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**Defying the Odds:
Gifted and Talented Young People
from Low Socioeconomic Backgrounds**

A thesis
submitted in fulfilment
of the requirements for the degree
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Abstract

The aim of this study was to explore the lived experiences of gifted and talented New Zealand young people from low socioeconomic backgrounds, with an emphasis on risk and protective processes that might foster resilience. Ninety-three young people between the ages of 17 and 27 participated in this study, each having been identified as gifted in one or more of the following areas: academic, sporting, creative arts, and leadership.

The participants were sourced from *First Foundation*, an organisation that awards scholarships to gifted New Zealand secondary school students who come from financially disadvantaged backgrounds. At the time this research was undertaken, there were 181 past and present *First Foundation* scholarship recipients, and invitations to participate were extended to each of these young people.

The qualitative methodology considered to be most appropriate for this study was Interpretative Phenomenological Analysis (IPA), as it allows the researcher to get an ‘inside perspective’ of how individuals make meaning of their experiences (Smith & Osborn, 2008). This study involved an anonymous electronic survey of 93 gifted young people, and a further eight in depth interviews. The survey and interview questions focused on broad themes related to the participants’ giftedness and personal circumstances, including: their talents and interests; their education and schooling; the influence of family and friends; the presence of role models and mentors; and their childhood experiences.

‘Identity’ was one of three key themes that emerged from this study. One of the most significant findings was that the limitations of being gifted presented as more of a risk

factor than limitations associated with personal circumstances, particularly in relation to a sense of identity. This finding contradicts numerous other studies that focus on the relationship between giftedness and low socioeconomic status.

Many studies of gifted individuals suggest that ‘drive’, which emerged as a second key theme, is common amongst those who achieve to significant levels. In this study, however, the majority of participants reported that their drive was directly related to the socioeconomic challenges they had faced. For many, their drive translated into a strong desire to use their gifts and talents to benefit others facing similar challenges.

‘Opportunities’ were also considered crucial for enabling the talent development process and many of the young people in this study indicated that relationships with other people rather than material opportunities had been most valuable. The opportunistic natures of the participants also enabled them to recognise, seek out, and make the most of opportunities, despite the limitations of their socioeconomic circumstances.

Little is known about how gifted New Zealanders from financially challenging backgrounds fare in terms of their talent development and this research addresses recent calls for investigation in this area. The findings from this study contribute broadly to existing knowledge about gifted and talented learners in New Zealand, and provide specific insight into the lived experiences of those from socioeconomically challenging backgrounds. One significant finding is the nature of risk and resilience processes operating amongst this group of young people, which may serve to extend understanding of how gifted individuals who face adversity are able to develop their talents. There are also important implications that arise from this study for those who live and work with gifted young people from low socioeconomic backgrounds.

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My life direction may have been very different if not for the influence of a number of close friends over the years. In 2003, only ten years ago, I was wandering the world with no formal qualifications, and it was one of these friends, Veronica Hunter, who prompted me to complete my teaching degree. Veronica has taken an avid interest in my academic journey and has been behind me 100% of the way. I am thankful that

our lives crossed paths, and am grateful for having shared so many invaluable experiences and adventures with her, as these underpin what I have been able to bring to this project.

I am fortunate also to have had the ongoing support of my family, particularly over this time. The adage says that it is the little things that make a big difference, and it has been their daily, behind-the-scenes support that has carried me through this journey. I am especially proud of my mother for her unwavering presence throughout my life, and for tirelessly giving of herself time and time again. As a young person who could well have been representative of some of the statistics outlined in this study, I will forever be grateful for the sacrifices she has made that have enabled me to achieve what I have.

This research would not have been possible without the support of the staff at *First Foundation*, who took a keen interest in this study from the start. Special acknowledgement must go to Steven Carden, who had the foresight to establish an organisation that has made such a difference in the lives of so many talented young people and continues to do so year after year. The ongoing support of the *First Foundation* team throughout this journey is most appreciated, in particular Anthony Ford, Liz Wright and Samantha Thompson. Their aim, to provide a ‘hand up’ rather than a ‘hand out’ for the young people they work with, has been extended to me also through their commitment to this project.

Finally, my utmost thanks must go to the talented young New Zealanders who participated in this study. It has been an immense privilege to be invited into their worlds, and I am grateful for their willingness to share their stories. I trust that I have been able to represent these stories in such a way that honours the desire expressed by so many of these young people – that their own experiences will make a difference in the lives of others. I am certain that each will achieve exactly that.

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Glossary of Māori Terms

Kapa haka	Term used for traditional Māori performing arts
Waiata	Māori word for song
Whānau	An extended family group
Iwi	An extended kinship group, or a large group of people descended from a common ancestor

Chapter 1

Introduction

The possibilities for people are evident at any of our annual award ceremonies held around the country. It's where everyone comes together to celebrate the potential of and pride in what the future will bring.

