaged gifted and talented students (or those from low socio-economic backgrounds). The Ministry of Education (2000) advise that as the performance of these students declines the longer they are at school, attention should focus on information provided from early childhood education.

*The school register*

A school register, listing children identified gifted and talented was established in every school. In school B, the register grouped children identified as gifted and talented in the areas of Gardner's Multiple Intelligences. These groups were consulted as withdrawal opportunities became available. The register in school C detailed beside each child's name his or her areas of giftedness, and the data by which they had been identified (e.g. formal testing, teacher observation, behavioural characteristics, parent nomination). They were then grouped for withdrawal programmes based on common areas of identified gifts. The register in this school was developing into an ongoing working document of withdrawal provision. The register in each school was updated annually, recognizing to some extent that, as is noted in literature (e.g. Ministry of Education, 2000; McAlpine, 2004a), that identification should be an ongoing process, as gifts and talents will emerge at different times and under different circumstances. However, the updating of the register in three schools tended to happen in scheduled identification periods, rather than over the whole year, suggesting that teachers may not continue searching for emerging gifts once the register is established.

There appeared to be a number of advantages in having a register. In each school, it was reported that the process of identification of gifted and talented children for a register required a recognition from the staff of gifts in children which in the past, may have gone unrecognised. A register of gifted children was also seen as a useful organizational tool, particularly when selecting children for withdrawal opportunities. Additionally, a register was a tangible reminder within the school of the presence of gifted children, and of the need to provide for them.

*Multicultural considerations*

The school roll of school A was 81% Maori and 6% Pacifika. The principal stressed that although the roll contained a large majority of Maori students, their values and practices, as a whole, did not always reflect their ethnicity. The community serving her school, she explained, did not have a common marae to identify with. Many families, she continued, particularly those that were transient, may not have identified with any marae, and had little or no knowledge of their whakapapa. Some exhibited behaviours of children described by the staff at this school, were more consistent with those behaviours described in the research of Fordum & Ogbu (1986, cited in Borland & Wright, 2000), that of a subgroup identity in direct opposition to the dominant [pakeha] culture. This sub-group behaviour reportedly manifested itself within the school for example, in non-compliance, a lack of respect for teachers, a loyalty to gang-like groups which were often in conflict with each other and with staff, a lack of conventional social skills and a reluctance to accept authority. Some children appeared to admire those who led this oppositional behaviour, and may have seen them as role models. It may be suggested that in this climate, gifted children may feel more comfortable in 'hiding' rather than displaying their giftedness, and thus may be less likely to be identified.

It would appear doubtful that the culture evident within the largely Maori community serving this school could provide a "firm foundation on which special abilities could be nurtured, grounded, exhibited and developed", or that there was an expectation within this culture, that "a person's gifts and talents would be used to benefit others" (Bevan-Brown, 2004, p.173). Thus the research by Bevan-Brown (2004) confirming these components as common in a Maori concept of giftedness, may not have applied to the urban, predominantly Maori community this school was serving. There were contributing factors of poverty causing a differential in environmental advantage that the principal felt compounded the problem. This situation implies a complexity of barriers for this school and other similar schools, in meeting the needs of gifted and talented students. This is explored further in Section Two of this discussion.

Despite this, bicultural values detailed by Bevan-Brown (2004), were considered to some extent in this school in the identification of gifted and talented students, in that groups rather than just individuals, of children with talent in music and kapahaka had been identified. The staff also looked for qualities of leadership, and abilities in a cultural context (e.g. in the tuakana/teina programme), recognising children that may be overlooked in a more academic environment. This meant that 34 children out of a possible 167, or over 20% of the roll were identified in some area, predominantly in the arts (music, visual art and dance).

The rolls of the other three schools were predominantly European, with less than 12% of the roll identified Maori or any other culture. Although the need to recognise multicultural values had been acknowledged within their policies, identification of gifted and talented children appeared to be based on data about individual children. This data was largely based on standardised testing and teacher observation, identification practices that could be inappropriate for cultural minorities (e.g. Bevan-Brown, 2004; Freeman, 1998). More valid methods of identification these writers contend, may be testing that is less dependent on words, and a consideration of family, cultural and language differences. Gifted Maori children may also be identified by observation in a range of environments, and teachers need to look for qualities as well as abilities according to Bevan-Brown (2004). She advises that teachers need to look for those who are being of service, and that peer and whanau nomination could be more valid methods of identification.

In each of these three schools, a significant proportion of focus group teachers expressed a lack of knowledge and confidence in identifying gifted children according to multicultural values. They were unfamiliar with the values of diverse cultures and did not know how to recognise or cater for these. Riley (2004) noted that a lack of knowledge in culturally-specific identification could be partly attributed to the mainly white middle-class backgrounds of teachers. Certainly the majority of participant teachers in this study could be described in this way. Additionally, with so few children from other cultures in these schools, developing teacher skill in culturally-specific identification and provision of gifted and talented children may not be seen as a priority. It could also be suggested that the few children of different cultures in these higher decile schools, may have adopted an

identity that was less specific to their culture, and more specific to the special character (in school B) or largely pakeha (schools C & D) community the school was serving.

It could be argued that all New Zealand teachers should be familiar with, at the very least, Maori concepts of giftedness. Maori, New Zealand's indigenous people, are under-represented in identification (e.g. Bevan-Brown, 2004; Keen, 2004). Future leaders of Maoridom could be nurtured within our schools if they were recognized and provided for. However it could also be suggested that there is a need for teachers to be sensitive to the different ways a number of cultures, including Maori, perceive giftedness. New Zealand attracts immigrants of many cultures and is as a nation becoming increasingly multicultural. Teachers are likely to meet gifted children from these various cultures within schools. Schools, in planning professional development in gifted education, therefore, should consider whether the current ability of teachers enables them to recognize and provide for many cultures, including Maori, appropriately.

*Other identification tools.*

Some identification techniques proposed by the Ministry of Education (2000) were not used in any of the schools surveyed. Tests of intelligence such as the Stanford-Binet administered by registered psychologists, or more commonly the Wechsler Intelligence scale were an expensive option for schools with budgetary constraints, and were not used by any participant school, matching the findings of Keen (2004) in his research. Despite literature advising schools to employ a number of methods in identification (Ministry of Education, 2000; McAlpine, 2004a; Riley et al., 2004), self-nomination and peer nomination, were not used in any school either. This may be because of a belief that students may lack a realistic appraisal of their own or others' abilities, but is more likely, as found by Riley et al., (2004) because of time constraints in gathering this data. Peer and self-nomination are useful tools in identifying giftedness in children from other cultures, and thus could be considered more closely by schools. Teacher made tests and portfolios were not primarily used in identification, and were more likely to be used to confirm standardised formal testing results.

It would appear that a responsive learning environment within the classroom and school is necessary in order for gifts to 'surface' (e.g. Clark, 1992; McAlpine, 2004a). This, it would seem, would depend on both the individual teacher and the school climate or ethos. Identifying students with learning disabilities and gifted students of diverse cultures appears largely dependent on a learning environment that is responsive to the individual, as their gifts may not necessarily surface by other means. The limitations of this research in that I did not observe classroom practice, meant that I was unable to ascertain whether this was a factor in identification of gifted and talented students within these schools. However a number of teachers felt they could recognize a gifted child solely through observation and intuition, which alludes to a responsiveness to the individual.

**Provision**

The purpose of identification is the placement of children into programmes to optimize their gifts and talents (e.g. Clark, 1992; Ministry of Education, 2000; McAlpine, 2004a; Richert, 2003). In every school, the responsibility for providing gifted and talented learners with appropriate educational programmes was seen to be primarily the responsibility of the classroom teacher.

