IDENTIFYING AND DEVELOPING THE GIFTS AND TALENTS OF STUDENTS WITH MUSICAL ABILITY IN NEW ZEALAND PRIMARY SCHOOLS

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ABSTRACT

This study was conducted within the New Zealand primary school setting. It sought to address the issue of how to identify musical talent and, once identified, how to nurture that talent. As most primary school teachers are each individually responsible for music education within their classrooms, such teachers need to have the tools to identify, support, motivate and challenge the musically gifted student. This study sought to determine whether Renzulli's (1977) Enrichment Triad Model could be used as a tool to help identify musically talented children and whether it could then be used effectively as a model to implement a gifted music programme.

Available literature was explored, looking at explanations and perceptions of musical talent as well as environmental and genetic factors. Renzulli's (1977) Enrichment Triad Model is investigated as are the pros and cons of withdrawal or 'pull-out' programmes.

Both quantitative and qualitative data was initially gathered in phase one of the study and the results combined to assist in identifying three musically talented students. Phase one was conducted within three individual school environments. A classroom music creativity programme, a school singing programme, and an after-school keyboard delivery programme. Three students were subsequently identified to participate in phase two.

Phase two required the researcher to work individually with these students over a ten week time frame. At the end of the intervention, resulting compositions were performed to a variety of audiences and a Student Product Assessment Form was used to help formerly assess the students' work.

This study concluded that the Enrichment Triad Model could be used as an effective model in the delivery of a classroom music programme, the delivery of Types I and II enrichment allowing opportunities to identify musical giftedness while Type III enrichment offered the scope to broaden and develop identified musical talent.

PREFACE AND ACKNOWLEDGEMENTS

The motivation for this study grew as a result of a personal journey that I embarked on eight years ago. In 1998, at the age of 40, I decided it was time to follow my life-long dream of becoming a primary school teacher. Music had always been a passion and I could see a genuine need for more people with music skills to teach in the New Zealand primary school system. In 2001, after graduating with a Bachelor of Education degree as a Massey Scholar, I made the decision to continue with my studies and commenced four Postgraduate papers, combining my life-long love of music with a more recently discovered interest, the study of gifted and talented students in New Zealand schools. This study of the development of the gifts and talents of young people lead to a new-found passion, and, during the course of that year, these two domains seemed to dovetail seamlessly together.

As an individual about to enter the classroom for the first time, I became increasingly concerned at how easily a number of children who exhibited some degree of musical talent, could slip through the primary school system largely unnoticed, their gifts often dying before they were given life and this, often simply because teachers didn't have the tools to recognise such talents, or the means to develop them. The anger that I felt at this injustice fuelled the drive to begin this study, and my passion that is music, continued to sustain me when the going got tough.

Along the way, I have many people to thank. To the students who took part in this study, particularly the final three

chosen to participate in phase two, I am indebted. I also wish to thank the schools and the teachers within whose classrooms I worked for two terms.

To my supervisors, Tracy Riley and Jenny Boyack, goes a huge debt of gratitude. This study would simply not have happened without them. Tracy, your knowledge and guidance in the field of gifted and talented education has not only been invaluable, but has been a source of personal inspiration. Jenny, your patience, mentorship and counsel has gently guided me through the process, and your belief in my ability has both challenged and instilled in me the courage, and desire, to keep going during the difficult times.

Thanks must also go to my incredibly supportive work colleagues who have encouraged me, not only through this process, but also in my first two years as a beginning teacher. To my friends and family, particularly my cousin Karyn, who have continued to listen to me wax lyrical about this project over the course of four years, and who at times must have thought it was never going to come to its conclusion, the biggest thank you.

Finally, I wish to pay mention to a very special friend and mentor, Shirley Murphy, without whom none of this could, or would, ever have happened. Shirley, your belief in me has been truly humbling. Your steadfast faith in my ability to train to be a teacher and then to continue in my studies has never swayed, even when, at times I doubted myself. The musical knowledge that you have imparted to me over the years has been invaluable, your friendship immeasurable, and your counselling beyond riches.

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CHAPTER ONE

INTRODUCTION

1.1 PURPOSE OF THE STUDY

In 1986 the New Zealand Education Department drafted a definition of gifted and talented stating that an individual was considered to be gifted if they displayed a high ability in the performing arts. In 2002, the Ministry of Education stated that "All children have the right to an education that acknowledges and respects their individuality and that offers them maximum opportunities to develop their strengths and abilities" (p.1). It continued by stating that, "Gifted and talented learners are those with exceptional abilities relative to most other people" (p.2), and that "Students who exhibit characteristics of giftedness or talent have learning needs that are significantly different to other children" (p.2). The Government considers that schools should therefore "aim to provide all learners, including those who are gifted and talented, with an education matched to their individual learning needs" (p.3).

It is hard to understand then, why some primary schools may leave music out of their curriculum entirely. Indeed, in many New Zealand primary schools, students have little or no contact with music for seven of the most important and formative years of their developmental lives. Being one of four disciplines in the Arts Curriculum Statement could have the effect of rendering music invisible as a distinctive and

valuable area of study, indeed music in schools has, at times, been described in New Zealand as a 'Cinderella' subject (Doidge, 2005). Without exposure during formative years, more and more young children will grow up unaware of the musical potential that they may have possessed.

Today there is an increasing awareness of the need to identify and provide gifted and talented students with educational opportunities aimed at developing these skills and talents in the early, formative years of primary school in all curriculum areas (Riley, Bevan-Brown, Bicknell, Carroll-Lind & Kearney, 2004). But how can these often invisible children be identified, and, once identified, how can they be allowed to develop and thrive in their new-found pursuit?

Davis and Rimm (2004) report that the Enrichment Triad Model is one of the best known and widely used models for guiding teachers of, and students with, gifted or special abilities in the United States. However, while this may be the case within the academic realm of general education in America, there would seem to have been little or no research carried out utilising the Enrichment Triad Model within the field of music in New Zealand primary schools. It was considered therefore to be of interest to music educators in establishing whether The Enrichment Triad Model could be used as a suitable means of identification of giftedness or ability in music and, if successful in identifying such individuals, if it could successfully be employed as a means of enrichment.

1.2 OBJECTIVES

The focus of this study sought to investigate the effectiveness of the Enrichment Triad Model both as a tool to help identify musically gifted children within New Zealand primary classrooms as well as its effectiveness in helping to provide a musically enriched environment to such identified students. By implementing Joseph Renzulli's (1977) Enrichment Triad Model, Type I and II music activities were offered to several groups of children within the primary school setting. Type III enrichment was then offered to a smaller group of children that were identified as being potentially musically gifted as a result of the Type I and II activities. This study was conducted in two phases.

Phase One:

The purpose of phase one was to provide Year Five and Six students with Type I and Type II exploratory and group training musical activities within the regular school programme. Renzulli's Enrichment Triad Model was implemented as a model for delivery of a regular music programme. These first two types of enrichment are important components of the overall educational opportunities for students with special abilities as they serve as catalysts for the development of students' thinking and feeling processes and expansion of their interests (Davis & Rimm, 2004; Renzulli & Reis, 1993). The activities taught within the regular classroom and school-wide programmes during this phase were consistent with the provision of a broadly based music programme and designed, therefore, not

to interfere with the regular school programmes or disadvantage children in terms of their regular learning.

At the conclusion of phase one, students and their parents were asked to answer a series of questions (Appendices 1 and 2) designed to help identify possible interests in music. These questionnaires were then combined with observations made by the researcher during the training and exploratory activities (Types I and II) in order to identify a smaller group of children who potentially exhibited musical giftedness or creativity. On the basis of these questionnaires and observations, three children were selected to participate in phase two.

Phase Two:

Phase two saw the implementation of three individual case studies, the purpose of which was to allow the three selected students to engage in music activities, projects or investigations of their choosing within a withdrawal or 'pull-out' setting. Type III enrichment serves as an opportunity to integrate concepts and skills presented in Type I and II enrichment. Students therefore become actual researchers of first-hand investigations within their areas of interest. Type III enrichment is student driven, designed to allow the students to become producers of knowledge rather than consumers of information (Renzulli, 1977). Students working with Type III enrichment will therefore formulate a problem, design a methodology of research, and plan the final product. The educator's job is to act as facilitator, providing assistance in designing the project and seeking information (Riley, 2004). It is also crucial for student satisfaction to provide an

appropriate audience for Type III products (Renzulli, 1977). Presentations to peers and parents are but a sample of ways in which this can be achieved. Phase two therefore served as an opportunity for the selected students to integrate concepts and skills presented in Types I and II, thus becoming actual researchers or musicians conducting a first-hand investigation within music.

1.3 OVERVIEW

Chapter two, the literature review, presents the background for the study. It outlines the development of musical talent in children, focusing on behaviours associated with musically gifted children, musical intelligence, and creativity. The literature review then illustrates Renzulli's (1977) Enrichment Triad Model as well as looking at enrichment and withdrawal programmes. It concludes by outlining the questions addressed within this study. Chapter three outlines the methodology employed in the study and includes information about data collection and analysis.

Phase one results are reported in chapter four and the results of the three individual case studies and subsequent interviews are presented and discussed in chapter five with links made to relevant literature. Results of the Student Product Assessment Forms (SPAF) developed by Joseph Renzulli and Sally Reis (Renzulli, Reis & Smith, 1981) and adapted for the purpose of this study are also discussed. The final section, chapter six, addresses the questions that are raised by the study and makes certain suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

While there may be a commonly held belief that there is a standard definition of the musically gifted child, upon reading the research it becomes quite clear that this is not the case. One is immediately surprised by the number of terms that seem to be used arbitrarily and interchangeably. Authors talk about musicality, musicianship, musical aptitude, musical ability, musical achievement, musical talent and musical giftedness without defining or clarifying any of these terms (Flohr, 1987). While many believe that musical giftedness refers only to the ability to play a musical instrument and that such ability is the indicator by which to measure the degree of talent (Feldman & Goldsmith, 1986), Hagen (1980) states that capability in any aspect of music remains the best indicator of musical talent. Hagen's comment therefore suggests that there is a multiplicity of additional areas such as singing, composition and arranging music where musical talent may reveal itself. Adults who work with musical children therefore need to be aware of this diversity of potential talent.

There is also a widespread belief that if musical talent exists it will manifest itself without the added help of outside influences such as parental encouragement or educational opportunities (Flohr, 1987). However studies of child prodigies by Howe (1990) reveal that this is not entirely true.

Such musicians have stated that their adult successes were made more probable by the educational opportunities that were made available to them during their childhood education. Teachers, musical instructors and mentors therefore play a pivotal role in recognising and maximising musical talent development.

McAlpine (2004) proposes that, "while the concept of giftedness and talent is of central importance, its meaning is illuminated by the characteristics of individuals said to display exceptional behaviours compatible with the concept" (p. 36). This resulting interaction between concept and behaviours therefore helps to enhance the validity of the concept of giftedness. The maxim, "gifted is as gifted does" (Hill, 1977, cited in McAlpine, 2004, p.36) sums up this interactive process nicely. As McAlpine (2004) explains, "the 'gifted is' represents the concept, while 'gifted does' represents the behavioural characteristics associated with real children and adults" (p.37). McAlpine's (2004) interrelationship between concept, characteristics, identification, programmes, and evaluation therefore becomes essential in understanding the total picture of gifted education. The interrelationship is represented in the following diagram.

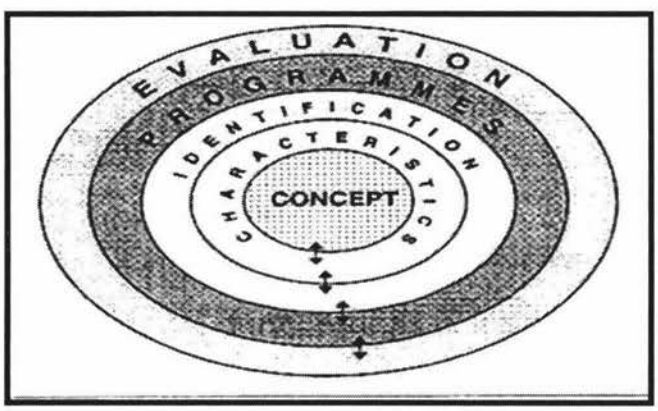

Figure 1. The Interrelationship between Concept, Characteristics, Identification, Programmes and Evaluation.

The following chapter outlines the behaviours and development associated with musical talent, summarising common identification procedures and identifying environments that support and nurture musical development. It explores the area of musical creativity and addresses the importance of providing an enriched musical environment. It examines Renzulli's (1977) Enrichment Triad Model with a view to utilising the model as a tool to help in recognising musical talent. Finally this chapter discusses how the Enrichment Triad Model can be used as a device to enrich and extend such musical talent.

2.2 TALENT AS MUSICAL INTELLIGENCE

Musical intelligence is best illustrated by students who exhibit an ability to solve musical problems, the term describing the process of developmental learning through music, as opposed to music aptitude, which is based primarily on natural musical capacities. The idea of musical intelligence most likely dates back to early Chinese and Greek theories of music and is included in early texts of Carl Seashore (Haroutounian, 2002). The revival of the term, more recently, can be attributed to Howard Gardner, a leading cognitive psychologist at the Graduate School of Education of Harvard University. Gardner included music as one of seven multiple intelligences in his book Frames of Mind (1983; see also Gardner, 1993). Originally Gardner's MI theory included logical-mathematical, verbal, spatial, bodily-kinesthetic, intrapersonal, interpersonal, and musical. An eighth, natural intelligence, has been added in recent years, and others are

sure to follow (Haroutounian, 2002). Gardner's MI theory has broadened the concept of intelligence from one single factor of general intelligence to eight separate intelligences, each with its own unique, specific domain. While the idea of multiple intelligences is not new, Gardner's Multiple Intelligence (MI) theory has gained the most recognition (Haroutounian, 2002).

Gardner's theory is based on extensive studies of prodigies, gifted individuals, brain-damaged patients, and experts in different fields, savants, people from different cultures, and normal children and adults. Evidence from this body of research culminated in Gardner developing a theory that illustrates the existence of multiple forms of intelligence. Gardner (1983, 1993) explains that while these intelligences typically work in harmony, their autonomy is invisible but when appropriate 'observational lenses' are donned, the peculiar nature of each of the intelligences emerges, often with surprising clarity.

Gardner (1993) states that of all intelligences, music is the earliest to emerge. Infants recognise sounds and music before they recognise the fundamental properties of speech. An infant's playfulness with sounds reveals the first signs of musicality. Mechthild Papousek's (1996) research of infant directed speech or 'baby talk' reveals that parents around the world intuitively use melodic contours to communicate with their infants and Hanus Papousek (1996) believes this infant play helps develop musical creativity, discovery, and inventiveness in later life. While Gardner acknowledges these definitive basics, he does not expand on their description in his chapter on musical intelligence. He presents musical intelligence through descriptions of musical functioning in

unique individuals rather than making detailed examinations of the perceptive cognitive functioning of musical intelligence.

Although Gardner does not dispute the main constituent elements of music (pitch, rhythm, and timbre), he questions the importance of audition. While he does not dispute that there can be no question as to how crucial the auditory sense is to musical participation, he contends that musical intelligence can extend beyond purely aural capacities. Gardner states, "It is equally clear that at least one central aspect of music, rhythmic organisation, can exist apart from any auditory realisation" (Gardner, 1993, p. 104). Gardner cites several examples of deaf musicians who identify the rhythmic aspect of music as their entry point to musical experiences. A contemporary example is Evelyn Glennie, the world renowned Scottish percussionist, an amazingly talented musician and also completely deaf.

Jeanne Bamberger has researched the cognitive process of musically talented students for over 20 years. Bamberger's (1986) study shows that the musical mind does not function in a linguistic or logical-mathematical way, nor does it follow the developmental stages of Piaget. Bamberger's study demonstrates that musical thinking requires a shift between different representations of a musical task (performing, reading a score, listening, composing). She argues that musically talented students can logically shift from one focus to another to solve musical tasks, a procedure similar to the dimensional shift described in Gardner's musical intelligence teaching strategies. Bamberger contends that creating a learning environment where students move toward various

approaches in music making will help develop musical intelligence.

Any musician whether they play an instrument, listen to music, or manipulate music through composition or improvisation realises that there is something unique about musical 'knowing'. As Copland (1957, p.13) puts it, "Music may express a state of meaning for which there exists no adequate word in any language. Musicians like to say that it has only purely musical meaning. What they really mean is that no appropriate word can express it." As Haroutounian (2002) remarks, musical intelligence cultivates the understanding of this musical meaning. Learning through multiple approaches in music fosters recognition of musical talents beyond mere technical performance. Musical learning for all students necessitates creative involvement in musical problem finding and problem solving, such tasks allowing students to make sense of their own musical interpretive decisions.

The instructional approach of MI coincides admirably with the individualised instructional approaches used in gifted education. Students who like to perform can learn the process of examining and improving their own performance abilities, allowing the musically talented student to flourish in this type of learning environment (Haroutounian, 2002).

2.3 DEVELOPMENT OF MUSICAL TALENT

While it is a commonly held belief that high degrees of special ability in any area are usually preceded in 'early years' by

indications of special talent or giftedness, it is also as widely assumed that musical excellence will reveal itself earlier than excellence in other areas of skill (Howe, Davidson, Moore & Sloboda, 1995). This view is supported by accounts of the early lives of a number of the 'great' musicians. The great twentieth century pianist, Arthur Rubenstein, recalled that as a youngster he mastered the piano at an early age and used to sing all the time but rarely spoke (Winner & Martino, 1993). It is also widely rumoured that Mozart began to play quite accomplished tunes on the piano by the age of three. Signs of unusual musical ability can, and do, manifest themselves at a very early age. Interest in musical sounds, singing, imitating tunes, picking out tunes on a piano, imitating or creating rhythms, all point toward some sort of special musical ability and will often, typically, reveal themselves between the ages of three and five (Sloboda, 1985).

Such descriptions lead to the impression that amongst successful musicians early indications of musical ability will be common. This raises the possibility that individuals who do not display such early talents of musical ability would be unlikely to reach the highest musical standards. While it is true that some top performers gain an early advantage by commencing instruction at an early age, this is not always the case. The relatively small amount of empirical evidence provides little support for the view that very early signs of musical talent are common in all individuals who may eventually become accomplished 'virtuoso' musicians (Howe *et al.* 1995). For example, in a study conducted by Howe and Sloboda (1991), of the 42 parents of musically 'gifted' teenagers interviewed, over half of them could not recall

outstanding musical behaviours, such as early singing and imitation of tunes and playing tunes 'by ear' on instruments, during the very early years.

Furthermore, the development of musical talent will not necessarily correspond with other academic development. Students who exhibit musical ability may often have begun private lessons by the age of five or six (Haroutounian, 2000). Moreover, musical behaviour is not necessarily related to other aspects of intellectual development – such as linguistic or mathematical intelligence. It is both a unique and a common human trait which can often be observed from the very youngest of ages (Welch, 1998). Music, by its very nature, has an intangible quality, which makes it more difficult to categorise than the likes of linguistic or mathematical intelligence (Swanwick, 1979). For example, the terms 'musicality', 'musical talent', 'musical ability', 'musical capacity', and 'musical giftedness', as Lundin (1953) points out, are often used indiscriminately.

It is the notion of musical ability or 'giftedness', advanced in the psychometric tradition (that branch of psychology dealing with measurable factors), that has wielded considerable influence on music educators over the last fifty or so years. Bentley (1966) points out that there has been considerable disagreement about the nature of musical ability or musical intelligence and this persists today. The measurement of musical ability or giftedness has not passed beyond a rather elementary stage, nor will it do so until there is agreement on what musical ability actually is. We may think that we are able to recognise it, but we are, as yet, unable to define it.

Shuter-Dyson and Gabriel (1981) have reviewed an abundance of research on the genetic heredity of musical ability, seemingly supporting the view that musical talent is essentially inherited. In contrast, Gardner (1983) cites examples of famous musicians such as Arthur Rubinstein, who was born into a family in which no one had exhibited the slightest musical gift. He did, however, grow up in a home where there was a piano, which, in his own words, motivated him. His family also encouraged him to play from an early age. Gagne's (1977) well documented studies in the behaviourist/associationist tradition, have postulated the view that conditioning (in the Pavlovian sense) will produce learned emotional responses to certain 'stimuli', the resulting rewards providing both the reinforcement and the motivation for learning. Gagne has termed this 'stimulus – response' learning. In Rubinstein's case, the reward was unquestionably his ability to make an impression on his family and overcome his speech difficulty (Murphy, 1999).

Davidson (1994) points out that there are limitations in assuming that the flowering of abilities of gifted musicians occurs more or less spontaneously. He suggests that under suitable circumstances musically untrained children can display surprisingly sophisticated abilities and supports the adoption of the developmental model as being more appropriate than one based on the idea of talent or giftedness.

While there is an abundance of definitions of giftedness and talent, Gagné's Differentiated Model of Giftedness and Talent (DMGT) proposes a clear distinction between the two and is a useful working definition that focuses on potential, not

performance, and ability, not achievement. Giftedness corresponds to potential that is distinctly above average in one or more domains of ability and talent refers to performance that is distinctly above average in one or more fields. Gagné's model proposes four aptitude domains: intellectual, creative, socio-affective, and sensorimotor. He also has a further category termed 'others' for those aptitudes that have yet to be discovered. Students can be gifted in one or more of these categories, such categories often combining in various ways to produce specific talents (Gagné, 1993, 1995). The DMGT suggests that talents emerge as a result of the transformation of these high aptitudes into well trained, methodically developed skills characteristic of a specific field of human interest or performance (Gagné, 2002). Such skills can be tremendously diverse, a natural ability expressing itself in many different ways, depending on the field of endeavour embraced by the individual (Gagné 1993, 1995).

Gagné (1985) considers talents to be the developmental product of interactions between aptitudes and interpersonal and environmental catalysts. These catalysts can act as either positive or negative agents, facilitating or hindering the translation of aptitudes into talent. Gagne has distinguished between two differing types of catalysts, intrapersonal and environmental. Environmental catalysts include family, school, significant people, physical environment, personality factors (autonomy, self-confidence, self-esteem), motivation (initiative, interests, persistence), significant interventions, significant events, and chance (Gagné, 2002). The environment manifests its considerable impact in many diverse ways, the surroundings exerting their influence both at a macroscopic level, geographic, demographic, and

sociological, and in the more microscopic structure of family size, personality, parenting style, and socio-economic status. Many different persons such as teachers, parents, and peers can exert both positive and negative influences on the process of talent development, while significant events such as death, illness, and accident can markedly influence the course of talent development (Gagné, 1997).

Creating and maintaining the conditions and environment that support musical growth is one of the greatest challenges to the development of musical ability (Shuter-Dyson & Gabriel, 1982). Howe (1990) maintains that if there is sufficient support and encouragement for training and practice, then the majority of people can also gain good basic skills. But this begs the question, what motivates a child to commit to the practice required to develop those skills to an extraordinary level? Are the great composers and performers such as Mozart and Arthur Rubinstein simply further along the ability continuum, therefore making talent an illusory concept? Yet, one has to concede that there would appear to be more to such people than mere technique.

Goldsmith's (1990) ten-year longitudinal study of six boys concludes that prodigious talent will only develop when three crucial factors emerge. First, the individual will need to possess in combination with other talents, interests and strategies, the ability to deal well with the world. Secondly, there will need to be other individuals, such as teachers, parents, and mentors, who will monitor, guide, and facilitate the child's development. Bloom (1982, cited in Pendarvis, Howley & Howley, 1990) agrees, observing that for students to achieve they need both a strong financial and emotional

commitment from family and friends. Berry (1990) determines that there are two main ways in which families will influence the likelihood of their children excelling. Firstly, families help their children gain skills, strategies, and essential knowledge. Secondly, family members communicate their own attitude and values towards those achievements that ultimately depend upon learning and practice. Goldsmith (1990) states that parents of prodigious children are faced with the responsibility of finding appropriate instructors for their offspring, therefore, in the case of the prodigious child, it is important to locate teachers that are not only fine instructors but are capable of relating to the children.

Thirdly, socio-economic factors that set the tone and opportunity for special talent need to be in place. Shuter-Dyson and Gabriel (1981) established that community support is critical in valuing the individual's talents and endeavours while striving for excellence. The community provides the student with the opportunity to demonstrate their ability thus providing both engagement and learning that is relevant to their lives.

Intrapersonal catalysts include motivation, curiosity, perseverance, autonomy, attitudes, temperament, personality characteristics, self esteem, self confidence, and locus of control. Leyden (2002) identifies motivation as being important to developing musical giftedness. Howe (1990) agrees stating that qualities such as doggedness, self-direction, and independence are often identifiable in successful intelligent individuals. Howe does caution us, however, maintaining that making broad generalisations about the effects of motivational influences is somewhat

restricted and can vary from individual to individual depending on the specific circumstances of that individual's life at any given time. Nonetheless, motivation, both external and internal, remains a critical factor in the development of the gifted musician.

Feldman (1987) and Feldman and Goldsmith (1986, cited in Goldsmith, 1990) describe a prodigious or gifted child as one who attains an adult level of performance in an exacting field before reaching the age of ten. These children do not suddenly appear from out of the blue. They begin at the beginning and progress through levels of mastery much the same as anyone else, learning techniques and content along the way. According to Goldsmith (1990), however, it is likely that the difference is the speed at which these children progress through these levels together with the age that they begin to explore their particular field of expertise. While thousands of children tend to be identified as gifted, very few in actual fact are able to demonstrate performance mastery that is significantly beyond their years. The reality is that the true child prodigy is indeed a rarity, one whose talent is both tangible and observable.

Such children are exceptional specialists in their chosen field and will gain mastery and control at an early age with relatively few, if any, start up problems. There will be little hesitation between their first forays and legitimate achievement in their field (Feldman & Goldsmith, 1986, cited in Goldsmith, 1990). Such children will tend to be obsessive about their individual field(s) and possess an unusual ability to rebuff ridicule and distractions preferring to work toward their goals even in the face of repeated failure (Howe, 1990).

Practice alone, however, is not enough to create a musical prodigy.

While practice is necessary, it is not the amount of practice alone that produces the results (Ericsson, Tescher-Romer & Krampe, 1990). In addition to the environmental factors present, time for practice, instruction, and access to an instrument, the children themselves factor in how effectively these elements are combined and used (Ericsson, cited in Radford, 1990). The quantity and quality of the involvement are additional factors that will influence the final degree of success. The ultimate degree of talent will be due to the combination of high talent/low commitment or low talent/high commitment. Feldman and Goldsmith (1986) and Radford (1990) agree stating that while musically gifted children are typically ordinary in other aspects, they do, as a rule, exhibit the personal control and characteristics necessary in order to engage in long-term, constant practice.

In addition to personal characteristics there are various skills that are crucial in order that musical development becomes exceptional rather than normative. Shuter-Dyson and Gabriel (1981) believe that aural abilities are a fundamental requirement for musical learning to take place and, although not essential, Shuter-Dyson (1968, cited in Pendarvis *et al.* 1990) highlights perfect pitch as being helpful in the development of extraordinary musical achievement. In addition to aural ability is memory. Judd (1988) feels that musical memory is pivotal to musical talent. He qualifies this belief stating that the ability to memorise musical material and to think musically appears to be a constant aide in the successful development of various types of musical talents.

Swanwick (1988) reports that while there has been considerable research carried out in the United States on the development of musically talented children, some of this research has attempted to 'map out' developmental models of music based on 'cognitive', Piagetian style theories generated in other areas, such as mathematics. Swanwick (1988) has voiced concerns with approaches that attempt to approximate musical experience and development to models that have been produced in areas other then music.

Vygotsky's concept of the 'zone of proximal development' challenges the Piagetian approach and is much in tune with recent developments in theories of learning and instruction (Wood, 1988). In musical terms the 'zone' is the difference that exists between a child's performance at any given time, and a child's potential level of performance given suitable instruction or intervention. The ability to learn from instruction is central to Vygotsky's concept and is more in line with current thinking than Piaget's 'unfolding' view.

2.4 GIFTED AND TALENTED

In order to understand the term musically gifted or musically talented or the broader more inclusive term musically gifted and talented, we need to look at how music and the more specialised field of gifted and talented education reconciles these terms. There has been misunderstanding of these terms for decades, the public having an intermittent love-hate relationship with the area depending on the political correctness of the time. When the public is looking for

excellence, then talented students are given opportunities for challenges. When the political climate is calling for equity, however, the focus in schools concentrates on meeting the needs and desires of the average or disadvantaged student. The point that is often missed by the general public is that from the outset, gifted identification procedures have focused on aiding the potentially gifted, in addition to the student who displays outstanding performance and achievement (Haroutounian, 2002).

Beliefs and myths abound in relation to the subject of musical giftedness (Howe, 1990). It is not uncommon to find that the majority of people think musical talent refers only to the ability to play a musical instrument (Pendarves, Howley & Howley, 1990) and therefore performance ability alone is the index by which to judge the degree of musical talent (Feldman & Goldsmith, 1986). However, while performance is the most easily identifiable form of musical talent, other forms of musical expression, such as creating, composition, arranging, expert listening and musical perception, also exist. Flohr's (1987) research into components of musical giftedness, found that there was no set characteristic and that musical talent will evidence itself in a variety of ways. Judd (1988) agrees that musical talent is not a unitary trait but one that is made up of many varying forms.

The terms musically gifted and musically talented can take on different meanings to different people, and the term musically gifted and talented can mean many different things. As Bentley (1996, cited in Murphy, 1999) points out, the measurement of musical ability still exists only at a fundamental level. Measurement of musical giftedness is still

difficult to attain and music ability, while recognised, is still to a large extent, indefinable.

Recognition of the gifted, or potentially gifted, instantly suggests the need for guidance. While identification of the gifted is a first critical step, any provision that does not go beyond this is of trivial benefit. Identification alone is not the answer; but from identification can come the type of guidance blueprint which is fundamental in designing a programme for the gifted child as part of the school curriculum (Barbe, 1981; McAlpine, 2004). There are numerous models that illustrate the fundamental characteristics of giftedness or talent. One of the earliest and most widely recognised is Joseph Renzulli's Three-ring Conception of Giftedness (Renzulli, 1986), which interlocks three clusters of traits: above average ability, task commitment, and creativity. The overlapping of all three rings represents an interaction that is the essential ingredient for creative/productive achievement. Renzulli, however, warns that no single cluster yields giftedness, highlighting the need to include creativity and task commitment in addition to the recognition of cognitive abilities.

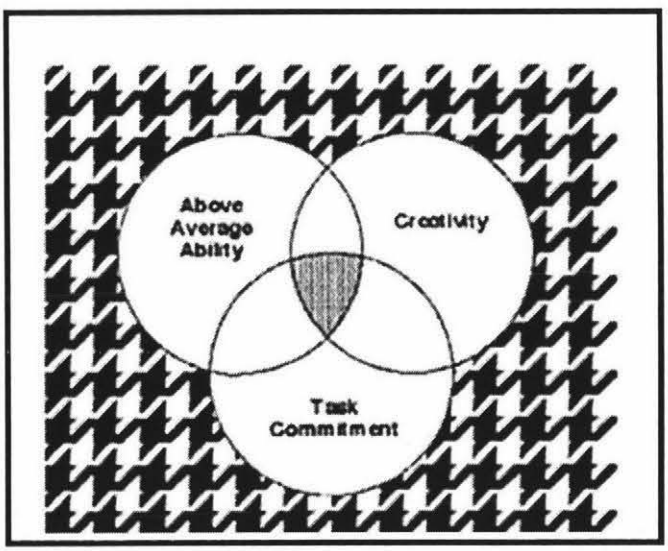

Figure 2. Three Ringed Conception of Giftedness (Renzulli & Reis, 1985)

In adapting Renzulli's (1986) model to music, the gifted musician therefore will be above average in music aptitude and ability, display commitment and self-motivation, and demonstrate creativity in musical work (Haroutounian, 2002).

2.5 BEHAVIOURS ASSOCIATED WITH MUSICALLY GIFTED CHILDREN

Musical development in a young child will be demonstrated by explicit musical behaviours (within the musical genre). Although these behaviours are subject to 'interpretation', such observations form the basis for providing an insight into children's early musical abilities. While musical behaviours can be of the spontaneous 'stand alone' type, they may also be observed in association with another activity – often a play activity or 'singing while working' (Welch, 1988).

Among the possible early indicators of musically talented children, the presence of early singing behaviours is one of the most universal, commonly observed pointers. The results of an investigation undertaken by Howe *et al.* (1995) demonstrated that singing was evident significantly earlier in children who grew up to be gifted musicians. For the other four possible indicators identified, moving to music, showing a liking for music, showing a high degree of attendance to music, and requesting a direct involvement with music, there was no noticeable age on-set difference between individuals who became extremely competent and those who were less musically able.