First Foundation Annual Report (2011, p.8)

1. Background

Spread across the foyer are people of all ages, ethnicities, and walks of life. In one corner, a young Samoan adolescent dressed neatly in his freshly ironed school uniform speaks with a distinguished looking middle-aged businessman. In another, three girls chat excitedly to each other as their parents proudly look on. Small clusters of people engaged in eager conversation fill the room; the atmosphere is upbeat, the mood cheerful, the tone celebratory. A loud call from outside welcomes the attention of the crowd, who gather around expectantly as a local school kapa haka¹ group launches into the first of several enthusiastic waiata.² With a sense of anticipation, the crowd moves eagerly into the auditorium, where lights are dimmed and the celebration begins. It is here that some of the nation's most talented young are admired for their achievements, where social and cultural barriers are diminished, differences are celebrated, and lives are changed forever.

¹ Kapa haka is the term used for traditional Māori performing arts.

² Waiata is the Māori word for 'song'.

Anyone who has attended a *First Foundation* scholarship award ceremony such as the one described above will attest that there are people who are able to reach remarkable levels of achievement despite facing significant challenges in their lives. The stories of those involved with this organisation, which provides scholarship and mentoring opportunities for some of New Zealand's most talented but financially disadvantaged young people (www.firstfoundation.co.nz), maintain that class, culture, and environment are not permanent obstacles to achievement. It is little wonder that *First Foundation* has grown from strength to strength over the past 14 years since its inception. With claims that almost a quarter of children in New Zealand are living in poverty (Wynd, 2011; Grimmond, 2011; Office of the Children's Commissioner [OCC], 2012), there is an abundance of young people who could benefit from educational trusts like this. As well, we tend to have a natural curiosity about individuals who display exceptional ability, and particularly those who succeed against the odds, such as the gifted *First Foundation* scholarship recipients who feature in this present study.

Our fascination with those who 'defy the odds' to achieve to significant levels has been evident over time, and history has produced numerous examples of eminent individuals who have overcome considerable challenges. For example, Charlie Chaplin, best known for his silent comedy films, grew up in a solo parent household with his mentally ill mother (Weissman, 2008). J.K. Rowling, author of the famous *Harry Potter* series, battled depression and was a solo mother with a very limited income before becoming a world-renowned writer (Smith, 2001). Steve Jobs, co-founder of Apple, was adopted out as a child and led a modest life before his influential career in the computer industry (Isaacson, 2011). Yet perhaps most fascinating about these people is not necessarily their actual accomplishments, but the stories of their life journeys and heroic battles against the odds. The intrigue in these stories is not so much what people can achieve, but what enables them to do so.

In New Zealand schools, children who stand out as high achievers are often referred to as being ‘gifted and talented’³ (Ministry of Education, 2012) and the journey to eminence for many individuals begins in the school setting. The terms ‘gifted’ and ‘talented’ sometimes imply that achievement comes naturally or requires little effort for people who are so described. However, numerous stories of high achievers indicate that behind their outstanding achievements is a complex combination of individual endowments, persistent efforts, and environmental influences that contribute to their success. As with the eminent individuals mentioned previously, an array of environmental factors can also sometimes stand in the way of achievement. One such environmental factor is poverty, and the effects of this on people and nations around the world have been documented widely (e.g., Carroll, Casswell, Huakau, Howden-Chapman, & Perry, 2011; Organisation for Economic Co-operation and Development [OECD], 2011; Wilkinson & Pickett, 2010). In New Zealand, particular attention has recently been given to child poverty rates and the impact of these on educational attainment.

The increasing focus on rates of poverty and how these are affecting New Zealand children has highlighted that there is an association between low socioeconomic status and educational risk that needs to be examined (Fletcher & Dwyer, 2008; Ministry of Social Development, 2008; St. John & Wynd, 2008). Despite some widely held assertions, this risk also pertains to gifted children and young people from low socioeconomic backgrounds. While provision for these young people has certainly improved, particularly over the last decade, there remain a significant number of gifted and talented students who are overlooked (Ministry of Education, 2012). According to the Ministry of Education, gifted and talented learners from low

³ Use of the terms ‘gifted’ and ‘talented’ amongst experts has been described as “ambiguous and inconsistent” (Davis, Rimm, & Siegle, 2011), and this is largely due to the lack of a universal definition of giftedness. However, these terms are now most commonly used together as a single definition, with high achievers widely referred to as ‘gifted and talented’ (Moltzen, 2009). In this study, the words ‘gifted’ and ‘talented’ are sometimes used interchangeably to abbreviate the term ‘gifted and talented’.

socioeconomic backgrounds are one group who are consistently underrepresented in educational programmes for gifted and talented students.

This research project emerged predominantly from my own childhood experiences as a high achieving New Zealand European young person growing up in a single parent, low-income household. On reflection, it was evident that having high abilities and living with financial constraints had influenced the way my life had unfolded, and this was the catalyst for an interest in the experiences of others from similar backgrounds. This initial interest led to more questions about the development of gifted and talented young people from low socioeconomic backgrounds. How do these young people negotiate the different contexts they encounter on a daily basis? What specific challenges do they face, and how do they cope with or make use of these challenges? And how do gifted and talented young people from low socioeconomic backgrounds *perceive* their abilities and their personal circumstances?