*Differentiation.*
Riley (2004) contends that "qualitative differentiation is the key to success in developing gifts and talents to their full potential" (p.366). The need to differentiate the classroom programme for gifted and talented learners was acknowledged by each of the focus group teachers. In each of the four case study schools, many teachers reported that in-class grouping for mathematics, reading, spelling and writing constituted differentiation in these areas. When pressed further as to actual practice, individual focus group teachers in each participating school explained that children were academically tested in these areas, and grouped according to the results. There were three to four groups in each class for each subject, and work was differentiated or planned appropriately for each group, so that there was challenge. Blooms Taxonomy was used in two schools (B & D) as an aid to planning reading, to "stretch children". Two schools (C & D) were also involved with the Numeracy

Project which underpinned their planning in mathematics. Each child had been individually interviewed to determine the numeracy stage they were at, and this individual assessment data was used to group children for teaching. Data from using AsTTle (Assessment Tools for Teaching and Learning) was used to plan writing in schools A & B. This data resulted from individual diagnostic analysis of a set writing task, to ascertain the next learning step for each child. The children were then grouped for teaching. Thus with the differentiation described, the content of these subject areas was differentiated. Content differentiation, as described by Van Tassel Baska (2004) may be appropriate to skill-based subjects such as mathematics. It is possible however that differentiation as described here by the focus group of teachers was characterised by instructional 'sameness', not acknowledging, as some writers contend (e.g. Cathcart, 2005; Winner, 1996), that a gifted and talented child may be qualitatively different.

Many teachers, while understanding the need for further differentiation reported that it was unmanageable in practice. For example, flexibility of groups was seen to be difficult to achieve. Once in their groups for reading, spelling, mathematics and writing, many teachers mentioned that flexible movement between or above groups, once children had routines and a feeling of belonging in that group, was difficult to manage, particularly with younger children. Teachers in every focus group mentioned the difficulty in catering for the few children with academic giftedness that did not easily fit into a group. These are likely to be students reported by Keen (2004), who "experience frustration of working with peers who… put covert or overt pressure on the gifted to "dumb-down" their performance"(p.273). They were aware, for example, that some of these children required additional acceleration or enrichment activities. It appeared, however, that constraints of time and energy of classroom teachers and lack of knowledge and confidence as to how further differentiation could be practically managed, were barriers to be overcome in providing for their gifted learners.

*Acceleration and enrichment*

Literature advises that enrichment be combined with acceleration in providing appropriate programming (e.g. Cathcart, 2005; Davis & Rimm, 1998; Ministry of Education, 2000; Townsend, 2004). Enrichment was reported by focus group

teachers to be the preferred approach in providing for gifted and talented learners. There may be reasons why acceleration poses a problem in the primary school context. Acceleration in one form, that of allowing children to class skip, may be an uncomfortable practice to teachers who believe that children could be socially disadvantaged or isolated from peers. This was alluded to in a comment from a focus group teacher in school B, who believed that helping a gifted child to "fit in" socially was a worthy aim. This belief may also correlate to New Zealand's traditional belief in egalitarianism, which, as reported by Moltzen (2004c), has been a "strong constraining influence on educational provisions for the gifted in this country"(p.13). There are also fewer mechanisms operating in primary schools, (such as academic streaming and subject specialists in secondary schools), to ensure ongoing appropriate acceleration for children within the normal classroom. Each year the child faces a new teacher who may not have the knowledge, confidence or belief to continue accelerating, in particular extremely gifted students in the senior area of the school, as evidenced by comments by a focus group teacher in school A who felt she doubted that she would have the ability to accelerate a gifted child in the senior end of the school.

Although teachers reported a preference for enrichment, it appears that grouping and enrichment activities already operating in classrooms are often accelerating activities for gifted children. Many teachers mentioned the Ministry focus on lifting achievement in literacy and numeracy as a primary aim of the school. Contracts such as the Numeracy Project and the use of asTTle aimed at facilitating the Ministry focus, resulted in carefully structured grouping in order to effectively monitor and ensure measurable gains. This practice enabled an accelerated curriculum to be offered to an advanced group in the classroom. Teachers surveyed were comfortable with this practice, and reported that it worked well for the many gifted children. However, a large number of focus group teachers reported that accelerating gifted and talented children, (in particular, exceptionally gifted children) beyond the top group in a class where four groups were already operating was difficult. They were always aware of children that needed extending further, but reported barriers of teacher time, energy and management.

Two schools (B & D) were pursuing an integrated curriculum and an inquiry learning process in their topic work, which they believed served gifted and talented children well (as also reported by a school in research by Riley et al., 2004). Qualitative differentiation necessitates the creation of a responsive learning environment and the inclusion of choice, variety and flexibility according to Clark (2002) and Riley (2004). The approach as described by these teachers, appeared to meet the criteria of qualitative differentiation in content, process and product as described by Van Tassel Baska, (2003), and could be classified as qualitative differentiation through enrichment. In these approaches, the disciplines of social studies, science, and to some extent, art, craft, dance and music were combined. Children framed individual questions about learning, and followed their own interests and choice within a topic parameter. Problem solving based activities, and individualised programmes using De Bonos's Thinking Hats and Blooms Taxonomy, the teachers said, provided opportunities for higher order thinking and challenge. The intent of this approach is to differentiate the programme for all children in the classroom, which, because of its inclusiveness is a comfortable practice for teachers in New Zealand, fitting in with the traditional philosophy of egalitarianism in a New Zealand society (Moltzen, 2003, 2004c). Teachers in schools B and D reported that this less prescriptive approach with a degree of freedom and choice worked well for most gifted and talented children while posing some problems for gifted children without the skills of self-management. Careful scaffolding and monitoring, they said, was necessary to ensure this approach worked for unmotivated or disorganized gifted children. Riley (2004) however warns, that differentiation for all, unless examining the unique needs of gifted and talented learners, "may masquerade itself as a panacea for meeting potential, but it will clearly be a façade" (p.348). The question does present itself however, are we realistic in expecting teachers to manage even further differentiation? If so, within the constraints of teacher time, and energy, how should this be done?

*Teacher belief and expectation*
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. There was a professed lack of knowledge and confidence among most focus group teachers, particularly in identifying and providing for gifted and

talented learners from other cultures. There were also some expressed beliefs by individual focus group teachers that are not confirmed by literature. Some of these beliefs were that; gifted children are going to do well anyway; teacher energies need to go to the strugglers; parents are not a good indicator of their child's giftedness; all children could benefit from gifted programmes; grouping constituted differentiation; and acceleration could be harmful socially. These beliefs contrast with those of, for example, Cathcart (2005), the Ministry of Education (2000), Moltzen, (2003) Riley (2004) and Townsend (2004).

Of particular interest, were the comments made by a number of staff at school A, a decile 1a school, that their participation in this study would be of little use as there were very few children at their school who could be identified truly gifted and talented. Literature indicates that gifted and talented learners are found in every strata of society (e.g. Clark, 2002; Ministry of Education, 2000; Riley et al., 2004). It is likely that the low priority placed on gifted and talented education resulted in a belief by teachers that academic giftedness constituted 'gifted and talented', or, conversely, that it was a lack of teacher knowledge about giftedness that had led to the low priority placed on gifted education within the school. It may also be that the time and energy of staff were directed to pressing school-wide priorities of raising the levels of literacy and numeracy and in managing behaviour problems and they were less likely therefore, to notice or search for gifts in children. Thus it could be that in schools where, of necessity, attention to special needs dominates teacher perceptions, the notion that gifted and talented students may exist is not considered a reality. A low expectation, according to Bevan-Brown (2004), not only adversely affects gifted learners' chances of being identified but also limits the opportunities of gifted Maori children to reveal their special abilities.

*Withdrawal provision*

Withdrawal as provision was used to some extent in every school studied and was a significant provision in the larger urban schools of B and C. The popularity of this provision in New Zealand schools, has been noted by a number of writers (e.g. Cathcart, 2005; Keen, 2004; Riley et al., 2004). Withdrawal opportunities operating on a regular basis for long-term periods tended to be school-wide and could be said to be essentially electives. Choirs were mentioned in each school as an ongoing

provision. The opportunity for instrumental tuition in two schools (B & C) was also ongoing. School A had a kapahaka group, which was an ongoing provision for a group of children on their gifted and talented roll. Bevan-Brown (2004) notes that, "Children who have knowledge and pride in their maoritanga are likely to have heightened self-esteem and confidence" (p189). This provision therefore, appears culturally appropriate for this school. There was an opportunity in each school for children to be involved in school sports teams. In each of these cases, and in each of these areas, there were opportunities for children gifted and talented in these areas to assume leadership roles.