A detailed analysis of children's compositions undertaken by Swanwick and Tillman (1986, cited in Welch, 1998), using samples from two different countries (England and Cyprus), revealed that musically gifted children will usually begin to display compositional skills at around age seven. While such pieces will be composed mainly by experimentation with different sounds and basic repetition, older children (age 11) will begin to experiment with more formalised development and repetition. This suggests that children with special musical abilities are exhibiting an interest in the sensory aspect that musical sound produces, such as timbre and dynamic levels. As these children grow older they enter a more manipulative phase. Here the interest is more tactile – a willingness to handle the instruments and a desire to 'control' the sound produced begins to develop.

To differing degrees, musical behaviours of musically talented children have much in common with adult musicians. Despite their sometimes-young age, children can be seen to demonstrate sensitivity to musical elements, inherent in many musical compositions (Welch, 1998). A child may be observed 'banging' a specific pattern on a drum, often grouping the pattern into a series of repeated sections (Littleton, 1992). When seated at a piano or keyboard, children may be observed searching out and finding 'favoured' intervals of 3rds, 6ths, and most particularly, the octave. Such children may occasionally experiment with intervals of a perfect 4th or perfect 5th, but they almost never use discordant intervals of 2nds and 7ths. Such children may also be observed at the keyboard experimenting with, and playing, major scales. Once discovered, these 'favoured' intervals and scales will be repeated, often in patterns or

repeated groupings (Welch & Backhouse, 1987, cited in Welch, 1998). Bloom (1985, cited in Howe *et al.* 1995) concludes that such children are exhibiting sensitivity to sound, as well as good pitch discrimination, both of which are essential to high musical aptitude. Such children will tend to learn music rapidly and well.

Gifted musicians exhibit an ability to resist every day distractions and will persist in working towards their goals often in the face of repeated failures (Howe, 1990). Goldsmith (1990) states that talented musicians will characteristically exhibit intense, focused, dedicated learning in their chosen area. Characteristics such as persistence, curiosity, doggedness, attentiveness, independence, strong-will, self-direction, enthusiasm, self-confidence, energy, assurance, self-motivation, determination, and creativity are seen as normal.

The role of creativity, itself, within the area of music raises many questions. Are creative activities the means by which students are to be educated, or are musically creative students the desired ends to our efforts? Does creative functioning in students come only after they have developed basic musical skills, or are creative activities the way by which we introduce students to such skills and knowledge? The following section provides an overview of creativity and its role in the music classroom.

2.6 CREATIVITY

Unless we know what creativity is, we can not further its growth in our musical students. The creative person will make things happen; the talented person might. But, when both qualities come together, true giftedness may result (Balkin, 1990). Creativity can be nurtured through guidance and help and may enable a person to discover talents that have lain dormant since birth.

Put simply, creating things means 'doing' things and herein lies the key, simply, creative people do things (Balkin, 1990). They put things together – make connections – come up with new ideas. These new ideas don't have to be original, often new ideas or creations are the result of several old ideas put together, or, old ideas arranged in new ways. To be successful at nurturing creativity, however, it is helpful if one is aware of the steps necessary in the creation process. Wallas (1926) identifies four steps in the creation process. They are preparation, knowing about the subject matter first; incubation, trying out ideas and problem solving; illumination, inspiration – when things 'gel' together; and verification, the final decision on whether it works and whether it achieves the purpose for which it was designed. Balkin (1990) further states that reaching the end creation also relies on commitment. Commitment, as previously discussed, is a trait that needs to be fostered in children.

Kratus (1990) proposes that the 'act' of creating consists of three main components: the person doing the creating, the process of the actual creation, and the final product that is

created. The first component, the person or persons doing the actual creating, bring their personal traits and responses to the creation. The second component, the process of creating in music, consists of two main areas, improvisation and composition. The third component, the product, results when creative individuals engage in the actual creative musical process.

Music creating – the process, and performing – the product, have, in the past, been seen as unique abilities only practised by an elite group of individuals. More recently, however, music researchers have highlighted the many different ways to be musical and as a result have suggested approaches that include those of composition and improvisation (Moore, 1990). When working creatively in music, the music educator can provide guidelines and strategies in order to help motivate students. A variety of approaches, such as those of Carl Orff (Orff & Keetman, 1958) and Zoltán Kodály (Choksy, 1981; 1988) can serve as resources and act as 'spring boards'. Early on in creative group sessions, students may need more guidelines in order to focus their creative efforts, while later they may work more effectively by being left to their 'own devices'.

Encouraging students to experiment with sounds and rhythms is paramount in the development of music creating in the classroom. Having children perform short individual improvisations within the context of larger group compositions (Orff & Keetman, 1958) will encourage individual creative efforts that are both satisfying and musical. Moore (1990) agrees, adding that setting limitations, such as specific rhythms or types of instruments available for

use, may encourage a seemingly non-creative student to become more productive.

The phrase 'creative music' can be seen to have two major aspects. The first is that through experimentation children can discover the nature of sounds and improvise their own music either individually or within groups. The second aspect is that they take an existing piece of music or melody and use it to make an original arrangement. A third, lesser, aspect that can be interwoven through the first two is the use of non-tonal or non-metric music (Swanwick, 1979), whereby students can experiment with the freer use of composition, such as voice and body percussion as well as the non-standard or 'modified' use of instruments. It also allows students an opportunity to break away from the constraints of western tonal music. The type of sound-scapes and exploratory procedures undertaken in schools today reproduce many of the ideas of contemporary composers of the twentieth century and allow children to compose and improvise pieces in groups without any type of formal musical training (Swanwick, 1979).

2.7 IDENTIFICATION OF MUSICAL GIFTEDNESS

Lloyd Schmidt (1981, cited in Richardson, 1990) has identified three main skill areas that should be considered in determining musical talent in children: performance skill, creative ability (such as composition) and verbal and musical-perceptual skill. In considering the above three areas, Schmidt states that a further breakdown of both 'demonstrable' and 'potential talent' in each of the three skills

areas will further help educators to better identify potentially gifted musicians who may need special programmes in order to further develop their talent. In order to achieve the above, Schmidt suggests three procedures: performance, analysis of student composition, and, if possible, evaluation of any examples of the student's writing.

Renzulli & Smith (1979) suggest that continued observation over an extended period of time is one way of identifying the gifted or talented student. He therefore suggests formulating a case study of suspected gifted students based on data from five sources. Pre-school and developmental information (including observations made by parents of early interests and talents), psychometric information (quantitative data about the student's musical aptitude, creativity, interest and performance), performance information (analysis of completed work and samples of highly creative products), motivational information (student's written or verbal expressions of musical interests and commitment), and sociometric information (quantitative data obtained from the student's peers).

Musical aptitude testing involves using test and measurement data in order to help make predictions of students' potential for success in music by focussing on particular skills such as pitch discrimination, tonal memory, rhythmic memory, chord analysis, and musical sensitivity (Boyle & Radocy, 1987). Teachers who regularly employ aptitude testing in their music classrooms often discover that students with seemingly no musical interests may harbour advanced, latent, musical skills in one of more of the above areas. While such testing can be a valuable source of

information in discovering the student who may otherwise be obscured by the student's own classroom behaviour, it is important to note, that within the music community, such testing is these days often frowned upon. Whilst the underlying purpose of testing is intended to assess an individual's musical potential, it is based on the assumption that children will develop musically at the same rate and in the same way. This, however, is not the case, as musical knowledge will vary from child to child due to differences in musical experiences and backgrounds.

Gardner (1993) states that the most central constituent elements of music are pitch and rhythm with the next important component being timbre (tone). Gardner argues that these 'cores' begin to define the affective aspects of music pointing out that music is not a positive science and is therefore not able to be measured in objective physical terms. Music, by its very nature, is therefore greater than the sum of its parts. While the role of 'audition' (what we hear in terms of music) is crucial to all musical participation there are other aspects of musical experience accessible to those who are unable to appreciate its auditory aspects. The percussionist Evelyn Glennie, although acutely deaf, 'feels' the music through her body – in other words she is able to sense vibrations and rhythm physically rather than aurally (Murphy, 1999). Is it therefore appropriate to test for a set of 'time honoured' musically ordered skills or is it more appropriate to be testing for musical enjoyment? The ability to think divergently in order to produce, or reproduce, imaginative works of music, for instance, may not necessarily be discovered by testing. Characteristics of fluency, flexibility, and originality, in addition to auditory and physical

responses, need to be considered when testing for any form of exceptional musical ability.

Elam (1985, cited in Richardson, 1990) suggests a three-stage identification process in identifying musical students. The initial screening should be used to identify the largest possible pool of candidates for any gifted music programme and should employ data from a combination of sociometric and psychometric areas, including information from parents, peers, and the students themselves. The second stage, specific screening, is the stage at which pre-school and developmental information should be used in conjunction with any performance ability. Stage three should include a further performance assessment in addition to an interview. To be most effective, a panel of at least three people should conduct the interview. In preference this should include the music teacher, a professional musician (performer – artist) and an independent member (preferably another music teacher with no prior acquaintance of, or with, the candidate). This three-stage procedure concurs with Renzulli's (1977) recommendation, that in order to gain as good as possible a case study on each individual student, as wide a range of data as possible should be obtained (Richardson, 1990).

Students who exhibit enthusiasm and show potential as being gifted in music can be both encouraged and given opportunity to be involved consistently in programmes that will enable them to develop their musical talent (Bruce, 1996). Systematic observation of young children's musical behaviour reveals a diverse pattern of development and musical competencies and reveals that individual children develop at differing rates (Welch, 1998). Therefore appropriate

opportunities need to be offered within our schools to encourage and motivate young musicians, and support needs to be facilitated, so that the musically gifted child can reach its full potential.

Renzulli and Reis, have contributed significantly to the field of gifted and talented since the 1970's, their various curricular models propelling students towards a more individualised, problem solving environment. These models have been adapted and adjusted depending on current educational trends. The original Enrichment Triad Model developed in 1977, evolved into the Revolving Door Model in 1981. The Revolving Door Model allowed for a wider 'talent pool' of students to take advantage of gifted programmes within schools. In 1985, the School Wide Enrichment Model was developed which was, in actuality, a collaboration of both the previous models allowing for flexibility in meeting current educational goals (Renzulli & Reis, 1997a).

Of particular significance to this literature review are educational models that help in identifying and enhancing talent within the classroom. The following sections (2.8 and 2.9) deal with such models in general as well as focusing on Renzulli's Enrichment Triad Model. The Enrichment Triad Model is discussed with particular regard to its application within the music classroom, as well as its use as a means of identifying musically gifted students.

2.8 MODELS

A model is a simplified representation of some form of reality, often depicted in diagrammatic form. The purpose of a model is to provide a framework for exploring the variables that make up reality as well as examining their interactions and relationships. Zias (1976) considers models to be miniature representations that summarise data. Van Dalen (1973) refers to models as simplified or familiar structures, which are used to gain insights into different circumstances and phenomena.

Renzulli and Reis (1997a) refer to two differing types of educational models. The first, the administrative model, consists of patterns of school organisation and procedures such as student grouping, developing schedules, and allocating time, money, and human resources. The second, the theoretical model, tends to focus on the actual services that educators provide to students. Such models embody the principles that guide the learning process, thus giving direction to curriculum content, providing assessment and instructional strategies, as well as directing the ways that educators can evaluate the extent and quality of what the students have learned. They focus on actual learning outcomes and are influential in determining the quality of learning experiences. Although the triad model has distinctive implications for organisational patterns, it is considered to be more of a theoretical model as it is based on: (1) a sequence of assumptions about individual learning differences, (2) learning principles, and (3) recommended practices that

follow logically on from these assumptions and principles (Renzulli & Reis, 1997a).

Renzulli believes that school programmes based on models, while striving to accomplish an agreed set of objectives, should also allow for a degree of flexibility. Flexibility is necessary in allowing for the variations that exist at the local school level. Models that make no allowance for flexibility are likely to become straitjackets that will fail to work successfully, discouraging any new and better enrichment experiences, becoming, at best, nothing more than 'canned' programmes failing to allow for local initiative and teacher input (Renzulli & Reis 1997a).

2.9 THE ENRICHMENT TRIAD MODEL

The initial Enrichment Triad Model was developed by Joseph Renzulli during the 1970's and was, to begin with, implemented and tested in schools in Connecticut USA (Renzulli & Reis, 1997b). As the result of field testing, which indicated positive growth for all the students involved, and due to increasing popularity of the model, Renzulli published the book The Enrichment Triad Model in 1977. Davis and Rimm (2004) report the Enrichment Triad Model as one of the most widely used models in the United States for use in guiding and aiding students with above average abilities. However, a report by Riley *et al.* (2004) states that, while the Enrichment Triad Model is the most commonly reported curriculum or programme model used in New Zealand schools, overall less than 15% of New Zealand schools reported use of this, or any other model.

The Enrichment Triad Model was originally intended to help foster creativity in young people by the use of exposure to various topics or areas of interest, as well as new and interesting fields of study. Having identified areas of interest, it was intended that students would then be taught to employ advanced content, process training skills, and methodology training in these self-identified areas of interest (Renzulli & Reis, 1997b). Appropriately therefore, three types of enrichment are included that consist of three interconnected categories of activities following in sequential steps (Renzulli & Reis, 1997b; Riley, 2004).

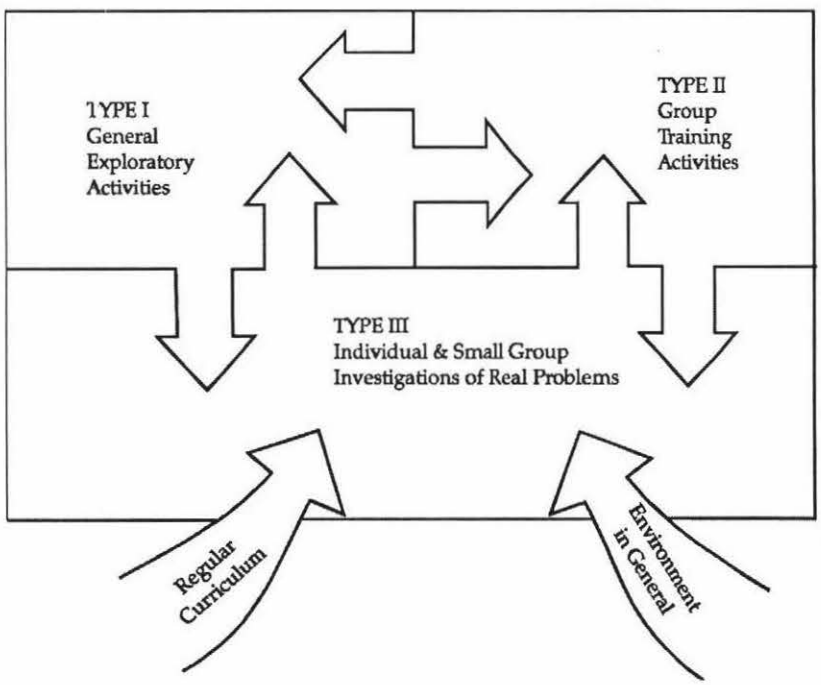

Figure 3. The Enrichment Triad Model.

Type I, general exploratory activities, and Type II, group training activities, may be regarded as catalysts for the development of student ability and interests. Type III enrichment, or individual and small group investigations of

real problems, is an outgrowth of Type I and II and is reliant upon superior ability levels, creativity, and task commitment. Consequently, educators have grown to acknowledge the value of Types I and II for all students, and the special creativity, ability and energy required by a smaller set of students (the gifted and talented) to effectively complete Type III activities (Davis & Rimm, 2004).

The Schoolwide Enrichment Model (Renzulli & Reis, 1985) was developed out of practice and research related to the Enrichment Triad Model (Renzulli, 1977) and is now established as one of the most accepted programming models available (Davis & Rimm, 2004). Research concerning the Schoolwide Enrichment Model is, in general, positive, with improvements revealed in teacher attitudes, student productivity and its suitability for the identification and provision of underachievers and those with learning disabilities (Van Tassel-Baska & Brown, 2001).

Renzulli and Reis (2003) have reviewed the research regarding the usefulness of this model and describe the following in relation to cognitive and affective outcomes. An increase in self-efficacy as well as creative production was noted in students who participated in Type III projects, with some students producing over twice as many independent projects while participating in enrichment programmes. 64% of students receiving some form of Type II process skill training were more likely to initiate some form of self-selected, independent, Type III project than students who did not receive such training. In addition, gifted students taking part in programmes within the School Wide Enrichment Model reported positive acceptance from their peers. Baum's (1988,

cited in Renzulli & Reis, 2003) research indicated enhanced self-concept for gifted students with learning disabilities and the reversal of underachievement while Van Tassel-Baska (2000) states that though being actively involved in Type III independent and small group activities did not necessarily impact greatly upon students' career goals and ambitions, they did act as a training catalyst for future productivity. Delcourt (1988, cited in Renzulli & Reis, 2003) affirms this stating that students who completed Type III investigations displayed positive changes in personal skills such as writing, in characteristics such as patience, and decisions related to future career choices.

Type I Enrichment

Type I enrichment exposes students to as wide a variety of disciplines, topics, occupations, and hobbies that would not normally be covered in the regular classroom curriculum, as possible. It also serves in aiding identification of student interests and acts as a tool for sparking such interests (Riley, 2004). Although a great deal of exploratory freedom should be permitted and students allowed to investigate a wide range of topics, students need to be conscious from the outset that they will be expected to pursue these activities purposefully; and that after an agreed upon period of time such students will be expected to analyse their experiences and suggest areas for further study. Type I activities are designed to be conducted by individuals or groups, the teacher acting only as a facilitator, helping students gain access to a wide variety of resources. As well as books, students should be encouraged to make use of computers, newspapers and other

media. Teachers can be an additional aid in organising field trips, arranging guest speakers, and providing mentors. Type I exploration is more than simply looking, reading and writing, it is about becoming involved and immersed in the topic (Renzulli, 1977; Riley, 2004).

Type I music enrichment engages students in exploring and responding to the expressive elements and qualities of music through such activities as listening, moving, singing, and playing. Students develop a vocabulary in music by learning and using symbols and systems for representing sound, and they would use focused listening to develop aural skills and sensitivity. Students would investigate ways of creating sounds, using conventional and unconventional sound sources. They would experiment with the elements of music and discover structural devices for shaping sound to music. They would learn to recall, imitate and transcribe rhythm patterns and melodies and explore techniques for creating sound with instruments and voices (MOE, 2000a).

Type II Enrichment

Type II enrichment consists of methods and materials designed to assist in the promotion and development of the thinking and feeling processes (Renzulli & Reis, 1997b; Renzulli, 1977). Type II consists almost entirely of training exercises, embodying general instruction and training in fields such as creative thinking and problem solving. It promotes 'learning how to learn' skills such as classifying and analysing data as well as helping in the promotion of

advanced referencing and communication expertise (Renzulli & Reis, 1997b).

The objective of Type II enrichment therefore is to develop the operation or processes that enable the learner to deal more effectively with content (Renzulli, 1977). It includes the development of (1) creative thinking, problem solving, critical thinking and affective processes; (2) as wide a variety as possible of 'learning how to learn' skills such as listening, talking, data collection, and classification; (3) application of skills in the appropriate use of advanced-level resource materials; and (4) skills in written, oral and visual presentation (Renzulli & Reis, 1997b; Riley, 2004). It also encompasses specific musical skill development.

Type II enrichment is specific, frequently involving instruction in an area of interest chosen by the student as a result of investigations carried out in Type I activities and, as such, can not be planned in advance (Renzulli & Reis, 1997b). Type II enrichment activities therefore need to be tied to the students' independent projects (Riley, 2004). For example, a student with an identified interest in music as a result of a Type I activity, may chose to do follow-up reading in order to plan and carry out a project on ancient Maori instruments. Moreover, Davis and Rimm (2004) contend that an increase in self-esteem and improved interpersonal skills, in addition to increased motivational factors may be by-products of such affective responses.

Type II music enrichment sees students developing fluency in musicianship as well as increased technical control as they rehearse and present individual and group performances.

They would play and sing individually and in groups using appropriate techniques and performance practices. Students would listen to, read, and interpret music as they develop understandings of composers' and arrangers' intentions as well as cultural protocols. They would explore how technologies contribute to performance and they would record their own and others' performances. Within the New Zealand context, Type II enrichment would also see students investigating music's contribution to, as well as the significance in, contemporary cultures. Students would investigate traditional Maori music and the multicultural musical heritage of New Zealand (MOE, 2000a).

Type III Enrichment

Type III enrichment occurs when the student becomes involved in first hand investigations and takes on the principal role of investigator. They pursue self-selected exploration and research within their area of interest. In order to do so they therefore require a willingness to allocate the time and commitment necessary in formulating a problem, designing a methodology and planning a final product. In Type III enrichment therefore a transition occurs which places the student as not simply just a consumer of information but rather as a producer of knowledge (Renzulli, 1977; Renzulli & Reis, 1997b; Riley, 2004).

While presentation of their resulting product is crucial to student satisfaction, it differs from simply presenting exercises (as in Type II enrichment) in several distinct manners. Firstly the student takes the active role in

formulating the question and the procedure by which that question will be answered. Secondly there is no standard or predictable solution or exact answer and thirdly the actual area being investigated is of genuine and bona fide interest to the student (Renzulli, 1977). Displays, presentations, publications and recitals are but a smattering of ways in which the final product can be shared with others (Riley, 2004).

Type III music enrichment entails students drawing on previous experiences and perspectives to develop and refine musical ideas. Students develop an awareness of different sounds and the potential of sound for resourcing and generating ideas and for communicating feelings. They would use aural skills, imagination, and a developing knowledge of structural devices, musical instruments, technologies, and the elements of music to improvise, compose, and notate music with increasing sophistication and refinement. Students would draw on developing knowledge to inform compositions, arrangements and improvisations. They would manipulate materials within particular styles, genres, conventions, and cultural forms, and they would compose and arrange music for specific purposes and audiences (MOE, 2000a). Examples of end products for Type III music enrichment might be a composition, a musical performance, or lyrics for a song.

2.10 THE ENRICHMENT TRIAD MODEL AS A MEANS OF IDENTIFICATION

Identifying gifted students is one of the most central aspects of gifted education and there are two contrasting philosophies of such identification (McAlpine, 2004). A *formal data gathering approach* relies on a systematic schoolwide (or class-wide) effort. It gathers information from numerous sources, and may include teacher observation and nomination, parent, peer or self nomination, standardised tests, rating scales, and product evaluation (McAlpine, 2004). In contrast, the *responsive learning environment approach,* developed by Clark (2002), offers challenging learning opportunities within the classroom setting, the aim of which is to encourage students to pursue, in depth, learning activities and demonstrate behavioural characteristics associated with giftedness such as creativity, higher-level thinking and original research (McAlpine, 2004). Within the responsive learning environment, more formal identification methods can also be used. Teacher observation and assessment, anecdotal records, samples of students' work, and profiling can all lead to successful identification (McAlpine, 2004).

While both types of identification may seem at odds with each other, it is possible to utilise components from either philosophy and adapt them to the other (McAlpine, 2004). The 'best of both worlds' approach is what drives Renzulli and Reis's (1985) School Wide Enrichment Model, an adaptation of the (1977) Enrichment Triad Model which includes a more flexible approach in identifying gifted students. The

Schoolwide Enrichment Model allows for the inclusion of a higher number of gifted students than the original Enrichment Triad Model, an increase of up to 15-20 percent of above average ability students, identified from data gathered on each student from across the school.

Both the Enrichment Triad Model and the Schoolwide Enrichment Model allow the coupling of identification and programming to go hand in hand and can be viewed as successful examples of the responsive environment approach. These models are continually flexible, allowing learning and identification to take place within different social and cultural contexts (McAlpine, 2004).

The following sections (2.11 to 2.15) address the issues of an enriched musical environment. Enrichment within the classroom as well as issues surrounding withdrawal or 'pull out' programmes are also discussed.

2.11 ENRICHED MUSIC ENVIRONMENT

At the most basic level it is abundantly clear that music making, in the sense of singing and playing, lies at the heart of what music is and should be. Elliot (1995) describes music making or creating as musical knowledge in action. This means that musicianship develops through active participation, making music in situations that are deliberately designed to approximate relevant conditions of genuine musical practices. According to Elliot, the teaching-learning situation is crucial in determining what music students will learn and how they will learn. In order for

musicianship to flourish, it is necessary to introduce students into particular music cultures and practices. In doing this it is vital to select musical challenges that will confront students with genuine musical problems, problems that can be solved in context. Elliot contends that musicianship will develop to the extent that educators require their students to meet increasingly significant musical challenges on a continuous basis. Elliot further clarifies this by stating that progressive problem solving will require students to take more and more musical details into account during successive encounters with both familiar and unfamiliar challenges.

Ericsson and Smith (1991) observe that recent research in 'expertise', within the area of cognitive psychology, suggests that students can achieve the fundamentals of most forms of know-how through repeated attempts and with moderate effort. As the rudimentary knowledge of music begins to develop through active participation in music making, more of the 'energy resource', termed 'attention', is released. Elliot (1995) proposes that students who advance their musical thinking beyond the beginners' level are those who learn to 'invest' this surplus attention in progressive musical problem solving. It should be noted, however, that mindless repetition of inaccessible musical material in isolation does not necessarily improve musical concepts. Moving from the beginners level to more advanced levels requires solving significant and worthwhile musical problems (within the context of the music one is making) through performing, composing and arranging.

The development of musicianship involves a precise kind of learning progression that learners can both engage in, and learn how to accomplish themselves (Bereiter & Scardamallia, 1993, cited in Elliot, 1995; Ericsson & Smith, 1991). This musical learning ultimately depends on the quest for progressively challenging musical projects. Carefully chosen musical challenges will expose the students to what they do not yet know how to achieve. Guidance from music educators will enable the students to learn how to meet successive musical challenges by drawing on developing aspects of their own musicianship. Elliot (1995) further notes, "the learning process is promoted by a learning context in which individual advances are observed and shared by students who are taught as (and therefore learn to see themselves as) authentic music makers" (p. 74). Within such a context, students can, and will, learn to expect themselves, along with other members of their music group or community, to succeed in meaningful, significant music making, while at the same time succeeding in solving music problems along the way.

Elliot (1995) contends that the role of the music educator should, principally, be one of mentoring, coaching, modelling, coaxing, persuading, enriching and enhancing. Elliot further states that music students ought to be taught as reflective musical practitioners – that is they should be fully engaged in authentic music making. Implicit within this view is the premise that musicianship is educable. While some children have extraordinarily high levels of musical intelligence enabling them to develop the musicianship of their cultures more quickly and more broadly than others, it seems that most children have some degree of musical intelligence, thereby, making it possible for most students to learn how to

make music to a competent, if not proficient, degree. In order for students to achieve a competent degree of musical thinking, they first need to be made aware of the strategies available in creating and performing music. A music environment therefore, where the music educator poses meaningful musical problems for the students to solve, while offering advice and modelling strategies employable in the solving of problems, will help music students to develop their musical talents (whether innate, or learnt) to a higher level.

2.12 ENRICHMENT WITHIN THE REGULAR CLASSROOM

As most students spend the majority of their time in the regular classroom this produces a convincing argument as to why their individual and specialised needs should be catered for within this environment (Riley *et al.* 2004). Enrichment is effective when it is 'all inclusive' thus avoiding any elitist problems associated with being labelled 'gifted' (Townsend, 2004). While a report by Riley *et al.* (2004) states that 82% of New Zealand schools claim to use this approach, it is an unfortunate fact that the regular primary school classroom is often not tailored to cater for the unique needs of the gifted. Neither is the regular primary classroom teacher who tends to be a generalist rather than an expert in particular subjects or disciplines (Ministry of Education, 2000b, 2001, 2002). Many teachers direct their teaching to the average range of ability (Freeman, 1998), relying on set curriculum with identical experiences for all (Clark, 1992). While, ideally, 'within-class' ability grouping should be an integral part of good classroom practice (McAlpine, 2004; Riley *et al.* 2004),

the regular classroom, as it is traditionally organised, does not, adequately, accommodate the unique needs of the gifted learners (Freeman, 1998).

While there are many advantages to educating the gifted student in the regular classroom such as peer teaching, more inclusive and holistic approaches, opportunities for a more cohesive, cross-curricular integration, longer periods of time to finish work, and improved social outcomes (Kulik & Kulik, 1992; Moltzen, 1995; Reis, Westburg, Kulikowich & Purcell, 1998; Fiedler, Lange and Winebrenner, 2002; Robinson, 2003), there are also arguable disadvantages to the practice (Robinson, 2003). Classroom teachers are often poor identifiers of gifted children with planning focusing on the class as a whole and only minor modification being made to the planning and mode of delivery (Tomlinson, 1995; Delisle, 1999; Robinson, 2003). There are fewer 'higher order questions' used and a significantly longer wait time for gifted students (Delisle, 1999). Few teachers have had specialised professional development in gifted education or in specialist subject/content areas (Ministry of Education, 2000b, 2002) and often tend to use the gifted students as role models and 'teachers'. Additionally the emphasis or focus frequently tends to be on the low-level achievers within the class resulting in a lack of attention being paid to the gifted students (Tomlinson, 1995; Delisle, 1999; Robinson, 2003).

While some educators believe the classroom to be the least restrictive environment for moderately gifted learners, it can also be the most restrictive environment for the exceptionally gifted (Westburg & Archambault, 1997). Winner (1996a)

suggests that moderately gifted children would not get bored in the regular classroom if the teacher were simply to raise the overall standard and expectation levels for all children. There is an abundance of evidence, according to Winner, that when classroom expectations and standards are raised, not only do the bright succeed, but also the achievement levels of all students rise.

However, many teachers do not modify their planning to cater for the needs of the extremely gifted students. A study by Hansen and Feldhusen (1994) found that educators who have trained in the area of gifted education are far more skilful in teaching and extending gifted students than mainstream teachers. In New Zealand few mainstream teachers have the knowledge and skills required to cater adequately for the gifted student within the regular classroom (Moltzen, 2004a). Gifted students often find little stimulation in the regular classroom necessitating more challenging programmes. Mentorships, withdrawal programmes, private tutoring and acceleration would therefore seem to be the best option for the highly gifted students (Van Tassel-Baska, 1992). The following section addresses such programmes.

2.13 WITHDRAWAL PROGRAMMES

Withdrawal or 'pull-out' programmes are programmes often based on enrichment, which introduce the student to a wider, more challenging array of learning experiences. Students are removed from regular classrooms in order that they can participate in a variety of enrichment activities under the guidance of specialist teachers. Delivery and groupings can

vary in range such as groups of a particular age group studying a particular subject, a particular student studying a particular topic, or interest areas across mixed age groups. Classes can vary from a few hours to a full day per week and can run from a term to a full year in duration (Riley *et al.* 2004). Braggett and Moltzen (2000) report that such programmes continue to be the most popular form of gifted intervention provided in New Zealand primary schools. Moltzen (1998) reports that, in New Zealand, withdrawal programmes tend to be, generally, the most popular as they are able to offer the gifted individual a specialist programme whilst avoiding the label of being elitist. This is confirmed in a study undertaken by Riley *et al.* (2004).

A variety of researchers have outlined advantages to this type of programme. Such advantages are improved achievement, improved creativity and thinking skills, differentiated instruction, challenging extension in the student's area of interest, reduced class numbers (Borland, 1989; Davis & Rimm, 1994; Lando & Schneider, 1997), and opportunities to work with like minded equally intellectually talented and gifted students (Cox & Daniel, 1984; Renzulli, 1987; Belcastro, 1987). In addition to the above is the reality that the teacher is far more likely to be an 'expert' skilled in the specialist subject area that is being taught (Cox, Daniel, & Boston, 1985, cited in Riley *et al.*, 2004).

Kulik and Kulik (1992) state that a teacher of withdrawal programmes will usually have a strong commitment and interest in the area being taught and therefore have an equally strong commitment in meeting the needs of students in such programmes. However, these educators must

establish good working relationships with the regular classroom teacher in order that such programmes are compatible with the running and programming of the regular classroom. Such programmes can easily lose their effectiveness if timetabled clashes of interest or ability exist for the student (Borland, 1989).