A review of the related literature (see Chapter 3) also reveals a distinct gap in the area of provision for gifted and talented individuals from low socioeconomic situations in New Zealand. While there has been research undertaken in this area internationally, and particularly in the United States (e.g., Borland, Schnur, & Wright, 2000; Olszewski-Kubilius, 2006; Swanson, 2006; Van Tassel-Baska & Olszewski-Kubilius, 1994), these studies tend to reflect other contexts and attitudes related to socioeconomic status and class systems. Little is known about how gifted New Zealanders from financially challenging backgrounds fare in terms of their talent development and there have been calls for further investigation in this area (Biddulph, Biddulph, & Biddulph, 2003; Ministry of Education, 2008a; Riley, 2004; Versteynen, 2001).

The present study attempts to provide understanding of what it might mean for young people to be highly competent and experiencing potential challenges associated with low socioeconomic circumstances. It is envisaged that this study may provide insight to how these gifted young people can be more effectively catered for and better supported in New Zealand schools. Another anticipated outcome is that it might offer something to individuals, and their families or whānau⁴, who contend daily with the challenges of being gifted and living in low socioeconomic situations. Finally, it is intended that this project be a celebration of the participants' exceptional achievements.

2. Gifted and talented education in New Zealand

New Zealand could be described as having a 'young' history in relation to support for gifted and talented students, with early efforts in this area being expressed by some as inconsistent and weak (Moltzen, 2011a). In recent decades, several initiatives have elevated the profile of gifted education and influenced attitudes towards gifted learners. These include the recognition of special abilities in national education policies (Ministry of Education, 2008b) and guidelines for schools, teachers, parents, and gifted students (Ministry of Education, 2000, 2008c, 2012). More recently, a national professional body has been established to assist with professional and parental support and networking in the field of gifted education (www.giftednz.org.nz). While these initiatives have certainly contributed to attempts to better cater for young people with high abilities, Moltzen suggests that momentum has recently slowed, at least at an official level.

There is no set national definition of giftedness in New Zealand. Instead, schools are encouraged to develop their own concepts of giftedness to meet the needs of their

⁴ Whānau is an extended family group.

gifted and talented learners, based on educational guidelines (Ministry of Education, 2012). This allows schools a degree of autonomy and enables them to define, identify, and nurture gifted and talented students according to the young people and communities they represent. However, while this can be an advantage, there are some concerns that the lack of a national definition may also serve to broaden and generalise conceptions of giftedness so that considerations for this group of students are diluted and lack focus (Moltzen, 2004).

According to the Ministry of Education (2012), gifted students who are ‘disadvantaged’⁵ are underrepresented in gifted and talented programmes in New Zealand schools. This may be due to a number of reasons and it can be conceptualised that disadvantaged young people have fewer resources or advantages in their ecologies than others (Masten, 2002; Thrupp, 2008). In the New Zealand context, the largest proportion of ‘hidden gifted’ include students who are gifted but underachieving, individuals from minority ethnic groups, those with learning difficulties or disabilities, and those from low socioeconomic backgrounds (Ministry of Education, 2012).

Over the past few years the New Zealand Ministry of Education has recognised this underrepresentation as an issue that requires attention and highlighted future areas of focus for gifted education policy and programme development (Ministry of Education, 2000, 2008a; Riley & Moltzen, 2010). Amongst these is the call to address the particular needs of low decile schools, and the need for sampling from lower socioeconomic families (e.g., Biddulph et al., 2003; Riley, 2004; Versteynen,

⁵ The term ‘disadvantaged’ has been used by the Ministry of Education (2012) to describe gifted and students from low socioeconomic backgrounds. Other literature extends this term to incorporate gifted and talented students from minority cultures, students with disabilities, female gifted and talented students, and those from rural locations (e.g., Coleman, 2006; Porter, 2005; Van Tassel-Baska & Olszewski-Kubilius, 1994). However, while it may be perceived by others that particular groups of young people are disadvantaged, these gifted individuals themselves may not necessarily view their circumstances as detrimental. It is from this perspective that the term ‘disadvantaged’ is used in this particular study.

2001). A challenge associated with research such as this is that these young people are not readily identified, hence their underrepresentation in gifted and talented programmes. Further to this, the Ministry of Education (2012) acknowledges that, compared with learners from more advantaged backgrounds, there generally tends to be a decline in this group's performance over the time they are at school.

The presence and persistence of underachievement amongst the gifted and talented is a significant issue as it results in the loss to society of unfulfilled potential (Moltzen, 2011b). Perhaps more importantly, gifted young people who underachieve represent an unrealised fulfillment of personal potential, which is likely to impact wellbeing (Siegle & McCoach, 2002). Combine the increased likelihood of underachievement with the added pressures of socioeconomic strain, and young people who are already perceived to be disadvantaged are faced with quite specific challenges. These are some of the issues that organisations such as *First Foundation* are attempting to address. As this organisation states, “the simplicity of a helping hand” can enable talented young people from low socioeconomic backgrounds to develop their potential, and this in turn can make “an amazing difference to someone’s impact on their family, their community and wider society” (First Foundation, 2011, p.2).