Various opportunities for school-wide leadership and responsibilities were also available in each school, for example, school counsellors, sports captains, lunch monitors, road patrol monitors, within a teina/tuakana system, and house leaders. The teina/tuakana programme, essentially a buddy system, appears to be a particularly appropriate cultural provision operating within school A. In three schools (B, C & D), Future Problem Solving was a regular and long-term withdrawal provision for a selected group of gifted and talented children. This provision appears to closely fit the qualitative criteria of differentiating content, process and product (e.g. Clark, 2002; Riley, 2004). Competitions operating in three schools, (B, C & D) in the form of the Australian Mathematics, Science and English competitions were usually available for children to take part in.

There were a large number of withdrawal programmes that operated in these schools that were not regular and long-term. These programmes varied from one-off programmes to those that were weekly for a period of time, up to a term. These opportunities were not always programmed to meet the individual needs of the child. Availability of a person with skills in a certain area in a school, or school community, often springboarded an opportunity, and as a consequence, the programme was chosen before the child. These withdrawal groups therefore, tended to be short-term random opportunities rather than well-planned provision. Additionally, some of these opportunities were paid for by the individual participating, which may have excluded some children who would benefit. Included among the opportunities mentioned among the schools were; out-of-class speech and drama lessons, writing groups, art extension withdrawal, dance lessons,

technology based group withdrawal, reading extension groups, the learning of a second language and sports extension opportunities. As these were personnel dependent, many areas of giftedness such as mathematics and science tended to be less well catered for. GATE co-ordinators were aware of the difficulties in withdrawing specific groups from the class programme, and where possible timetabled the withdrawal to minimise disruption.

Withdrawal allows for grouping with ability peers, which is a desirable consideration according to literature (e.g.Keen, 2004; Cathcart, 2005; Clark, 2002). Class teachers can not be expected to have advanced knowledge in all areas that children may be gifted in, and withdrawal also allows the opportunity for gifted children to learn from people with specialist knowledge. This appears to be another advantage of withdrawal. Keen (2004), found that purpose-designed withdrawal programmes rated twice as positively with primary school children as did classroom provision. Within this study, gifted and talented children selected for withdrawal programmes were also reported to have enjoyed these opportunities, even though they were not necessarily purpose-designed. This may be because of the small group sizes, and the opportunity for more individual attention. It may also be that children selected for these withdrawal programmes simply appreciated being acknowledged as deserving of extra attention. Riley et al., (2004) reported that even children inaccurately identified for gifted withdrawal programmes had increased self-esteem and confidence. This would confirm the belief of focus group teachers in school C in particular, that all children would benefit from many of these opportunities. However this poses a number of very pertinent questions. Are withdrawal opportunities currently operating in schools effectively providing for the specific needs of gifted and talented learners, or is it, as believed by focus group teachers in school C, that most children would benefit from withdrawal? And if it is the small group sizes that facilitate success, at least in enjoyment, self-esteem and confidence of selected children, how can that success be replicated in a classroom of 30 students? Focus group teachers in school D, for example, commented that small class numbers enabled them to cater for gifted and talented children more effectively. It could be suggested therefore, that we could provide more opportunity for gifted and talented children if there were smaller class numbers. These questions could be better answered perhaps, if there was more rigorous planning and

evaluating of withdrawal programmes operating in schools. This would help determine the efficacy of these programmes, clarify misconceptions and set future directions for withdrawal based on evidence of what works.

*Other recommended provision.*

Other strategies recommended to aid differentiation, such as Individual Education Plans (I.E.P's), learning centres, curriculum compacting or using specialist teachers were not used in any school surveyed. I.E.P's may have been seen as reserved for children with learning difficulties, and the use of a specialist teacher incurred a cost surveyed schools avoided. Three schools had used the facility of the Correspondence School in the past, to provide material for exceptionally gifted students who were independent workers. One school was currently using this provision, for one pupil. Two pupils in two separate schools attended a one-day school, an off-site provision, although this incurred a significant ongoing cost to the family.

There are many opportunities recommended in literature for provision beyond the individual classroom (e.g. Ministry of Education, 2000). These include cross-age grouping, special classes, early entrance, withdrawal programmes, mentorships, concurrent enrolment, competitions, clubs and electives, and virtual instruction. Of the schools surveyed, however, there was an almost exclusive reliance on withdrawal programmes in supplementing classroom provision. The other two suggestions commonly adopted were competitions and electives. Cross class grouping had operated in previous years in mathematics in the two larger schools (B & C), but was no longer operating. It may be that the involvement of these schools in the Numeracy Project had facilitated more effective in-class differentiation in mathematics.

*Individual evaluation of gifted and talented children*

Evaluation of the progress of individual children on the gifted school register took place within the classroom and was recorded as part of normal class practice. Evaluation was based on group teaching objectives and learning intentions of the children. Methods of evaluating progress included observation data, standardized tests, teacher-made tests, and by interviewing children. Self-assessment was a

reported evaluation procedure, and was combined with product evaluation in the inquiry learning approaches adopted by schools B and C. It was reported by teachers in this study however, that monitoring children extended from the top ability groups in mathematics, reading and writing was difficult in practice, and evaluation of exceptionally gifted and talented children was often restricted to the objectives of the top group. This may have a 'ceiling effect', where gifted children would continually score at the top. Although many individual focus group teachers understood that for these children, interviewing and assessing on individual learning intentions may be more appropriate and provide better data than group evaluation, they once again reported time, energy and management constraints.

Systematic evaluation appeared to be essentially restricted to the academic curriculum of the classroom. The progress of gifted and talented students in for example music, dance and sport seemed less well evaluated. It may be that there is less expectation from parents generally, that the school should cater for these gifts, and that students gifted in these areas should pursue opportunities outside the school. In some schools, children involved in choirs, kapahaka, sports activities and leadership opportunities had this participation recorded in individual files, which operated school-wide and were passed on to the following teacher. Children who entered competitions had their achievement noted in the same way. It is questionable whether this practice could be deemed evaluation however, as there was no analysis of skills or progress, and no recommendation for future provision (e.g. Reid, 2004). Although results provided by the marking of the Australian Competitions in for example science, maths and english are diagnostic, it is unlikely that teachers would have the time to closely scrutinize the results.

It appeared that schools need to improve systems to effectively record provision and the progress of individual children on the gifted register. One suggestion, is that schools could add to the individual files of children currently operating in the four studied schools, and presumedly in most schools. These files detail the ongoing progress of children. Each child on the gifted register could have an insertion within these which could; summarise identified gifts and methods of identification, record how the identified gifts were provided for to date, and summarise evaluation of that provision. This would provide an ongoing record of individual provision, and would

also be an effective way to collate and share information between teachers and schools.

*Evaluation of withdrawal programmes.*

Evaluation of withdrawal programmes that operated in the schools surveyed was almost entirely anecdotal and informal, confirming literature noting a lack of systematic, formal, in-depth evaluation generally of this provision (e.g. Borland, 2003; Callahan, 2000; Clark, 2002; Reid, 2004; Rimm & Davis, 1998). Teachers observed the level of enthusiasm shown by children and how well they engaged with the programme, and shared this informally with other teachers and the GATE co-ordinator to assess the efficacy of the practice. The GATE co-ordinator of School C however, was trialling various forms of evaluation, including self-assessment, and observation assessment templates for the programmes she had organised for groups of children. She also kept a photographic record of the opportunities provided. She was now looking for other methods to trial. The lack of evaluation for withdrawal programmes operating within three out of four surveyed schools is perhaps a reflection of the fact that, as noted by Reid (2004), withdrawal programmes were often seen as additional opportunities for these children rather than planned opportunities integral to provision. Taylor (2004) adds that programming without a written policy "runs the risk of being ad hoc, and 'add on' " (p142). Many of these withdrawal groups were utilising staff and community expertise as the opportunities presented themselves and as time, money and timetabling allowed. The GATE Co-ordinator who was trialling evaluation formats had a full time role as SENCO/GATE Co-ordinator, and therefore had time specifically allocated for planning and evaluating. All of the other GATE Co-ordinators had a multitude of other responsibilities within the school pressing for their time, possibly another factor inhibiting careful planning and evaluation of these programmes.

**Professional Development**

Pre-service and in-service training and professional development for teachers in the identification, design and delivery of programmes is a crucial consideration when looking at barriers and enablers of provision. Research clearly shows that it is the individual teacher that plays the central role in identifying and providing for the gifted and talented child (e.g. Clark, 2002; Croft, 2003; Gallagher, 2003; Ministry of

Education; 2000; Piirto, 1994; Riley, 2004). Thus, effective pre-service training and in-service professional development and support for classroom teachers, are perhaps the most vital components in catering for gifted and talented learners in our schools.