Van Tassel-Baska (1989, cited in Gross, 1993) asserts that withdrawal programmes usually operate on a minimum timeframe each week and at best only offer an "8% solution to the problem" (p. 206), meeting the needs of gifted students only during their allotted time (Clark, 1992). Cox and Daniel (1986, cited in Gross, 1993) also criticise such programmes claiming that they only offer part of the answer to an ongoing predicament. Van Tasssel-Baska (1987), Cohen and Ambrose (1993) and Winner (1996b) state that however highly challenging a part-time withdrawal programme may be, it only offers part of the solution to the problem and is not, in itself, sufficient for an academically gifted student.

Cox and Daniel (1984), Borland (1989), Cohen and Ambrose (1993), Davis and Rimm (2004), and Riley *et al.* (2004) outline some of the following disadvantages to withdrawal programmes. They cite possible conflicts of interest for the student, superficial, short and unsystematic programmes, especially in New Zealand were only 15 percent use a curriculum model, disruption to regular class curriculum, and little, if any relationship to the regular school timetable. Withdrawal programmes habitually absolve the regular classroom teacher of any responsibility of trying to educate the gifted child. In addition, some activities often bear little relationship to the student's particular giftedness and as they

could, in fact, often be of benefit to all students, are often seen as elitist. Sapon-Shevin (1994) debates the point that providing separatist education is not only elitist but also 'meritocratic', arguing that it is treating some children not just differently to others but better. Moltzen (2004a) concurs revealing that historically in New Zealand there has been to date a strong commitment in providing a 'level playing field' for students. However, Moltzen (2004a) cautions that this so-called level playing field has created the misconception, within New Zealand, that any perceived advantage is inequitable. Borland (1989) also doubts the effectiveness of withdrawal programmes arguing that while they may be effective as a first step in programme provision, they often emerge as little more than ad-hoc, stop gap measures.

The following section deals with the evaluation of gifted programmes in our schools and how to determine whether such programmes are meeting the needs of our gifted students.

2.14 EVALUATION OF GIFTED PROGRAMMES

The principal function in evaluating gifted programmes is to ascertain the success of such programmes in meeting the needs of our gifted students and making improvements to these programmes (Riley *et al.* 2004). In New Zealand few, so called programmes for the gifted, are genuine programmes in the accepted sense and fewer still utilise appropriate designs or are comprehensive and rigorous enough to give rise to relevant and reliable evidence of well-versed decision making (Reid, 2004). In New Zealand, as Tannenbaum (1979) aptly

puts it, they are often tacked on, ad hoc, temporary small-scale projects of momentary interest, often fragmentary in nature and usually having no real connection to the curriculum. He further adds that one often gets the uncomfortable feeling that such programmes are being offered simply because a few teachers have a special subject or hobby interest. The problem is often further compounded because, in certain instances, little effort is made in matching students with programmes. Students are selected on their academic ability and then put into programmes rationalised as "broadening the gifted students' experience" (Reid, 2004, p. 427). Similarly, seldom is any attempt made to match growth indicators or assessment tools with measurable programmes, goals and objectives (Reid, 2004). Callahan (1993) further queries how we are ever going to evaluate gifted programmes appropriately if schools do not clearly define who they are serving and to what end.

A report by Riley *et al.* (2004) highlights the lack of evaluation of gifted programmes within New Zealand schools. The report cites lack of time and funding, lack of evaluation skills amongst teachers of gifted programmes, as well as complex problems posed in appropriately evaluating typical learning outcomes of gifted programmes, yet, the New Zealand Ministry of Education (2000b) states that the evaluation of gifted and talented programmes is a necessary aspect of any gifted programme of education.

Evaluations of gifted and talented programmes are necessary to enable effective assessment of all its components. These include, to paraphrase Riley *et al.* (2004), resources, teachers, written policies, procedures and defining the programmes

themselves. Maker (1993, cited in Riley *et al.* 2004) outlines indicators of quality in providing for gifted and talented students as follows:

- Appropriate, age and ability related content.
- Schoolwide, monitored, comprehensive planning.
- Consistency between the school's philosophy and programme components.
- Comprehensive approaches that will meet all physical, cognitive, affective, emotional, social, and cultural needs.
- Flexible programmes revolving around continuous evaluation.
- Programmes tailored to the individuality of each child.
- Programmes based upon tested models that are continuously evaluated.

Riley *et al.* (2004) add that, from a New Zealand perspective, culturally appropriate, relevant material and curriculum need to be applied to all aspects of gifted and talented programmes.

Of vital importance to schools and teachers, when evaluating gifted programmes, is the knowledge of whether future programmes will offer sufficient services to the group of identified gifted students that would, otherwise, not be fully accommodated in the regular classroom (Reid, 2004). In evaluating gifted programmes, therefore, it is necessary to weigh up two elements, each in combination with the other: the effectiveness of the programme and the outcomes for the students (Taylor, 2000). It is necessary that the two are

linked as the overall effectiveness of the programme will be related to the successful outcomes for the gifted students.

The literature recommends that a team approach is used in programme evaluation (Ministry of Education, 2000b; Reid, 2004). Inclusion of the many stakeholders in gifted education will ensure that evaluation is worked out together and that evaluation tasks are shared (Ministry of Education, 2000). Inclusion of groups such as parents, whanau, community members, and the gifted students themselves will generate potential for building support networks both within and outside the school (Riley *et al.* 2004).

2.15 CONCLUSION

It has always been difficult to agree on what is meant by ability, and, in particular, the term exceptional ability, talent or giftedness. The understanding of intelligence was, for many years, linked to the concept of an intelligence quotient or IQ, measured by specific tests designed for the purpose. In recent years it has been recognised that human abilities cover a much broader spectrum than can be measured solely by such tests. The current view is to think of intelligence as being made up of several factors, some of which may be relatively independent of each other such as academic aptitude, creativity, social leadership, and more recently, wisdom (Leyden, 2002; McAlpine, 2004). Howard Gardner (1983) proposed that we have seven (and more recently eight) intelligences and while we need all eight intelligences in order to make sense of our world, an individual may exhibit unusual levels of ability in only one, or a few specific areas.

Gardner also proposed that each form of intelligence leads to its own form of creativity.

Reis (2001) notes that Gardner's MI theory and Renzulli's (1986) Three Ring Model of Giftedness are both multi faceted models and define giftedness in terms of multiple qualities, not all of which are intellectual. Renzulli, Reis & Smith (1981) note that one of the advantages of Renzulli's Three Ringed Model of Giftedness is that it addresses not only the concept of giftedness, but that it also allows for identification of the gifted as well as dealing with the delivery of effective educational programmes.

Renzulli (2001) holds the viewpoint that learning principles associated with gifted children can be of benefit to the whole school. Renzulli and Ries (1997a) have focused their attention on the role that education 'know-how' can offer total school improvement. They believe that their 'rising tide lifts all ships' philosophy helps identify students with undiscovered gifts.

The topic of musical talent has been discussed, researched, and examined by experts in the field of musical psychology and music education throughout the twentieth century and there has been a mountain of research studies completed that measure the development of musical ability at different ages. Any such discussion on musical talent will ultimately lead to investigations of how musicians think, create, and artistically 'know'. Music teachers in school classrooms are drawn to students who exhibit musical potential with a mixture of wonder, excitement, and, at times, panic. However, while it is often straightforward for music educators to spot these overtly gifted musicians in our midst, a healthy,

sideways, glance may often reveal music listeners and creators with hidden potential (Haroutounian, 2002).

Students who show potential musical talent will be motivated to learn and eager to hurdle the next musical challenge and while they may exhibit differing technical levels of expertise, training, and musical aptitude, their desire to express themselves through music will be readily observable. Teachers in our schools need to keep a focused eye in seeking out these future musicians. While some questions remain, such as what role should creativity play in the recognition of musical talent, how do we clarify and interpret such creativity, and how do we recognise the creative listener and the self-trained musician, the climate is ripe for a broader view of potential musical talent and the creative approaches required in its development. In the 21st Century, an improved and co-operative student-teacher approach in our schools is required.

2.16 JUSTIFICATION

Although we have the power to add to the numbers of young people who are capable of mastering difficult human accomplishments, our knowledge regarding the circumstances in which a few individuals gain outstanding abilities is far from complete (Howe, 1990). While there can never be a simple blueprint for nurturing genius, there is evidence that various abilities, until more recently thought to be beyond the capabilities of any but the very exceptional, provided the right opportunities and environments are created, can in fact be gained by the majority of ordinary

people (Renzulli & Reis, 1993). It is unfortunate therefore that the majority of young children today do not have access to such opportunities and forms of support that will encourage and kindle exceptional abilities. As a result, such children often do not have the opportunity to achieve goals they might otherwise have attained.

While early identification, educational programmes and strategies to deal with gifted children are critical in view of their decisive impact on the student, simply withdrawing such students and placing them in 'withdrawal' programmes and then leaving them to work at their own pace on the same worksheets and activities as others is not sufficient. While respecting the characteristics of such learners, individualisation of pace without additional differentiation in areas such as content, learning style, and teaching strategies misses the point (Renzulli & Reis, 1993).

Children with potential musical ability are one such group of people who are at risk in our schools. Education today carries with it an ever increasing need to identify and provide musicians with educational opportunities aimed at developing their skills and talents in the early, formative years of primary school. But how can these often invisible children be identified, and, once identified, how can they be allowed to develop and thrive in their new-found pursuit?

The focus of this study sought to answer two broad questions. Firstly, could Renzulli's (1977) Enrichment Triad Model be used as an effective tool in helping to identify musically gifted children within New Zealand primary school classrooms? Secondly, could the model offer a suitable

framework in the development of a musically enriched environment for those identified students?

CHAPTER THREE

METHODOLOGY

The following chapter describes the methodology used in this study. It outlines the context within which this case study was conducted and explains how the research questions were developed. The researcher's role within the project together with information about the methods of data collection is covered. The approaches chosen for the investigation, the case study approach, is also addressed. A description covering the process from Human Ethics approval through to the final analysis of data is included with links between the methodology and the research questions documented throughout.

3.1 Overview

This study was carried out in two New Zealand primary schools which offered withdrawal and enrichment programmes for students who showed above average ability in certain subject areas. The study was conducted using case study research. The research was conducted at primary level within Years Five and Six. Initially willing schools were sought by directly contacting schools within the community, providing them with information and visiting the principal. Once schools that indicated willingness to participate were identified, formal consent was sought from the principal and Board of Trustees. The schools were provided with an information sheet outlining procedures for the study as well

as copies of appropriate consent forms (Appendices 3 and 4). The research was conducted in two phases:

Phase one

Phase one was conducted within two separate schools. Phase one involved implementing Renzulli's (1977) Enrichment Triad Model as a model for the delivery of a music creativity programme in a Year Five and Six classroom as well as Year Five and Six school-wide singing. In a separate school, keyboard lessons were offered through an 'after school' winter enrichment programme. Phase one was conducted over the course of one school term. Renzulli's (1977) Enrichment Triad Model was then used to implement exploratory (Type I) and training (Type II) activities. These two types of enrichment were crucial as they served both as the catalyst in the development of students' thinking and feeling processes, thereby allowing for the development of any possible musical interests, as well as serving as a tool for identification. At the conclusion of the term, students and parents answered a series of questionnaires designed to draw attention to possible interests in music as well as highlighting any students who showed signs of above average ability, task commitment, and creativity. The core-classroom teacher was also asked to complete a questionnaire, designed to highlight task commitment and creativity in other educational areas. The results of the questionnaires were then combined with observations noted from all of the sessions and a smaller sample of students who showed potential musical ability was selected to participate in phase two.

Once selected for inclusion in phase two, information was forwarded to the students and their parents (Appendix 5) ensuring that those involved were fully aware of what the study was about and how they would be required to participate. This ensured that both students and parents had a sound understanding of their role in the research, and the purpose of it. Written consent was then sought from both the students and parents (Appendices 6 and 7).

Phase Two

The purpose of phase two was to enable the identified group of students to engage in music activities, projects or investigations of their choosing. Renzulli's Enrichment Triad Model (1977) offers Type III enrichment as an opportunity to integrate concepts and skills presented in Type I and II enrichment. Students therefore become actual researchers of first-hand investigations within their areas of interest. Type III enrichment is student driven, it is designed to allow the students to become producers of knowledge rather than consumers of information. Students working with Type III enrichment will therefore formulate a problem, design a methodology of research, and plan the final product. The educator's job is to act as facilitator, therefore providing assistance in designing the project and seeking information, (Riley, 2004). It is also crucial to student satisfaction to provide an appropriate audience for Type III products (Renzulli, 1977). Presentations to peers and parents are but a sample of ways in which this can be achieved. Phase two therefore served as an opportunity for the selected students to integrate concepts and skills presented in Type I and II,

thus becoming actual researchers or musicians conducting a first-hand investigation within music.

Phase two was provided as a withdrawal or 'pull-out' programme and was delivered one-on-one to the three selected students for a three quarter hour session once a week for the duration of one term.

3.2 STUDY FORMAT

A case-study format was decided on for the purposes of this study as this option seemed to best suit the projected small sample group. The case-study approach allowed the researcher the option of working alongside the participants on an ongoing basis as well as the option of reporting on each participant individually thereby creating a clearer, more detailed report.

Qualitative Research

Qualitative research is an umbrella concept encompassing several forms of inquiry all of which combine to help us understand and explain the meaning of social phenomena while causing as little disruption of the natural setting as possible (Merriam, 1998). Prior to the 1960's, educational researchers, who saw objectivity as a hallmark of the scientific method, relied solely on quantitative methods to conduct investigations as it was widely believed that such methods permitted researchers to conduct their work in an unbiased manner. Researchers generally agreed that qualitative methods lacked objectivity, relying too heavily on

the researcher's subjective interpretation, and therefore failing to qualify as science (Crowl, 1996). Dabbs (1982) states that while qualitative and quantitative approaches are not distinct, in many social sciences, quantitative investigations are often given more respect, reflecting the tendency of the public to regard science as related to numbers and thus implying precision. Never-the-less, while qualitative methods of research have not predominated in the past, qualitative research has left its mark both conceptually and theoretically on the social sciences (Bogdan, 1972).

The difference between qualitative and quantitative approaches can best be exemplified as *quality* being about the nature of things while *quantity* is about the amount of something. While quality refers to the what, when, where and how of things, quantity refers to counts and measures of things. Qualitative research therefore refers to meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things. In contrast to quantitative research, which takes apart a phenomenon in order to scrutinize its component parts, qualitative research can disclose how all the parts work together to form a whole (Dabbs, 1982).

Patton (2002) describes qualitative research as an effort to understand situations in their uniqueness as part of a particular context, and the resulting interactions. The fundamental characteristic is to understand the occurrence of interest from the participants' perspectives, not the researcher's. The second characteristic of all forms of qualitative research is that the researcher is the primary instrument for data collection and analysis. A third

characteristic is that qualitative research often entails some sort of fieldwork, the researcher physically going to the setting, people, institution etcetera, in order to observe behaviour in its natural setting. Finally, because qualitative research focuses on process, meaning and understanding, the resulting product of qualitative research is richly descriptive. Words and pictures rather than numbers are used with the researcher's descriptions of the context, the participants involved and behaviours of interest. Data is presented in the form of the participants' personal words, citations from relevant documents, excerpts from video or audio tapes, and so on, all included to support the findings of the study.

Ideally, the design of a qualitative study is flexible, being responsive to changing situations or conditions within the study as it progresses. Sample selection will (usually) be purposeful and small. The investigator will spend a substantial amount of time within the setting of the study, often in concentrated contact with the participants. The basic educational qualitative study typically draws from concepts, models and theories within educational fields. Data is collected through interviews, observations and document analysis. Findings are therefore a mixture of both description and data analysis (Merriam, 1998).

Case Studies

Case studies are typically used for instances where it is difficult to obtain a sufficiently large sample to permit quantitative analysis (Pendarvis *et al.* 1990) and as such was

pertinent to this study. Case studies comprise the systematic, organised gathering of enough information about a particular person, group, event or gathering so as to permit the researcher to sufficiently understand how it functions or operates (Adelman & Kemp, 1992; Berg, 2001).

A case study is not so much data gathering per se as much as a methodological approach that incorporates a number of data-gathering measures (Hamel, Dufour, & Fortin, 1993, cited in Berg, 2001), the approach ranging from general field studies to small groups or individuals. Case studies may employ any number or combination of data gathering technologies ranging from histories, oral histories, documentation, in-depth interviews, and observations (Hagen, 1993; Yin, 1994). Given the extent, scope and range of case studies, they can be as broad or as pointed in their focus as the researcher requires and are characterised by the relaying of rich, detailed, in depth information and descriptions (Adelman & Kemp, 1992; Berg, 2001). The case study format therefore offered this researcher the best opportunity of working with the participants in both phase one and two. In particular, it offered the opportunity to work alongside the final research participants on an individual basis thereby permitting each child's background and resulting project to be written and discussed on an individual basis.

3.3 RESEARCH PARTICIPANTS

Why Years Five and Six?

Research shows (Davidson & Scripp, 1988; Michel, 1973, cited in Shuter-Dyson & Gabriel, 1981; Howe *et al.* 1995; Buckton & Manins, 1987) that five to nine years of age is a period of some considerable change in most children's learning and music cognition. Michel (cited in Shuter-Dyson & Gabriel, 1981) highlights the ages of five to six as being particularly important, while Petzold (cited in Buckton & Manins, 1987) believes the most significant musical transformations occur between age six to eight. However, most significantly, Shuter-Dyson and Gabriel (1981) promote the belief that many substantial changes take place in all of the middle years of childhood, advocating that by the age of nine the child has the ability to be a competent musical performer. It would therefore appear that crucial learning is taking place prior to nine years of age with the greatest change beginning to occur between when children enter school and the age of nine. Furthermore, studies show that 50% of children exhibit musical aptitude between the ages of two and six (Revesz, 1953) and 80 to 90% of children with special musical ability before the age of ten (Haecker & Ziehen, cited in Fliegler, 1961). Scott and Moffett (1978) concur, postulating that most performers have shown their talent before puberty. Murphy (1990) agrees with these hypotheses, suggesting that high levels of ability habitually become apparent in middle to late primary school years.

According to Gordon (cited in Doxey & Wright, 1990) musical aptitude is flexible and therefore can be increased up to the age of nine or ten. Years Five and Six (ages nine to ten) therefore seemed to be the most valuable area of focus for this study as this is where musical talent typically manifests itself, school begins to play an ever increasingly important environmental role in the child's life and identification of possible talent in need of nourishment before it is too late is essential.

School Demographics

The schools within which the research was implemented were both decile 10 primary schools with rolls of between 400 and 500, catering for Year One to Six children. In school 'A', the Year Five and Six class, within which the music creativity programme was carried out, contained 28 children with an approximate mix of two thirds girls and one third boys. School-wide singing was carried out once a week, in conjunction with other classes as part of a school syndicate. 'Technics' keyboard classes were offered in the school, during class time, for those interested. Curriculum music was being provided, to varying degrees, in a somewhat haphazard manner throughout the various classrooms, although the school was, at the time of the study, involved in a programme designed to help implement the new Arts (Music) curriculum. The school featured two choirs, a middle syndicate and a senior syndicate choir, but at the time if this study, no school orchestra existed.

School 'B' placed a greater emphasis on music and its delivery within the curriculum. The school boasted several choirs, a further 'special' choir or singing group as well as an orchestra. 'After-school' programmes were run annually during the winter terms, terms two and three, encompassing a range of arts, crafts, music and sports programmes. This study was conducted within the 'after-school' keyboard classes that were offered in group sizes of four to six.

3.4 INSTRUMENTS

As with any research model, the nature of the research questions determines the resulting methods of data gathering. Of interest to this researcher was the ability to find data gathering tools that would help in identifying potential musical talent and that would help gauge the extent to which any resulting intervention had been successful. Data gathering tools for this study were chosen from methods recommended by Berg (2001), Crowl (1996), and Merriam (1998). They included:

- Questionnaires developed specifically for this study, containing both Likert-scale questions and open-ended questions.
- Interviews consisting of both the semi-structured and unstructured variety.
- A research diary containing objective descriptions of what took place, including personal reflections, intuitions and any possible follow-up ideas.
- A Student Product Assessment Form (SPAF), originally designed by Joseph Renzulli and Sally Reis (1997a) and adapted for the purpose of this study by the researcher.

Questionnaires

Questionnaires for the purpose of this study were designed by the researcher with the majority of questions being adapted from the *Enrichment Triad Model: A Guide for Developing Defensible Programmes for the Gifted and Talented* (Renzulli, 1977), *The School-wide Enrichment Model: A 'How-To' Guide for Excellence* (Renzulli, 1997a) and *Re-Forming Gifted Education* (Rogers, 2002). There were three questionnaires designed to help identify potential musical talent, in combination with 'above average ability', 'task commitment', and 'creativity' (Renzulli's Three Ring Model of Giftedness). The first questionnaire (Appendix 6) was answered by the entire population of children participating in the music creativity programme, a portion of children participating in school singing and a small sample of children participating in the 'after-school' keyboard programme. The second questionnaire was answered (Appendix 8) by the classroom teacher and the third (Appendix 7) by all the parents of children that had responded to a questionnaire. The results of the first three questionnaires were used in conjunction with observations recorded in phase one of the study in order to identify the final group of research participants to participate in phase two.

The children's questionnaire was divided into three sections. The first section, titled "All About Me", contained a simple check list of curricular and extra curricular subjects and activities designed to highlight each individual's interests and enjoyments, in addition to a series of open ended questions helping to further identify possible musical interest or ability. Section two, "People in My Class," contained a 'peer-

nomination' check list, gaining an alternative perspective on section one as well as a Likert section containing a five-part scale response dealing exclusively with the subject of music. The final section "How I Like to Learn" was a five-part Likert-scale portion designed to draw attention to 'above average ability', 'task commitment', and 'creativity'.

The parental questionnaire contained two sections. Section one dealt with biographical information in addition to addressing four specific music related questions. Section two was a five-part scale Likert-scale portion designed to bring to light aspects of 'above average ability', 'task commitment', and 'creativity'.

The teacher questionnaire was a nomination document designed to highlight characteristics and interests of individual children in conjunction with leadership qualities, task commitment and creativity. It listed curricular and extra curricular activities in addition to physical attributes and required the teacher to nominate suitable students for each area, including music.

Interviews

Interviewing can be defined as a conversation containing a purpose, the specific purpose of which is to gather information (Berg, 2001). Audio-taped focus interviews were conducted individually with each of the three research participants and separately with parents. The semi-standardized, or semi-structured form of interviewing (Berg, 2001) was utilised. Situated somewhere between the two

opposing extremes of the strictly-standardized interview and the un-standardized, the semi-standardized form of interviewing allowed this researcher to implement predetermined questions in a systematic, consistent order while allowing some freedom to digress. Both the interviewer, as well as the interviewee, were able to probe beyond the answers to the prepared, standardized questions. Unstructured or informal interviews were also conducted with the three participants on an on-going basis, forming an informal part of each session.

Two rounds of semi-structured interviews were conducted as part of this study; pre-discussion interviews with both parents and participants at the commencement of phase two and a set of post-discussion questions at the conclusion. The pre-discussion questions (Appendix 8) were designed to gain an in depth understanding of family biographical background, history and individual interests. The post-discussion questions (Appendix 9) were designed to assist in evaluating the intervention.

Why Interview Parents?

While Dalton and Smith (1986) assert that parents are, in general, an accurate source of information, Howe *et al.* (1995) contest that parent's retrospective memories are not always accurate. Additionally, while parents do have the advantage of observing their children, they may not necessarily always be objective in their observations. However, research (Dalton & Smith, 1986) has shown that parents are able to offer information that otherwise may not be forthcoming in a

school setting. Parents were therefore included to help verify information given by the children in both questionnaires and interviews.

Research Diary

A document such as a research diary is beneficial when undertaking qualitative studies as they can be referred to repeatedly. Events can be detailed accurately covering a broad time-span (Yin, 1994). Records can range from continuous recording to mere notes, sometimes recorded during the course of the observation, or, as is more often the case, notes and observations being recorded after the event (Merriam, 1998). During both phases of this research project a research diary was maintained. The researcher wrote up records, reflections and memos both during and after each teaching and subsequent withdrawal session.

Student Product Assessment Form (SPAF)

At the conclusion of phase two the students' work was evaluated by way of the Student Product Assessment Form (SPAF). Designed by Joseph Renzulli and Sally Reis, the purpose of the form, is to "guide judgement in the qualitative assessment of various types of products developed by students in enrichment programmes" (Renzulli & Reis, 1997a, p.263). The SPAF (Appendices 13 and 14) is the result of a comprehensive instrument development research project conducted by Sally Reis (1981), directed toward establishing the reliability and validity of the instrument through a year-long series of studies, using a technique developed by Ebel

(1951, cited in Renzulli & Reis, 1997a). Levels of agreement among raters on individual items of the scale ranged from 86.4 percent to 100 percent. The same set of raters assessed the products on two separate occasions with an interval of time between ratings and a reliability coefficient of 96 percent was established for the instrument. The SPAF is therefore a research based instrument of proven value, helping to overcome many of the traditional concerns raised as to the merits of various approaches in evaluating students' products (Renzulli & Reis, 1997a).

In using the SPAF as an instrument for evaluating students' products, three points needed to be considered. First, evaluating complex and creative types of product is a function of human judgement. One must, therefore, consider such products in terms of our own values, trusting our own judgements and relying on our own guided subjective opinions when making such assessments about complex products. Secondly, consideration must be given to the individual worth of the product being assessed and the age, level, and empirical background of the student. For example, a project reflecting an advanced level of investigation and subsequent outcome for a Year Six student may not be considered to be of an equally advanced level for a Year 12 student, while similarly, the work of a student from a disadvantaged background must be considered in light of that student's overall experiences, opportunities, resources and equipment. The third consideration relates to student growth and development. As the SPAF is also a tool to help guide students toward excellence, students therefore needed to be made aware of the basis on which their final products were to be assessed (Renzulli & Reis, 1997a).

Renzulli further recommends, that when used for formal evaluation in a research setting, products should be evaluated by three individual raters, one, by the teacher under whose direction the product was developed, two, by a person who has familiarity with the subject, and three, by an entirely independent person (Renzulli & Reis, 1997a). In keeping with this, three raters were used in evaluating the final products: myself (as tutor); my two supervisors (who possessed specialised knowledge of the subject areas of gifted and talented and music); and one of the school staff (as an independent assessor).

3.5 ANALYSIS OF DATA

Analysing qualitative data can present its own ethical problems as the researcher represents the primary instrument for data collection. As the data has to be filtered through the researcher's own particular theoretical positions and biases, deciding what is significant and what is not, may well present opportunities for excluding any data that is contrary to the researcher's views. Sometimes such biases may not be readily apparent to the researcher, nor are there any practical procedures or guidelines for such situations that the researcher might face (Merriam, 1998). Diener and Crandall (1978) do, however, offer the following advice.

> *While there is no ethical alternative to being as accurate and as honest as humanly possible ... biases that cannot be controlled should be*

> *discussed in the written report ... where the data only partly supports the predictions, the final report should contain enough data so as to let the reader form their own conclusions* (p. 162).

Phase One: Observations

Observation is a major means of collecting data in qualitative research. Observation allows a firsthand explanation of the group being studied. When combined with subsequent interviews and document analysis a holistic interpretation of the study can be reached (Crowl, 1996; Merriam, 1998). Field notes and memos from phase one classroom music teaching sessions, and a sample of keyboard teaching sessions, were recorded chronologically after each successive session in a research diary. Observations were also recorded pertaining to some individuals identified during school-wide singing. An objective description of what took place was followed by personal reflections, intuitions and any possible follow-up ideas. Individual students that showed likely music potential throughout the course of phase one were noted. Such students were headed on separate pages and individual information/observations of interest pertaining to the individual child were recorded for future reference. Relationships were then made between individual diary entries and student, parent, and teacher questionnaire results to enable identification of students with musical ability.

Questionnaires

Three separate questionnaires were administered as part of phase one. The first questionnaire (Appendix 1) was completed by all students participating in the classroom music creativity programme. A sample of students from the keyboard sessions were also asked to complete a questionnaire as were a small sample identified during school-wide singing. The second questionnaire (Appendix 2) was completed by parents of the identified sample and the third questionnaire (Appendix 8) was completed by the classroom teachers of all identified students. Each completed questionnaire was numbered and collated for ease of reference and identification. Answers to the open-ended sections were read and collated in order to glean information that might point to giftedness in general (such as task commitment and creativity), as well as more specific musical ability (such as family history). To analyse the Likert-scale results, each of the responses were equated to a number and the results plotted onto a chart for simple comparison. Results of the questionnaires were then evaluated and compared with information gathered from the original observations. This process resulted in three students being identified to participate in phase two of the study.

Phase Two: Semi-structured Interviews

The interview questions (Appendices 8 and 9) were intentionally open-ended, allowing the participants freedom of response in talking about their beliefs, ideas and opinions. As Altrichter, Posch and Somekh (2000) state, one of the keys to

successful interviewing is allowing the interviewee to appreciate that whatever they have to say will be of importance, and this from two different viewpoints: firstly, that the interviewee should believe that their views and ideas will be important and secondly, that the interviewee should believe that the outcomes will be, ultimately, useful to him or her.

Information was initially sought regarding each of the three research participants by means of semi-structured interviews. One set of interviews was conducted with the children, while a second set of interviews was undertaken with the parents. A third set of 'post-study' interviews was conducted with the student participants at the conclusion of the action research. In addition, a final interview was conducted with the parents. At this stage, the parents were also asked to complete a final questionnaire asking them to evaluate how successful they felt the intervention had been. These interviews, containing biographical data as well as information about the participants' conceptions of music, musical ability, likes and dislikes, successes and failures, were recorded on tape and then transcribed for ease of analysis.

Transcripts of taped interviews as well as the responses to the open-ended questions were numbered for ease of reference and then re-read in order to assemble student and parental thoughts, opinions and feelings and analysed for trends.

Unstructured Interviews and Discussions

Unstructured discussions were an integral component of phase two of the study and formed an informal part of each session. While some such discussions were taped, a larger proportion of the informal discussions were simply written in note form and recorded in the research diary. Eight to ten of these discussions took place randomly throughout the course of the study allowing for insights and comparisons to be made between the participants and existing research, as reported in chapter five. Such discussions allowed trends, themes, ideas and arguments to be developed. An additional set of informal questions arose during the administration of the Student Product Assessment Form and were posed by the 'specialists' employed to administer the SPAF. This round of discussions was taped, transcribed and analysed and sections of it are also reported in the discussion section in chapter five.

Student Product Assessment Form (SPAF)

The Student Product Assessment Form (SPAF), designed by Joseph Renzulli and Sally Reis, was utilised at the conclusion of the action research to guide judgement in the qualitative assessment of the products developed by the students in the enrichment cluster. The SPAF, a research based instrument of proven value, was employed in order to overcome many of the traditional concerns raised in assessing students' products (Appendices 10 and 11).

The SPAF contains a series of nine questions designed to evaluate the student's product. Each question was divided into three related parts: the 'key concept', the 'item description' and a series of 'examples'. The examples are provided as research (Renzulli and Reis, 1997a) has shown that inter-rater reliability is improved when items are more descriptive. The examples are therefore provided in order to help clarify any misunderstanding that may exist on the part of different raters. Because the instrument was designed to be universally applicable to all types of products, the examples are not necessarily 'type' specific. In order that the individual SPAF administrators were therefore clear as to what they were assessing in each 'key concept' within the sphere of music, and in line with recommendations made by the creators of the instrument (Renzulli and Reis, 1997a), the examples were changed to reflect more precise musical parameters.

3.6 VALIDITY, RELIABILITY AND LIMITATIONS

While validity and reliability are two concerns arising from any research study, more concerns remain in the field of qualitative research due to its unquantifiable nature. As Berg (2001) states, "Qualitative research properly seeks to answer questions by examining various social settings and the individuals who inhabit these settings" (p. 6). Qualitative research therefore seeks to provide a means by which we can access unquantifiable facts, having more in common with concerns of issues of understanding than with issues of replication (Berg, 2001; Maxwell, 1992, cited in Boyack, 2000). Qualitative research, however, should not be without

methodological rigor as replication and reproducibility are, nevertheless, fundamental to examining theories and their acknowledgment by scientific communities (Berg, 2001). As all research is concerned with the production of valid and reliable knowledge, being able to trust such results is therefore important to professionals in applied fields. For example, a classroom teacher, wanting to experiment with a new way of doing things, will want to feel confident in its eventual success before undertaking to trial it (Merriam, 1998).