3. Socioeconomic trends in New Zealand

In order to fully appreciate the effect of poverty⁶ on gifted and talented young people in New Zealand it is useful to consider some of the historic events that have shaped

⁶ The term ‘poverty’ refers to lack, scarcity, or inferior quality and this generally interprets as a deficiency of adequate food, money, or other basic needs (Collins Dictionaries, 2012). However, poverty can mean different things to different populations and in wealthier nations this should be viewed as relative to context (Perry, 2012). In this study, the term ‘poverty’ is used interchangeably with ‘low socioeconomic circumstances’ to reflect the lack of a socially acceptable level of access to resources and standards of living compared with others in New Zealand society. Much of the literature referred to in this study measures poverty levels in New Zealand by the percentage of people living in households with disposable incomes of less than 60 percent of the median income, after housing costs (e.g., Fletcher & Dwyer, 2008; OCC, 2012; Perry, 2012).

this nation's economy. Like many nations, New Zealand's economic activity has risen and fallen over the years, having experienced three significant economic depressions and two major oil crises, followed by a long recession in the late 1980s and early 1990s (Easton, 2008). A fourth recession is currently impacting on New Zealand and other countries and this is considered to be more widespread and complex than on previous occasions (Grimmond, 2011; OECD, 2011). High consumer debt with little security has been blamed for the downturn, which has been felt around the globe.

New Zealand has one of the wealthier economies in comparison with the rest of the world and New Zealanders are generally healthy and well educated, with a comfortable standard of living. Despite this, the 'gap' between rich and poor in New Zealand widened through the 1980s and 1990s, and recent statistics reveal that this trend is continuing (Fletcher & Dwyer, 2008; Ministry of Social Development, 2010; St. John & Wynd, 2008). As mentioned previously, rates of child poverty in New Zealand are high in comparison to other OECD countries (O'Brien, Claire Dale, & St. John, 2011). Currently, it is claimed that around 25% of all children in New Zealand are living in poverty, and this number has doubled since the mid-1980s (Fletcher & Dwyer, 2008; OCC, 2012). The relationship between income inequality and child poverty is believed to be significant and, in societies with greater inequality, the impact of living in poverty on children's social and emotional wellbeing is increased (Wynd, 2011).

It is claimed that at least one in five New Zealand children experiences severe hardship and the rate of poverty is greater for younger children (Grimmond, 2011; Wynd, 2011). This situation is currently on the political agenda, with a *White Paper for Vulnerable Children* having recently been documented (Ministry of Social Development, 2012). Government funding initiatives have also been implemented with the intention to alleviate child poverty for families on low incomes, however

critics believe that children whose parents receive welfare benefits and are most vulnerable, are no more advantaged (Wynd, 2011). An expert advisory group recently released a paper for consultation for solutions to child poverty in New Zealand, and the final report was released in late 2012 (OCC, 2012).

There is considerable evidence to indicate that growing up in poverty increases the probability of negative long-term outcomes such as poor health, antisocial or criminal behaviour, substance abuse, and low educational achievement (e.g., Boden, Fergusson, & Horwood, 2010; Egan-Bitran, 2010; Fletcher & Dwyer, 2008; Grimmond, 2011; Poulton et al., 2002; Wynd, 2011). Compared to other OECD countries, New Zealand child outcomes are poor, with this country currently ranking 28th out of 30 countries across 20 dimensions of child outcomes (Grimmond, 2011). These outcomes are poorest amongst Māori, Pasifika, and refugee children (Ministry of Social Development, 2011; Perry, 2012). Adversities associated with child poverty are believed to set in motion inter-generational poverty cycles that can impact for decades (Wynd, 2011).

Young people living in poverty in New Zealand today typically have a lower life expectancy and are more likely to smoke, to be obese, and to indulge in hazardous drinking (Ministry of Social Development, 2010). Their health is likely to be affected by a lack of essentials such as food, clothing, and warmth (Egan-Bitran, 2010; Poulton et al., 2002). They are more likely to live in sole parent families, in crowded or low quality housing, or to be transient, which influences their ability to make friends (Ministry of Social Development, 2010). These young people are also less likely to have attended early childhood education and are more likely to leave school with few qualifications, and this is particularly so for Māori and Pasifika young people (Wynd, 2011). Their aspirations for the future may be low or nonexistent. All of these effects tend to be cumulative.

The effects of poverty in childhood can also extend into later life. Children growing up in poor families in New Zealand tend to achieve lower levels of education and this potentially reduces their employment prospects and incomes (Gibb, Fergusson, & Horwood, 2012; OCC, 2012). There is also a greater chance of poor health later in life and an increased likelihood of participation in criminal activity.

Although there is convincing evidence that child poverty is related to poor later life outcomes, there is also evidence that many young people who grow up in poverty go on to live productive and successful lives (Grimmond, 2011; OCC, 2012). The opposite is also true; young people from more privileged backgrounds may develop problems that can result in substantial costs to society. As well, children from low socioeconomic households may have environmental supports that enable them to achieve to their potential and, conversely, the experiences of children from higher income households may reduce their opportunities in life (Wynd, 2011). The OECD (2011) reports that there are substantial numbers of resilient young people around the world and, in New Zealand, close to half of 'disadvantaged' young people achieve comparably with other nations and can be considered to be successful.

Thrupp (2008) reports the existence of middle class advantage, which is arguably perpetuated by general perceptions about people from lower socioeconomic circumstances. Inappropriate deficit perspectives can serve to lower expectations not only in society, but also in areas of education (Alton-Lee, 2003; Bishop & Berryman, 2006), and young people who are amongst our most able but who come from challenging socioeconomic backgrounds are just one group who may bear the brunt of stereotypical thinking. A shift in attitude and approach must be adopted in order that individuals who are gifted but socioeconomically disadvantaged are empowered to develop their potential.