*Pre-service training.*

A lack of effective pre-service training was reported by a number of beginning teachers in the focus groups, as a barrier to effectively providing for this group of learners. Provision for gifted and talented learners, they related, was briefly included within the wider context of special education. Comprehensive pre-service training in this area currently appears reliant on the individual student teacher choosing to take optional papers offered at the Schools and Colleges of Education (Riley & Rawlinson, 2005). In the four schools surveyed, none of the beginning and/or young teachers had taken this option. As a result, none of those teachers, or indeed, any other teachers in the focus groups, felt suitably prepared to cater for this group of learners when beginning teaching. This may confirm the need for a compulsory pre-service paper in gifted and talented education, as recommended by teacher educators in Riley and Rawlinson (2005). However time restraints evident in pre-service training (e.g. George, 1992; Piirto, 1994; Riley & Rawlinson, 2005), may also affirm the call for 'greater integration of gifted education content across a range of appropriate papers, including those of a compulsory nature' (Riley & Rawlinson, 2005, p.61). This would promote consideration of the needs of gifted and talented learners in every area of teaching and learning, and not as a separate focus. However, it may also be argued that actual teaching practice in the individual context of a school can better dictate teacher need in terms of knowledge and support, and that in-service is the most appropriate time and place for professional development (e.g. George, 1992). For it is in attempting to meet the needs of gifted students within the context of the classroom that specific questions arise in translating theory to practice, questions that can then be addressed in order to promote best practice.

*In-service professional development.*

Three of the four schools (A, B & C) had sent their GATE Co-ordinator to a course run by advisers from a University School of Education. Principals and GATE Co-ordinators in each of these schools mentioned how useful this professional

development had been in giving them an understanding of the nature of giftedness. The courses they believed, were a constructive beginning in addressing policy, identification and programme needs in the school. School B then further engaged a gifted adviser to facilitate a teacher-only day on gifted education for staff. In three out of four schools however, access to external professional development was essentially restricted to the GATE Co-ordinator. Thus the individual teacher, the most crucial person in terms of provision, did not personally access this advisory assistance.

The GATE Co-ordinator in three cases assumed the responsibility for relating the information from the course to the staff, and then began the process of forming a policy. That this is not ideal practice, is noted by the Ministry of Education (2000). This, they say, is too large a task for one person. The fact that the policies in case study schools could all be described as general and non-specific, indicated that the individual needs of the community (as advised by the Ministry of Education, 2000), were not reflected in translation. This may reflect a lack of confidence (school C) and/or time (schools A. B, & D) a GATE co-ordinator has in providing professional development to the staff. Once again, a team of teachers taking responsibility for policy development would appear advantageous in this case.

There were a number of positive results of the courses attended by the GATE Co-ordinators. Teachers in every focus group said they understood and agreed with the need for specific provision for gifted and talented learners. They were also in each case, introduced to a variety of identification tools, recognizing a wider range of giftedness than may have been traditionally recognized. Many focus group teachers now expressed the need for some concrete examples or demonstration of best practice within the classroom for this group of learners. A common response was, "We know what we are meant to be doing, but just how, exactly, do we do it?" The comment from a teacher in school D that, "We were struggling with the terminology, and with being able to make the GATE programme more practical and down to earth, The intellectual level was hard for us to translate to effective practice", illustrated the general feeling well. This desire for a more practical toolbox indicated a need, it would appear, for classroom teachers to be assisted in translating theory into practice. As Clark (2002), Croft (2003) and Strang (2001)

contended, professional development needs to include the theory behind the change as well as practical strategies to implement it. In school D, this expressed need led to the ongoing employment of a local gifted and talented adviser which was reported to be working well. Working alongside teachers in an action research approach also worked well in changing classroom practice in the experience of Strang (2001). However, Strang also stressed the need for an ongoing school-wide commitment to professional development to enable changes in practice to be embedded.

 The GATE role within the school was seen to be difficult to effect without a school-wide ongoing commitment to professional development in gifted and talented education. GATE Co-ordinators relayed information from the courses back to staff, however changes to classroom practice in further differentiating the classroom programme for this group of learners as a result of this reporting back, was negligible. Teachers did not have the time to reflect on the information provided, or the time to plan how to integrate change into their teaching practice. Changes to classroom practice were happening however, as a result of school-wide commitments to contracts such as the integrated curriculum, inquiry learning and thinking skills. This school-wide commitment enabled teachers to become part of a community of learners, to reflect on their practice, to develop a shared understanding, and to receive collegial support necessary to promote meaningful ongoing change within their practice in the areas of focus.

 Each school was committed to school-wide contracts aimed at facilitating the raising of literacy and numeracy levels in schools, currently a Ministry of Education focus. School management in all schools commented that teachers could easily be over burdened with additional professional development, perhaps indicating that they saw the needs of gifted and talented children as a separate concern. Taylor (2004) argues that recognition of the needs of gifted and talented children within contracts are one way of working towards the general goal of provision. And although the foci within many professional development contracts was to raise the standards of literacy and numeracy, there appeared to be little consideration within this intent, of providing for gifted and talented children. Teachers consistently reported that any extra time and energy they had was directed towards the learners 'who struggled'. There was generally, amongst focus group teachers an attitude that,

'the bright ones are going to do well anyway'. This could be a direct response to the Ministry directive in lifting achievement, as presumably many gifted and talented children are already exceeding targets in this area. It may also be a reflection of the egalitarianism ideals traditional within New Zealand society (Moltzen, 2004c). However, if, as is suggested by this study, the needs of gifted and talented children in some schools are seen as a separate or lesser concern than the needs of other learners in the school, further integration of gifted and talented education content within general education papers as desired by teacher educators seems necessary.

There was an apparent need, in every case study school, for specific professional development to improve the confidence and knowledge of teachers in identifying and providing for gifted and talented learners from other cultures. A large majority of teachers expressed doubt as to how well they were identifying and catering for this group of learners. Some teachers reported that they could identify and provide to some extent for Maori learners. Children of other cultures were not present in significant numbers in the rolls of these schools, so their cultural needs may not have been visible. The teachers surveyed were also mainly white and European and may not have had much experience of other cultural needs. It may be that other priorities for individual teacher time, other school-wide priorities and perhaps access to suitable providers were barriers in teachers receiving professional development in provision for learners from other cultures.

*Other support for schools.*

Other means of support for schools in catering for gifted and talented learners appear to be underused by schools. One of these is the Internet. The Ministry of Education has developed a very useful link for gifted and talented education within their website Te Kete Ipurangi (TKI). This was underused by all schools except school C. Subscription to periodicals such as APEX and Tall Poppies can also help schools keep abreast of what is happening in gifted and talented education within New Zealand. Once again, it would seem that finding time to search for, read, and apply relevant information and ideas would be the major barrier in the use of these. The other area of support underused in the schools surveyed, was networking with other schools, or using inter-school connections to share ideas and resources. This

was beginning to happen in school B, where a network of schools was being developed and formalised to support teaching and learning generally.

**Section Two**

**Introduction**

In this section, areas of concern in providing for gifted and talented children, recognized in literature and confirmed in this study are explored further. These are barriers faced in specific school situations, namely low-decile and rural schools, and the common barrier affecting all schools, that of teacher time and energy. These may be applicable to a wider educational context than the schools in this study.

Two areas of future focus for gifted education policy development within New Zealand government initiatives, are the barriers evident in low-decile and in rural schools (Ministry of Education, 2002). It would appear from this study that they are two areas worthy of this focus. It could be argued that the barriers in low-decile and rural schools, listed below, are evident in many schools. However it is the large number and combination of these barriers that compounds the difficulties within these schools in effectively identifying and providing for gifted and talented learners. The barriers evident in these situations, therefore, are listed within the individual context of the school situation.

Teacher time and energy is then discussed, as the one, consistent barrier to effectively catering for the specific needs of gifted and talented learners within the case study schools. Recognising what is realistic, and manageable for teachers appears to be somewhat overlooked by a number of people theorizing about 'best-practice'. Teachers in New Zealand need to be acknowledged and applauded for their current skill in integrating a child-centred philosophy within their practice. They also deserve ongoing practical support, based on their real, or perceived need in further developing practice to meet the needs of all learners.