Internal Validity

Internal validity deals with the fit between research findings and reality. Put in another way, how closely do the findings encapsulate what is really there (Merriam, 1998)? Internal validity therefore hinges on the meaning of reality. But what is reality? Lincoln and Guba (1985) state that reality is "a multiple set of mental constructions...made by humans; ...and they are, in the main, accessible to the humans who made them" (p. 295). Because the primary instruments of data collection in qualitative research are human beings, interpretations of reality are therefore accessed directly through their observations and interviews. The researcher is, in effect, therefore closer to reality than if a data collection instrument had been interjected between the researcher and the participants. "Most researchers therefore agree, that when reality is viewed in this way, internal validity becomes a definite strength of qualitative research" (Merriam, 1998, p. 203).

Reliability

Reliability indicates the degree of replicability able to be applied to a given research project. If the study were to be repeated therefore, would the same results be achievable? Unfortunately, human behaviour is non-static; thus reliability within the social sciences becomes more problematic. Due to the fact that there will always be many and varied interpretations of what is seen to be happening, it is consequently difficult to create a benchmark by which to obtain repeated measures and establish reliability in the traditional sense of qualitative research (Merriam, 1998). Given that reliability when applied in the traditional sense to qualitative research seems to be something of a misfit, Lincoln and Guba (1985) suggest thinking about the 'dependability' or 'consistency' of the results obtained. Hence, rather than insisting that outsiders achieve the same results by simply replicating the study, we should instead require that outsiders agree that, given the data collected, the results make sense within the framework of the research situation. The question consequently becomes not 'will the findings be found again?' but rather 'are the results consistent with the data collected?' Mishler (1986) agrees stating that the determining of one absolute truth is not the critical issue, but rather whether an interpretation is plausible when compared to other alternative interpretations. One way of monitoring research findings and to increase confidence in the soundness of the data is the notion of triangulation (McFee, 1992).

Triangulation

While most researchers tend to have one methodological technique that they favour as an approach to research, Denzin (1978, cited in Berg, 2001) suggests that by combining several lines of sight, a researcher will obtain a more substantive picture of reality. The use of multiple lines of sight is commonly referred to as 'triangulation'. For many researchers, triangulation is restricted to the use of multiple data-gathering techniques (usually three) to investigate the same types of phenomenon (Merriam, 1998). Fielding and Fielding (1968, cited in Berg, 2001) suggest, however, that one of the most important features of triangulation is not simply the combination of different varieties of data gathering but more the attempt to relate them so as to counteract any threats to validity identified in each. Denzin (1978, cited in Berg, 2001) agrees with Merriam, however, insisting that the multiple-methods approach is now considered the generic form of triangulation. To this end, this study utilised contrasting methods of data-gathering in an attempt to construct strong and plausible research findings. Triangulation occurred in this study by the use of questionnaires, interviews and recorded observations. It should be noted, however, as Mishler (1986) states, that given the qualitative nature of the data gathered, a significant amount of biased explanation is inevitable and the unbiased measurement of socially reactive data is unlikely if not impossible.

External Validity

External validity is the extent to which the findings of one study can be applied to outside situations, put another way, how 'general' are the results of the research study? One way of viewing external validity is thinking of the reader or user of the study. Reader or user 'generalisability' necessitates leaving the degree to which a study's findings will apply to another situation up to the individuals in that situation. Hence it is the reader who has to ask what within the study can be suitably applied to that individual situation and what does not apply. Lincoln and Guba (1985) maintain that the actual researcher should be less concerned with generalisation than the reader. They do agree, however, that the researcher has an obligation in providing enough detail in the description of the study to facilitate readers to compare the fit to their own individual situations. One strategy used to achieve this is the use of *rich, thick, description,* the ability to provide enough description in the report so as to allow the reader themselves to determine how closely their situation does or does not correspond with the research situation and consequently whether findings can be transferred (Merriam, 1998). Rich, thick, description that enables the reader to visualise the research context, as used in the 'Results and Discussion' sections of this thesis, creates *descriptive validity* (Maxwell, 1992) and is particularly useful and pertinent in the reporting of case studies (Berg, 2001) where the reporting is characterised by the relaying of detailed, vivid, in-depth coverage of the information and findings (Adelman & Kemp, 1992).

Limitations

One concern that arises is in the interpretation of results. It should be remembered that musical talent is not an isolated variable. Results could therefore suggest several influences or reflect participants' other talent areas. Therefore this data may not necessarily reflect the precise reason for the behaviour that is thought to be related to musical giftedness. In addition, as this research was exploratory in nature, the research design and small sample size create some difficulties in allowing generalisations to be made. Consequently the results as reported in this study should only be seen as being applicable to the sample group of children.

The Researcher

In all research it is vital to consider the probable impact of the researcher on the results of the study. This study grew from the researcher's newfound interest in the field of gifted and talented coupled with a lifelong passion for things musical. Personal concern regarding the lack of appropriate music identification procedures in primary schools, together with a dearth of suitable music enrichment activities shaped the interest for the initial study. In research such as this it is unlikely that personal perspective will not in some way colour the final interpretation of results. In this study it is especially so in as much that the personal involvement formed by working closely alongside the research participants heightens the danger of bias. In order to lessen the chance of extreme bias sufficient explanation and description, so as to permit the reader to verify the researcher's interpretations and in

some cases to construct additional interpretations of their own, has been provided (Stake, 1978, cited in Bresler & Stake, 1992).

3.7 PROCEDURE

Ethical Considerations

As with all studies involving human subjects, ethical factors need to be considered. Application for approval to proceed with the research was made to the Massey University Human Ethics committee and was subsequently granted. Written approval was also obtained from the principal and Board of Trustees of the schools within which the research was to be carried out (Appendices 3 and 4)

At the commencement of phase two of the study, each student involved was given a thorough explanation of what to expect, the procedures to be used and what participation would be required from them. All participants were informed of their right to withdraw from the study at any time. It remained this researcher's responsibility to ensure that those students involved did not have demands placed upon them that may have affected their educational progress and this was clearly stated within the parental consent form (Appendix 5). Informed consent was secured in writing from the principal research participants, and parents (Appendices 6 and 7). All those involved were provided with a comprehensive explanation of the nature and purpose of the study, along with any other relevant information that may have affected their willingness to participate prior to consent being

obtained (Appendices 3 and 5). Every step to guarantee confidentiality was taken by changing student, school and teacher names, and/or assigning numbers to those involved in the research report, thereby reassuring participants that their identity would be concealed.

This chapter has outlined the methodology employed in this research project and has summarized the purpose and the framework of the study. It has addressed the issues of reliability and validity in addition to discussing the data gathering methods utilised.

Findings and discussions from each phase of the study are reported in the following two chapters. Chapter four encompasses the results and discussion of phase one, while chapter five relates the three individual case studies and covers biographical information gleaned from interviews, recounts the results of the research, and reports on analysis of the SPAF.

CHAPTER FOUR

RESULTS AND DISCUSSION: PHASE I

This chapter reports the findings of phase one of the study and gives an overview of the three different musical environments within which this phase of the study was conducted. It reports results of the data analysis of the questionnaires and clarifies how the final three choices of participants for phase two of the study were made.

4.1 CLASSROOM MUSIC CREATIVITY PROGRAMME: TYPE I AND II ENRICHMENT

The classroom creativity programme was titled *"Toward a Sound-scape"* and included the use of tuned and untuned Orff-styled percussion instruments. The sessions involved the students experimenting to create various sounds from their instruments (improvisation), discussing and trialing various ways of notating the work, and working together as a team to come up with a group composition. The poem "How Goes the Night", translated by Helen Waddell was used as the inspiration for the composition.

Session one was 30 minutes in duration and consisted of the students experimenting individually with the classroom percussion instruments. They were asked to think of various sounds, objects, animals and insects that their instrument might represent. Each student was given five minutes and asked to create two different sounds. At the end of five minutes, they were asked to swap instruments and were

given another five minutes to come up with a further two sounds. Next the students were asked to play their two favourite sounds back to the rest of the class. The remaining students were asked for ideas as to what they thought the sound might represent. The student demonstrating the sound then told the class what they imagined the sound to represent. Session one was rounded off with a discussion as to what the term 'percussion' meant and the difference between tuned and un-tuned percussion.

Session two began with each student being given a specific word (e.g. night, fire, rain, thunder) and asked to create a sound to reflect the feeling or meaning of the word. The children were given a longer period of time for this exercise and they were given the option of experimenting with several different instruments in order to find one that best represented their word. Their preferred instrument and sound were then demonstrated to the rest of the class.

The second half of this session involved discussion on how the students thought they might be able to write or 'notate' their sound. Reasons for necessitating this, for example, the need to be able to reproduce their work consistently each time they rehearsed it, or when performing to the rest of the school, were discussed.

Session three saw students taking a word-card from a pile, creating a sound to represent the word, drawing a symbol to represent that sound, and repeating the exercise four times. They then worked in pairs performing their 'compositions' to each other. They were then asked to explain to their partner

why they thought their sound/instrument best reflected their words.

Session four saw the introduction of the poem "How Goes the Night". The poem was read several times and then the students were asked to comment on words that they thought were important in the telling of the poem. The children teased out words and phrases such as night, midnight, blazing torches, throbbing drums, cold – clear – blue heavens, silvery moon, silent star, Venus shining, trumpets blazing, approaching dawn, sun rising, and shining light. They were then asked to break down words in more detail (for example, midnight – frightening, silent, cold, icy, heartbeat) and experiment to find a suitable instrument and create appropriate sounds for their words. Finally they were asked to draw a symbol to represent their sounds.

Session five was spent structuring the composition. The poem was re-read, sounds were refined and notation was recorded on the whiteboard next to key words. Some sounds were created by groups of instruments, others were created individually. Dynamics (loud and soft) were discussed and symbols to represent them were agreed upon. The notation was copied from the whiteboard at the end of the session.

Session six was a rehearsal session, in preparation for performing the work in assembly the following week. The children experimented, playing the work with, and then without the poem being read. They then discussed which option they preferred. Approximately two thirds of the class preferred the poem being read at the same time. The children cited two reasons for this. Firstly, they felt that the

performance would be more effective and meaningful to an audience if the poem was read, and secondly, the children were able to follow the cues of key words as to when to play their sound. This meant that they did not have to rely on someone 'conducting' the work.

Over the duration of the six sessions, a very imaginative, but focused, sound-scape was composed by the group. Discussion was a constant and key ingredient during these sessions. The resulting work was notated using symbols invented by the students. It was performed at a senior syndicate assembly and later at a middle syndicate assembly. Several of the children commented on how important they thought the notation, or recording process had been, especially when they had to remember how to perform it several weeks later at the middle syndicate assembly. Throughout these sessions, the researcher made observations in his research diary and commented on four children in particular who showed commitment and self-motivation as well as creativity and musical insight, for example the ability to discuss the musical features of the piece they were creating.

At the conclusion of the Type I music creativity programme, all of the students were asked to complete the "All About Me" questionnaire (Appendix 1) and parents of participating students were asked to fill in the "Things My Child Like To Do" questionnaire (Appendix 2). The classroom teacher was also asked to complete the "Teacher Nomination" questionnaire (Appendix 12).

4.2 SENIOR SYNDICATE SINGING: TYPE I ENRICHMENT

It is fair to say that while some children may exhibit an interest in music through classroom curriculum, others may exhibit such enjoyment in other areas of music, such as singing, or their desire to play or experiment on an instrument. School-syndicate singing was delivered for three quarters of an hour once a week to a different group of children. While this was not such a 'formal' component of the study, the researcher, never-the-less, felt that as singing is a key music activity and an activity through which musical ability is manifested, it was worth observing and recording any students who exhibited signs of interest. Throughout the course of the singing sessions, three children were identified as showing elevated signs of interest, such as remaining constantly focused, sitting straight, smiling as they sang, requesting songs, and in one case asking if they could have copies of the music. Of these three, two also sang in the senior syndicate choir. All three were asked to complete the "All About Me" questionnaire (Appendix 1) and their parents to complete the "Things My Child Likes To Do" questionnaire (Appendix 2). All three students originated from the same class but as this was a different class to the music creativity programme, the teacher from that class was also asked to complete a "Teacher Nomination" questionnaire (Appendix 12).

4.3 AFTER SCHOOL KEYBOARD PROGRAMME: TYPE I AND II ENRICHMENT

The "After-school" keyboard programme was delivered throughout terms two and three. Class sizes were between six and eight depending an age and ability. Approximately 50% of the classes were beginners; the rest had carried over from previous years. Eight classes were spread over two days each week. Throughout term two, two children initially came to the attention of the researcher. Both children, although beginners, were exhibiting signs of above average musical ability as well as commitment and self-motivation, such as constantly learning more pieces than asked to during the week. One child in particular demonstrated exceptional signs of creativity and interpretation, often playing little pieces that they had 'composed' during the week, frequently making connections with prior knowledge. Anecdotal observations of both children were recorded throughout both terms. Both children completed the "All About Me" questionnaire (Appendix 1) and their parents were asked to complete the "Things My Child Likes To Do" questionnaire (Appendix 2).

4. 4 QUESTIONNAIRE RESULTS: LIKERT-SCALE QUESTIONS

At the conclusion of all three stages of phase one, as described above, the questionnaires were administered and the results tabled. In order to analyse the results of the Likert-scale questions each response was given a numerical value, 1 being the least, 5 being the most. The responses to each questionnaire and their matching numerical value are

recorded under each table. All questions were adapted from *The Enrichment Triad Model: A Guide for Developing Defensible Programmes for the Gifted and Talented* (Renzulli, 1977), *The School-wide Enrichment Model: A 'How-To' Guide for Excellence* (Renzulli, 1997a) and *Re-Forming Gifted Education* (Rogers, 2002). Key indicator questions were intended to help narrow down the final talent pool and were identified by the researcher as those questions most likely to do so.

The results of the three questionnaires are recorded in the following tables. Table 1, 'My Likes and Dislikes of Music', is music specific, Table 2, 'How I Like to Learn', is a generic questionnaire, designed to identify general learning patterns, and Table 3 is a parental questionnaire.

To analyse the results, the numerical values for each child have been added. In addition to adding the score for all the questions, key indicator questions (shaded in grey) have been added separately. The results of all three questionnaires were then compared, with particular attention being paid to the key identifier questions. Only the scores of the children whose parents completed the parental questionnaire are included in this chapter. The scores of the three children finally chosen for phase two have been bolded. All children's names have been changed to safeguard anonymity. For tables of the full results see Appendices 13, 14 and 15.

Table 1: My Likes and Dislikes of Music

	My music teacher is usually the best teacher I have in school	It is important to work hard and be successful in music	I am very good at music	I plan to study music at high school	I try to learn more about music or drama outside school	Music is easy for me	I watch music and theatre programmes on TV	I enjoy attending music concerts & musical theatre productions	I would like to be an actor or musician one day	I try to do my best work in music and music related tasks	I love to learn about music	Learning new skills in music is the most interesting part of class	Art, music & drama are my favourite subjects at school	I could learn anything about music if tried hard enough	I wish most music lessons could be longer	**Total Key Indicator Score**	**Total Score**
Suzy	***3***	***4***	***4***	***3***	***4***	***3***	***3***	***4***	***4***	***4***	***4***	***3***	***3***	***3***	***4***	***21***	***53***
Shane	***4***	***4***	***2***	***2***	***1***	***3***	***1***	***1***	***1***	***3***	***4***	***4***	***3***	***3***	***4***	***21***	***40***
Sam	***3***	***4***	***3***	***3***	***2***	***3***	***1***	***3***	***3***	***4***	***4***	***4***	***3***	***3***	***4***	***22***	***47***
Stephanie	2	4	3	2	1	2	2	4	3	3	3	3	2	3	3	**17**	**40**
John	2	3	1	1	2	2	2	2	1	4	2	2	2	4	2	**16**	**32**
Mannie	3	4	4	4	4	1	4	4	4	4	4	4	4	4	4	**24**	**56**
James	4	4	4	4	2	4	4	3	4	4	4	4	3	4	3	**22**	**55**
Mike	2	2	2	1	1	2	3	3	1	2	2	2	3	1	2	**12**	**29**
Emily	1	4	1	1	2	1	2	1	1	2	1	1	4	4	1	**13**	**27**

1 Not True 2 Sometimes True
3 True 4 Very true

Key indicator questions shaded. Phase two participants bolded and italicised.

(NB: for the full table please refer to Appendix 13)

The above table, 'My Likes and Dislikes of Music', shows that all of the three students chosen for phase two exhibited high levels of interest and love of music and all felt that they could learn anything they wanted to about music, as long as they were prepared to work hard at doing so. In addition, all three understood that in order to do well musically, they needed to be committed to the task. While Suzy's scores indicated that she held an outside interest in music, such as watching music programmes on television, and going to music concerts, Sam's showed that outside music interested him to a lesser degree and Shane's scores indicated virtually no outside musical interest. This almost certainly reflects the

fact the Suzy had been learning piano for several years, while for Sam and Shane, music was a newly discovered interest.

Table 2: How I Like To Learn

	Someone explaining what I have to do	Discussing things with others so I can understand them	Studying with a friend to learn difficult material	Giving answers out loud when the teacher asks questions	Being asked to make connections with what I already know	Making or drawing something that applies to what I have learnt	Having a contest in class to see who has learned the most	Teaching something to someone else in my class	Sharing my ideas with others in the class	Helping another student get ready for a test	Becoming an expert on a topic so I can teach it to someone else	Going off on own to study a subject that I like	Finding out the big idea behind a topic that I am studying	Being able to skip over parts of subjects that I already know	Working on a project with others who have a similar interest independently	Planning a project I will work on by myself	Reading a book to learn more about a topic	Being allowed to work for long hours on a topic that interests me	Being given some materials or a task to learn in my own time	Going to the library to look up information on a topic of my own choice	**Total Key Indicator Score**	**Total Score**
Suzy	***4***	***3***	***5***	***5***	***3***	***4***	***4***	***4***	***4***	***4***	***4***	***5***	***5***	***4***	***5***	***4***	***5***	***4***	***4***	***5***	***27***	***90***
Shane	***4***	***4***	***2***	***3***	***1***	***5***	***2***	***5***	***3***	***3***	***3***	***3***	***3***	***5***	***5***	***4***	***5***	***5***	***3***	***5***	**27**	***73***
Sam	***5***	***4***	***3***	***4***	***3***	***5***	***4***	***3***	***3***	***3***	***5***	***5***	***3***	***2***	***4***	***4***	***4***	***5***	***5***	***4***	***26***	***78***
Stephanie	5	4	5	4	3	5	5	2	4	5	2	3	4	5	5	4	4	5	4	4	**26**	**82**
John	1	3	3	4	5	5	1	3	3	3	3	3	4	5	5	4	3	5	1	3	**21**	**67**
Mannie	3	4	5	5	5	3	5	5	5	5	5	5	5	5	5	5	5	5	4	5	**29**	**94**
James	4	5	4	4	4	4	4	4	2	3	4	5	5	5	5	5	4	5	4	5	**28**	**85**
Mike	4	4	4	3	3	5	4	3	4	4	4	3	4	4	5	2	3	5	1	1	**19**	**70**
Emily	5	5	5	5	5	5	2	4	4	5	3	3	5	5	4	3	3	5	1	2	**18**	**74**

1 Really Dislike 2 Dislike 3 Not Sure
4 Like 5 Really Like

Key indicator questions shaded. Phase two participants bolded and italicised.

(NB: for the full table please refer to Appendix 14)

Table 2, 'How I Like to Learn', is an indicator of children's learning styles. In order to engage in Type III enrichment, students need to be interested and motivated enough to want to follow a self-selected area of interest and willing to commit the time necessary to acquire the knowledge necessary to do so. Data in Table 2 indicates that all three phase two students were ready to cope with Type III enrichment. All three students' scores indicate that they enjoyed planning, researching and working independently on topics that they

were interested in. Scores also indicated that they liked to be shown new and interesting things by experts in a specific area of interest.

Table 3: Parental Questionnaire

	My child sets high personal goals and expects to see results from their work	When working on a project my child knows which parts are good & which parts need improvement	My child suggests imaginative ways of doing things even if the suggestions are impractical	When my child tells me of something that is unusual they express themselves by elaborate words	My child avoids typical ways of doing things, instead finding novel ways of approaching the problem	My child likes to play with ideas, often making up situations that would never occur	My child often finds humour in events that are not obviously funny to other children their age	My child prefers working/playing alone rather than doing something 'just to go along with the gang'	My child is a 'doer' who begins a project and shows finished products of their work	My child will continue to work on a project even when faced with temporary setbacks	My child gets so involved in a project that they give up other pleasures to work on it	My child is s self-starter who works well alone	My child will spend more time & energy than their classmates on a topic of interest	**Total Key Indicator Score**	**Total Score**
Suzy	***3***	***4***	***3***	***4***	***3***	***3***	***2***	***2***	***4***	***3***	***3***	***3***	***3***	**16**	***40***
Shane	***2***	***3***	***3***	***2***	***2***	***4***	***4***	***4***	***2***	***2***	***3***	***3***	***4***	***14***	***38***
Sam	***4***	***4***	***2***	***2***	***2***	***2***	***2***	***3***	***4***	***4***	***4***	***4***	***4***	***20***	***41***
Stephanie	3	4	1	1	2	2	3	2	5	4	2	3	2	**16**	**34**
John	2	2	2	2	2	5	2	3	2	2	2	2	2	**10**	**30**
Mannie	3	3	3	4	3	4	3	3	3	2	3	3	3	**14**	**40**
James	4	4	4	-	-	4	-	-	-	-	-	4	3	**-**	**-**
Mike	4	5	5	4	4	5	5	5	4	2	4	3	4	**17**	**54**
Emily	3	3	4	5	4	4	4	2	4	2	3	4	4	**17**	**46**

1 Almost Never 2 Rarely 3 Usually
4 Frequently 5 Always

Key indicator questions shaded. Phase two participants bolded and italicised.

The 'Parental Questionnaire' was used to help corroborate the students' 'How I Like to Learn' results. None of the parents of the final three students scored them as high as the students themselves. This almost certainly reflects the view that the parents were more analytical and realistic of what they expected and saw in their children. While both Suzy's and Sam's parents scored them as 'usually' or 'frequently' on the

task commitment questions, Shane's parents were more inclined to score him as 'rarely'. Shane's parental result indicated that while he enjoyed embarking on a project if it interested him, he would not necessarily always see it through.

Scores from all three sections were totalled and top scores from the first two Likert-scale sections ('My Likes and Dislikes' and 'How I Like To Learn') were compared. Initially Table 1 identified 12 children and Table 2 identified 18. The key indicator questions for these two sections were then totalled. High scores from the key indicator questions narrowed the talent pool to four children, Mannie, Suzy, Shane and Sam. One other child, Daniella also scored exceptionally high but her results were excluded as she was a student with English as a second language. As she had consistently ticked the right hand column (highest score) it was felt that she did not fully understand the task, or could not read the questions. While some children had scored high in one area of the questionnaire, for example "How I Like To Learn" they had scored lower in the second area "Likes and Dislikes of Music". Two children, Crystal and Sonia, did not complete the last five questions of the "How I Like To Learn" section of the questionnaire. As the last five questions were over the page, it is likely that these two children did not realise, hence the incomplete questionnaire. One other student, Alex only completed the "How I Like To Learn" section. The reason for this anomaly is unknown.

In addition to the totalled score columns, scores were also analysed within the body of the chart. Close scrutiny showed that three of the four high scorers, Sam, Suzy and Mannie

virtually always scored themselves at the top end, while Shane tended to score himself far more erratically. When it came to questions that related to perseverance, Shane tended to score himself in the middle or at the lower end of the continuum. These findings were corroborated by the results of Shane's parental questionnaire. In all questions relating to perseverance, his parents scored him low. Another anomaly showed up in the 'Likes and Dislikes of Music' questionnaire. In a number of the questions, Shane rated himself as low as a one. This is, in all probability, because music (in the form of singing) was a newfound interest for him and some of the questions, for example, *I enjoy attending music concerts and musical theatre productions*, would not have captured his interest in the past. This is supported by Shane's answers to questions such as, *learning new skills in music is the most interesting part of class* and *I wish music lessons could be longer.* Here Shane scored himself at the top end of the scale. Of particular interest to the researcher, both the 'How I Like to Learn' and the parental questionnaire identified that Shane did like to work independently, especially if it was a topic area that appealed to him.

Although the parental questionnaires were sent home with reply-paid envelopes, of the 25 questionnaires sent to parents, only nine (35 percent) were returned. It is, however, interesting to note that, with the exception of one, the biographical information indicated a musical background, and the Likert-scale section indicated task commitment and creativity. As the introduction to the covering letter indicated that I was performing research in the area of music, it may, in all probability, be assumed that parents with a musical

background took more of an interest and the time required to fill in the questionnaire.

4.5 QUESTIONNAIRE RESULTS: CHECKLIST AND OPEN-ENDED QUESTIONS

The 'All About Me' section contained a simple checklist designed to highlight subjects the students enjoyed. This section was followed up with four open-ended questions that related to the checklist. The next section 'People In My Class' was a simple peer nomination form containing a list of questions designed so that the students could identify perceived strengths of other children in their class (Appendix 1). Student s' responses to this component were varied in their usefulness; however, any useful responses such as interests in any of the arts disciplines (music in particular) and creativity were noted, recorded and cross-referenced to aid identification. (For a sample of results of this section of the questionnaire see Appendices 16, 17, 18, 19.)

4.6 THE FINAL CHOICE

The totalled results of the key indicator questions within the three Likert-scale sections initially identified four children. Of these four, Sam, was from the after-school keyboard classes, Shane, had participated in school singing and the remaining two, Mannie and Suzy, had both participated in the classroom creativity programme. Of these two, only Suzy had been identified in the research diary, possibly because she was very pro-active during these sessions. It could well have been that Mannie was quietly getting on with the task but

not drawing attention to herself. The small open-ended and peer-nomination sections, while indicating an interest in music in all four students, were of no additional help in choosing between these two girls. Suzy was, however, the only one of the pair to feature in the teacher nomination questionnaire.

If time had allowed, it is likely that all four students would have been chosen to work on a Type III project. Time constraints, however, required that only three children were chosen to participate in phase two of the study. While Mannie had scored equally highly in the Likert sections and had highlighted similar interests in the 'All About Me' section, she didn't feature in the teacher nomination questionnaire, or the research diary. All of the remaining three students had entries/observations recorded in the research diary that commented on their elevated levels of commitment, motivation and interest in music.

CHAPTER FIVE

RESULTS AND DISCUSSION: PHASE II

This chapter reports the findings of the three individual case studies undertaken as phase two of the study. Biographical background and family history of each of the three participants is covered, a brief overview of how each participant was identified is included, interviews are discussed and the Student Product Assessment Forms are evaluated. An overview of the process of each of the phase two investigations is included.

5.1 CASE STUDY ONE "SHANE"

5.1.1 BIOGRAPHICAL BACKGROUND AND HISTORY

Shane is the youngest of four children and at the time of this study was nine years old, Year Five at school. His mother's maternal uncle had been a principal cellist with the New Zealand Symphony Orchestra and her maternal grandfather had been a lecturer in music at Teachers College and a church organist. Shane's maternal grandmother was an accomplished pianist and his mother also played the piano in her youth, albeit, not so much in later years. When questioned as to why, with so much music in the family, Shane had not shown any interest in playing an instrument his mother stated:

> *While there was a musical expectation within the family, I worked real hard not to pass that on to Shane, not to say 'you must do this.' If Shane was going to learn music I wanted him to do it because he wanted to, not because of expectations. Shane hates to do things that he doesn't enjoy. However, if he finds something that he really likes then he will put 100 percent effort into it. Because of this disposition, if Shane was going to learn music I wanted him to discover it for himself.*

Initially Shane had shown an interest in music at his childcare centre through moving and dancing to music; however, from the age of two, when he left childcare to attend kindergarten that interest had not resurfaced, until he became interested in singing at school in Year Five. Part of the reason for this period of lack of interest may have been due to the dearth of any singing after leaving childcare until re-encountering it in his later years at primary school. Shane's mother felt that it was the lyrics that eventually attracted him to singing rather than the music itself and this observation was later borne out by Shane himself who stated during a subsequent interview, "It was the lyrics that I loved, I loved singing the funny ones." Shane loved poetry and funny lyrics and the type of singing that he was engaging in at school had once again rekindled his imagination.

5.1.2 OVERVIEW

Shane first came to the researcher's attention during school syndicate singing (Type I enrichment). He had arrived at the school during term two and approached the researcher towards the end of that term asking if he could have some copies of some of the songs to take home so that his mother could play them on the piano. He explained that he really enjoyed singing the songs and wanted to be able to sing them at home. When asked if he would like to do some independent music work with the researcher Shane agreed to be withdrawn once a week. Over the duration of the following term, Shane learnt how to use computerised music software as an aid in composing the music to a humorous poem which he selected (Type III enrichment). The researcher worked closely with him modelling the key steps required, both in the operation of the music software as well as providing the musical strategies required to set the poem to music. Once completed, the song was taught by the researcher to the rest of the school at syndicate singing.

Shane's initial expression of the desire to want to sing songs at home was the first indication to the researcher of some sort of musical ability. This was reinforced several weeks later when his mother rang up the school to say how much Shane was enjoying his singing. His mother conveyed to the office that before arriving at this particular school, Shane had shown no interest in anything musical but suddenly he was thriving on the singing and really looked forward to school singing each week. The researcher considered that Shane was exhibiting at least two of the clusters of Renzulli's (1986)

Three Ringed Model of Giftedness: task commitment and creativity.

5.1.3 INITIAL IDENTIFICATION

Shane was, in the first instance, identified by this researcher as exhibiting potential musical ability during school singing (Type I enrichment). Shane was exhibiting at least two of the clusters of Renzulli's (1986) Three Ringed Model of Giftedness, that of commitment (his enjoyment of singing), and creativity (his enjoyment of words). This was therefore enough evidence for this researcher to investigate Shane further. Shane was one of three children from the singing syndicate asked to fill in the "All About Me" questionnaire (Appendix 1) and his mother was asked to fill in the "Things My Child Likes To Do" questionnaire (Appendix 2), jointly designed to facilitate the identification of potential musical interest and, in general, task commitment and creativity.

The results of these questionnaires reaffirmed an interest in music, in particular singing and the desire to write songs as well as an interest in language, reading and being creative, particularly with words. In addition Shane had an obvious enjoyment of scientific matters. There were, however, some interesting inconsistencies. Shane's questionnaire highlighted his dislike of having to work independently in his own time if it was something that he 'had to do' for school. However, if it was a project that interested him then Shane enjoyed working for long periods especially if it was a project that he had planned himself. Shane also enjoyed independently researching materials and discovering

information in the library but only if it was a topic of his choosing. These responses were borne out by his mother who stated in her questionnaire response that Shane was not a self-starter, nor was he a goal focused individual. If he was working on a project that did not really interest him and faced setbacks then he would be likely to give up. However, if it was a topic that really captured his imagination he would be likely to persevere, especially if it involved electronics or computers. In a subsequent interview Shane's mother responded, "It's not so much that Shane hasn't got the ability to carry out and complete things, it's more that he isn't always motivated. He is in fact extremely bright with above average abilities in mathematics, reading and things pertaining to the sciences but he needs to be enthused in order to perform."

Was this an example of 'the gifted underachiever'? Reasons for gifted children underachieving are a complicated area and cannot usually be attributed to any singular circumstance. There is, however, little doubt that one of the principal causes of underachievement amongst the gifted is inadequate curriculum and teaching methods (Whitmore, 1980, cited in Moltzen, 2004b). Cathcart (1998) states that it is wrong to believe that all gifted children will automatically do well in all subjects at school, many experience boredom and frustration and as a result develop strategies such as day-dreaming, doing the minimum required to pass, or worse still, just simply giving up due to lack of stimulation. It seemed reasonable that Shane's lack of motivation and inability to see certain tasks through could be attributed to boredom in certain subjects.

It also seemed that there was evidence of the third cluster 'above average ability', although it only appeared to be evident in some curriculum areas. Shane was thus exhibiting all three rings, albeit to varying degrees. While Renzulli (1986) states that it is desirable for all three clusters to be viewed as equal partners, he later states that this will not always remain true, that in some individuals some clusters will be more dominant than others. He also points out that the clusters will not necessarily remain constant throughout the pursuit of creative, productive endeavours. It was becoming apparent to the researcher that given the right motivation and area of interest, Shane would most likely excel in Type II and III enrichment.

5.1.4 INITIAL INTERVIEW

Having identified Shane as having an interest in music, an interview was then conducted in order to establish how he could best build on his interest of singing and what nature of independent project (Type III enrichment) he would like to work on. Once again a semi-structured interview was implemented (Appendix 8).