4. Research aim

This research explores the lived experiences of gifted and talented young people from low socioeconomic backgrounds with the aim of obtaining their perspectives on the personal characteristics and environmental features that enabled them to excel. Interpretative Phenomenological Analysis (IPA) was considered to be an appropriate qualitative approach for this study as it provided opportunity for investigating and understanding personal experience and how individuals make meaning of these experiences (Eatough & Smith, 2008). Semi-structured interviewing is the most common form of data gathering in IPA as the researcher is able to facilitate the exploration of lived experiences, while allowing the participant to simply ‘tell their story’. The interviews in the present study did follow a framework of general topics however, and these were: talents and interests; childhood experiences; education and schooling; family and friends; and role models and mentors. The focus of this study is timely, given current concerns in New Zealand about the effects of poverty on educational attainment and the increasing number of gifted and talented young people whose potential may be limited by these effects.

5. Outline of chapters

Chapter 2 outlines Bronfenbrenner’s (1979) systems theory, an ecological framework through which the subsequent literature can be reviewed. This framework is used to support the exploration of issues related to gifted and talented young people from low socioeconomic backgrounds and the associated risk and protective elements that may be present in different contexts.

Chapter 3 presents a summary of literature in two key areas related to this study: talent development and risk and resilience. This study is most concerned with the

interaction of giftedness and socioeconomic adversity, and the resilience construct provides a useful conceptual framework for the examination of these.

An overview of the major themes arising from the literature review is included in Chapter 4. In this section, the areas of self-concept, personal characteristics, relationships, home environments, and education are discussed.

Chapter 5 outlines the methodology and method of this study. This includes identifying the potential benefits and limitations of qualitative research, in particular Interpretative Phenomenological Analysis, and semi-structured interviewing. The chapter also provides profiles of the participant group, describes how these participants were selected, and outlines how the research was undertaken.

The results and discussion of this study are presented in Chapter 6. The three major themes that emerged from the research are Identity, Drive, and Opportunities. These themes are discussed separately, followed by a discussion that links all three themes.

Finally, Chapter 7 outlines key findings from this study. Included in this section are implications for those who work or interact with gifted and talented young people from low socioeconomic backgrounds. This chapter also incorporates implications for future research.

Chapter 2

Giftedness and Socioeconomic Adversity

Through an Ecological Lens

There are no known limits to the kinds of talent the human psyche can demonstrate and to the heights to which it can climb in any talent domain. But the mind is not motivated to achieve every possible form of excellence. The cultural milieu makes that decision in the broadest possible sense.

A. Tannenbaum (2000, p.24)

Writers in the area of giftedness (e.g., Gagné, 2003; Renzulli, 2002; Tannenbaum, 2003) have argued that key ingredients for the realisation of exceptional potential lie within the individual and their environments, and the interactions and transactions that occur between both. Barab and Plucker (2002) state that “ability and talent arise in the dynamic transaction among the individual, the physical environment, and the sociocultural context” (p.174). Other researchers (e.g., Kaufman & Sternberg, 2008; Subotnik, Olszewski-Kubilius, & Arnold, 2003) contend that the interactions between individuals and their environments produce diverse outcomes, and that giftedness can be better understood through exploring these interactions.

Socioeconomic background can impact on the nature and quality of interactions that occur within and between the environments of gifted individuals. Research exists that indicates that there are personal characteristics and environmental features that are believed to be more typical of individuals from low socioeconomic backgrounds (e.g., Luthar, 2006; Rutter, 2007), and these are discussed more fully later in this chapter. Ecological theories of development provide a useful lens through which the

development of talent and the effects of socioeconomic disadvantage can be investigated.

1. The importance of environment

The nature and nurture debate has been central to human development theories for decades. Nature typically refers to the biological inheritance of a particular organism, and nurture encompasses its environmental experiences (Santrock, 2008). In a somewhat artificial conceptualisation of the divide, the role of nature in human development emphasises stages in growth and development that are genetically programmed, while nurture calls attention to particular environments occupied by the individual. Biological and ecological factors are both considered to play a part in the existence and development of giftedness (Gottlieb, Wahlsten, & Lickliter, 2006). This also resonates with current understandings about resilience (Harvey & Delfabbro, 2004), a concept that is also reviewed later in this thesis.

The notion of environmental influence came into prominence in the eighteenth century on the basis of three propositions: that development does not take place out of context; that development occurs in an ongoing, reciprocal process of interaction with the environment; and that functioning is determined by reciprocal interaction between psychological, biological, and environmental factors (Magnusson, 2005). In their studies of gifted people, researchers such as Bloom (1985) provided snapshots of individuals in their ecological contexts, which allowed them to build pictures of how both personal and environmental factors related to the achievement of eminence.