**Barriers evident in low decile schools**

There was evidence in this study, that the low priority placed on the identification of and provision for gifted and talented gifted and talented learners in school A, a low

decile school, was to a large extent, due to a number of compounding issues that disadvantage their ability to provide for this group of learners. Low decile schools draw from a community with few financial resources. The concerns facing these schools are significant, as a high percentage of Maori and Pacific Island children attend these schools. These issues therefore, may be applicable in the wider context of low decile schools in New Zealand, and, it is suggested, may be contributing factors to the under-representation of Maori and Pacific Island children identified as gifted and talented, and provided for as such within New Zealand schools. A number, or any combination of the issues listed below may be faced by low decile schools;

- High staff turnover, as evidenced in school A, means new staff need to be educated into any school-wide vision for the providing for gifted and talented students. This becomes significant when, as seen for example in school A, five out of eight teachers are new to the school.

- High staff turnover could mean that the staff will not necessarily know the individual children/families or the community needs in any depth. It takes time to become familiar with a school community and to establish a meaningful relationship.

- High staff turnover means that individual expertise of staff in various areas is not necessarily retained or attracted. Thus any continuity of gifted programmes using the expertise of staff may be uncertain.

- Low teacher expectation may be a factor adversely affecting identification of gifted learners within low-decile schools. Behaviours manifested by teachers with less expectation may mean that gifted and talented Maori learners will find it more comfortable to 'hide' gifts.

- The high percentage of Maori and Pacific Island students in low decile schools necessitates a culturally appropriate approach. There appears, generally, a shortage of available staff with confidence and knowledge in this area.

- A high percentage of Maori and Pacific Island students in a school does not necessarily mean we can assume that their cultural values and practices will reflect their ethnicity, especially in transient or fragmented communities such as school A, who have no common marae(s) to identify with.

- High pupil turnover could make it difficult to establish and maintain a united and positive school culture/ethos. A large proportion of the school is new every year, and may need educating into the school culture.
- High pupil turnover means the 'community' is a changing one. Decisions made about gifted education after consultation with the community may be inappropriate within a short time frame.
- The combination of high student roll turnover and high school staff turnover may make any whanau/school links more difficult to establish and maintain. The relationship between home and school takes time to establish, and many relationships in this case may be short term.
- Communities within low decile schools may have little interest in, and/or knowledge about, education. Low-decile schools draw from families with few financial resources. Caregivers within these communities generally have fewer qualifications to enable well paid work, and may have experienced little academic success in their education at school. The caregivers therefore, may not feel qualified or comfortable in being asked to be involved in making decisions involving their child's education. There may also be more immediate concerns facing people close to the poverty line.
- These schools may be less likely to employ outside tutors in meeting the needs of gifted children within the school, if this incurs a cost to the student, and puts families under financial pressure. There will be a limit to how many opportunities a school can afford to fully fund.
- The limited resources of the community means that children are less likely to pursue opportunities available out of school to develop areas of giftedness in example; athletics, swimming, dance and music.
- Behavioural needs, in particular social skills, and self-management needs, of children in low decile schools may take priority for the staff of those schools, as evidenced in school A.
- Learning needs, as in raising the academic achievement of children in low decile schools, may take priority, as evidenced in school A.

Some of the barriers listed here pose challenges that are very difficult for schools to address. Schools do not have the ability to balance underlying inequities such as the limited resources within a community or the transient nature of the people within it,

and it would appear inappropriate for them to attempt to. Policy-makers in education however, could consider how they address inequities in this situation. There may need to be incentives for attracting and retaining staff teaching in these schools, incentives such as lower class numbers, additional release time for classroom teachers, or built in 'sabbaticals'. Extra resourcing tagged for gifted and talented professional development for teachers, and the provision of suitable advisers may help. The exchange of staff from a similar school decile experiencing success in providing for gifted learners could introduce new ideas to the school, and provide mentoring to staff, to help establish new practices.

There are also some options that could be explored within the current situation of school A. Bevan-Brown (2004) advises that we need to encourage and extend children in their Maoritanga, and to provide opportunities where qualities can surface. Provision currently operating within this school, for example, in kapahaka, bi-lingual education, and in leadership roles, meet this criteria. The school could consider seeking links with a marae within close distance, to foster and strengthen Maoritanga. Mentoring gifted students with people from a wider community could build abilities and qualities. Networking with other schools to share programming may help these children feel part of a wider community. Professional development in the form of in-class support could be given to teachers in qualitatively differentiating the curriculum for identified gifted children, which may help raise the expectations of teachers. Building teacher expectation is important, as this is an empowering factor for gifted Maori children (Bevan-Brown, 2004). Individualised programmes could operate within a group context, to avoid isolation from peers. Further school-wide and community-wide recognition of achievements of gifted children in assemblies, newsletters and the local media may benefit self-esteem and foster pride. Consultation with the community may also provide additional ideas appropriate to the gifted children within it.

**Barriers evident in small rural schools**.

Although the small class numbers and a small number of teachers were seen by the principal and focus group of staff as enablers for school D in providing for gifted and talented learners, there may also be barriers in providing for gifted and talented

children within small rural schools generally, not evident in large city schools.
These are briefly mentioned below.

- A small roll number, meaning an even smaller number of gifted and talented learners in the school could mean these children feel isolated.
- Fewer teaching staff could mean a less broad base of expertise.
- Fewer staff could mean fewer options for grouping flexibility.
- Employing expertise for gifted and talented education with so few candidates could prove uneconomic.
- Opportunities for interaction with like-minded peers could be less.
- Distance from a large centre could mean that there may be less opportunity to effectively network with other schools and teachers.
- Distance from a large centre means that accessing opportunities available there may incur an unreasonable cost, as evidenced in school D.
- A community spread over a large area could be harder to access for consultation and expertise.

Establishing a network with other schools may be one way that teachers and gifted students in rural schools could feel part of a wider community. The use of technology, in particular, the Internet is another way of establishing a more global learning community for rural schools. The Correspondence School could also be useful in meeting the needs of individual gifted children.

**Teacher time and energy**
The final significant issue demanding attention within this study is the workload of teachers. Pressing demands of time and energy were consistently mentioned by participant teachers as barriers to effective provision. This is significant, as literature clearly identifies teacher effectiveness as a key determinant of educational outcomes.

New Zealand education has over the years promoted and developed a learner-centred rather than teacher-centred philosophy of learning and teaching. This is essentially a belief that education is most effective when it is tailored to the needs of the individual child, where the individual student is at the centre of all teaching and

learning. Additionally, the Ministry of Education focus on raising achievement in literacy and numeracy means that increasingly, the aim is that each child within the classroom will have individual learning goals based on current diagnostic assessment information in at least, reading, writing and mathematics. The classroom teacher, ultimately, bears the responsibility for facilitating this within his or her classroom.

In practice, the task of delivering purposeful and manageable programmes in the various curriculum areas for 30 or so children requires considerable time and energy of teachers, as evidenced by this study. Continual professional development in using new assessment tools (such as asTTle), in keeping up to date with new curriculum developments (such as the Numeracy project), Ministry of Education directives, and individual school priorities for professional development within any of the curriculum areas is demanding enough. Other demands such as the behaviour management of children, playground duty, staff, syndicate and curriculum meetings, marking work, managing school resources, changing classroom displays, record-keeping, extra-curricular duties and communicating and reporting to parents are ongoing. There is also considerable energy and time required in planning, managing, resourcing, evaluating and delivering appropriate material, daily, for up to four different ability groups, in at least three, if not more areas. It is not surprising, therefore, that children at each end of the spectrum, and particularly those with gifts that are not primarily academic, or those gifted and talented subtypes difficult to manage, pose a particular challenge. The question is, in asking teachers to differentiate for the specific needs of individual gifted and talented children, are we asking the impossible? Are we simply expecting too much of teachers? There appears to be a huge raft of additional support in funding and personnel for children with learning difficulties available to teachers. Teachers of those students deemed gifted and talented, however, appear less well supported. In each case, the focus group of teachers interviewed felt some guilt, that despite their best efforts, the number of demands on their time and energy meant that at present, there were gifted and talented children in their class that could be better catered for.