Shane's response to the initial question of whether he liked music elicited the response, "it's really the singing I like, not just music." Shane went on to explain that at his previous school they occasionally had school singing but it was fairly rare and they tended to sing the same two or three songs all the time. It was not until he arrived at the current school where there was singing every week and the children sang such a vast range of material that his interest was ignited. What he really liked were the songs with the humorous

lyrics. He liked poetry and the funny songs reminded him of some of the funny poems he had learnt, Shane commented, "some of the songs we sing here – it's like setting some of these funny poems, but to music".

Shane was then queried as to why he had asked to have copies of the school songs.

> *I wanted to take them home so that I could get my mum to play them for me. Sometimes my dad or sister would play them as well. I liked to sing along when they played them, it was fun. We only got to sing once a week at school and I enjoyed singing the funny ones and liked to do it at home between times, especially on the weekends.*

Next Shane was asked if he had ever felt the desire to learn to play the piano himself and this elicited several responses.

> *No, I have never felt like doing that, even though my sister learns the piano. I enjoy being outside, doing things like playing on the tramp and playing other sports. I do like reading, I read a lot, but mostly at night or when it is wet. I really prefer being outside doing things and playing the piano means lots of time spent indoors practising.*

Shane's next response, as to whether he thought music was important, showed surprising insight. From this response it is clear that Shane has identified that music is important for

several reasons. He has identified that as well as filling aesthetic desires; it also fulfils more functional purposes.

> *I think music is important but not just for singing. It has several uses that I can think of. Enjoyment sure, but more than just that, for listening, for selling products, for telling stories, for relaxation and also for movies. Movies have to have lots of background music or they would become just boring. Music in movies helps the excitement to build.*

Shane was next asked if he had ever made up any songs, did he ever make up any tunes in his head.

> *No, not like that, not actual songs. I like making up poems, I quite often do that because I really enjoy playing around with words, trying to get them to rhyme, trying to write things that sound funny and make people laugh. I don't think I could write a song though because I don't know anything about music. I wouldn't know how to write it – the music part of it that is. It would be fun to write a song but I wouldn't know how. I might like to learn how though; I don't think it would be as hard as it looks. There is this saying that 'triggers' may look hard to begin with but once you have learnt how they work they are as simple as can be.*

In response to the query as to what he meant by 'triggers' Shane replied that a trigger was something that sets the

brain off thinking, something that is difficult to learn but eventually becomes second nature.

> *It's like learning to drive a car. I think that music would be like that. Once you have learnt all about it, it would become easy like. The brain would just know about it. It would just know what all those squiggles and dashes stood for. You wouldn't have to stop and think about it, you wouldn't have to actually work it all out each time, it just happens.*

At this point, the researcher asked Shane if he would like to have a go at writing his own song. It was explained to him that he would learn to use a computer to help write the music for the song after he had first written the words or poem. Once again his response demonstrated considerable thought and insight.

> *Yes, I would like to have a go at doing something like that but it is going to be quite hard because I don't actually know how to read or write music. I do enjoy working on computers, so I guess I could write a song if you could help me with the music part of it. I think if I did the words perhaps and then you helped me with the music that might work.*

As a result of the initial interview Shane decided he would like to write a humorous song that could be taught to the rest of the school for school singing. Teaching the song to the rest of the school was essential in the light of Renzulli's (1977)

statement that the provision of an appropriate audience is crucial to student motivation and satisfaction. Shane was to write the words and then he would be shown how to utilise computer software to help create the melody, working alongside this researcher in order to learn the basics of music composition. Shane would be withdrawn from class for one and a half hours duration once a week.

5.1.5 PROCESS OF INVESTIGATION

The first half of session one was devoted to learning how to use the computer music writing software and all of its functions. This created no difficulty for Shane as he enjoyed working on computers. The second half of this session was to be employed working on the lyrics. However, although Shane had agreed the previous week to at least put some ideas together, if not come up with a couple of verses, he had in fact given it no more thought. Shane, once again, promised to do so for the following week.

Session two and once again Shane had done no work towards writing his lyrics. Was this evidence of Shane not being a self-starter? His mother had mentioned that he was not goal focused and had a tendency to give up. However, she had also mentioned that if it was something that captured his imagination he would be likely to persevere. Shane did like computers and he had spent considerable time at home on the computer during the previous week using the new software, in fact he had discovered some functions that were available by simply experimenting with the programme. After more discussion it was decided that rather than try to write

his own lyrics, Shane would locate a humorous poem that took his imagination and utilise that to set to music.

Session three and Shane arrived with a selection of four poems he had located in the library. Considerable time was spent in this session discussing the pros and cons of each individual poem and what made some more suitable than others to set to music. Finally a poem was chosen that appealed to Shane's sense of humour as well as having a series of regular verses with a repeating chorus that made it ideal for a musical setting. Time was then spent explaining to Shane the measure values of musical notes and their corresponding mathematical values. Rather than using technical musical terms, this was elucidated in terms of whole notes, half notes, quarter notes, and eighth notes and that each corresponding measure or 'bar' of music had to add up to a 'whole'. In addition Shane was shown how to create a rhythm to match the words using mixtures of the above values. His task was then to input the first verse and chorus into the computer, rhythmically placing the resulting notes on the 'G' line.

Shane arrived to session four with the resulting work on computer disc. He had worked on verse one and the chorus. The rhythms were checked against the syllables and a few minor adjustments pointed out by the researcher. Shane was then shown how to position the lyrics under the corresponding notes, his task for the following week being to input the remaining verses and lyrics. At this point the researcher noted that the assumed lack of motivation had vanished and was now replaced with an eagerness and willingness to continue working independently at home.

When session five arrived, Shane had finished imputing the poem in its entirety. The researcher then explained to Shane the progression of chords I, IV and V and how they can be used as a basic building block to composition. As the poem Shane had selected was arranged in a series of verse, chorus, verse, chorus, each containing four lines of even meter, the progression of chords I, IV and V was ideal as a building block for Shane's song. As Shane was not able to read music, it seemed unrealistic to expect Shane, at this point, to put the chord progression in himself. The researcher therefore inputted a sequence of chords I, IV and V in the corresponding piano line to act as the basic accompaniment to the song. The resulting work in the computer to this stage was a basic I, IV, V piano accompaniment and a series of notes all on the 'G' line, rhythmically matching the lyrics. What remained was for Shane to manipulate – move the notes around – in order to create his melody.

The following week saw the melody begin to eventuate. Initially Shane worked alongside the researcher, learning how to move the notes up or down. Strategies such as repetition of a phrase, inversion of the previous phrase and repetition higher or lower to the previous phrase were all introduced to Shane in this session. Shane very quickly worked out for himself that if he used any of the notes in the chords of the corresponding piano accompaniment, it would always sound alright. He also very quickly realised that if he only did this it sounded, in his words, "very boring." He soon realised that he could use additional notes, especially 'passing notes' within the chord structure. During this session Shane made comments such as, "for school singing it doesn't want to be

too fancy," and, "if I make the second line the same as the first it's easier to learn and sing." As this session progressed, Shane began to get more adventurous. He began placing notes in places that did not resemble notes in the chords below. His 'ear' began to help him decide whether or not things were sounding correct. He went back and 'revisited' the beginning of the song, re-working the melody, creating a more interesting outline. Once the melody for the first verse and chorus had been composed, it was a simple matter of 'copying and pasting' the resulting melody over the remaining lyrics and then making minor adjustments to the rhythms where necessary.

The resulting song was then taught over the next three weeks at school singing but it was not announced to the rest of the school that Shane had written the music for the poem until the song had been taught in its entirety. The song was then performed on the final day of school.

5.1.6 EVALUATING SHANE'S STUDENT PRODUCT ASSESSMENT FORM (SPAF)

The following evaluation of Shane's project (song composition) was conducted by four individual raters, the researcher as Shane's Tutor, Shane's classroom teacher, a specialist in the education of gifted children, and a music education specialist. The average ratings from each scale item from all three raters were then calculated as follows (for breakdown of factors and details of the SPAF see Appendix 10).

FACTORS	AVERAGE RATING
1. Early Statement of Purpose	4
2. Problem Focusing	5
3. Level of resources	4
4. Diversity of Resources	N/A
5. Appropriateness of Resources	5
6. Logic, Sequence and Transition	4.5
7. Action orientation	5
8. Audience	5
9. Overall Assessment	
A. Originality of Idea	3.5
B. Achieved Objectives Stated in Plan	4.5
C. Advanced Familiarity With the Subject	4
D. Quality Beyond Age Level	4.5
E. Care, Attention to Detail etc.	4
F. Time, Effort, Energy	4.5
G. Original Contribution	4.5

Factors 1 -8:	**Factors 9A – 9G:**
5 = To a great extent	5 = Outstanding
4 = To an above average extent	4 = Above average
3 = To an average extent	3 = Average
2 = Somewhat	2 = Below average
1 = To a limited extent	1 = Poor

Table 4: Shane's Student Product Assessment Form

The scoring on Shane's SPAF (all above average or outstanding) demonstrates his clear purpose and focus and confirms his commitment to the task. The first section (1 to 8) relates to individual aspects of Shane's composition. Shane decided to work at composing a humorous song early on in the project. The focus of his composition (item 2) was readily apparent to the listeners at the final performance during school singing and there was no doubting that Shane had tried to emulate the style of the songs that he enjoyed singing himself. Shane used all appropriate resources (item 5) available to him such as computer software, advice from his tutor, and accessible poems from the school library. His composition was arranged in a logical sequence (item 6),

verse, chorus, verse, chorus, and ended appropriately with an alternative, final, ending. Action orientation (item 7) refers to whether the student's purpose was directed toward some type of original literary or artistic product, rather than simply reproducing existing work or information. In Shane's case, as he liked singing humorous songs, his goal was to write an original piece in the same genre. It was written with a specific audience (item 8) in mind (school singing) and was especially appropriate to that audience.

Section 9 of the SPAF contains several different components and is intended as an overall assessment of the project. This section is designed to be evaluated in terms of the characteristics that indicate the quality, aesthetics, and function of the overall contribution. Valuers are asked to consider the product as a whole by using their own judgement and opinions. In this section Shane's results have varied slightly. His originality of idea only scored 3.5 (average). There can be seen to be several reasons for this. As one of the independent raters expressed, "It is a shame that in Shane's case, time didn't allow for writing a second song creating his own lyrics." As Shane's composition utilised an existing poem, it was not entirely his own work, therefore he received a lower score. In addition to this, his resulting melody was also very basic as it was based on a structure of chords I, IV, and V and was therefore somewhat mechanical in structure. Comment was made by one of the raters, however, that given additional opportunities his expressive component would develop.

Apart from this one anomaly, however, Shane's results in this section of his SPAF scored either above average or

outstanding, once again highlighting similarities with Renzulli's (1986) Three Ringed Model of Giftedness, that characterise above average music aptitude and ability, creative music interpretation, and task commitment and self-motivation as indicators of musical giftedness.

5.1.7 EVALUATION COMMENTS

The following summarises the tenor of the comments expressed by the individual raters:

What stood out was Shane's very clear purpose, he knew exactly what his audience was and what he wanted to produce – a kids' song. Given his lack of prior musical experience it seemed that his rate of attainment and understanding was rapid. Shane was clearly focused as to what type of song he wanted to write, he listened to other songs and then found a poem that fitted his criteria. The resulting poem was perfect for the chosen audience, that is, school singing, being both funny and lively. It is a shame that time did not allow for writing a second song creating his own lyrics but it is likely that given further support he is capable of doing so. If time had allowed it is likely that Shane could have followed other avenues for sharing his song with a wider audience for example publishing the song in "Kiwi Kids". Shane showed that he was 'at home' working with computers and his ability in this area was an obvious advantage enabling him to transfer his skills to using music software. Although Shane paid less attention to the expressive elements of music than to the mechanical aspects of composition, this (probably) reflects lack of prior knowledge

and one would imagine that given more opportunities in the future that this expressive component would develop.

5.1.8 SECOND INTERVIEW

At the conclusion of the schoolwide performance of the song, the final interview was conducted by the researcher and two colleagues.

Shane was asked what had initially inspired him to want to write a song. His initial response was that he thought it would be a good idea because he enjoyed singing funny songs so much. He thought that if he was going to be involved in withdrawal music it would be a worthwhile thing to do. He was then asked if he had enjoyed working outside of his regular classroom and if there were any problems associated with doing that, whether it had bothered him missing some of his regular class work. He responded by saying he had enjoyed and looked forward to the music sessions each week.

> *I did find it hard sometimes, if I went back to class early, to know what the rest of the class had been doing. I found it hard sometimes to know what I was expected to carry on with, but apart from that I really enjoyed the sessions.*

At this point in the interview Shane's song was played to the interviewers from the computer and sung by Shane and the researcher. Previous to this both interviewers/raters had listened to the song being performed by the entire school at school singing. One of the interviewers than asked Shane

what it was that had drawn him to this particular poem? Shane's response was that after looking at several choices, this one seemed the most logical as it had several verses and a chorus that kept repeating.

> *Like a lot of the songs that we sing at school singing. The funny ones all seem to have a series of verses and a real funny chorus that keeps coming in. It's the real funny songs that I like, that's what draws me to them. That's why I enjoy singing.*

One of the interviewers than commented that she had arrived late to singing and Shane's song was being sung as she arrived. She had not therefore realised that it was Shane's song and had just thought that it was a 'Kiwi Kids' song as it fitted that mould. 'Kiwi Kids' is a school singing resource, released by Learning Media each year, containing often funny songs, simply written with repeating choruses and easy for children to sing. The interviewer felt, that with a little bit of re-working, the song would be good enough to submit. Asked if the song had been easy to learn Shane replied that the school had only been singing it for three weeks and had picked it up very quickly.

Shane was next queried about the use of the computer in aiding him in his composition.

> *I like using computers. I spend a lot of time on it at home and I enjoy publishing work on it at school. The computer really helped me with my composition. I don't read music, but with the*

> *computer, you don't really need to be able to do that. The computer does it all for you. I learnt to use the programme really quickly; it was quite easy to use. I don't think I would have been able to write this music without the computer, or, if I had, it would have taken a lot longer and I think I would probably have lost interest in it before it was completed.*

This was a rather 'insightful' comment by Shane. His parental questionnaire had identified that Shane was not really a self-starter. He needed to be motivated and needed to be working on something that really captured his imagination. Shane really enjoyed computers and it is likely, given the aforementioned knowledge, that had Shane not been able to use the computer to help with his composition, he would have lost interest very quickly. Shane was an individual that was committed to the task only as long as it captured and maintained his interest. While Shane exhibited task commitment to this project, it is likely that the use of modern technology was one of the reasons that his interest was maintained, not just the task itself.

> *I did learn a lot of things about music though, things such as repetition and rhythm. I learnt about how each bar has to add up to a certain number of beats. I've learnt how to read rhythms like crotchets and quavers and minims and semibreves. I've learnt their mathematical equivalents like whole and half and quarter beats. I can also read note names, although it takes me a little time to work them out, but I can*

> *do it now. I can work out the names. Before I started working on this song I didn't have a clue as to what all the little dots and dashes meant.*

When questioned as to whether he thought he would be able to complete a similar project without the computer to help him, Shane replied that he felt he would be able to. He felt that he would be able to work the rhythms out to fit the lyrics without the computer but that writing the actual melody would be more difficult. As he explained:

> *There are two real advantages in using the computer to help write music. The first is that it won't let you put more than the correct number of beats in a bar. The second is that it lets you hear what you are writing as you are writing it. You can move the notes around and hear where they are going. You can hear your song as you are writing it. If you don't like something you can change it. At the start, I wouldn't have been able to write a song like this without the computer as I can't play the piano. I wouldn't have had a clue as to what I was doing. Now I may be able to give it a go, but I would probably still need someone like Mr. Jones to help. Especially to play back to me what I had written.*

Shane was asked whether he had felt, at any time, whether it was all too difficult. He replied:

At the beginning I thought to myself, how am I going to be able to do this? But after a couple of weeks I realised the computer was going to make it easy and fun and I think that it is the important thing, that music is fun. At the beginning I wanted to write my own lyrics but couldn't seem to get going. Once Mr. Jones suggested that I find a poem to use, it made it a lot easier. If I got a bit stuck while I was writing the song then Mr. Jones suggested ways to help. I think if I wrote another song I would be able to remember some of the things that Mr. Jones suggested to help.

Shane's final comments are summed up as follows.

I've learnt a lot, especially about rhythm and reading notes. The best part about it has been working with Mr Jones. I sort of had the ideas but it sort of bounced off Mr Jones and came back to me and it was clearer than it was before. Working for an hour and a half each week has been really enjoyable and I've learnt quite a bit about music that I didn't know before. Working on the computer definitely helped as well. That's what made it enjoyable for me. If I had to do it at the piano and get Mr Jones to write everything down for me, or learn about everything first, I don't think I would have enjoyed it. Using the computer made it my work, I didn't have to ask Mr Jones to do it all for me.

The above interview demonstrates that Shane was able to model his composition on examples available around him. His enjoyment of school singing, particularly the songs with funny words, directed him towards wanting to try writing a song of his own. In addition to generating the desire, these songs also supplied the model on which to base his resulting composition. Bandura (1986) describes this ability to observe something, retain it in one's memory and later imitate characteristics of the original model as attention, retention, and reproduction. Shane was able to engage in this on several differing levels while the researcher added scaffolding (Wood, Bruner, & Ross, 1976), assistance that allowed Shane to complete the task that he would otherwise have been unable to complete individually.

Asked if he would like to continue writing songs, Shane responded by saying that he now had another option to add to his list of possible careers and that "Yes, I would quite like to write more sings for the kids to sing at school."

5.1.9 FINAL DISCUSSION AND EVALUATION

The final phase of the study consisted of Shane and his mother filling in a final evaluation sheet to help evaluate the worthiness of the enrichment experience (Appendices 20 and 21). Shane and his mother were both very positive about what had taken place. Shane commented that not only had he learnt a lot about music composition, but that he had learnt a lot about music, "how it all works," in general. He made the comment that if he ever had to do a 'pre-test' in music he would probably do very well. Shane's mother said

that he had been committed to the project throughout the duration and had particularly enjoyed being able to work with the computer. She expressed the opinion that she was very proud of the outcome and of the resulting song that Shane had written.

> *It has been a great experience for me to observe Shane writing this song. Since arriving at this school I have seen Shane develop a real love of singing, something that wasn't apparent at his previous school. This enjoyment in singing has helped introduce Shane further to music, something that I will be eternally grateful for. Music in our family has always been important but it was something that I wanted Shane to discover for himself. In school singing you have motivated the children, brought them an enjoyment of singing, helped them feel it was 'cool' to sing. You kindled Shane's interest in singing and as a result of that newfound interest you helped him to create his own special song. You have helped him discover singing, something that he continues to enjoy and something that I am sure he will enjoy for the remainder of his life.*

5.1.10 POSTSCRIPT

For most of the year following his project, Shane continued to enjoy his singing, but showed no other interest in music. Towards the end of that year, however, listening to the bagpipes being played in church sparked the desire to want to learn that instrument. Shane has now been learning the pipes for two years. In 2006 he will begin high school and has registered to join the high school pipe band as well as joining the Regional Developmental Band. Asked why he chose to learn the pipes in preference to other instruments he responded with several reasons. "I enjoy the sound of the pipes, it's my Scottish heritage. Things like the piano or guitar are pretty standard and I think somewhat boring. I wanted to learn something that really inspired me."

Shane is certain that he will study performance music at high school. He has ambitions of joining the Air Force when he leaves school and is adamant that he will join as a pipe band member. Whatever his future holds, he is determined that music will have a fundamental influence on his career. In the meantime he wants to participate in as many competitions as he can; his immediate goal is to achieve national recognition as a piper. He also intends mastering other forms of the pipes.

Shane's mother revealed that he practises every day, weekends and holidays included. He has an ever-growing collection of pipe band recordings which he plays constantly and harbours an ambition to travel to Scotland to further his tuition.

Asked as to how important he felt the Type III intervention had been he responded by saying:

> *It was working with you that really sparked my interest in music. I am certain that I would not be learning the pipes now if it wasn't for the time spent working with you. You showed me how much fun music could be, your passion for music rubbed off on me and, while it lay dormant for a few months, it was lying there, just under the surface, waiting for another catalyst to re-ignite it.*

5.2 CASE STUDY TWO "SUZY"

5.2.1 BIOGRAPHICAL BACKGROUND AND HISTORY

Suzy is an only child and at the time of this study was nine years old, a Year Five level at school. Apart from Suzy's maternal grandmother, who played piano "only a little bit in her youth," there are no other musicians in the family. As an infant Suzy showed an interest in things musical, her father recalling instances of her from as young as two years of age singing and moving to music. At the time of this study Suzy had been learning piano for three years and in that time had sat and passed up to, and including, grade five. Her father described her as a "'piano addict" stating that she often had to be "dragged off the piano to do her homework".

5.2.2 OVERVIEW

Suzy first came to the researcher's attention during the delivery of classroom instrument music. The class was experimenting with tuned and untuned percussion, working towards creating and notating a 'soundscape' (Type I enrichment). Suzy exhibited a remarkable ability to think outside the 'musical square'. She was able to use instruments to create sounds of a different nature, sometimes quite unusual, and sounds other than which the instrument had been designed for. Suzy would often come and ask to use the instruments in the lunchtimes, especially if it was before a music session, so that she could experiment by herself ahead of time. Suzy seemed to be exhibiting all

three of Renzulli's (1986) Three Ring Model of Giftedness: task commitment, creativity and above average ability.

5.2.3 INITIAL IDENTIFICATION

Suzy was initially identified through the delivery of classroom music (Type I enrichment) where she showed an avid interest in the lessons, and subsequently as a result of the "All About Me" questionnaire (Appendix 1). The classroom music sessions were based around Orff (Orff & Keetman, 1958) type percussion instruments such as xylophones, glockenspiels, recorders, triangles, cymbals, sleigh-bells, tambourines, wood blocks, castanets, claves, and hand drums. The children were asked to perform various activities culminating in the composing and performance of a sound-scape which had been inspired by the reading of the poem "How Goes the Night", translated from the original Chinese by Helen Waddell. During these classroom music sessions Suzy showed an unusual ability to 'think outside the musical square', often creating sounds on instruments other than that which they were originally designed for. Suzy particularly liked playing the xylophones and glockenspiels and would often create ostinato type accompaniments representing such things as the moon's reflection shimmering on water.

At the conclusion of the classroom music module, the class was asked to fill in the "All About Me" questionnaire (Appendix 1) and parents were asked to respond to the "Things My Child Likes To Do" questionnaire (Appendix 2). In addition to confirming Suzy's enjoyment of music, the questionnaires drew attention to her ability to work

independently as well as exhibiting commitment to the task. Here again was more evidence of Renzulli's (1986) Three Ring Model of Giftedness: task commitment (as evidenced in the questionnaire), and creativity and above average ability (as evidenced in the classroom music sessions). The subsequent parental interview confirmed an above average ability in music which was also evidenced in Suzy's ability to advance on the piano to grade five in only a three year period.

5.2.4 INITIAL INTERVIEW

Having identified Suzy as having an interest in music a semi-structured interview was conducted by the researcher in order to establish how she could best build on her interest of music and what nature of independent project (Type III enrichment) she would like to work on.

To the initial question, "You obviously like music a lot, but what is it that particularly appeals top you?" Suzy replied.

> *I think it is fun and challenging, I like it a lot. I especially like classical music, I like listening to it as well as playing that sort of music. I like more pop sort of music as well. Groups like 'S Club Seven', I especially like them.*

To the next question, "Do you think that music is important?", Suzy initially responded by saying that she did not feel that music was all that important. She felt that music was only for fun. Queried further as to whether she felt that having fun might be important she replied:

> *Having fun is important so I guess that makes music important as well, at least as a hobby or pastime. It is important to me but it may not be important to everyone. To some people sport would be more important than music.*

By this response we can see that while Suzy has realised the importance of music in her own life, she has identified that other people may hold differing interests. To such individuals their personal interest would hold more importance than music. Such a response illustrates that Suzy recognises the differing needs of individuals, that what is held as essential to one may not be essential to another. Suzy is also identifying with the aesthetic experiences of music. As Leonhard and House (1959) state, life is enhanced when personal connections are made with the aesthetic experience.

Suzy was then asked if she practised lots and whether she enjoyed doing so.

> *I practise every day, usually around 60 minutes a day but sometimes lots more than that. I like to sit at the piano and play around trying to invent my own tunes. I sort of hum a tune in my head and then try and work it out on the piano. Sometimes I just play around on the notes; I don't always try and hum it in my head first. I play for myself as well, it is not always practising. I would rather play at the piano than watch Television. If it is raining then I'll often sit and play at the piano.*

Subsequent discussion with Suzy's father revealed that she would often sit at the piano for two to three hours every day and often more than that on a weekend. Haroutounian (2002) points out that concentration, perseverance, self-motivation and independent work habits are all characteristics of the musically talented individual. Haroutounain further remarks that a talented musician can often be found 'playing around' at the piano developing melodies of their own, repeatedly adding harmonies and improvisations to extend their resulting compositions. We can begin to see here evidence of Suzy's task commitment and self-motivation.

Following the interview and after some more discussion with Suzy, she decided to try composing a piece of music for the piano similar in style to something written by Mozart. In addition, Suzy would learn how to use music writing software on the computer to assist in composing this piece of music (Type III enrichment). Suzy would be withdrawn from class for one and a half hours duration once a week.

5.2.5 PROCESS OF INVESTIGATION

After the initial week spent learning how to use and experiment with the music software, Suzy tended to work quite independently on her project, seeking help only on a few occasions when necessary. Over a series of several weeks, she composed, section by section, a piano work that showed a considerable degree of thought. Suzy's piece, composed in the compound time of 12/8, was built on chords I, IV, and V.

It was written in rondo form and contained five sections: A (repeated), B, A, C, A. Section B was a variation on section A and section C was another variation but this time written in the relative minor key. It is interesting to note, that although based on chords I, IV, and V, the A section did not contain the tonic chords in the bass. Instead Suzy used chord I with the 3rd in the bass, chord IV with the 3rd in the bass and chord V with the 5th in the bass. Section B, the first variation utilised the tonic notes in the bass and section C, the minor key returned to using 3rds and 5ths. Suzy also displayed considerable thought as to the dynamics of her composition, marking clearly and explicitly throughout the piece her intentions as to the way it was to be performed.

Suzy did not compose at the piano, preferring to input the notes straight into the computer. She composed her piece over the duration of four weeks, writing a section per week, then spending another week 'refining' her composition into its final form. While advice was sought on several occasions, the bulk of the work was completed independently by Suzy, who had very definite ideas as to how she wanted the resulting piece to sound. The computer enabled Suzy to repeatedly play her composition back to herself, moving the notes around to achieve the sound that most pleased her. Once completed to her satisfaction, Suzy then went about learning to play the work, culminating in a performance to the rest of the school at assembly.

5.2.6 EVALUATING SUZY'S STUDENT PRODUCT ASSESSMENT FORM (SPAF)

The following evaluation of Suzy's project (song composition) was conducted by four individual raters, the researcher as Suzy's Tutor, Suzy's classroom teacher, a specialist in the education of gifted children, and a music education specialist. The average ratings from each scale item from all three raters were then calculated as follows (for breakdown of factors and details of the SPAF see Appendix 10).

FACTORS	AVERAGE RATING
1. Early Statement of Purpose	4
2. Problem Focusing	5
3. Level of resources	4
4. Diversity of Resources	N/A
5. Appropriateness of Resources	4.5
6. Logic, Sequence and Transition	4.5
7. Action orientation	4.5
8. Audience	4
9. Overall Assessment	
A. Originality of Idea	4
B. Achieved Objectives Stated in Plan	4
C. Advanced Familiarity With the Subject	4
D. Quality Beyond Age Level	4.5
E. Care, Attention to Detail etc.	4.5
F. Time, Effort, Energy	4.5
G. Original Contribution	4

Factors 1 -8:	**Factors 9A – 9G:**
5 = To a great extent	5 = Outstanding
4 = To an above average extent	4 = Above average
3 = To an average extent	3 = Average
2 = Somewhat	2 = Below average
1 = To a limited extent	1 = Poor

Table 5: Suzy's Student Product Assessment Form

The scoring on Suzy's SPAF (all above average or outstanding) demonstrates a clear purpose and focus and confirms her

commitment to the task. The first section (1 to 8) relates to individual aspects of Suzy's composition. Suzy identified the desire to work on a classical style of music composition, similar in style to Mozart early in the project. The focus of her composition (item 2), a piece in the classical style of Mozart, was readily apparent to the listeners at the final performance and there was no doubting that Suzy had tried to emulate the style of the great classical composer Mozart. That Suzy used all appropriate resources (item 5) available to her such as computer software, advice from her tutor, and copious examples of classical works, is also evidenced in the high score of 4.5. Suzy's composition was arranged in a logical sequence and followed the rondo form, often used by Mozart and other composers of the time. Action orientation (item 7) also scored 4.5, showing that, from the raters' point of view, Suzy had indeed managed to create an original artistic product worthy of being listened to.

Section 9 of the SPAF contains several different components and is intended as an overall assessment of the project. This section is designed to be evaluated in terms of the characteristics that indicate the quality, aesthetics, and function of the overall contribution. Raters are asked to consider the product as a whole by using their own judgement and opinions. In this section, Suzy scored a consistent 4 to 4.5 (above average for her age) in all criteria. As with Shane, the results from this section of Suzy's SPAF, show striking similarities with Renzulli's (1986) Three Ringed Model of Giftedness, above average music aptitude and ability, creative music interpretation, and task commitment and self-motivation, the three characteristics that are considered to point to creative, productive accomplishment.

5.2.7 EVALUATION COMMENTS

The following summarises the tenor of the comments expressed by the individual raters:

While it was clear that Suzy set out to compose a piece of music in the classical genre, it is unclear if she had, initially, considered her target audience. She did, however, perform her composition to both her class and the senior school syndicate upon completion. Suzy's commitment to the project was evidenced in the amount of time spent working individually on her composition at home out of school time. She showed particular attention to the expressive elements of the piece and her resulting performance demonstrated a good understanding of the classical style. This student expressed an interest in continuing to compose as well as exploring other styles of music. Suzy demonstrated ease at working with computers and effortlessly transferred existing skills in learning how to use the music software.

5.2.8 SECOND INTERVIEW

At the conclusion of Suzy's 'live' piano performance, her composition was then replayed on the computer to two of the researcher's colleagues who then conducted the final interview. Following are excerpts from Suzy's second interview carried out at the conclusion of this study.

Suzy was initially asked where the idea for the composition had originated. Had she had an overall idea in her mind or had it just sort of happened. She replied that it was trial and

error. She had begun by putting a right-hand melody into the computer, working on that until she got it sounding okay, she then added the left hand. She added that she had 'a sort of plan or map' in her head as to what she wanted the piece to sound like.

> *I wanted it to sound like Mozart had written it and I deliberately made it in sections. I wanted it to keep returning to the original theme. I also called it 'Allegretto' because that means lively and fast and that is the way I want the piece to be played. Mozart called lots of his pieces by names that meant how it was to be played so I thought I would do the same.*

Suzy was then asked why she had chosen to write the piece in 'sections' and why she had chosen 12/8 as the time signature. Once again she replied that Mozart often wrote short pieces of music in 'rondo' form and she liked the way that they would always come back to the original theme. She responded to the second part of the question by stating that she could have written it in 4/4 but that would have meant more work. Once again she used Mozart as her model saying that she had played several of his pieces that had been written with that time signature and she liked playing that sort of rhythm, "It feels sort of good to play."

Here, as in the previous case study, we can see that Suzy is building on prior knowledge and modelling her composition on examples that she is familiar with. She has seen or played similar pieces of music and has reproduced aspects of those models in order to gain the desired outcome. Once again

what Bandura (1986) describes as attention, retention and reproduction is being brought into play.

Asked what part of the music she was particularly happy with, she replied by saying that the middle section, where it modulated into the relative minor key, was something that she was particularly pleased with. "It sounds great. Mr Jones suggested trying it and I really liked the result. I kept a similar sort of idea running through it as the original theme and I think it works really well."

Suzy was then asked what it was she felt she had learned most from the experience.