It is widely considered that biological foundations for eminence may exist in a person's genetic makeup but the potential for the realisation of an individual's gifted performance lies in their environments (Ceci & Hembroke, 2005; Cicchetti, 2002;

Gagné, 2005; Plomin & Price, 2003). Understanding developmental changes requires not just the recognition of an individual's talent, but also the consideration of environmental conditions, such as interventions, resources, and support systems that are crucial to the development of talent (Feldman, 2003). Albert (1992) describes how the personal elements of an individual, including affective, behavioural, and cognitive aspects, impact on the degree to which environments can facilitate the development of talent. Flynn (2007) suggests that changes in our environments over time may be an explanation for the phenomenon known as the *Flynn Effect*, which refers to an increase in IQ test scores over the twentieth century. Rutter (1997) stresses the importance of understanding that biological and environmental effects do not operate independently, but rather there is interplay between them. Both the personal and environmental features of gifted individuals from low socioeconomic circumstances impact on whether or not their potential is realised and also on how this may occur.

2. Bronfenbrenner's (1979) ecological system

One of the most influential ecological theorists is Urie Bronfenbrenner (1917-2005). Bronfenbrenner (1979) developed a systems theory that depicts the interactions and transactions of people in a range of contexts. These contexts include the *microsystem* (the immediate contexts occupied by the individual); the *mesosystem* (relations between two or more microsystems); the *exosystem* (social settings the individual is not a part of, but which impact on the individual); the *macrosystem* (the impact of events or transitions over the course of an individual's life); and the *chronosystem* (the patterning of events and transitions, and sociohistorical events that have impacted on the individual over time). Bronfenbrenner's emphasis on the roles, activities and relations of people within these contexts provides a valuable avenue for exploring how people make sense of their circumstances and how their understanding translates into behaviour.

There have been few criticisms of Bronfenbrenner's theory, but the most significant limitation of his ecological model is his inattention to biological influences and his limited emphasis on cognitive processes (Elder, 1995; Santrock, 2008). Bronfenbrenner himself recognised the limitations of his original ideas (Bronfenbrenner, 1992; Lerner, 2005). In more recent years, he addressed these criticisms by adding biological influences to his theory (Bronfenbrenner, 2005a), although critics believe that this adjustment still does not fully address the limitations of the theory. Mönks and Mason (1993) state that ecological models neglect the recognition of innate abilities and overlook the diversity of human characteristics that impact on how individuals in the same environments might respond. The degree to which ecological approaches acknowledge notions of power, oppression, and marginalisation provides another avenue for critique (O'Donoghue & Maidment, 2005). According to Bronfenbrenner's bioecological view however, the level of interaction and resources that exist in an individual's environment determines their potential for success or failure (Ceci & Hembrooke, 2005).

Both giftedness and poverty have been linked with ecological theories of development (Bloom, 1985; Burney & Beilke, 2008; Coleman, 2006; Hunsaker, Frasier, Frank, Finley, & Klekotka, 1995; Piirto, 2007; Simonton, 2005). Mönks and Mason (1993) suggest that, because environmental factors influence human development as a whole, they must also have an influence on the development of gifted individuals. In relation to gifted and talented individuals from socioeconomically challenging backgrounds, a range of contextual factors are considered to affect talent development, and this is clearly indicated in the studies reviewed in Chapter 3. Conceptualisations of risk and resilience also fit well with ecological theories of development, as these provide an explanation for variations in the outcomes of potentially disadvantaged populations (Harvey & Delfabbro, 2004). Davis, Rimm, and Siegle (2011) mention some of the factors that influence achievement amongst these populations, many of which exemplify the connections between the individual and their various settings.

The remainder of this chapter will detail Bronfenbrenner's (1979) systems theory, with a focus on the lives of gifted individuals who come from socioeconomically challenging situations and the interactions that occur within and between the contexts they occupy.

2.1. Chronosystem

The chronosystem, included in Bronfenbrenner's (1979) model, represents the patterning of events and transitions that occur over the course of an individual's life, and also sociohistorical events that impact on the individual. Events that may have occurred prior to the era in which an individual is alive can significantly affect and shape how a person or society exists. For example, in relation to giftedness, the chronosystem encompasses sociohistorical events that play a role in determining what is important to a particular community, society, or culture, and what gifts or talents may be valued above others (Feldman, 2003). With regard to poverty, this system comprises organisations and individuals who make decisions about the allocation of public resources and funds. Further, the chronosystem reflects the transmission of social advantage or disadvantage from one generation to the next. New Zealand's short history has been marked by social, political, and economic changes that have shaped our society and altered the identity of the nation. While this relationship is complex, explorations of major sociohistorical events that have impacted on New Zealand over time help us to understand the context in which gifted New Zealanders from low socioeconomic backgrounds live today.

Young people are identified as gifted according to talents and skills that are deemed to be of value to society at any given time. Skills that are less valued by others may be discouraged within a society. To complicate matters, these beliefs and values shift over time, and conditions that were favourable for talent development in one era and

context may have altered once an individual reaches maturity (Csikszentmihalyi, 1992; Horowitz, 2004). Some gifted individuals are recognised as such later in life due to their particular talents not being valued by the wider society when they were younger. As well, an environment that is facilitative in one domain of development may not be facilitative in another talent domain. Consequently, at any given point of a gifted individual's life, different social conditions and environments can either enhance or limit talent development (Feldman, 2003).