Teachers within this study asked for practical support in translating the theory to practice. Providing for gifted children who needed extending from the top group

appeared to pose the most significant difficulty. A team within a school, responsible for gifted and talented education and led by a GATE Co-ordinator, could consider supporting teachers to meet the needs of these gifted children by, for example; encouraging co-operative planning between teachers for these children, increasing teacher aide help within the classroom, suggesting ideas and providing the resources for independent projects, employing a consultant teacher or using a knowledgeable staff member to model programme differentiation, buddying teachers for support, encouraging learning centres within the classroom, considering Correspondence School, providing withdrawal based on pupil need or facilitating grouping between classes. Support offered however, needs to be ongoing, practical, and tailored to the expressed need of the teacher. It should be able to be easily integrated into routines and programmes already operating within the classroom so that it is not seen by the teacher as an unmanageable addition to his or her workload. Any support offered must consider what is realistic and manageable for teachers in terms of their time and energy.

## Summary

Each school had responded to the challenge of providing for the gifted and talented learners within it as best it could, within constraints of their individual school situations. There were many encouraging signs that many schools were well into their journey of providing for their gifted and talented children. Staff in every school recognised the need for specific provision for this group of learners, and saw the development of this provision as an ongoing process. Each school saw the need for a written policy to help meet the requirement of the amended NAG, and these were being developed. Policies, however, needed to link identification procedures to specific programming provision for gifted children within the school. GATE courses run by advisors had been useful in helping schools clarify the need for, and begin the process of, provision. The courses had also promoted a variety of identification tools enabling identification of performance and potential in a wider range of children with gifts.

Identification in these schools, although primarily based on performance rather than potential, was, in each case, triangulated in other ways. Methods of identification included using the results of testing, teacher observation, lists of behavioural characteristics, parent nomination and examples of student's work. However, teachers felt less confident with identification of gifted and talented students if there were no recognised testing tools, and/or ready national norms available for comparative purposes. This may indicate a need for further support. There was also a professed lack of knowledge and confidence among many focus group teachers in identifying and providing for gifted and talented learners from other cultures. A register of children deemed gifted and talented was established in each school, which promoted awareness of this group of learners, and was a working document for withdrawal in two of these.

In-class provision was seen in all schools as taking priority in provision for gifted and talented students. With in-class provision, the preference was for enrichment rather than acceleration, although children were being accelerated to some extent within current practices. In each case, children were ability grouped for maths, reading and writing as part of this provision, however children who needed extending from the top group posed a particular challenge for teachers in terms of time, energy, management and monitoring. Evaluation of the progress of gifted and talented students within the classroom was practiced within the normal class context. Thought could be given to collating information about gifted children to build an ongoing record of provision and progress. The practices of curriculum integration and inquiry learning appeared to have promise for this group of learners, however the success of this and/or any other in-class provision will depend on the skill of the individual teacher. Thus ongoing practical support and professional development for the classroom teacher in providing for identified gifted and talented children is crucial.

Some school-wide provision took the form of electives such as choir and sports teams. There were also leadership opportunities for students in every school. Withdrawal programmes were a common response to provision, which enabled children to receive specialist teaching and to mix with ability peers. although this was usually dependent on the availability of personnel and timetabling, rather than

planned to the individual needs of the child. It may be in part that small number of children and extra attention given could be attributed to the success of some of these. Evaluation of withdrawal was largely anecdotal and informal, and more rigorous, in-depth formal planning and evaluation is necessary to determine the efficacy of programmes operating.

There was little compulsory pre-service professional development, and most beginning teachers felt inadequate in providing for this group of learners. However, all schools saw the need for professional development to be ongoing. Despite the advantages evident in a team of teachers taking responsibility for gifted and talented education within a school, in three of the four schools, this responsibility was assumed by the GATE Co-ordinator. Attendance by GATE Co-ordinators at GATE courses had been useful in providing an umbrella of theory for provision, however a significant number of focus group teachers in each school felt the need for concrete examples of best practice, particularly for extremely gifted children, or those subtypes difficult to manage. Gifted and talented education was not addressed in a systematic, school-wide manner in three of the four schools. This was because schools were heavily involved in other contracts, with the priority, in many cases, contracts aimed at raising the levels of literacy and numeracy. There appeared little consideration of the specific needs of gifted and talented children within these foci. It would appear that special consideration for this group of learners should be integrated into the context of all teaching and learning, as part of a differentiated programme.

**Recommendations**

In the following section, after consideration of the significant findings of this study, some recommendations for practice and further research have been made. As this was a small qualitative study involving only four schools, the limitations within this study may mean the findings can only be tentatively applied to a wider context, and should be seen in this light.

1. *Gifted education policies in schools.*

Although there is no legal requirement for schools to have a written policy for their gifted and talented students, (and these are increasingly being replaced by

written procedures and implementation plans), there are many reasons why provision should be underpinned by a written intent. Schools in this study recognised the need for a policy, however although policies examined included a rationale (why we need to consider gifted learners), a definition (who these learners are) and identification procedures (how can we identify these learners), they did not link to specific programming and classroom strategies, or to evaluation procedures. Thus, the policies ignored the important questions of what are we going to do, how are we going to do it, and how do we know our programming is effective? A policy or written procedure needs to be clearly linked to school and classroom programming and strategies, and include evaluation procedures, to more effectively set the direction of the school's efforts in a clear and purposeful manner.

2. *Responsibility for gifted and talented education within a school.*

It appeared from this study that the responsibility for gifted and talented education is too large a responsibility to fall to a single person. The title of co-ordinator implies a team approach, and yet in three of the four schools studied, the GATE Co-ordinator was the only person driving initiatives in gifted education within the school. Frequently, educational initiatives for the gifted and talented are short-lived when the impetus resides with a single staff member (Ministry of Education, 2000). A team approach is more likely to ensure consistency and sustainability of provision. A team of teachers advocating for this group of learners and led by the GATE Co-ordinator would ensure that the needs of gifted and talented learners maintained a higher profile within the school. A team approach would also ensure that the needs of gifted and talented learners were considered in all curriculum areas and integrated into school-wide professional development contracts. A team would bring a variety of teaching expertise to the planning and evaluation process of provision, and benefit the GATE Co-ordinator in terms of his or her confidence, time and support.

3. *Identification of gifted and talented children*

Teachers were familiar and confident with using the results of standardised tests to identify academic or intellectual giftedness. However, identifying children by observation structured by consulting lists of characteristics of gifted children and

Gardner's Multiple Intelligences, was a relatively new practice for teachers within these schools. This may reflect growth in the application of Multiple Intelligences for defining, identifying and catering for the gifted and talented. It appears that an ongoing opportunity for teachers to discuss concerns and clarify misunderstandings is important to develop teacher confidence, both in developing perceptions of giftedness, and in using these tools, within a wider variety of identification methods. It must also be remembered that the results of standardised tests and teacher observation may not be appropriate in identifying gifted children from minority cultures, including Maori. Other methods of identification especially peer, self and parent nomination could be considered by schools as part of an inclusive approach that will benefit as wide a group of gifted and talented students as possible. Careful consideration of information from pre-schools is important to enable early identification of gifted children. This is especially important for disadvantaged gifted children whose performance may decline the longer they are at school. A responsive learning environment is also essential in identifying a wide group of gifted and talented students, particularly those who are disadvantaged, disabled or from different cultural groups.

4. *Multicultural considerations.*

New Zealand teachers should be familiar with Maori concepts of giftedness to help address the under-representation of our indigenous gifted and talented children in selection and provision within our schools. In identifying gifted Maori children, teachers need to observe children in a range of environments and look for qualities as well as abilities, including those children who are being of service. Gifted individuals and groups, should be identified by a range of methods, including peer nomination and whanau nomination. In providing for gifted Maori learners we need to consider encouraging and extending children in their Maoritanga and developing talents in a Maori-relevant context. Withdrawal may be an inappropriate provision for some of this group, so enrichment and extension should take place in a familiar supportive setting. It may be appropriate for schools to offer opportunities for enrichment and extension within the regular class environment. Peer support and mentoring are appropriate practices, and whanau and community consultation, involvement and

empowerment should be an integral part of provision. However, as New Zealand becomes more multicultural, schools planning professional development must consider whether the current ability of their teachers enables them to recognize and provide for the many cultures within their school, including Maori, appropriately.