> *The biggest thing was how to use the music programme on the computer and how easy that made it to write a piece of music, because you could alter it as you go. It was also good because you did not have to work it out at the piano first. You just did it as you went in the computer and when it was all finished you just had to print it out. I also learnt about chords I, IV, and V and how you can use them as a sort of building block in composing music.*

Suzy was later asked how she felt about being withdrawn from her classroom to work on this project; had it bothered her at all missing her regular class work. She responded by saying that she was not bothered at all by missing some of her regular class routines. She had enjoyed the chance to experiment with song writing and would love to have the opportunity to something similar again in the future. She had

particularly enjoyed learning how to use the computer to help her write her music.

5.2.9 FINAL DISCUSSION AND EVALUATION

The final phase required that Suzy and her dad complete an evaluation form designed to help evaluate the success of the enrichment programme (Appendices 20 and 21). Suzy was extremely positive about the experience. She commented that not only had she learnt some basic facts about composition, she had also learnt how to use computers to help her achieve this. She had particularly liked being able to hear what she had written played back to her by the computer. She felt this allowed her to be more critical of what she had written. Suzy's father remarked that she had been extremely committed to the project and had spent copious hours at home working on it. He felt that the resulting composition was something to be very proud of and seemed quite surprised that Suzy had been able to write such a piece of music. He expressed the desire that he hoped that Suzy would get the chance to do something similar in the future.

> *Suzy spends countless hours at the piano 'tinkering' at the keys but this is the first time that she has been able to write down on paper what she has been working on. This time she has been able to actually compose an entire piece of music and see the finished result printed out on paper like a real piece of music. This is great. It has given her real ownership of what she has been doing and I know she is*

real proud of 'her song' sitting on the piano. She often shows it to friends when they come around pointing out where it says on the page: 'composed by Suzy H'.

5.2.10 ADDENDUM

Suzy's case study is considerably shorter by comparison to that of Shane and Sam. The principal reason for this anomaly is most likely due to a misconception about musical talent that led to the choice of Suzy at the expense of another student. Suzy was already a clearly talented musician at the time of this study which resulted in her participation in Type III being rapid and brief. This misconception is addressed in the final chapter of the study.

At the time of the study, Suzy had come from Taiwan to New Zealand with her parents. I tried to contact her in December 2005 but all attempts failed. It seems that she and her family had returned to Taiwan so it was not possible to carry out a follow-up interview.

5.3 CASE STUDY THREE "SAM"

5.3.1 BIOGRAPHICAL BACKGROUND AND HISTORY

Sam is the older of two children and at the time this study began was nine years old, and a Year Five student at primary school. While neither of his parents play any musical instruments, his maternal grandfather and great grandfather were, by all accounts, both reasonably accomplished pianists. Sam's maternal grandmother had a love of Scottish dancing and his grandmother's sister played the bagpipes. Sam's mother's sister also enjoyed singing and along with her father sang in choirs and local Operatic Society productions. Enquiring as to why Sam's mother did not play an instrument she commented that she would have liked to but that family circumstances at the time prevented any such opportunity. His father's two sisters also played piano as youngsters but did not maintain this interest beyond school.

Sam began to show an interest in music from an early age. As young as three years of age Sam's mother would sing him nursery rhymes and he would end up singing them, tunefully, by heart. At five years, Sam's first school report commented on his enjoyment of singing and playing with classroom instruments as well as his ability to move or dance in time to the music. Here we see evidenced two of the most widely recognised early indicators of musical ability in children: the desire to sing and the ability to move to the beat of the music (Moog, 1976; Welch, 1998; Howe *et al.* 1995).

5.3.2 OVERVIEW

Sam first came to the researcher's attention during the course of the first term of 'After School' keyboard lessons (Type I enrichment). Sam began keyboard lessons at age nine as one of a group of eight children and by the end of the first term he had already completed two terms' worth of modules. The second term saw Sam working independently of the others in the group and during this term he would learn two, often three pieces of new music per week. Recognising that there was something special about Sam's musical ability the researcher offered to give individual lessons in term three (Type II enrichment) but over the holidays something quite astonishing happened. Sam, who had initially learnt to play keyboard by using only chords in the left hand, taught himself to read the remaining notes in the bass staff and over the course of the holidays learnt to play Beethoven's 'Fur Elise' without any help from his tutor. By the end of the third term, not only was Sam playing a plethora of classical music, he was also beginning to compose his own, often technically complex and intricate compositions. What made Sam's gift extra special was, rather than being 'shown how' before the event, Sam would experiment and discover for himself, leaving it for the tutor to explain the niceties and technicalities of what he had done after composition or new learning had actually taken place.

It was Sam's unwavering commitment to learning new pieces and the rate at which he managed to accomplish this that, initially, alerted the researcher to his more than average musical abilities. In addition to the speed at which he would learn new pieces, Sam would often experiment with different

ways of playing the same piece of music implementing musical effects such as variations on the theme, different rhythms, differing bass patterns and various accompanying beats. Sam was unquestionably exhibiting all three areas of Renzulli's (1986) Three Ring Model of Giftedness: above average ability, task commitment, and creativity.

5.3.3 INITIAL IDENTIFICATION

Sam was subsequently one of two children identified from the keyboard sessions asked to fill in the "All About Me" questionnaire (Appendix 1) and his mother was asked to fill in the "Things My Child Likes To Do" questionnaire (Appendix 2) which also included a section on biographical information. The questionnaires were designed by the researcher to aid identification of musical interest, general task commitment and creativity. The results of Sam's questionnaire reaffirmed his avid interest in music as well as his desire to see things through to their logical conclusion. However, a subsequent interview with his mother also revealed something else. Sam had, what could almost be considered, an obsession with detail and neatness and in some ways this was becoming detrimental to his schoolwork. Because of his desire for the utmost neatness and precision, Sam was finding it harder and harder to get his schoolwork finished on time, often handing in half completed work, not because of any lack of ability to complete the task, but rather a lack of time management skills and too much emphasis on the editing and presentation process.

Renzulli and Reis (1985) state that setting such high standards and developing a quality and excellence for one's work is one of the behavioural manifestations of giftedness, a sure indication of task commitment. This initial problem was also being compounded by the amount of time that Sam was now spending practising at the keyboard. Subsequent discussion between Sam, his teacher and his mother, however, was helping to remedy this problem. The questionnaire also identified additional interests of Sam's within the area of music, his desire to learn guitar and his love of singing.

5.3.4 INITIAL INTERVIEW

The next step was for the researcher to conduct an interview with Sam in order to establish how he could best extend his musical abilities and what nature of independent project (Type III enrichment) he would like to work on. A 'semi-standardised' or 'semi-structured' form of interviewing was utilised allowing the researcher to implement pre-determined questions in a systematic order while giving some freedom to digress thus enabling the researcher to 'probe' beyond the answers to the prepared, standardised questions. The interview questions covered a wide range of issues relating to music. (For the structured questions see Appendix 8).

In reply to the initial question, "Do you like music?", Sam instantly responded with, "Of course I do, I love it." The follow-up question, "Why do you love music?", elicited several responses.

> *Because I like listening to the sounds of music and I like the sounds that I can create when I play music. It was really because I liked the sounds of music that I decided that I wanted to learn to play the piano. I like all sorts of music, particularly the classical sounds but I like all sorts, I like pop music too and I like singing as well as playing.*

Here we can see Sam identifying that music held a personal importance, long before he began keyboard lessons. Bruce (1995, cited in Bruce, 1996) offers anecdotal evidence which highlights factors suggesting early musical ability. From a sample of 20 gifted musical secondary students, several special characteristics were observed. These included an early fascination for musical sounds of one kind or another as well as an early emotional involvement or extreme sensitivity to music. In addition, Bruce's survey focused on the awareness of the musically gifted and discovered that over half of the students surveyed always felt that music was special to them from an early age.

Sam was then asked to respond to whether he thought music was important. As evidenced in the following quote, Sam's understanding of the aesthetic importance of music showed awareness beyond his years.

> *Well, I think it's not the 'importantest' thing on earth, but you might say it is a little bit important. It's not as important as maths or English or reading but you could say it is important because it's in everybody and*

> *everything, everything has some sort of musical sound. It's important to me, I don't know why; I just know that it is incredibly important to me. I don't think that I could live without having music in my life, like, I could live without sport but not music.*

Sam's next response, to whether he thought sport was important, also showed astonishing insight.

> *Yes, I think sport would be as important to some people as music is to me. Sport and music and things like that are all important because they are fun. It's important to be able to have fun because fun is relaxing and everyone needs to relax and have fun.*

From these responses it is clear that Sam has realised the importance of music on both a generic as well as a personal level. He has acknowledged that while music is 'his thing', other people may have differing loves and needs that are just as personal and important to them as music is to Sam. He has also recognised the importance of the aesthetic experiences of music. As Leonhard and House (1959) point out, the life of all living creatures is a reaction to its environment. If the environment contains elements which satisfy basic needs, then the creature will thrive and find fulfilment. If, on the other hand, the environment lacks such qualities and needs, the creature will not survive. While mere existence is achieved when basic needs are met, life is further enhanced when the aesthetic experience is connected with, and related to, the ordinary, everyday experience.

Next Sam was asked whether he thought of himself as a musician and if he wanted to be a musician in the future. He was also asked if he could remember what it was that had made him decide that he wanted to learn to play the piano. He responded by saying that he would like to think of himself as a musician and that he 'definitely' wanted to be a musician when he was older. Sam noted that it was while listening to his cousin play piano when staying with him in Auckland when he was about six that inspired him to want to learn.

> *I used to stay with my cousin in Auckland and listen to him play the piano and I thought it was really neat how he played Fur Elise and all those other songs and I just loved the sound they made. It really inspired me to want to do the same. He also used to make some of his own music up and I wanted to be able to do that too. He used to play in competitions and had heaps of certificates on his bedroom wall and I thought, how neat.*

Although merely observing the actions of other people can affect a learner, the effects can be enhanced if the learner also notices the consequences of such actions. Vicarious experiences are an important element of learning and can affect one's behaviour in a variety of ways: learning new behaviours, facilitating existing behaviours, changing inhibitions, arousing emotions, or when a person particularly identifies with another person or group of people (Eggen & Kauchak, 1999). Vicarious learning occurs when people

observe the actions and consequences of another person's behaviour and, as a result, make adjustments to their own behaviour (Bandura, 1991). In talking to Sam it was apparent that his cousin had, albeit unintentionally, been a large part of the original catalyst instilling the desire in Sam to want to learn piano.

At this point in the interview, the researcher asked Sam if he had ever written or made up any of his own music. Sam's next answers were as interesting as they were pivotal in the interview. Sam responded by saying that some times he would 'fool around' at the piano with some of the chords that he knew but he did not really consider that was actually making up music. When queried further as to why he thought this was so, he replied with the comment that it was just chords, not real music; real music needed to have a tune, a melody. Asked if he would like to learn to use the computer to help write his own 'real' music, he reacted by showing real excitement, bouncing up and down in his chair and saying, "that would be the way coolest thing". Sam was then asked if he practised lots and how much time he spent each day on the keyboard.

> *Hello! I would have thought that was very obvious! I guess I would spend about two hours each day on the keyboard. Mum doesn't tell me to practise, I really enjoy sitting at the keyboard playing and getting things to sound good. It's not, like, a chore or anything, I just love sitting playing the keyboard. I sit there and go over and over until I get it right.*

In a subsequent discussion with Sam's mother it was revealed that, in reality, Sam tended to practice upwards of three hours every evening! Haroutounian (2002) points out that the musically talented person will display a number of non-music specific behavioural characteristics that will play a major part in the development of musical talent. These characteristics tend to depict the overall working style of the musically talented individual. They include focus in concentration, persistence, perseverance, a desire to work independently as well as self-motivation. This is supported by Renzulli (1986) who highlights task commitment as being one of the indicators of giftedness. Haroutounian (2002) continues by stating:

> *The musically talented person can focus intently while engaged in musical tasks and often can concentrate over extended periods of time in musical practice. The musician who is engrossed in work in the practice room may not realise how much time is passing and this person will physically jump when someone enters the room and breaks this focused concentration on a musical task* (p. 171).

Haroutounian further remarks that talented musicians will work away at a musical problem until they solve it. This is true not only of students practising techniques learned from lessons, but also of the self-taught musician, who will often "doodle around until conquering a tune by ear or developing harmonies and improvisations extending a tune" (p. 171). Here then was real evidence of Sam's task commitment and self-motivation.

Following this interview and after more consultation with Sam, it was decided that he would continue to receive keyboard instruction on a one-to-one basis for the duration of term three and he would learn how to use music writing software on the computer to assist in composing a piece of music. Sam would receive his tuition after school for one and a half hours duration, once a week for the period of 10 weeks.

5.3.5 PROCESS OF INVESTIGATION

What in fact happened was quite different to what was originally envisaged. Prior to the school holidays Sam had only learnt how to read and play chords in his left hand, including broken chords in a 'running – arpeggiated' bass pattern, and had only been learning keyboard for two terms (20 weeks in total). Over the two weeks of the holidays Sam taught himself to play 'Fur Elise', but in order to achieve this he had needed to work out the remaining bass notes and rhythmical patterns. When queried as to how he had managed this he replied, "It was logical, I started with the notes of the chords that I knew and counted up or down from there – working out the rest of the notes." According to Gardner (1993) Sam's musical curiosity and ability to find and solve musical problems typifies a student who demonstrates musical intelligence. Unlike music aptitude which is based primarily on natural capacities, musical intelligence is the process of developmental learning through music.

At this point Sam began learning a plethora of classical and semi-classical music, sometimes upwards of three pieces of music in a week. The problem that now arose was that while he was learning a large amount of fairly complicated music, he was not putting the 'finishing touches' to any of it – not tidying any of it up. Sam just seemed to have an insatiable desire to learn more and more. While the researcher did not want to quell his natural drive, he had concerns that if this was allowed to continue, irreparable damage could occur. After consultation with a colleague, he decided to set a new challenge for Sam. It was suggested to him that if he could 'polish' two or three pieces to performance standard, he could go up to Massey University and give a 'mini' concert on the grand piano to his parents, grandparents and friends. This challenge was accepted and Sam began to concentrate largely on three pieces of music, working at bringing them up to performance standard.

All this, however, was still only Type II enrichment, Type III had not begun to take place due, largely, to Sam's absolute passion for playing. Or had it? Renzulli (2002) describes Type III enrichment as consisting of investigative activities that lead to the development of products in which students assume roles as first-hand investigators, writers, artists, or other types of practicing professionals. He continues by saying that Type III enrichment experiences should be viewed as vehicles in which students can apply their interests, knowledge, thinking skills, creative ideas, and task commitment to self-selected problems or areas of study. That the overriding purpose of Type III enrichment is to create situations in which young people are thinking, feeling, and doing what practicing professionals do in the delivery of

products and services. In addition to this general goal, Renzulli explains that there are four objectives of Type III enrichment:

- To acquire advanced-level understanding of the knowledge used within particular disciplines, artistic areas of expression, and interdisciplinary studies.
- To develop authentic products or services which are primarily directed toward bringing about a desired impact on a specific audience.
- To develop self-directed learning skills in the areas of planning, problem finding and focusing, organisational skills, resource utilisation, time management, cooperativeness, decision making, and self-evaluation.
- To develop task commitment, self-confidence, feelings of creative accomplishment, and the ability to interact effectively with other students and adults who share common goals and interests (p. 14).

Surely then, by the above definitions, Sam was already engaging in Type III enrichment, at least to some degree. He was certainly exhibiting some of the markers. He was acquiring an advanced level of understanding in his unquenchable thirst for learning new material and in self-discovery of strategies to teach himself new techniques and disciplines. His 'self-teaching' of Fur Elise is illustration of this. He was certainly developing a product focused toward creating an impact on a designated audience, demonstrated by his desire to work on several pieces with the aim of performing a concert to family and friends. Sam was developing self-directed learning skills in the area of problem

finding and solving and his task commitment, self-confidence and creative accomplishment were all developed well beyond his 10 years. If the overriding purpose of Type III enrichment is to create situations in which young people are thinking, feeling, and doing what practicing professionals do in the delivery of products and services, then Sam was definitely engaging in Type III enrichment as he was mimicking what any professional concert pianist would be undertaking, practice, practice, practice.

At this juncture, something quite remarkable, once again, occurred. On arriving to give Sam his lesson, the researcher was presented with a short and fairly simple original piece of composition. Sam had worked on creating this with no help or direction from anyone. When questioned as to how he had gone about it he responded by saying, "I started by working out a pattern of chords that sort of sounded OK and then I played around with notes in the right hand. When each chord sounded right with the right hand, I wrote it out." It was then explained to Sam that what he had in fact used as a basis for his composition were chords I, IV and V, the basic building blocks of composition. Sam's musical ear and natural ability had helped him in creating his piece of music. Sam was now quite definitely engaging in Type III enrichment.

At this point, the researcher loaded music-writing software onto Sam's computer as an aid to further composition. Having loaded the software, the researcher told Sam that he would show him how to use the programme the following week. Yet again the result was as unexpected as it was astonishing. Upon returning a week later Sam had not only succeeded in teaching himself how to use the basic functions

of the music writing software but had begun to compose an exceptionally involved piece of music that was 'classical' in style. This illustration of composition exhibited examples of parallel thirds and fifths, chromatic harmonies, scalic and chordal accompaniment as well as a myriad of other compositional techniques. Sam would not have been able to compose such an involved compositional example if it were not for the computer software.

The software enabled Sam to 'use his ear' to compose by playing back to Sam what he was writing. He could ignore the rules as the computer always 'played by the rules'. Whichever rules that Sam did not understand the computer aided Sam by preventing him from making mistakes. The computer was in effect acting as Sam's composition tutor! Sam was able to let his imagination run wild and compose a piece of music that was far beyond his own technical ability to play. Once again, Sam was learning and discovering the rules as he went. His natural curiosity and ability to solve musical problems yet again demonstrated his natural musical intelligence.

5.3.6 EVALUATING SAM'S STUDENT PRODUCT ASSESSMENT FORM (SPAF)

The following evaluation of Sam's project (composition and performance) was conducted by three individual raters: the researcher as Sam's Tutor, a specialist in the education of gifted children, and a music education specialist. The average ratings from each scale item from all three raters were then calculated as follows (for breakdown of factors and details of the SPAF see Appendix 10).

FACTORS	AVERAGE RATING
1. Early Statement of Purpose	4
2. Problem Focusing	5
3. Level of resources	5
4. Diversity of Resources	N/A
5. Appropriateness of Resources	5
6. Logic, Sequence and Transition	4.5
7. Action orientation	4
8. Audience	4
9. Overall Assessment	
A. Originality of Idea	5
B. Achieved Objectives Stated in Plan	5
C. Advanced Familiarity With the Subject	5
D. Quality Beyond Age Level	5
E. Care, Attention to Detail etc.	5
F. Time, Effort, Energy	5
G. Original Contribution	5

Factors 1 -8:	**Factors 9A – 9G:**
5 = To a great extent	5 = Outstanding
4 = To an above average extent	4 = Above average
3 = To an average extent	3 = Average
2 = Somewhat	2 = Below average
1 = To a limited extent	1 = Poor

Table 6: Sam's Student Product Assessment Form

The scoring on Sam's SPAF (all above average or outstanding) demonstrates his clear purpose and focus and confirms his commitment to the task. The first section (1 to 8) relates to individual aspects of Sam's composition. Sam identified his desire to work on a music composition and the type of composition he intended early on in the project. The focus of his composition (item 2), a piece in the classical genre, was readily apparent to the listeners at his final performance. There was no doubting that Sam had tried to emulate the style of the classical composition and this is reflected in his top score of 5 (to a great extent) for this item. That Sam used all appropriate resources available to him such as computer

software, advice from his tutor, and copious examples of classical works, is also evidenced in his top score of 5. His composition was arranged in a logical sequence with an appropriate ending and was written with a specific audience in mind. In Sam's case, the intended audience was his family which included his mother and sister, his father (who lived out of town and who travelled in order to hear his performance) and his grandparents. Sam's performance was in two parts and it should be noted that his SPAF relates only to his composition. For his 'live' performance, Sam played several pieces of music on the piano that he had been practising specifically for this occasion. However, owing to the fact that Sam's composition was an extremely involved work, beyond his present capability of playing; the composition was played back to his audience via the computer.

Section 9 of the SPAF contains several different components and is intended as an overall assessment of the project. This section is designed to be evaluated in terms of the characteristics that indicate the quality, aesthetics, and function of the overall contribution. Raters are asked to consider the product as a whole by using their own judgement and opinions. In this section, Sam scored a consistent 5 (outstanding for his age) in all criteria. The results from this section of Sam's SPAF, shows striking similarities with Renzulli's (1986) Three Ringed Model of Giftedness, above average music aptitude and ability, creative music interpretation, and task commitment and self-motivation.

5.3.7 EVALUATION COMMENTS

The following summarises the tenor of the comments expressed by the individual raters:

Sam exhibited considerable independence and creativity as well as a high degree of confidence and he was able to articulate important aspects of the compositional process, such as his creative intentions, with ease. He has shown a high degree of commitment to the task, by all accounts having spent countless hours working independently at home. Sam exuded obvious pleasure, enjoyment and pride in both his composition and performing. Given his lack of prior musical experience (he had only begun learning music two terms prior to working on this project) his rate of achievement and understanding was extraordinarily rapid, the resulting work being of a surprisingly high calibre. This is even more astonishing when taking his age into account. While it was clear that Sam set out to compose a piece of music in the classical genre, it is unlikely that he had considered any specific target audience. He did, none-the-less, excel in performing to his chosen audience. Whilst Sam's performance paid less attention to the expressive elements of music than to the mechanical aspects, it is most likely that this expressive component will develop, with nurture, over time.

5.3.8 SECOND INTERVIEW

At the conclusion of Sam's 'live' piano performance his composition was 'replayed' by the computer to the same

audience. The final interview was then conducted by the researcher and two colleagues.

Sam was asked where the initial ideas for his composition had come from, whether he had originally had some ideas that he had wanted to try out and if he had some overall scheme or 'picture' in his mind. His initial response was simply that he had, "just put notes straight into the computer," but on further probing he acknowledged that he did have some idea of what he wanted his piece to sound like.

> *I had some ideas that were running through my head when I was lying in bed. I could sort of see what it should look like while I lay in bed but wasn't really sure how to write what I was hearing in my head so I just sort of put a lot of ideas into the computer to see what they would sound like. The second part of the song is quite different from the first. It was like a separate idea that I tried and ended up liking. The third part was when I listened to a Beethoven piece that I really liked. It gave me some ideas that I thought I could use and so I tried to write something that sounded similar.*

At this juncture one of the interviewers, looking at a printed copy of the composition, commented on how interesting it all looked. She became quite animated and excited commenting:

> *You've got some interesting stuff – sometimes you've got things working together like you've got that G, A, B, C going up there together and*

then it splits so you've got the B against the D – that's very interesting – and here you've got parallel fourths. Gosh, it's going from unison to thirds to fourths! How did you decide – like here you've written a treble clef into the bass clef – how did you know to do that – did you see that written like that somewhere?

Sam replied that he had seen examples in "Fur Elise". He added that as he had wanted the bass part to go quite high, it seemed logical to do it the way that he had seen it done in "Fur Elise".

It was better than it going up on all those ledger line things, they are hard to read. I wanted to extend the left hand up the keyboard so this seemed the logical way of doing it. As I wrote this piece I would just look for examples from other pieces to help give me ideas as to what to do to overcome problems. The same was true for my expression markings. I would think about how I wanted it to sound, or how I wanted it to be played, and look for examples in other pieces of music that I could play and use them.

Sam then commented that because the piece was quite fast and bouncy sounding, he had wanted to create a calm section to his composition. He achieved this by bringing both hands down into the lower sections of the keyboard and making the notes longer in value.

> *As well as giving some relaxation to the listener, I wanted the person playing this piece to have a bit of relaxation for their hands as well. It had all been so fast to this point and I felt that it needed some contrast. I wanted both the player and the listener to have a chance to pause and reflect.*

One of the interviewer's final comments to Sam was.

> *You have done a lot of learning in there that sometimes people wouldn't do for years, certainly not in their first two or three years of music tuition and you have only been learning for three terms. That is quite exceptional. You can be very proud of what you have achieved, both in your piano playing and this exceptional piece of composition. Well done.*

Once again we are seeing numerous examples of Sam's ability to model his own work from examples immediately surrounding him. Sam is able to identify and isolate the musical characteristics that he intends to imitate. He hears or sees a piece of music that contains some feature that stimulates him then reproduces aspects of that model to achieve the desired result. What Sam is engaging in is what Bandura (1986) describes as attention, retention, and reproduction. The ability to observe something, retain it in his memory for later use and then reproduce characteristics of that model when required.

Finally Sam was asked as to what goals he held for himself in the future. His response was that he wished to continue writing music in the short term and practising hard at the piano. His long term ambition was to be "a famous pianist". When questioned as to whether he thought having a passionate interest in something was important to doing well in that field he responded by saying:

> *It is very important to love what it is you do, you have to have a very big interest and have a big dedication. You have to want to work hard at what you do if you are going to be a success at it. Hard work pays off, it always does in the end and for me it will do very soon.*

5.3.9 FINAL DISCUSSION AND EVALUATION

In the final phase of this study Sam and his mother were both asked to fill in evaluation forms (Appendices 20 and 21) and answer a final round of questions designed to evaluate the worthiness of the enrichment programme (Appendix 9). Both Sam and his mother were very positive about the entire experience. Sam commented that he had learnt a lot of things about playing piano as well as composing music that he would never have thought possible at the beginning of the year. His mother said that Sam had been very committed to the project and spent most of his spare time either practising to improve his playing skills or working on his compositions. His mother expressed the opinion that she felt Sam's composition was of an exceedingly high quality and standard

given his age and the amount of time (three terms – 30 weeks) that he had been learning music. Her final comments were:

> *It has been a very rewarding experience for me to see Sam learn so much in such a short time. This project has boosted Sam's confidence and belief in himself and he is finally learning not to 'scatter' himself so much but apply himself to each task until he has achieved what it is he sets out to do. Sam now practises good time and management skills, working out the time that he needs to spend on each section of his homework so that he can then spend the rest of his time on his music. He continues to challenge himself with the degree of difficulty of pieces he chooses for himself to learn to play and has, since the previous interview, continued to compose, what seems to me, highly involved, technical compositions. Sam is extremely passionate about his music and I am sure that whatever his future holds, music will be a major part of it.*

5.3.10 POSTSCRIPT

For twelve months after this study was completed, I continued to give Sam piano/keyboard lessons. During this time his piano/keyboard playing skills went from strength to strength. At the end of twelve months, Sam's capacity for

learning new, and increasingly complicated pieces, and his obvious, exceptional talent in this field, led to me recommending that he go to a leading piano tutor for lessons. Sam continued to compose music with the aid of the computer, continuing to model his compositions on pieces of music he had either learnt, or heard. His compositions have continued to grow in length as well as sophistication, his most recent pieces being more cohesive and more thought out than his earlier pieces.

Two years later, in December 2005, I was privileged enough to hear Sam give an end of year piano recital. It was a truly inspiring experience. Sam was now aged 12 years and had just completed Year Eight at intermediate school. His polished performance demonstrated a command of the piano and a self assurance of his abilities well beyond his 12 years. It was a double surprise to learn that the pieces that he played so competently at this recital had only been in rehearsal for three weeks. It was a very proud moment to know that the intervention carried out four years earlier had sown the seeds for such a remarkable gift.

I had the chance to talk to Sam and his mother after the recital. Sam informed me that he had been accepted to study performance music at high school and intended learning a second instrument, probably the saxophone, while there. He was adamant that once finished high school, he had every intention of furthering his music performance career at university.

Sam's mother was eager to relay to me the overall academic improvement that had become apparent in Sam. As his

musical abilities had progressed, Sam had grown into a much more confident individual. His ability to manage his use of time improved and his rate of attainment in other academic subjects also improved markedly.

5.4 SUMMARY

Of the three children that participated in phase two of this study, Sam showed the most enthusiasm, dedication and commitment. Unlike Suzy and Shane, Sam was not withdrawn from the regular classroom. He was given his keyboard lessons in his own time after school. Both his performance and his composition were a result of an exceedingly self-motivated drive to investigate and learn as much as he could independently. His natural musical ability and instinctive knowledge of what sounded right and wrong, guided him in both his composition, and his ability to teach himself to play new pieces. Sam exhibited an absolute passion for music and a hunger to learn anything new.

Suzy also worked independently on her composition at home. While she was withdrawn from the regular classroom, this withdrawal time was mostly utilised learning the use of the music-writing software. Unlike Sam and Shane, Suzy had already been learning the piano for some time and this fore-knowledge of the workings and elements of music enabled Suzy to compose her piece with considerable ease and pace.

Sam and Suzy both used prior knowledge to help guide their compositions, modelling their pieces on existing works, styles, and musical forms. There is substantial contemporary

support for the notion that prior knowledge provides more than a simple foundation for the acquisition of new knowledge (Halford, 1993). Prior knowledge directs an individual's attention causing them to either disregard or apply particular elements (Marshall, 1995). In essence, existing knowledge interacts directly with newly acquired knowledge in a way that ensures a final product that is uniquely individual (Bandura, 1986).

Sam and Suzy both exuded dedication, commitment and self-motivation to their projects, often working out of school in their own time. Haroutounian (2002) states that the musically gifted student will often display a number of motivational characteristics, not necessarily music specific, that all play a part in the development of musical talent. The ability to focus intently while engaged in musical tasks, often concentrating over extended periods of time, and the ability to persevere in order to conquer physical drills and musical dilemmas, requires persistence. Musically gifted students are often comfortable working independently in music and can frequently be seen working in their own time, organising themselves, and setting high standards.

All three students demonstrated an understanding of the aesthetic nature of music. While they all felt that music was important in their individual lives, they all realised that to some, other interests would hold priority. They all identified, however, that music was in everyone's lives to differing degrees and that it would be difficult for anyone to live without music as it was utilised in so many diverse ways.

Shane composed his piece mostly within the parameters of the withdrawal lessons. While he seemed motivated at these sessions, his dedication to the project, outside the withdrawal sessions, seemed somewhat lacking at the outset and on several occasions, follow-up activities had not been completed, or even attempted. Shane needed constant one-on-one support and encouragement to enable him to create and complete his composition. While he seemed genuinely excited and animated about the project during the sessions, he seemed strangely shy about it amongst his peers. While he was adamant that he wanted to compose a humorous song, and was happy to be withdrawn from class in order to do so, when it came time to teach the song to the rest of the school, he wanted to remain anonymous.

Of the three students who participated in the study, however, Shane seems to be the one who most benefited from the withdrawal sessions and can be seen to be the student who was most 'genuinely' identified as a result of Renzulli's (1977) Enrichment Triad Model. Both Sam and Suzy were learning keyboard or piano at the time of identification. Indeed, Sam was identified within the context of a school programme for teaching keyboard, albeit that he had only begun learning at the beginning of that term. Shane, on the other hand, was initially identified as a result of his enjoyment of singing and, unlike Sam and Suzy, was not currently learning any form of music. This lack of any musical knowledge therefore required a far greater effort from Shane in order to complete his composition.

While Sam and Suzy both benefited from the Type III intervention, the intervention allowing them to advance and

expand their horizons at a greater pace, overall, Shane can be seen to have benefited the most. Shane was that child who had not had any formal music training. He was identified as a result of his obvious enjoyment of singing, an enjoyment that was borne out by the result of the questionnaires and interviews. The withdrawal sessions did not simply mean that Shane composed a song and learnt to use music writing software. Integral to his project was the obligation to learn some of the fundamentals of music along the way. In his own words Shane commented, "I think that working with Mr. Jones has given me another option to add to a list of possible careers in the future, something that I would not have had if I had not had this opportunity."

The findings from this study have important implications for those interested in music within the primary classroom. These findings will be discussed in the following chapter.

CHAPTER SIX

CONCLUSION

This study set out to explore the effectiveness of Renzulli's (1977) Enrichment Triad Model both as a tool to help identify musically gifted children within New Zealand primary school classrooms, as well as its effectiveness in helping to provide a musically enriched environment to such identified students. This chapter begins with a summary of the study's findings and the major conclusions drawn from these findings. Issues and implications are then covered along with recommendations and suggestions for any further research.

6.1 SUMMARY OF FINDINGS

The Enrichment Triad Model for Identification of Talent

This study has revealed that the Enrichment Triad Model can definitely be used as an effective tool in the delivery of a successful classroom music programme. The delivery of Type I and II enrichment offered the opportunity for the classroom teacher to identify children who may harbour special musical gifts. Type I and II enrichment alone, however, did not necessarily identify such musical gifts. In this study, the delivery of Type I and II enrichment was coupled with the use of questionnaires and observations.