In New Zealand, particular values, beliefs, and social conditions have influenced the way this society views talent. One of the single most important events in New Zealand's history is the signing of the Treaty of Waitangi in 1840 between Māori chiefs and the British Crown, and the effects of this event have largely shaped race relations in New Zealand (Royal, 2008). In the educational context, a long struggle concerning issues of equity and respect for diversity has ensued over the years, and it is acknowledged now that Māori learners should have equal opportunities for success in the school setting. The current emphasis is on the right of Māori learners to be successful as Māori in terms of their education, rather than being 'forced' to fit into middle class, European ideals of success (Ministry of Education, 2008d). This emphasis has also had implications for the education of gifted and talented Māori students, as this group has typically been underrepresented in gifted programmes in schools. Bevan-Brown (2011) points out that Māori concepts of giftedness differ from traditional western concepts. For example, Māori place importance on *qualities* in addition to abilities, and expect that gifted individuals or groups will use their gifts to benefit others. This author points out that, even amongst different iwi⁷, there may be a range of perspectives about what constitutes giftedness. Another issue related to this is that Māori are overrepresented in statistics related to poverty (Ministry of Social Development, 2011; Perry, 2012), and therefore, the chances of being

⁷ Iwi refers to an extended kinship group, or a large group of people descended from a common ancestor.

identified as gifted in a context that is believed to be first and foremost structured to serve European middle class learners (Thrupp, 2008), are diminished.

Over the years, various schemes have brought an influx of other cultures to New Zealand's shores (Phillips, 2008), including people from the Pacific Islands, parts of Asia, and more recently countries such as the United Kingdom, India, the Philippines, and Africa. In the most recent census, held in 2006⁸, 23% of New Zealand's population was overseas-born, compared with 19% in 2001 and 18% in 1996 (Ministry of Social Development, 2011). At this time, almost a third of these people had lived in New Zealand for less than five years. Again, these changes in the national demographics have had implications for education in that, even amongst these groups, there is diversity in languages, customs, and values.

The increase of different cultures in New Zealand society means that attempts are being made to understand and accommodate conceptions of giftedness that might exist amongst various cultural groups. It is also likely that many gifted individuals from minority cultures have had to adapt to a predominantly European middle class view of achievement. This change in cultural makeup has also impacted on the economy. As mentioned earlier, minority cultures are overrepresented in low-income households and this may be due to particular skills not being valued in the dominant society.

According to the Ministry of Social Development (2010), income inequalities have increased in New Zealand since the 1980s and 1990s and, while the rate has slowed this decade, this trend is expected to continue. Recent government initiatives have sought to alleviate these inequalities, however there will always be groups within societies that are economically disadvantaged. Carroll et al. (2011) maintain that

⁸ The New Zealand census is generally held every five years. The 2011 census was cancelled due to a major earthquake that occurred in Christchurch on February 22, 2011, as it was deemed that this national state of emergency would probably impact considerably on census results.

young people are more likely to be able to develop their potential in societies that minimise economic inequalities, and this has particular significance for gifted young people from low socioeconomic backgrounds in New Zealand.

2.2. Macrosystem

The macrosystem influences the nature of interaction within all other levels of the ecological model. It includes social organisation, belief systems, and ideologies that underlie particular cultures and subcultures (Bronfenbrenner, 2005a). The macrosystem also incorporates the impact of events or transitions over the course of an individual's life (Bronfenbrenner, 1979). Elements that are particularly reflected in this level of Bronfenbrenner's model include resources, lifestyles, opportunity structures, and life course options that are embedded in a particular culture at a particular time (Bronfenbrenner, 2005b). In respect to the current research, these aspects could be seen as those that shape the wider context in which an individual is able to develop his or her talent. The macrosystem also promotes the behavioural blueprints and societal attitudes that define social class, and the opportunities and challenges associated with socioeconomic status.

Societal values, perspectives, and attitudes shape conceptions of giftedness and, in this sense, giftedness is widely viewed as a social construct (Borland, 1997; Sapon-Shevin, 1996). This conception posits that what is valued by a particular culture at a particular time determines what constitutes giftedness and talent (Csikszentmihalyi, 1992; Sternberg, 2007; Subotnik et al., 2003). Borland (2003) states that giftedness is invented not discovered, outlining that this phenomenon is not a pre-existing entity. He argues that concepts of giftedness acquire their properties through social interaction rather than the accumulation of facts. What is seen as eminence is decided upon by those who judge the product, and the realisation of gifted potential is reliant on the support of the social milieu (Albert, 1992; Csikszentmihalyi, 1992). Sapon-

Shevin (2003) states that the line of definition is drawn around aspects such as values, beliefs about children, intelligence, education, and the cultural and economic context.

In relation to minority or disadvantaged groups, Clark (2013) suggests that the views and beliefs of society about what constitutes giftedness or talent can be restrictive. The way that giftedness is conceptualised greatly influences who is given opportunities to succeed and who will have greater and lesser opportunities to contribute to future society. There are long standing views that gifted programmes are more accessible for the wealthy or well positioned, and that schools recognise and favour middle class values (Sapon-Shevin, 1996; Thrupp, 2008). This results in gifted education maintaining unfair cultural advantages (Ambrose, 2002; Sapon-Shevin, 1996).