5.  *Support for teachers in differentiating the programme.*

The teachers in this study reported needing practical support and strategies in differentiating the programme to cater for gifted and talented children in general, and in particular those that need extending from the top group. It is important to bear in mind that the exceptionally gifted individual often demands differentiation that is very difficult to integrate into the regular class programme. The team responsible for gifted and talented education within a school could, however, consider supporting teachers to meet the needs of gifted children by, for example; encouraging co-operative planning between teachers for these children, increasing teacher aide help within the classroom, suggesting ideas and providing the resources for independent projects, employing a consultant teacher or using a knowledgeable staff member to model programme differentiation, buddying teachers for support, encouraging learning centres within the classroom, considering Correspondence School, providing withdrawal based on pupil need or facilitating grouping between classes. Support offered needs to be ongoing, practical, and tailored to the expressed need of the teacher. It should be able to be easily integrated into routines and programmes already operating within the classroom so that it is not seen by the teacher as an unmanageable addition to his or her workload. Any support offered must consider what is realistic and manageable for teachers in terms of their time and energy.

6.  *Withdrawal programmes*

There is a need for withdrawal programmes operating within schools to be planned and evaluated in a more systematic, in-depth and formal manner. The teachers in this study questioned whether the success of withdrawal could be better attributed to the smaller numbers and extra attention, and many believed that all children would benefit from these programmes, thus expressing doubt as to whether withdrawal provided valid learning experiences for gifted and

talented children. More rigorous planning and evaluating of withdrawal programmes will better determine the efficacy of these opportunities for gifted and talented children, and also set future direction for withdrawal based on what is proven to work. It must also be remembered that for some gifted and talented students, withdrawal may be viewed more negatively than positively. It may be that these students employ strategies to avoid being selected for programmes that remove them from the classroom programme.

7. *Gifted and talented learners in low decile schools.*

There was evidence in this study that there are a number of compounding issues that disadvantage the ability of the teachers in low decile schools that are providing for gifted and talented learners. This is significant, as a high percentage of Maori and Pacific Island children attend low decile schools, and these issues may be contributing factors to the under-representation of Maori and Pacific Island children identified as gifted and talented, and thus provided for within New Zealand schools. The recommendations incorporated within the previous multicultural consideration section could, to some extent, help address this concern. It appears possible from this study however, that urban Maori in low decile schools may not identify with traditional concepts of giftedness, particularly if they do not have links to a marae. Research in a larger number of urban low decile schools is necessary to further explore this. One significant determinant of successful identification and provision is teacher expectation. It could be that in schools where, of necessity, attention to special needs dominate teachers' time and energy, more support is needed in helping teachers recognise their gifted and talented children.

8. *Gifted and talented learners in rural schools*

There were a number of barriers unique to small rural schools in catering for gifted and talented children. These interacting barriers related to the small number of gifted children within these schools, a community spread over a large area and the disadvantage of distance from a large centre. Establishing a network with other schools may be one way that teachers and gifted students in rural schools could feel part of a wider community. The use of technology, in particular, the Internet is another way of establishing a more global learning

community for rural schools. The Correspondence School could also be useful in meeting the needs of individual gifted children in rural schools.

9. *Recording the progress of gifted children.*
Each school in this study kept a register of gifted and talented children, which was seen as an important organizational tool when considering programmes for their gifted and talented students. Schools could now consider building up a picture of provision for individual children on the school's gifted register. The four schools in this study reported that every child in the school had an individual file in order to track progress from year to year. One suggestion is that schools add to the individual files of those children on the gifted register. An insertion within individual files of gifted children could; summarise identified gifts and methods of identification, record how the identified gifts had been provided for to date, and summarise evaluation of that provision. This would enable an individual ongoing record of provision, and would also be an effective way to collate and share information between teachers and schools.

**Limitations of study**

- Although the sample of schools chosen aimed at a variety of deciles, school sizes and situations, a sample size of four schools means that any generalizing of these findings would have to be very tentative and made with caution.

- The sample was limited to primary school policy and practice. The findings therefore, may not apply to the different schooling contexts of pre-schools intermediates and secondary schools.

- The sample was chosen from a small geographical area as constraints of time and accessibility were considered. Although the group of schools was as far as possible designed to give a range of primary school settings, this sample may not be representative of a larger geographical area.

- Focus group teachers were chosen with the assistance of the GATE Co-ordinator and the principal. There was a request that this sample be a mix of male and female, new and experienced teachers with a variety of ages teaching within different areas of the school in order to get a wide range of views. Teachers selected, however, may have had views and practices that were not indicative of the wider school community.

- In considering the constraints of time and manageability, school-wide programmes, withdrawal programmes and actual classroom practices were reported by the staff of the participating schools, and were not observed. Actual classroom practices were also reported by teachers and not observed.

- With a qualitative approach to research, results may be prone to bias, and can be selective and subjective. Although it is acknowledged that it is almost impossible to eliminate bias altogether, the intent was to minimize this by taking account of the issues of validity and reliability throughout the research process. The way that this was done is detailed in the methodology section of this study.

- The survey was carried out in 2006. As the schools are journeying, this research can be regarded as a snapshot of provision for gifted and talented students at this time.

**Areas for further research**

There were many areas that emerged during this study as worthy of further investigation. Some are listed below.

- The special challenges low decile schools (or rural schools) face in their provision for gifted and talented students. What are some appropriate strategies schools could employ? What support would be most effective ?

- Identifying gifted Maori children in low-decile urban schools. How does the concept of giftedness within these communities compare to traditional Maori concepts of giftedness?

- What are some examples of best practice in providing for extremely gifted and talented learners in the current New Zealand context, and how can we practically support classroom teachers, in providing for these gifted and talented learners?

- How is it best to equip teachers with knowledge and confidence to identify and provide appropriately for gifted and talented learners from other cultures? What strategies can teachers employ to ensure the needs of these students are met?

- Evaluating and recording the progress of students identified gifted and talented, from pre-school to completion of schooling; What should be recorded, how should it be recorded and for what reason should we record the progress of gifted and talented students?

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Dear……………………………

### Re : Research Project: Policy to Practice:
### How are schools catering for their gifted and talented students ?

**The University of Waikato**
**Te Whare Wānanga o Waikato**

I am currently undertaking a thesis to complete a Master of Education degree at the University of Waikato under the supervision of Roger Moltzen (Department of Human Development and Counselling). I intend to survey four schools in order to learn of their journey in translating policy to practice in catering for their gifted and talented students.
I would be most grateful if your school would consider participating in this study.

### *Research purpose:*
I am, primarily, seeking to understand and portray 'what it is like' for schools in addressing the needs of the gifted and talented. I am interested in how the gifted and talented students are identified within the school, how programmes are chosen, and what provision is used? I am particularly interested in what is happening within the regular classroom. I am also aiming to learn of the enabling factors in provision, and conversely, common barriers affecting continuity of provision for gifted and talented students in schools.
The findings from this study may be of interest to schools, teachers, and specialists such as gifted education advisors. It may also be used for a journal article and/or conference presentation.

### *Research Process:*
With each school, I would like to interview both the principal and the teacher responsible for gifted and talented education within the school. These interviews will concern the policy development processes and resultant framework for meeting the needs of children deemed gifted and talented, identification procedures, and educational provisions/programmes. I would also appreciate being able to read any relevant policy and programming documentation. In addition, I would like to individually questionnaire, and then interview as a group, four to five teachers within each school to obtain their views and experiences with regard to identifying and catering for gifted and talented learners.

The interviews will be largely informal in nature and conducted in a suitable location within the school. A framework of guiding questions/focus areas for interviews, and the questionnaire, will be forwarded well in advance of the interviews, and the participants may decline to answer any questions/areas they do not want to. It is anticipated that the interviews will take up to 60 minutes. With the participant's consent, the interviews will be audio recorded. A transcript will be provided of the interviews, so that any part of the transcript not wished to be used in research can be edited or deleted. All participants will have the opportunity to withdraw from the research up until two weeks after the approved transcript. The interview tapes will be erased after thesis completion.

All information will be collected in complete confidence, and as far as possible there will be no means by which readers of any report or publication resulting from the study will be able to identify individual schools or teachers.

A copy of the thesis will be held at the University of Waikato School of Education Library.