The questionnaires were useful in gleaning background information, in particular, family history and the students'

perspectives of their own abilities, their likes and their dislikes. Interviews with both the parents and students were also a helpful and necessary tool in discovering as much background information about the students as possible.

However, the use of questionnaires (Appendix 1) to gather students' responses has raised several issues in this study. In the open-ended response section, the students were required to fill in a checklist and then answer a series of questions related to curriculum areas. The checklist required them to tick curriculum areas that they really enjoyed or might enjoy if they were given the opportunity. This section was designed to bring to light students who may have an added interest in music, dance or drama, as well as identifying where they perceived their own strengths to be. The majority of students only tended to tick areas that they currently studied or deemed themselves to be good at. While this did draw attention to several students that enjoyed music, it did not necessarily highlight any who may have liked to 'have a go'.

In the open-ended response section, the questions were designed to elicit information about students who enjoyed working on large or individual projects, whether they preferred working individually, highlight task commitment and so forth. Questions such as "Why do you think you are good at the areas you ticked?", often elicited a response such as "because I am good at it", or, in the majority of cases, students simply left this section blank.

The second Likert-scale section, "How I Like to Learn", comprised five choices: really dislike, dislike, not sure, like,

and really like. This section raised two issues. Firstly, it gave the students the chance to answer 'not sure' as opposed to having to make a definite choice between either 'like' or 'dislike'. Secondly, there were five choices, the middle choice being the 'not sure' box. Davies (2000) makes the observation that giving children an odd number of boxes (or items) to tick along a continuum, in this instance five, will often result in the children ticking the middle box, particularly if they do not understand the question. The choices of the 'not sure' answer, coupled with it being the middle box of five, compounded this situation. When the scores were extrapolated, the 'not sure' answer equated to a 3 resulting in some children who were ticking this box the majority of the time, coming out with a relatively high score on the final chart, confusing the actual results. The first Likert-scale section, "My Likes and Dislikes of Music", gave a healthier result as it consisted of an even number of choices and did not offer the students a 'not sure' option. In this section they had to make definite choices.

The use of student-peer and teacher nomination forms as a means of identification in this study (Appendices 1 and 12) also raises some issues. It is possible that such nomination forms may reflect some misconceptions about musical ability. The teacher and student peer nomination forms were used as one of three main identifiers, along with observations recorded in the research journal, and student and parental questionnaires. The teacher nomination form became one of the principal instruments that resulted in Suzy being chosen instead of Mannie to participate in phase two. It is possible that both the students and teachers alike perceived musical ability as something more tangible. Because both the

students and the teacher knew that Suzy played the piano with some degree of mastery, they possibly felt that she would be the best choice of student to participate in a music enrichment programme.

This, regrettably, misses the point; there were other students in the class, such as Mannie, who, while not being as overtly musical as Suzy, may very well have benefited in a far more dramatic manner from the enrichment opportunity. During the identification phase therefore, alternative strategies that may elicit more useful, accurate, information from both teacher and students should be considered. These could include the use of interviews or guided discussions with smaller focus groups of students during phase one.

The time constraints within this study meant that Type I and II enrichment was delivered to each of the three groups once a week for the duration of ten weeks (one school term). Ideally a programme of twice a week would have been more desirable. This would have allowed further time for more accurate observations to be conducted. Having an independent 'specialist' observe during phase one would also benefit the researcher/teacher and result in more accurate and rounded observations being recorded.

Within this study my specialised music knowledge enabled me to successfully deliver Type I and II enrichment. Ideally, the provision of Type I and II music enrichment needs to be delivered by teachers with specialised knowledge. For the purpose of identification, teachers need to be keen, knowledgeable observers and be familiar with behaviours and traits which characterise musically gifted children. Once

identified, teachers must also be prepared to support gifted children in their learning. Primary teachers, who are not musically knowledgeable, without specific professional development and support, would find it difficult to successfully deliver such a programme.

The Enrichment Triad Model for Development of Talent

Due to such time constraints, the size of the final group for phase two was limited to three students. This was not ideal and a larger sample would have been more desirable. The questionnaire responses identified a small number of other children that were possible candidates for Type III enrichment. Had it been possible to work with a larger group during phase two, then it is most probable that some of these, in particular Mannie, would have been chosen to participate in the final phase.

At the conclusion of this study, the students who were eventually identified in phase one, and who progressed on to phase two, could all be seen to have benefited from the Type III intervention. Shane seemed to benefit personally from the experience more than the other two participants probably because he, unlike the other two, came to the intervention with no prior musical knowledge what-so-ever and left having learned a vast amount about the basic rudiments of reading and writing music. Sam and Suzy both came to the intervention with varying degrees of prior musical knowledge. The Type III enrichment therefore allowed them to experiment at a faster rate and, to some degree, more

independently than Shane. Because of this, their resulting compositions were more advanced. It is likely, however, that if time had allowed for a second round of Type III enrichment to be conducted with Shane, the result of any further composition would have seen a greater degree of understanding and sophistication.

Ideally, once a student has been identified as being musically gifted, Type III enrichment should be offered in cycles over the course of several school terms/years, allowing for musical growth and talent to develop. This, however, raises a further issue for the teacher in the primary school classroom. If a large number of students are identified as benefiting from Type III music enrichment, how will the primary school teacher find the time, and have the skills, to work with a larger group of students on Type III enrichment while still delivering a rounded music programme to the rest of the group? The reality is that more primary teachers with specialist music skills are required in the primary school arena.

Educational Implications

If the home environment appears to be so crucial to the development of musical ability, why should primary schools even be concerned with identifying and developing the musically gifted student? Doxey and Wright (1990) speculate that both the home and the school are of major importance to young, developing children and that these are the two environments that most contribute resources which will eventually impact on the musical development of the child.

Teachers and parents both, ultimately, bear the responsibility for creating and providing a musically stimulating and inspiring environment that will permit the optimum musical growth of the child. If there is to be any musical growth, then any and all musical behaviour needs to be cherished and nurtured if successful musical development is to take place.

Teachers in primary schools are doubly important in situations where the home environment offers little or no musical surroundings. Jaques-Dalcroze (1967) maintains that musical instinct or talent may not always emerge of its own accord and needs to be encouraged both by training and provision of a musically interesting and stimulating environment. The primary school ultimately becomes the only other domain capable of delivering such an environment and the last chance for some children of discovering their musical talent.

Dowling (1982) states that children's musical aptitude fluctuates constantly until the age of nine or ten, therefore it is essential that children's musical talent be identified early, essentially in their primary school years. This is the optimum period when children will begin to display musical potential, and identification during these years will ensure sufficient time for the necessary skills to develop. The Ministry of Education (2000b) also states that "Identification (of gifted students) should begin early .... during early childhood or at least during the junior classes in primary school" and continues by stating that "Identification programmes should be alert to the hidden gifted or under-represented groups" (p. 27).

Shuter-Dyson (1982) adds that this phase of a child's music education should be founded on incidental learning experiences rather than formal drill and practise. This study demonstrated that Type I and II music enrichment within primary schools offers such opportunities. Shane's case study illustrated this point. Had he not been stimulated through school singing (Type I enrichment) his interest in music would not have been kindled. In his own words Shane said, "It was singing that set my interest in motion and (later) working with you that really sparked my interest in music."

As evidenced by Suzy, Sam and Shane in this study, musical talent will manifest itself in multi-faceted ways. Sam would often play a melody from his book on the keyboard and create a variety of musical variations (Type II), Shane enjoyed singing, especially the opportunity to sing humorous songs (Type I), and Suzy experimented on Orff instruments, trying out different sounds and rhythms (Type II). It is necessary to provide as many different mediums for musical talent to occur as possible and teachers need to be able to recognise students who display such characteristics in different ways.

The student, such as Sam, who creates seemingly endless variations, is solving problems across musical dimensions – showing signs of talent as musical intelligence. The student, who enjoys singing like Shane, is a natural performer and the student who 'plays around' creating a variety of sounds, such as Suzy, is an aesthetic creator of music (Haroutounian, 2002). Primary schools, to ensure the highest possible level of musical achievement, not only need to provide teachers with tools that aid in the identification of

early musical talent but provide plenty of opportunities that encourage optimum musical development.

And what of the musical gift once it has been identified? Haroutouninan (2002) believes there are two stages to learning music, the beginning, or initiation stage and the development stage. As this study has evidenced, the Enrichment Triad Model mirrors these stages and offers a superb model for developing and implementing a suitable music programme. The initiation stage (Type I) where opportunities to explore content, without the need to behave systematically or demonstrate any specific musical skill, is appropriate for children in their early primary school years who have not yet been identified as musically gifted and have little or no musical experiences. Type I enrichment can therefore act as a catalyst in the development of musical ability. The development stage (Type II), where attention to detail, technical skills, more music specific vocabulary, and rules and musical logic are addressed, is where children who already have a musical background and/or have been identified as being musically gifted should be working. Once students have been identified as musically gifted, Type III enrichment is brought into play. Type III enrichment allows teachers to adapt the current music curriculum in order to challenge such musically gifted students.

Curriculum differentiation is a common way of meeting special educational needs. It offers opportunities for problem solving, inquiry training, and the use of open-ended instruction. Activities involving the investigation of real-life problems or topics that use methods of inquiry appropriate to the discipline can result in greater task commitment and

increased self-confidence. Murphy (1990) speaks of differentiating the music curriculum in two ways in order to accommodate the musically gifted. The first is to change things so that the musically gifted child can study things to a greater depth, at a faster pace, and to a higher expectation (Type II enrichment). The second is to create opportunities for the gifted individual to exercise independence, initiative, and creativity, read more widely and develop a more extensive music vocabulary (Type III enrichment). Richardson (1990) lists several approaches for the provision of a curriculum for the musically gifted. They include individual projects, mentorship, subject saturation, and cross-curricular integration.

This study has demonstrated that Renzulli's (1977) Enrichment Triad Model offers a platform from which primary school teachers can both design and deliver an acceptable differentiated music programme aimed at introducing students to as wide a range of musical experiences, activities, and training exercises as possible. This study has also shown that the Enrichment Triad Model offers a platform for students that are identified as being musically gifted, the chance to integrate these musical skills and concepts, as Murphy (1990) says, at a greater depth, and with higher expectation.

6.2 SUMMARY AND RECOMMENDATIONS

Musically gifted children are a subgroup of the gifted population in New Zealand primary schools that can be readily identified if teachers are properly equipped with the

appropriate tools. Children's talent development is strongly influenced by experiences they have during childhood and positive music learning experiences in New Zealand primary schools are vital to future music talent development. Educators need to be capable of recognising both demonstrated and potential music talent and be equipped with the tools to encourage and identify such talent. Once recognised, it is essential that primary school teachers have the means to extend and develop music talent within the scope of their classrooms.

The following recommendations are made as a result of this study.

1. Longitudinal study: That a further cycle of research be undertaken replicating this study over an extended time frame of two to three years. This would present the opportunity to administer several rounds of Type III enrichment and to more accurately measure the resulting success of Type III intervention. That focus group discussion is employed as an aid in identifying potentially musically gifted children in addition to questionnaires.
2. That further research be conducted looking for specific, recognisable, musical behaviours and traits. In particular identifying how exceptionally musically gifted children may differ from their less gifted musical peers.
3. That music curriculum courses, taught at pre-service teacher education centres, need to address the need of how best to identify students who may possess musical talents. They also need to include a greater emphasis

on how to cope with those students who are identified as musically gifted.

4. That professional development courses for primary school teachers are offered to ensure consistency and competence in identifying, programming and evaluating programmes for the musically gifted.
5. That a survey be undertaken for, and on behalf of, the Ministry of Education, establishing the size of the talent pool of musically gifted children in New Zealand primary schools. How many have been identified by parents or private music teachers? How many have been identified at school?

6.3 CONCLUSION

Doxey and Wright (1990) quote research that shows that music education benefits all primary school children in many areas, not just in music skills. Primary school teachers therefore must be capable of identifying musically talented students and capable of supplying a programme that will challenge such children to excel.

While I do not feel that I have gathered enough evidence to suggest that I have found a foolproof method of identifying and stimulating musically gifted children in the primary school classroom, I do feel that I have been able to trial, with considerable success, the use of the Enrichment Triad Model as an aid in doing so. In particular, I believe I have justified the use of Type III activities to raise student achievement and to challenge musically talented children to excel.

APPENDIX 1
Student Questionnaire

"ALL ABOUT ME"

Name of student:_____

- Tick the areas that you are really interested in and enjoy – or think you might enjoy if you had the opportunity:

  - Maths ☐
  - Science ☐
  - Social Studies ☐
  - Language. ☐
  - Reading ☐
  - Art (Highlight one of the following: drawing, painting, sculpture, printmaking other – specify_____)
  - Music (Highlight one of the following: singing, playing an instrument, writing songs, writing words for songs)
  - Drama ☐
  - Dance ☐
  - Creativity ☐
  - Making/constructing objects ☐
  - Leadership ☐
  - Physical Education ☐
  - Any other area (specify)_____

- Why do you think you are good at the areas that you ticked?_____
_____
_____
_____
_____

- Describe any projects you have done, books you have read, or any other activities that may explain why you are good at those areas.

- In one of the areas that you have ticked, describe a project that you might like to work on.

- Give any reasons for your interest in this area.

"PEOPLE IN MY CLASS"

- In your class who would you most like to help you with your homework in the following areas:

  - Maths
  - Science
  - Social Studies
  - Language
  - Reading
  - Art (drawing, painting, sculpture, printmaking)
  - Music (singing, playing an instrument, writing songs, writing words for songs)
  - Drama
  - Dance
  - Creativity
  - Making/constructing objects
  - Leadership
  - Physical Education
  - Any other area

- In your class who do you think is the best (name up to three):

  - Artist
  - Singer

- Instrumentalist (What does that student play?)_____
- Reader_____
- Sports person_____

- In your class, who do you think has the best (name up to three):

  - Sense of humour_____
  - The most original ideas_____
  - The most respect for fellow students_____

- In your class, who would you most like to have as a group leader when you are doing group projects?_____

- In your class who do you consider is the finest student?_____

"MY LIKES AND DISLIKES OF MUSIC"

Please rate the following questions in the following way by placing a tick in the appropriate box:

VT – Very True
T – True
ST – Sometimes True
NT – Not True

1. Art, music and drama are my favourite subjects at school.
   VT☐ T☐ ST☐ NT☐

2. My music teacher is usually the best teacher I have in school.
   VT☐ T☐ ST☐ NT☐

3. It is important to work hard to be successful in music.
   VT☐ T☐ ST☐ NT☐

4. I am very good at music.
   VT☐ T☐ ST☐ NT☐

5. I plan to study music at high school.
   VT☐ T☐ ST☐ NT☐

6. Learning new skills in music is the most interesting part of class.
   VT☐ T☐ ST☐ NT☐

7. I love to learn about music.
   VT☐ T☐ ST☐ NT☐

8. I try to learn more about music or drama outside school.
   VT☐ T☐ ST☐ NT☐

9. Music is easy for me.
   VT☐ T☐ ST☐ NT☐

10. I try to do my best work in music and music-related tasks.
    VT☐ T☐ ST☐ NT☐

11. I watch music and theatre programmes on television outside of school hours.
    VT☐ T☐ ST☐ NT☐

12. I enjoy attending music concerts and musical theatre productions.
    VT☐ T☐ ST☐ NT☐

13. I would like to be an actor or musician someday.
    VT☐ T☐ ST☐ NT☐

14. I could learn anything about music if I worked hard enough.
    VT☐ T☐ ST☐ NT☐

15. I wish most music lessons could be longer.
    VT☐ T☐ ST☐ NT☐

"HOW I LIKE TO LEARN"

Please rate the following questions in the following way by placing a tick in the appropriate box:

RD – Really dislike
NS – Not Sure
RL – Really like
D – Dislike
L– Like

1. Someone explaining what I have to do.
   RD☐ D☐ NS☐ L☐ RL☐

2. Discussing things with others so I can understand them.
   RD☐ D☐ NS☐ L☐ RL☐

3. Studying with a friend to learn difficult material.

RD☐ D☐ NS☐ L☐ RL☐

4. Giving answers out loud when the teacher asks questions.
   RD☐ D☐ NS☐ L☐ RL☐

5. Being asked to make connections between what I am learning now and what I learnt earlier.
   RD☐ D☐ NS☐ L☐ RL☐

6. Making or drawing something that applies to what I have learned.
   RD☐ D☐ NS☐ L☐ RL☐

7. Going to the library on my own to look up information on a topic of my choice.
   RD☐ D☐ NS☐ L☐ RL☐

8. Being given some materials or a task to learn in my own time.
   RD☐ D☐ NS☐ L☐ RL☐

9. Having a contest in class to see who has learned the most.
   RD☐ D☐ NS☐ L☐ RL☐

10. Teaching something to someone else in my class.
    RD☐ D☐ NS☐ L☐ RL☐

11. Sharing my ideas with others in the class.
    RD☐ D☐ NS☐ L☐ RL☐

12. Helping another student get ready for a test.
    RD☐ D☐ NS☐ L☐ RL☐

13. Being allowed to work for long periods on a project or topic that interests me.
    RD☐ D☐ NS☐ L☐ RL☐

14. Reading a book to learn about a new topic.
    RD☐ D☐ NS☐ L☐ RL☐

15. Becoming an expert on a topic so I can teach it to someone else.
    RD☐ D☐ NS☐ L☐ RL☐

16. Going off on my own to study a subject that I like.
    RD☐ D☐ NS☐ L☐ RL☐

17. Finding out the 'big idea' behind the topic I am studying.

RD□ D□ NS□ L□ RL□

18. Planning a project I will work on by myself.

    RD□ D□ NS□ L□ RL□

19. Being able to 'skip' parts of subjects that I already know about.

    RD□ D□ NS□ L□ RL□

20. Working on a project with other students who have similar interests or abilities and with little or no help form the teacher.

    RD□ D□ NS□ L□ RL□

APPENDIX 2
Parental Questionnaire

5th September 2002

Dear Parent/Caregiver.

As a partial requirement of my Master of Education degree, I am currently conducting research in the area of musical talent in children. This study is attempting to discover ways of identifying musical ability in children within our classrooms and once discovered, ways of enriching that ability. You are therefore being asked to complete the following questionnaire and **return it to school by Wednesday 11th September 2002.** This is purely voluntary; you do not have to answer this questionnaire if you do not wish to do so, but doing so will be of tremendous help in my research. All information gathered will remain confidential and will be used only for the purpose of this research. Neither the school nor any individuals involved will be identified directly or indirectly in verbal or written form.

Yours Sincerely
Barry A Jones

BIOGRAPHICAL INFORMATION:

Child's Name_____

1. What is the relationship of the person filling out the questionnaire to the child?

_____

2. What is the gender of the child being studied?

_____

3. The number of children in the family is?

_____

4. The birth order of the child being studied is?

_____

5. Please list any musicians in the family (eg: brother uncle grandparent etc.)
   - Currently

     _____

   - In your family's past

     _____

_____

6. As an infant, did your child show any interest in musical sounds?

_____

_____

7. If so, how did they show this?

_____

_____

8. Were you aware of any unusual or 'vivid' musical experiences that your child had in connection with music? If so, please describe it.

_____

_____

_____

_____

_____

"THINGS MY CHILD LIKES TO DO"

Each of the items on the questionnaire deals with a general type of interest or activity you may or may not have seen in your child. These might be the result of school assignments, extra-curricular activities such as Scouts or Guides, or home activities. To help clarify the items, an example of each has been included. Please rate your children on the general item – not the specific example. If possible please also include specific examples of your child's interests or activities. (You do not have to answer all questions.)

Please rate the following questions by ticking the responses in the squares in the following way:

AA - Always*
F - Frequently*
U - Usually
R - Rarely
AN - Almost Never

* If your child scores in either of these two columns, it would be helpful if you could write a specific example.

1. My child will spend more time and energy than his/her classmates on a topic of interest. (Example: Joan is learning to sew and spends every free minute designing clothing.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

2. My child is a 'self-starter' who works well alone, needing few directions or supervision. (Example: After watching a film about musical instruments, Dave began to make his own guitar from materials found in the garage.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

3. My child sets high personal goals and expects to see results from his/her work. (Example: Mary insisted on building a robot from spare machine parts even though she knew nothing about engines.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

4. My child gets so involved in a project that he/she gives up other pleasures to work on it. (Example: Don is writing a book about the town history and spends each night examining records – even when he's missing a favourite television show.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

5. My child will continue to work on a project even when faced with temporary setbacks and slow results. (Example: after designing and building a model plane, Sally continued to try to get it to fly even after several failures and 'crash landings'.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

6. While working on a project, my child knows which parts are good and which parts need improvement. (Example: after building a scale model lunar city, Sharon realised that there weren't enough solar panels to heat the entire city.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

7. My child is a 'doer' who begins a project and shows finished products of his/her work. (Example: Ben began working on a puppet show four months ago and has since built a stage and puppets and has written a script – tomorrow he's presenting her show to the class.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

8. My child suggests imaginative ways of doing things even if the suggestions are impractical. (Example: If you really want to clean the oven why don't we move it outside and I'll hose it down for you.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

9. When my child tells of something that is unusual he/she expresses her/himself by elaborate pictures or words. (Example: The only way I can show you how the ballet dancer spun around is to stand on the record player and turn the speed up to 78!)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

10. My child avoids typical ways of doing things, choosing instead to find novel ways to approach the problem or topic. (Example: Brian used three broom handles as rollers to move a large box from one side of the garage to the other.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

11. My child likes to 'play with ideas' often making up situations that would never occur. (Example: I wonder what would happen if a scientist found a way of killing all insects and then went ahead and did it.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

12. My child often finds humour in events that are not obviously funny to other children of their age. (Example: It was really funny that after our coach played us a video on playground safety – he twisted his ankle lining us up to take us back to class.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

13. My child prefers working/playing alone rather than doing something 'just to go along with the gang'. (Example: My child prefers to go running or skating rather than playing team orientated sports.)

AA☐ - F☐ - U☐ - R☐ - AN☐

EXAMPLE: _____

_____

_____

_____

APPENDIX 3
School Information Sheet

(Massey Logo)

INFORMATION SHEET FOR SCHOOL

Developing the Gifts and Talents of Music Students
In New Zealand Primary Schools

As a partial requirement of my Master of Education degree, I am currently conducting research in the area of musical talent in children. This study is attempting to discover ways of identifying musical ability in children within our classrooms and once discovered, ways of enriching that ability.

The focus of this study is to investigate the effect of a music withdrawal creativity programme aimed at meeting the needs of musically gifted children in New Zealand primary schools. By implementing Joseph Renzulli's Enrichment Triad Model, "type III enrichment" will be offered to an identified group of potentially musically gifted children. This research will be conducted as a partial requirement for the completion of my Masters degree in Education at Massey University.

Music is a personal passion and an added interest in gifted education has highlighted the need that general classroom teachers ought to be able to identify children with above average musical ability at a relatively early age within our primary schools. Such identification, however, is only the beginning. Once identified these students need to have access to a programme that will foster and increase that natural musical ability. The field of withdrawal programmes as a specific means of meeting and enriching the needs of our gifted musicians and therefore fostering a possible lifetime 'passion for music' is an area of little current research.

Giftedness and creativity in music will manifest itself in many forms. An interest in music does not necessarily mean that children will have the ability to play an instrument. It may be that they enjoy an ability to sing, have an interest in musical theatre, or have an ability to use computers to create new and varied compositions. It is my hope therefore, that this research may provide schools with a tool in identifying their musically gifted children and offer strategies to encourage those students to exhibit their musical abilities in a variety of ways.

Your school has been invited to take part in this study as you currently offer several withdrawal type programmes as part of your curriculum. Participation is voluntary, and as conducted in accordance with the requirements of the Massey University Ethics Committee, you have the right to:

- Decline your participation.
- Refuse to answer any questions asked of you.
- Withdraw from the study at any time.

- Ask questions about the study at any point of time over the duration of the study.
- Offer information with the understanding that the name of your school will not be used unless you give permission to the researcher.
- Be given a summary of the studies findings when it is concluded to do with as you wish.

BACKGROUND TO THE PROPOSED STUDY:

Touted as the most widely used model for guiding students with special abilities, *The Enrichment Triad Model* was created by Renzulli. Although initially intended as a modal for enrichment at primary level, today it is also recognised as a tool in helping to identify students with giftedness in identified curriculum areas. In the past two decades, although ample research has been conducted within the academic realm of general education, it seems that little or no research has been conducted within the area of music. It is this researcher's intention to investigate whether *The Enrichment Triad Model* can therefore be use as a suitable means of identifying giftedness in music and, if successful in identifying such individuals, if it can be successfully employed to deliver music enrichment.

PHASES AND PROCEDURES OF PROPOSED STUDY:

This study will be conducted in two phases.

PHASE ONE:
The purpose of phase one is to provide a Year Five or Six classroom with type I and type II exploratory and group training activities relating to music creativity within the regular classroom programme. Renzulli's Enrichment Triad Model will be implemented as a model for delivery of a regular music programme. These first two types of enrichment are important components of the overall educational opportunities for students with special abilities as they serve as catalysts for the development of students' thinking and feeling processes and expansion of their interests.

The activities taught within the regular classroom programme during this phase will be consistent with the provision of a broadly based music programme and will not, therefore, interfere with the regular programme or disadvantage children in terms of their regular learning.

At the conclusion of phase one the students, classroom teacher and their parents will be asked to answer a written questionnaire designed to help identify possible interests in music. These will be combined with observations made during the training and exploratory activities (type I and II) in order to identify a smaller group of children who potentially exhibit musical giftedness or creativity. On the basis of these questionnaires and observations, a smaller group of children will be selected to participate in phase two.

PHASE TWO:

The purpose of phase two is to permit the identified group of students to engage in activities that will emulate a professional investigator attacking a real problem or topic. Type III enrichment serves as an opportunity to integrate concepts and skills presented in type I and II enrichment. Students become actual researchers of first-hand investigations within their areas of interest. Type III enrichment is student driven, it allows the students to become producers of knowledge rather than consumers of information. Students working with type III enrichment will therefore formulate a problem, design a methodology of research, and plan the final product. The educators' job is to act as facilitator, therefore providing assistance in designing the project and seeking information. It is also crucial to student satisfaction to provide an appropriate audience for type III products. Presentations to peers and parents are but a sample of ways in which this can be achieved. Phase two will therefore serve as an opportunity for the selected students to integrate concepts and skills presented in type I and II, thus becoming actual researchers of first-hand investigations within music.

PARTICIPATION INVOLVEMENT FOR PARENTS, STUDENTS AND TEACHERS:

At the conclusion of the classroom based music creativity activities, parents, students and teachers will be invited to answer a series of questions designed to highlight those who show potential giftedness in music. From this information four to five students will be selected to work in a music creativity enrichment cluster. No pressure will be placed on any child not wishing to participate. The information gathered will be used to put together a research report for my Masters degree in Education. It is intended that this research will not interfere with or impact on the students' normal studies. Some discussions will be tape-recorded with the permission of the interviewees, and transcripts made of the tape.

All such tapes/transcriptions will remain confidential and will be used only for the purpose of this research. All tapes will be transcribed by myself. All information, observational records and tapes will be held securely during the study and retained for five years in accordance with Massey University research policy. Neither the school nor any individuals involved will be identified directly or indirectly in verbal or written form. Any direct quotes used from the discussion tapes will be assigned pseudonyms to maintain anonymity. A summary of the findings will be sent to your school toward the completion of the study.

At the conclusion of phase two, the students' work will be evaluated by way of a 'Student Product Assessment Form'. This has been designed by Joseph Renzulli and Sally Reis and its purpose is to guide judgement in the qualitative assessment of various types of products developed by students in enrichment programmes. When used in a research setting for formal evaluation, it is recommended that products be independently evaluated by three 'raters'. One, by the teacher under whose direction the product was developed (in this instance the researcher). Two, by a person who has familiarity with the subject matter area of the product (it is envisaged that this will be conducted by one of the supervisors), and three, by an independent person (either the principal or a teacher at the school). It is also envisaged that some form of presentation to peers, parents and teachers will take place at the conclusion of phase

two. This will be undertaken in consultation with the principal and/or teachers in order to gage the suitability and appropriateness of such an exercise.

If after reading the information sheet you agree to your school being involved in this study, please complete the consent form and return it in the envelope provided.

If you have any further questions, please do not hesitate to contact my supervisors or myself at the details listed below.

Yours Sincerely
Barry A Jones

APPENDIX 4
School Consent Form

SCHOOL CONSENT FORM

Developing the Gifts and Talents of Music Students
In New Zealand Primary Schools

I have read the information Sheet with regards to the above study and have had the details of the study fully explained to me. Any questions I have regarding the study have been answered to my satisfaction, and I understand that I may ask further questions at any time. I understand that I have the right to withdraw from the study at any time and to decline to answer any particular questions.

I agree to provide information to the researcher on the understanding that my name, or that of the school, will not be used without permission. (*The information will be used only for this research and publications and presentations arising from this research project*).

I understand that the principal and staff will be consulted regarding the appropriateness of any further activities (for example - appropriate presentation of work) arising from phase two.

I agree to voluntarily participate in this study under the conditions set out in the Information Sheet.

Please sign the attached form if you consent to your school participating in this study.

_____	_____	_____
Principal's Signature	Name	Date

APPENDIX 5
Parental Information Sheet

(Massey Logo)

INFORMATION SHEET FOR PARENTS/CAREGIVERS

Developing the Gifts and Talents of Music Students
In New Zealand Primary Schools

Dear Parent/Caregiver

I am presently involved in researching musical talent in children as part of my Master of Education degree at Massey University.

The focus of this study aims to investigate the effect of a music withdrawal creativity programme aimed at meeting the needs of musical children in New Zealand primary schools. By implementing Joseph Renzulli's Enrichment Triad Model, a "music enrichment" programme will be offered to an identified group of children who show an interest in the area of music.

Music is a personal passion and an added interest in gifted education has highlighted the need that general classroom teachers ought to be able to identify children with musical ability at a relatively early age within our primary schools. Such identification, however, is only the beginning. Once identified these students need to have access to a programme that will foster and increase that natural musical ability. The field of withdrawal programmes as a specific means of meeting and enriching the needs of our gifted musicians and therefore fostering a possible lifetime 'passion for music' is an area of little current research. An interest in music does not necessarily mean that children will have the ability to play an instrument. It may be that they enjoy an ability to sing, have an interest in musical theatre, or have an ability to use computers to create new and varied compositions. Giftedness and creativity in music will manifest itself in many forms. It is my hope therefore, that this research may provide schools with a tool in identifying their musically gifted children and offer strategies to encourage those students to exhibit their musical abilities in a variety of ways.

BACKGROUND TO THE PROPOSED STUDY:

Touted as the most widely used model for guiding students with special abilities, *The Enrichment Triad Model* was created by Renzulli in 1977. Although initially intended as a modal for enrichment at primary level, today it is recognised as a tool in helping to identify students with abilities in identified curriculum areas. In the past two decades, although ample research has been conducted within areas of mathematics and language, it seems that little or no research has been conducted within the area of music. This study therefore aims to investigate whether *The Enrichment Triad Model* can be used as a means of identifying children that may show some form of ability in

music and, if successful in identifying such individuals, if it can be successfully employed to deliver a music enrichment programme.

In accordance with recommendations described within the Enrichment Triad Model, this study will allow students to investigate music activities of their choice. It will serve as an opportunity to make connections to ideas and skills that the child already possesses and to discover new skills and concepts within the area of music. These students will become actual researchers of first-hand investigations within their areas of interest. This investigation is student driven; it allows the students to become producers of knowledge rather than consumers of information. Students selected to work at this phase will therefore formulate a problem, design a plan of attack, and plan the final product. My role during phase two will be to act as a facilitator, therefore providing assistance in designing the project and seeking any information required to help the children design and plan their final product.

PROCEDURES:

In term two the children in room five were given a series of music creativity lessons using classroom instruments. As a result of observations recorded during these sessions, as well as the results of a series of questionnaires completed by the children, the classroom teacher and their parents, **your child has been identified for consideration of inclusion in this study.**

If you and your child are willing to participate in this study, your child, along with others selected, will be withdrawn from the regular classroom one afternoon per week to work in an enrichment cluster.

In addition to the practical side of this investigation, you and your child will be asked to participate in a discussion forum at the beginning and the conclusion of the study. The general discussion questions will be forwarded to you in advance. These discussion forums will be tape-recorded and will be conducted on an individual basis. You, or your child, will have the right to ask for the tape to be turned off at any juncture of the discussion. If either of you so wish, you may ask for the tape to be replayed to you at the conclusion of the discussion and you will have the right to ask for any comments to be removed from the final transcript. The discussions will take place at a time and place mutually acceptable to you and will take approximately 15 minutes to half an hour.

In addition to the focus discussions, day-to-day observations will be recorded as diary entries by the researcher on an on-going basis.

All such tapes/transcriptions and recorded observations will remain confidential and will be used only for the purpose of this research. Neither the school nor any individuals involved will be identified directly or indirectly in verbal or written form. Any direct quotes used from the discussion tapes will be assigned pseudonyms to maintain anonymity.

Participation is voluntary, and as conducted in accordance with the requirements of the Massey University Ethics Committee, you have the right to:

- Refuse to answer any questions asked of you.
- Withdraw your child from this study at any time.
- Ask questions about the study at any point of time over the study.
- Offer information with the understanding that your name or your child's name will not be used unless you give permission to the researcher.
- Be given a summary of the studies findings when it is concluded to do with as you wish.

If after reading this information sheet you agree to your child being involved in this study please complete the 'parent/caregiver' consent form and get your child to complete the 'student' consent form. Please and return both consent forms to school.

If you have any further questions, please do not hesitate to contact my supervisors or myself at the details listed below.

Yours Sincerely

Barry A Jones

APPENDIX 6
Parental Consent Form

PARENT/CAREGIVER CONSENT FORM

Developing the Gifts and Talents of Music Students
In New Zealand Primary Schools

I have read the Information Sheet for the study and have had the details of the study explained to me. My questions regarding the study have been answered to my satisfaction, and I understand that I may ask further questions at any time. I understand that I have the right to withdraw my child from the study, at any time and to decline to answer any particular questions.

I agree to provide information to the researcher on the understanding that my name and my child's name will not be used without permission. (*The information will be used only for this research and publications arising from this research project*).

I agree to any discussion sessions being taped.
I understand that if I agree I still have the right to ask for the audiotape to be turned off at any time during the interview. I also understand that I have the right to listen to the taped interview at the conclusion of the interview and request any comments to be removed from the final transcript.

I agree to let my child voluntarily participate in phase two of this study under the conditions set out in the Information sheet.

Please sign this consent form if you consent to having your child participate in this study.

Please explain the study to your child and have your child sign the student consent form also.

_____	_____	_____
Parent's or Guardian's Signature	Name	Date

APPENDIX 7
Student Consent Form

STUDENT CONSENT FORM

Developing the Gifts and Talents of Music Students
In New Zealand Primary Schools

I have had the study and the reasons for the study explained to me. My questions regarding the study have been answered to my liking and I understand that I may ask further questions at any time. I understand that I have the right to withdraw from the study at any time and I am not required to answer any questions that I don't want to.

It has been explained that my name won't be used and that the names that will be used in the final report will be 'made up' names.

Please sign this form if you agree to be included in this study.

Student's Signature	Name	Date

APPENDIX 8
Pre Discussion Questions

PRE DISCUSSION for STUDENTS:

- Do you like music? Why? What kinds of music do you like?
- Do you think music is important? Why?
- Do you ever use music for a particular reason? Why? How?
- Are you a musician?
- What is your earliest musical memory? (Tell me about it)
- Do you ever 'fool around' with music? What/How?
- Do you sing? Do you enjoy singing? Do you have a favourite type of song?
- Do you play a musical instrument?
- Do you practise often? How often? Do you enjoy practising?
- What are some of the important things you already know about music?
- What are some of the important things that you think you might like to learn or discover from the music sessions that you are going to be involved in?
- What are some of the things that you would like to learn about music that may be useful in other school and out-of-school situations?

PRE DISCUSSION for PARENTS/CAREGIVERS:

- How long has the student had an interest in this topic?
- What is the student's general attitude toward this topic?
- Do you think this is an inherited trait?
- Is there a family history of music, Grandparents/great Grandparents etc?
- To what extent do you think this interest may be 'faddish' and short-lived?
- What is the child's current level of knowledge towards this subject?
- Is the child capable of concentrating on a project for an extended length of time?
- How many other demands does the child have on his/her time and energy?

APPENDIX 9
Post Discussion Questions

POST DISCUSSION for STUDENTS:

- How much did you enjoy the sessions? Give a rating 1,2,3,4 or 5 (1 being least, 5 being most).
- Write about some of the important things you learned or discovered.
- Which were your favourite sessions? Why?
- Which were your least favourite sessions? Why?
- What have you learned that you will be able to use in other school and out-of-school situations?

POST DISCUSSION for PARENTS/CAREGIVERS:

- How much do you think your child enjoyed the sessions? Give a rating 1,2,3,4 or 5 (1 being least, 5 being most).
- What were some of the important things you think your child learned or discovered?
- Has your child talked at home about the sessions – did they seem interested/motivated?
- Did they continue to work/talk about their project while at home?
- What was the student's general attitude toward this topic?
- Do you think your child has learned anything that they will be able to use in other school and out-of-school situations?

APPENDIX 10
SPAF

Type III Enrichment: Individual and Small Group Investigations

Student Product Assessment Form (SPAF)

Adapted from: Joseph Renzulli and Sally Reis

1. EARLY STATEMENT OF PURPOSE

Is the purpose (theme, thesis, research question) readily apparent in the early stages of the student's product? In other words, did the student define the topic in such a manner that a clear understanding about the nature of the product emerges shortly after a review of the material?

For example: In a music project; did student identify the type of music project or investigation they intended to work on? Was the overall scope and purpose of the project apparent after reading/listening to the student's explanation?

5	4	3	2	1	N/A
To a great Extent		Somewhat		To a Limited Extent	

2. PROBLEM FOCUSING

Did the student focus or clearly define the topic so that it represents a relatively specific problem within a larger area of study?

For example: In a music composition project; did student identify the type of music they wished to compose (that is classical, modern, pop, piano solo, song with lyrics, humorous song etc.) Was the type of music identified readily apparent after listening to the composition?

5	4	3	2	1	N/A
To a great Extent		Somewhat		To a Limited Extent	

LEVEL OF RESOURCES

Is there evidence that the student used resource materials or equipment that are more advanced, technical, or complex than materials ordinarily used by students a this age level?

For Example: Did the student research areas of the project from a nearby library (for example – composition techniques), seek an independent 'specialist's' advice, access on-line information, use of computer technology etc.

5	4	3	2	1	N/A
To a great Extent		Somewhat		To a Limited Extent	

3. DIVERSITY OF RESOURCES

Has the student made an effort to use several types of resource materials in the development of the product? Has the student used any of the following information sources in addition to the standard use of encyclopaedias: textbooks, record/statistic books, biographies, how-to- books, periodicals, films and filmstrips, letters, phone calls, personal interviews, surveys or polls, catalogues and/or others?

(NOT APPLICABLE to music composition projects)

5	4	3	2	1	N/A
To a great Extent		Somewhat		To a Limited Extent	

4. APPROPRIATENESS OF RESOURCES

Did the student select appropriate materials, resource persons, or equipment for the topic area?

For example: appropriate use of poetry, lyrics, use of computer software in aiding in the project.

5	4	3	2	1	N/A
To a great Extent		Somewhat		To a Limited Extent	

5. LOGIC, SEQUENCE, AND TRANSITION

Does the product reflect a logical sequence of steps ore events that ordinarily would be followed when carrying out an investigation/project in this area? Are the ideas presented clearly and logically and is there a smooth transition from one idea to another?

For Example: In a music composition project, the student followed the logical steps of deciding what style of music to compose, selected/wrote lyrics (if required), selected appropriate time signature, created rhythm to fit selected lyrics (if required), created chordal structure (if appropriate), created melody, added bass line etc.

5	4	3	2	1	N/A
To a great Extent		Somewhat		To a Limited Extent	

6. ACTION ORIENTATION

Is it clear that the major goal of this study was for the purpose other than merely reporting on or reproducing existing information, ideas, or knowledge? In other words the student's purpose is clearly directed toward some kind of action (example – teaching ways to improve bicycle safety, presenting a lecture on a salt pond life); some type of literary or artistic product (example – poem, painting, composing a song, costume design); a scientific device or research study (example – building a robot, measuring plant growth as a function of controlled heat, light and moisture); some type of leadership endeavour(example – editing a newspaper, producing/directing a movie).

For example: A student liked poetry that portrayed humour. They also liked singing funny/humorous songs. The student therefore decides to set a humorous poem to music or create a humorous poem to set to music.

5	4	3	2	1	N/A
To a great Extent		Somewhat		To a Limited Extent	

7. AUDIENCE

Is an appropriate audience specified or readily apparent in the product or management plan?

For example: the student who composed a humorous song for school singing presented the song to their teacher who in turn taught the song to the class, a student who composed an instrumental composition performed it to the school at assembly etc.

5	4	3	2	1	N/A
To a great Extent		Somewhat		To a Limited Extent	

8. OVERALL ASSESSMENT

Considering the product as a whole, provide a general rating for each of the following factors by circling the appropriate number beside each item.

SCALE

5 = outstanding **4** = Above Average
3 = Average **2** = Below Average
1 = Poor

A.	Originality of idea.	**1**	**2**	**3**	**4**	**5**
B.	Achieved objectives stated in plan.	**1**	**2**	**3**	**4**	**5**
C.	Reflects advanced familiarity with the subject matter for a youngster of the age.	**1**	**2**	**3**	**4**	**5**
D.	Reflects a level of quality beyond what is normally expected of a student of the age.	**1**	**2**	**3**	**4**	**5**
E.	Reflects care, attention to detail, overall pride on the part of the student.	**1**	**2**	**3**	**4**	**5**
F.	Reflects a commitment of time, effort and energy.	**1**	**2**	**3**	**4**	**5**
G.	Reflects an original contribution for a youngster of this age.	**1**	**2**	**3**	**4**	**5**

APPENDIX 11

SPAF Assessment Form

Student Product Assessment Form
Summary Sheet

Names_____ **Date**_____
Teacher_____ **School**_____
Person completing this form_____
Product (Title and/or brief description)

_____

_____

Number of Weeks worked on project_____

FACTORS	**RATING**
1. Early Statement of Purpose	_____
2. Problem Focusing	_____
3. Level of resources	_____
4. Diversity of Resources	_____
5. Appropriateness of Resources	_____
6. Logic, Sequence and Transition	_____
7. Action orientation	_____
8. Audience	_____
9. Overall Assessment	
A. Originality of Idea	_____
B. Achieved Objectives Stated in Plan	_____
C. Advanced Familiarity With the Subject	_____
D. Quality Beyond Age Level	_____
E. Care, Attention to Detail etc.	_____
F. Time, Effort, Energy	_____
G. Original Contribution	_____

Factors 1 -8:
5 = To a great extent
4 = To an above average extent
3 = To an average extent
2 = Somewhat
1 = To a limited extent

Factors 9A – 9G:
5 = Outstanding
4 = Above average
3 = Average
2 = Below average
1 = Poor

Comments:

_____

_____

_____

_____

APPENDIX 12
Teacher Nomination Form

TEACHER NOMINATION QUESTIONNAIRE TO IDENTIFY CHILDREN FOR INVOLVEMENT IN WITHDRAWAL ENRICHMENT MUSIC PROGRAMME

INTERESTS: Please indicate students that have displayed interest in the following categories/subjects in your class this year. If you have noticed other areas of specific topics (example: computers, dinosaurs, etc.), please note this under 'other'.

- Maths_____
- Science_____
- SocialStudies_____
- Language_____
- Reading_____
- Visual Art (drawing, painting, sculpture, printmaking etc)_____
- Music (singing, playing an instrument, writing songs, writing words for songs etc)_____
- Drama_____
- Dance_____
- Creativity_____
- Making/constructing objects)_____
- Leadership_____
- Physical Education_____
- Other_____

In your class who do you think is the best:

- Artist_____
- Singer_____
- Instrumentalist (What does that student play?)_____
- Reader_____
- Sports person_____

In your class, who do you think has the best:

- Sense of humour_____
- The most original ideas_____
- The most respect for fellow students_____

- In you class, who would you most likely choose as a group leader when you are doing group projects?_____

_____

Nominate three to five students that you think would benefit from a music enrichment programme._____
_____
_____
_____
_____

APPENDIX 13

My Likes and Dislikes of Music

Key indicator questions shaded. Parental returns italicised. Phase two participants bolded.

	My music teacher is usually the best teacher I have in school	It is important to work hard and be successful in music	I am very good at music	I plan to study music at high school	I try to learn more about music or drama outside school	Music is easy for me	I watch music and theatre programmes on TV	I enjoy attending music concerts & musical theatre productions	I would like to be an actor or musician one day	I try to do my best work I music and music related tasks	I love to learn about music	Learning new skills in music is the most interesting part of class	Art, music & drama are my favourite subjects at school	I could learn anything about music if tried hard enough	I wish most music lessons could be longer	**Total Key Indicator Score**	**Total Score**
Suzy	***3***	***4***	***4***	***3***	***4***	***3***	***3***	***4***	***4***	***4***	***4***	***3***	***3***	***3***	***4***	***21***	***53***
Shane	***4***	***4***	***2***	***2***	***1***	***3***	***1***	***1***	***1***	***3***	***4***	***4***	***3***	***3***	***4***	***21***	***40***
Sam	***3***	***4***	***3***	***3***	***2***	***3***	***1***	***3***	***3***	***4***	***4***	***4***	***3***	***3***	***4***	***22***	***47***
Stephanie	*2*	*4*	*3*	*2*	*1*	*2*	*2*	*4*	*3*	*3*	*3*	*3*	*2*	*3*	*3*	***17***	***40***
John	*2*	*3*	*1*	*1*	*2*	*2*	*2*	*2*	*1*	*4*	*2*	*2*	*2*	*4*	*2*	***16***	***32***
Mannie	*3*	*4*	*4*	*4*	*4*	*1*	*4*	*4*	*4*	*4*	*4*	*4*	*4*	*4*	*4*	***24***	***56***
James	*4*	*4*	*4*	*4*	*2*	*4*	*4*	*3*	*4*	*4*	*4*	*4*	*3*	*4*	*3*	***22***	***55***
Mike	*2*	*2*	*2*	*1*	*1*	*2*	*3*	*3*	*1*	*2*	*2*	*2*	*3*	*1*	*2*	***12***	***29***
Emily	*1*	*4*	*1*	*1*	*2*	*1*	*2*	*1*	*1*	*2*	*1*	*1*	*4*	*4*	*1*	***13***	***27***
Crystal	4	4	2	2	4	2	2	4	3	4	3	3	2	2	4	**18**	**45**
Claudia	2	4	1	1	1	1	1	2	1	3	2	1	1	2	2	**11**	**25**
Hannah	2	4	2	1	2	2	3	3	2	2	2	1	2	3	1	**11**	**32**
Reb	3	4	4	4	3	4	4	4	4	4	4	4	2	4	4	**22**	**56**
Katie	2	4	2	1	4	2	2	2	4	4	2	1	2	3	2	**14**	**37**
Anna	2	1	2	1	1	2	2	2	3	2	2	1	2	3	3	**13**	**29**
Melanie	2	3	2	1	1	2	2	1	2	2	2	3	3	2	2	**14**	**30**
Daniella	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	**24**	**60**
Jared	2	4	2	1	3	2	2	3	1	3	2	3	2	4	2	**16**	**36**
Werry	4	4	2	1	4	2	1	4	1	4	4	4	4	1	1	**18**	**41**
Sonia	4	3	3	1	2	3	3	1	1	4	2	3	2	4	1	**16**	**37**
Eric	2	4	3	1	4	2	2	2	4	4	2	1	3	4	2	**16**	**40**
John	2	2	2	2	1	1	1	1	1	2	1	2	3	2	1	**11**	**24**
Chamo	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	**24**	**60**
Alex	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kent	4	4	2	2	2	2	2	1	1	2	2	2	2	1	2	**11**	**31**

Table 1 My Likes and Dislikes of Music

1 Not True 2 Sometimes True

3 True 4 Very true

APPENDIX 14

How I Like To Learn

Key indicator questions shaded. Parental returns italicised. Phase two participants bolded.

	Someone explaining what I have to do	Discussing things with others so I can understand them	Studying with a friend to learn difficult material	Giving answers out loud when the teacher asks questions	Being asked to make connections with what I already know	Making or drawing something that applies to what I have learnt	Having a contest in class to see who has learned the most	Teaching something to someone else in my class	Sharing my ideas with others in the class	Helping another student get ready for a test	Becoming an expert on a topic so I can teach it to someone else	Going off on own to study a subject that I like	Finding out the big idea behind a topic that I am studying	Being able to skip over parts of subjects that I already know	Working on a project with others who have a similar interest independently	Planning a project I will work on by myself	Reading a book to learn more about a topic	Being allowed to work for long hours on a topic that interests me	Being given some materials or a task to learn in my own time	Going to the library to look up information on a topic of my own choice	**Total Indicator Score**	**Total Score**
'	*4*	*3*	*5*	*5*	*3*	*4*	*4*	*4*	*4*	*4*	*4*	*5*	*5*	*4*	*5*	*4*	*5*	*4*	*4*	*5*	*27*	*90*
ne	*4*	*4*	*2*	*3*	*1*	*5*	*2*	*5*	*3*	*3*	*3*	*3*	*3*	*5*	*5*	*4*	*5*	*5*	*3*	*5*	*27*	*73*
	5	*4*	*3*	*4*	*3*	*5*	*4*	*3*	*3*	*3*	*5*	*5*	*3*	*2*	*4*	*4*	*4*	*5*	*5*	*4*	*26*	*78*
hanie	*5*	*4*	*5*	*4*	*3*	*5*	*5*	*2*	*4*	*5*	*2*	*3*	*4*	*5*	*5*	*4*	*4*	*5*	*4*	*4*	*26*	*82*
	1	*3*	*3*	*4*	*5*	*5*	*1*	*3*	*3*	*3*	*3*	*3*	*4*	*5*	*5*	*4*	*3*	*5*	*1*	*3*	*21*	*67*
nie	*3*	*4*	*5*	*5*	*5*	*3*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*4*	*5*	*29*	*94*
es	*4*	*5*	*4*	*4*	*4*	*4*	*4*	*4*	*2*	*3*	*4*	*5*	*5*	*5*	*5*	*5*	*4*	*5*	*4*	*5*	*28*	*85*
	4	*4*	*4*	*3*	*3*	*5*	*4*	*3*	*4*	*4*	*4*	*3*	*4*	*4*	*5*	*2*	*3*	*5*	*1*	*1*	*19*	*70*
y	*5*	*5*	*5*	*5*	*5*	*5*	*2*	*4*	*4*	*5*	*3*	*3*	*5*	*5*	*4*	*3*	*3*	*5*	*1*	*2*	*18*	*74*
tal	5	5	5	5	4	5	5	5	5	2	5	3	5	5	5	4	5	5	5	5	**29**	**93**
dia	5	4	5	3	5	4	3	5	5	4	5	-	-	-	-	-	5	5	4	4	**N/A**	**N/A**
nah	4	4	4	4	5	5	3	4	3	3	3	4	4	4	4	3	4	4	4	3	**22**	**76**
	5	4	5	4	4	5	5	5	'	5	5	5	5	1	4	5	5	5	5	5	**29**	**87**
e	4	4	5	3	3	5	2	3	3	3	4	4	4	5	3	4	4	4	3	4	**22**	**75**
a	3	3	3	3	3	3	4	3	4	3	3	4	3	4	3	4	4	4	4	3	**22**	**66**
nie	4	4	4	4	4	3	3	5	3	3	4	4	4	4	4	2	4	4	4	4	**22**	**75**
ella	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	**30**	**100**
l	4	4	4	4	4	5	4	4	4	4	5	4	4	4	3	4	4	5	4	5	**25**	**83**
y	3	3	5	2	1	5	1	5	5	3	5	5	5	5	1	1	5	4	5	5	**21**	**70**
a	1	1	1	5	3	2	1	4	4	4	4	-	-	-	-	-	5	5	1	3	**N/A**	**N/A**
	5	5	5	5	4	5	5	5	5	5	5	3	5	5	5	5	5	5	5	4	**29**	**96**
	3	1	5	1	3	5	5	1	5	5	1	1	1	5	5	5	1	1	1	2	**15**	**57**
no	2	2	2	4	5	4	5	3	2	4	4	1	4	4	2	1	4	4	4	5	**20**	**65**
	5	2	5	2	4	2	4	4	5	4	5	4	5	2	5	4	5	4	4	5	**29**	**80**
	4	4	4	3	3	4	3	4	4	4	4	2	3	3	3	2	3	3	1	2	**14**	**63**

Table 2 How I Like To Learn

1	Really Dislike	2	Dislike	3	Not Sure
4	Like	5	Really Like		

APPENDIX 15

Parental Questionnaire

Key indicator questions shaded. Parental returns italicised. Phase two participants bolded.

	My child sets high personal goals and expects to see results from their work	When working on a project my child knows which parts are good & which parts need improvement	My child suggests imaginative ways of doing things even if the suggestions are impractical	When my child tells me of something that is unusual they express themselves by elaborate words	My child avoids typical ways of doing things, instead finding novel ways of approaching the problem	My child likes to play with ideas, often making up situations that would never occur	My child often finds humour in events that are not obviously funny to other children their age	My child prefers working/playing alone rather than doing something 'just to go along with the gang'	My child is a 'doer' who begins a project and shows finished products of their work	My child will continue to work on a project even when faced with temporary setbacks	My child gets so involved in a project that they give up other pleasures to work on it	My child is s self-starter who works well alone	My child will spend more time & energy than their classmates on a topic of interest	**Total Key Indicator Score**	**Total Score**
Suzy	***3***	***4***	***3***	***4***	***3***	***3***	***2***	***2***	***4***	***3***	***3***	***3***	***3***	**16**	***40***
Shane	***2***	***3***	***3***	***2***	***2***	***4***	***4***	***4***	***2***	***2***	***3***	***3***	***4***	***14***	***38***
Sam	***4***	***4***	***2***	***2***	***2***	***2***	***2***	***3***	***4***	***4***	***4***	***4***	***4***	***20***	***41***
Stephanie	3	4	1	1	2	2	3	2	5	4	2	3	2	**16**	**34**
John	2	2	2	2	2	5	2	3	2	2	2	2	2	**10**	**30**
Mannie	3	3	3	4	3	4	3	3	3	2	3	3	3	**14**	**40**
James	4	4	4	-	-	4	-	-	-	-	-	4	3	**-**	**-**
Mike	4	5	5	4	4	5	5	5	4	2	4	3	4	**17**	**54**
Emily	3	3	4	5	4	4	4	2	4	2	3	4	4	**17**	**46**

Table 3 Parental Questionnaire

1	Almost Never	2	Rarely	3	Usually
4	Frequently	5	Always		

APPENDIX 16
Student Questionnaire

Note: names have been changed to protect anonymity.

"ALL ABOUT ME"

Name of student: "Mannie"

- Tick the areas that you are really interested in and enjoy – or think you might enjoy if you had the opportunity:

  - Maths ✓
  - Science ✓
  - Social Studies ✓
  - Language. ✓
  - Reading ✓
  - Art ✓ (Highlight one of the following: ***drawing, painting***, sculpture, printmaking other – specify: Making sculptures with clay)
  - Music ✓ (Highlight one of the following: singing, ***playing an instrument***, writing songs, writing words for songs)
  - Drama ✓
  - Dance ☐
  - Creativity ✓
  - Making/constructing objects ✓
  - Leadership ✓
  - Physical Education ✓
  - Any other area (specify)_____

- Why do you think you are good at the areas that you ticked?

Because I have an older brother who is interested in the same and he had a lot of fun so I thought I'd just have a go

- Describe any projects you have done, books you have read, or any other activities that may explain why you are good at those areas.

Space because of how you can learn about seasons, Earth spinning on is axis and gas giants and many more

- In one of the areas that you have ticked, describe a project that you might like to work on.

A science project because it can get you far

- Give any reasons for your interest in this area.

It can help with your education and helps you get a job when you are an adult

"PEOPLE IN MY CLASS"

- In your class who would you most like to help you with your homework in the following areas:
  - Maths: Crystal
  - Science: Myself
  - Social Studies: Suzy
  - Language: Myself
  - Reading: Myself, Hannah
  - Art (drawing, painting, sculpture, printmaking): Crystal
  - Music (singing, playing an instrument, writing songs, writing words for songs) Crystal, Suzy
  - Drama: Myself
  - Dance_____
  - Creativity: Danielle, Katie
  - Making/constructing objects: Melanie
  - Leadership: Myself
  - Physical Education: Claudia
  - Any other area: Great friendship; Katie, Sonia

- In your class who do you think is the best (name up to three):
  - Artist: Myself, Katie
  - Singer: Emily, Hannah, Melanie
  - Instrumentalist (What does that student play?)_____
  - Reader_____
  - Sports person_____

- In your class, who do you think has the best (name up to three):
  - Sense of humour: Mannie, Katie
  - The most original ideas: Katie, Suzy
  - The most respect for fellow students: Neil

- In your class, who would you most like to have as a group leader when you are doing group projects?: Crystal, Suzy

- In your class who do you consider is the finest student?: Neil

APPENDIX 17
Student Questionnaire

Note: names have been changed to protect anonymity.

"ALL ABOUT ME"

Name of student: "Suzy"

- Tick the areas that you are really interested in and enjoy – or think you might enjoy if you had the opportunity:

  - Maths ✓
  - Science ✓
  - Social Studies ✓
  - Language. ✓
  - Reading ✓
  - Art ✓ (Highlight one of the following: drawing, ***painting***, sculpture, printmaking other – specify:_____)
  - Music ✓ (Highlight one of the following: ***singing, playing an instrument, writing songs, writing words for songs***)
  - Drama ✓
  - Dance ✓
  - Creativity ✓
  - Making/constructing objects ✓
  - Leadership ✓
  - Physical Education ✓
  - Any other area (specify): Geography

- Why do you think you are good at the areas that you ticked?

Because I enjoy them a lot

- Describe any projects you have done, books you have read, or any other activities that may explain why you are good at those areas.

I like entering competitions in music, once I won $10

- In one of the areas that you have ticked, describe a project that you might like to work on.

I would like to work on composing in music

- Give any reasons for your interest in this area.

Music is fun and I enjoy listening to music very much

"PEOPLE IN MY CLASS"

- In your class who would you most like to help you with your homework in the following areas:

  - Maths: Crystal, Myself, Werry
  - Science: Crystal Claudia
  - Social Studies: Crystal
  - Language: Crystal
  - Reading: Crystal
  - Art (drawing, painting, sculpture, printmaking): Crystal
  - Music (singing, playing an instrument, writing songs, writing words for songs) Crystal
  - Drama: Mannie
  - Dance: Melanie
  - Creativity: Katie
  - Making/constructing objects: Crystal
  - Leadership: Hannah
  - Physical Education: Crystal
  - Any other area:_____

- In your class who do you think is the best (name up to three):

  - Artist: Katie, Crystal Claudia
  - Singer: Reb
  - Instrumentalist (What does that student play?)_____
  - Reader: Hannah
  - Sports person: Crystal

- In your class, who do you think has the best (name up to three):
    - Sense of humour: John
    - The most original ideas: Hannah
    - The most respect for fellow students: Claudia, Hannah

- In your class, who would you most like to have as a group leader when you are doing group projects?: Crystal, Claudia, Hannah

- In your class who do you consider is the finest student?: Claudia, Cystal

APPENDIX 18
Student Questionnaire

Note: names have been changed to protect anonymity.

"ALL ABOUT ME"

Name of student: "Shane"

- Tick the areas that you are really interested in and enjoy – or think you might enjoy if you had the opportunity:

  - Maths ☐
  - Science ✓
  - Social Studies ☐
  - Language. ✓
  - Reading ✓
  - Art ✓ (Highlight one of the following: drawing, ***painting***, sculpture, printmaking other – specify:_____)
  - Music ✓ (Highlight one of the following: ***singing,*** playing an instrument, ***writing songs, writing words for songs***)
  - Drama ☐
  - Dance ☐
  - Creativity ✓
  - Making/constructing objects ✓
  - Leadership ✓
  - Physical Education ✓
  - Any other area (specify): ☐

- Why do you think you are good at the areas that you ticked?

Because of being interested in them for a long time and learning about them

- Describe any projects you have done, books you have read, or any other activities that may explain why you are good at those areas.

I read a lot and I have a wide variety of knowledge from reading a lot of books

- In one of the areas that you have ticked, describe a project that you might like to work on.

Constructing an object of largeness

- Give any reasons for your interest in this area.

Creativity

"PEOPLE IN MY CLASS"

- In your class who would you most like to help you with your homework in the following areas:

  - Maths: Sam
  - Science: Blair
  - Social Studies: Harry
  - Language: _____
  - Reading: _____
  - Art (drawing, painting, sculpture, printmaking): _____
  - Music (singing, playing an instrument, writing songs, writing words for songs)
  - Drama: _____
  - Dance: _____
  - Creativity: _____
  - Making/constructing objects: _____
  - Leadership: _____
  - Physical Education: Joseph
  - Any other area:_____

- In your class who do you think is the best (name up to three):

  - Artist: _____
  - Singer: _____
  - Instrumentalist (What does that student play?)_____
  - Reader: _____
  - Sports person: _____

- In your class, who do you think has the best (name up to three):
  - Sense of humour: Harry
  - The most original ideas: Sam
  - The most respect for fellow students: Joseph, Sam

- In your class, who would you most like to have as a group leader when you are doing group projects?: _____

- In your class who do you consider is the finest student?: _____

APPENDIX 19
Student Questionnaire

Note: names have been changed to protect anonymity.

"ALL ABOUT ME"

Name of student: "Sam"

- Tick the areas that you are really interested in and enjoy – or think you might enjoy if you had the opportunity:

  - Maths ✓
  - Science ✓
  - Social Studies ☐
  - Language. ☐
  - Reading ☐
  - Art ✓ (Circle one of the following: ***drawing,*** painting, sculpture, printmaking other – specify:_____)
  - Music ✓ (Circle on of the following: ***singing, playing an instrument***, writing songs, writing words for songs)
  - Drama ☐
  - Dance ☐
  - Creativity ✓
  - Making/constructing objects ✓
  - Leadership ☐
  - Physical Education ✓
  - Any other area (specify): Geography

- Why do you think you are good at the areas that you ticked?

Because I like and enjoy those activities and I have a lot of fun when I do them

- Describe any projects you have done, books you have read, or any other activities that may explain why you are good at those areas.

I like to make dominoes knock-downs. This requires patience and it is creative

- In one of the areas that you have ticked, describe a project that you might like to work on.

I would like to learn how to play another instrument

- Give any reasons for your interest in this area.

I like the sounds that the instruments make

"PEOPLE IN MY CLASS"

- In your class who would you most like to help you with your homework in the following areas:

  - Maths: _____
  - Science: _____
  - Social Studies: _____
  - Language: _____
  - Reading: _____
  - Art (drawing, painting, sculpture, printmaking): _____
  - Music (singing, playing an instrument, writing songs, writing words for songs) _____
  - Drama: _____
  - Dance: _____
  - Creativity: _____
  - Making/constructing objects: _____
  - Leadership:_____
  - Physical Education:_____
  - Any other area:_____

- In your class who do you think is the best (name up to three):

  - Artist: _____
  - Singer: _____
  - Instrumentalist (What does that student play?)_____
  - Reader: _____
  - Sports person: _____

- In your class, who do you think has the best (name up to three):
  - Sense of humour:_____
  - The most original ideas: _____
  - The most respect for fellow students: _____

- In your class, who would you most like to have as a group leader when you are doing group projects?: _____

- In your class who do you consider is the finest student?: _____

APPENDIX 20

Student Self Evaluation Form

Type III Enrichment: Individual and Small Group Investigations

Student Product Self-Evaluation Form

Name_____ Date_____
School Year_____ Male/Female (circle one)

1. Describe the feelings about working on your project. Did you enjoy working on it

2. List some of the things you learned while working on your project

3. Were you satisfied with your final project?

4. List some of the ways your enrichment teacher helped you on your project

5. Do you think you might like to work on another project in the future? Do you have any ideas for another project?

APPENDIX 21

Parental Evaluation Form

Type III Enrichment: Individual and Small Group Investigations

Parent Evaluation of Student's Product

Name_____ Date_____
School Year_____ Male/Female (circle one)

6. Has you child discussed his/her project with you at home?

7. Have you noticed any changes in your child's interests or use of free time since he/she began working on the project?

8. Please comment below on your child's task commitment, involvement and interest level while the independent study or group project was being developed.

9. Please assess the overall quality of your child's product below

10. Please add any further comments about the enrichment programme that you would like to offer

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