**I sincerely hope that you will consider participating in this study. There is little New Zealand research available to show how individual schools are managing to cater for their gifted and talented learners in practice. The perspectives and insights gained in your school would be of immense value.**

I will contact you by telephone within 10 days to ascertain whether you are interested in participating. Until then, if you have any concerns or queries, please contact me at  **Ph. 5779654**.

Yours sincerely,
Miriam Ferguson.

The
University
of Waikato
Te Whare Wānanga
o Waikato

Dear…………………………………………..

Thank you for agreeing to participate in my research project entitled:

**Policy to Practice: How are schools catering for their gifted and talented students ?**

The information, experiences and insights gained from yourself and your colleagues with regard to your journey in providing for children deemed gifted and talented will provide key data for consideration and analysis within the study.

Please find attached, a copy of the 'Participant Information Sheet' for your reference, together with the 'School/Participant Consent Form'. If the details outlined in both the information sheet and consent form meet with your approval, please complete and sign the consent form and return it to me in the enclosed envelope. However, should you have any additional questions/concerns, please do not hesitate to contact me on (07) 5779654.

I look forward to working with you, and once again thank you for your support.

Kind regards,

Miriam Ferguson.

# Policy to Practice:
## How are schools catering for their gifted and talented students ?

**Researcher & Supervision of research:**

The research will be conducted by Miriam Ferguson, Supplementary Learning Support Teacher, and supervised by Roger Moltzen, School of Education, University of Waikato.

**Outline and Purpose of Research:**

Schools within New Zealand are unique in that they have the license to develop their own policies and practices in order to meet the needs of the gifted and talented. I therefore anticipate that each school will have a different journey to share. I aim to learn of this journey of selected schools with a particular focus on classroom practice.

There will be interviews with principals and teachers with responsibility for Gifted and Talented education. There will also be a questionnaire and a focus group interview with up to five classroom teachers in selected schools

The research aims to see how individual schools provide for the needs of the gifted and talented in practice. Primarily, the focus will be on provision and programming for these students. The research will include looking at how schools form policy in order to meet the needs of their gifted and talented students and how gifted and talented students are identified within the school. It will also focus on the enabling factors in provision and the barriers affecting continuity of provision for gifted and talented students in these schools.
.
It is anticipated that the findings from this research may be of interest to schools, teachers, and specialists such as gifted education advisors. The thesis may also be used for a journal article and/or a conference presentation

**Right to withdraw:**

You will have the opportunity to withdraw fully from the study up until two weeks after the approved transcript, and may also withdraw any information provided at any stage up until the transcripts are completed.

**Anonymity & Confidentiality:**
All material will be treated confidentially, and pseudonyms will be used for all teacher and school names from and including the time of transcription.

Only the researcher, and her supervisor Roger Moltzen, will know the actual identity of the people involved in the study. All names, including school and place names, will be given pseudonyms within the research study.

Interviews will be audiotaped and transcribed. Tapes of interviews will be erased after the thesis has been examined and passed.

## Consent of School/Participant

*After being informed about the nature of the research and what is expected of myself/ my school, I consent to participate in the project.*

**I give consent with the understanding that :**

♦ *I will have the opportunity to change or edit the transcript of the interview I am involved in, before the report is written.*

♦ *I / my school may withdraw fully from the study at any stage up to two weeks after the approved transcript.*

♦ *All interview tapes will be erased after the thesis is completed and passed.*

Name of participant_____

Signature of participant_____

Date of consent_____

Name of researcher_____

Signature of researcher_____

## Policy to Practice:
## How are schools catering for their gifted and talented students ?

**The University of Waikato**
Te Whare Wānanga o Waikato

**Dear**..........................................

I am currently undertaking a thesis to complete a Master of Education degree at the University of Waikato under the supervision of Roger Moltzen (Department of Human Development and Couselling). The focus of the research is to look at how selected schools cater for their gifted and talented students.

In exploring this question, I will be surveying four schools in order to share their journey in providing for the gifted and talented students within their school. Your principal has agreed for your school to be involved in this research project, and has suggested that you might be one of the teachers interested in participating in a research questionnaire and a focus group interview. As such, I would like to invite you to participate in this project.

With each of the schools, I will be interviewing both the principal and the teacher/s responsible for gifted and talented education. In addition I would like to invite you to complete a questionnaire and to be part of a focus group interview for the research. As my research focus is on practice, your views and experiences as a classroom practitioner will be invaluable.

The questions and focus areas of the questionnaire will help provide direction for a focus group interview which will follow. The focus group interview will be informal in nature, and will be approximately 45–60 minutes. You will be free to decline to answer/discuss any questions or areas you do not wish to in either the questionnaire or the interview. With your consent, the interview will be recorded and then transcribed. I will provide you with a summary transcript of the interview so that you can edit or delete any part you do not wish to be used in the research. You will not be identified, and all names (individual, school and place) will be given pseudonyms on transcription. If you agree to take part you may withdraw at any time up until two weeks after the approved transcript. The completed thesis will be able to be accessed in the University of Waikato Education Library.

If you choose to participate, please find attached a Participant Information Sheet/Consent form. If the details in these meet with your approval, please complete and sign the consent form and return it to me in the enclosed envelope. Should you have any concerns/questions, please do not hesitate to contact me on (07) 5779654.


Yours sincerely,


Miriam Ferguson.

**Interview:    Focus Areas**

Dear …………………………………..

Please use the following points as a guide for our discussion. You are most welcome to share any other areas you feel are of significance/interest.

**Policy Development and Framework:**
- The beginnings
- People involved in the policy development
- Person/people with responsibility for gifted and talented
- Schoolwide organisational strategies
- Defining 'gifted and talented'
- Teacher knowledge/professional development
- Parental/community involvement
- Future plans

**Identification and Provisions:**
- People involved in identifying gifted and talented learners.
- Types of formal/informal identification procedures used.
- Choosing/planning/prioritising programmes
- Types of provisions/programmes used (enrichment/acceleration, withdrawal/in-class provision, ability grouping, co-operative strategies, outside tutoring/agencies e.t.c.)
- What has been most successful ?
- What has been problematic ?
- Funding of provision
- Assessment
- Use of teacher skills/qualities/knowledge

**Issues:**
♦ Issues for your school at present in terms of providing for gifted and talented learners.

Dear _____

Thank you for taking the time to answer this questionnaire. It may help direct areas of discussion for the focus group interview that you will be part of.

***The purpose of the research is to find out how selected schools are catering for their gifted and talented students. Your views and experiences as a classroom teacher is invaluable in this respect.***

There are no right or wrong answers in your response. I am aiming to understand 'what it is like' for classroom teachers when catering for the gifted and talented. The information from this will be treated confidentially and your responses will be anonymous.

1.There are various interpretations of the term "gifted and talented". As a classroom teacher, what specific behaviours indicate to you that a child will be "gifted and talented?"

_____
_____
_____
_____
_____
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_____

2. What do you see are the best methods for identifying gifted and talented children in a classroom?

_____
_____
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_____

3.How do you cater for the special ability of these identified students within your classroom and your school  (i.e. programmes and provisions within your class and also school-wide.)

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4.What do you think works really well in meeting the needs of gifted and talented students ?

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_____

5.What are some of the difficulties of meeting the needs of gifted and talented students?

_____
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6.As a practicing teacher, is there anything else you would like to discuss in relation to meeting the needs of gifted and talented students in your class ?

_____
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_____
_____
_____
_____

## Focus Group Interview

Dear ………………………

Please use the following points as a guide for our discussion. You are most welcome to share any other areas you feel are of significance or interest.

Your questionnaire responses may provide more specific direction for this focus group interview. The interviews with both the principal and the teacher responsible for gifted and talented within the school may also help in this respect.

**Identification and Provisions:**
- People involved in identifying gifted and talented learners.

- Types of formal/informal identification procedures used.

- Choosing/planning/prioritising programmes

- What do you do *?*
*Types of provisions/programmes used:*
*enrichment / acceleration*
*withdrawal / in-class provision,*
*ability grouping,*
*co-operative strategies*
*outside tutoring*
*other agencies*

- What has been most successful ?

- What has been problematic ?

- Funding of provision

- Assessment

- Use of teacher skills/qualities/knowledge

**Issues with regard to:**
Policy to practice
Identification and programming
Assessment
Professional development/support
Community involvement / expectations
Teacher knowledge/skills
Time
**Resourcing**