Adding to this, different cultures evaluate their own members and members of other cultures in terms of their own conceptions of intelligence (Sternberg, 2007). What one culture values as intelligence or giftedness may not be valued as highly in another culture. Subordinate groups within the wider society can also be viewed as having their own specific cultures, and this includes individuals and families who fit into different socioeconomic brackets. Talented but disadvantaged individuals could well remain unrecognised as long as we insist on identifying and cultivating only those whose talent types are valued by the dominant, advantaged culture, or who reflect dominant group identity and ideology. Sternberg (2007) claims that when cultural context is taken into consideration the recognition and support for talented individuals is improved. However, with the gap between socioeconomic groups in New Zealand widening (Ministry of Social Development, 2010; St. John & Wynd, 2008), it is likely that people will be increasingly socialised into specific roles and to develop mindsets based around socioeconomic groupings.

Bourdieu (1997) provides a useful framework for considering the acceptance of individuals into professional and social elites with his theory of cultural capital. According to Bourdieu, cultural capital comprises a person's knowledge of or access to cultural resources. Capital consists of values held by families that are handed on to their children over generations, much like an inheritance (Brooker, 2002). These may exist as beliefs that shape goals, attitudes, and development, and are influenced by economic, symbolic, cultural, and social factors. Capital can be representative of levels of 'power', ultimately used for 'negotiating a place' in social contexts (Gibbons, 2002). The sometimes unfamiliar or threatening capital those from low socioeconomic circumstances bring with them can result in others positioning them at the lower end of this scale. Likewise, their own perceptions can have an effect on where they fit in terms of this assumed power in new social contexts.

Coleman (1988) outlines the concept of social capital, which emphasises the nature of social ties and community values. Social capital exists within families, neighbourhoods, and communities and is linked with social ties and networks that set the norms for behaviour within these settings (Bourdieu, 1997; Brooker, 2002; Coleman, 1988). Social norms are created out of the social structure of a community, and these norms in turn reinforce the social structure (Renzulli, 2003). The social structure and level of social capital in low socioeconomic communities may not be as cohesive as that in more wealthy communities for a variety of reasons. As a result, gifted individuals from lower socioeconomic neighbourhoods may not be explicitly encouraged by their immediate communities to develop or utilise their talents for the good of the greater community. This may differ amongst different cultural groups, however. For example, as mentioned earlier, Bevan-Brown (2011) argues that there is an expectation within Māori culture that gifted individuals, regardless of their socioeconomic status, should 'give back' to their respective communities.

Ambrose (2002) believes that larger sociopolitical frameworks allow socioeconomic deprivation to prevail, and that this results in discrimination for gifted young people who live in these conditions. He states that the segregation and stigmatisation of lower class groups produce consistent patterns of anxiety and defeatist beliefs, which lead to a general recognition of inferior status. Thrupp (2008) highlights the need to recognise that low-income families typically hold an inferior social class position within society. The perceptions, attitudes, beliefs, and power relations prevalent in class culture outweigh issues such as a lack of material resources and other factors that add to lower achievement amongst individuals from these circumstances. Barriers embedded within sociopolitical frameworks suppress the ability to develop aspirations and, as a result, actual talent potential can remain unrealised.

2.3. Exosystem

The exosystem refers to environments that affect individuals, but in which they do not directly participate (Bronfenbrenner, 1979). One example of interactions within the exosystem includes neighbourhood effects that inadvertently impact on the individual. A further example is the work lives of parents, which can affect household resources and stress levels that impact on interactions between parents and their children (Subotnik et al., 2003). Government departments, such as the Ministry of Education in New Zealand, are yet another example of an environment within the exosystem. Decisions made about educational programmes by government departments can affect the lives of gifted students when they filter down to school level. For young people from low socioeconomic backgrounds, the exosystem can wield its influence by indirectly restricting opportunities.

Jencks and Mayer (1990) identify five theoretical frameworks for linking individual behaviour, educational outcomes, and wellbeing with neighbourhood effects. The first of these, *neighbourhood institutional resource models*, propose that healthy

development is promoted by the presence of and access to resources within a community, such as libraries, parks, and community services. Second, *collective socialisation models* posit that community social organisation in the form of adult role models, supervision, structure, and routines impact on individual outcomes. *Contagion models* suggest that the negative behaviour of peers and neighbours spreads within a community. *Competition models* propose that neighbours compete for community resources that may be scarce. Finally, *relative deprivation models* suggest that individuals evaluate themselves and their situations relative to their neighbours or peers.

Three key mechanisms through which individuals are potentially influenced by their neighbourhoods are outlined by Levanthal and Brooks-Gunn (2000). *Institutional resources* encompass the availability, accessibility and affordability of resources such as activities, educational and medical services, and employment opportunities present in the community. These resources can act as a source of learning stimulation, or promote physical and mental health and socioemotional wellbeing (Fauth, Roth, & Brooks-Gunn, 2007; Haney, 2007). *Relationships* include aspects such as support networks, parental characteristics and behaviour, and quality of the home environment. Social interactions and supports available within the neighbourhood can serve to reduce parental stress and ultimately influence child outcomes. *Norms or collective efficacy* refers to the extent of social organisation and order within a community, as well as the presence of physical risk. Collective efficacy is critical for building social capital and establishing social control that can minimise the effects of structural disadvantage and delinquency or problem behaviour (Bandura, 1982; Fauth et al., 2007; Sampson, Morenoff, & Gannon-Rowley, 2002).

Some specific characteristics that are typical of low socioeconomic communities and neighbourhoods have been identified. The negative characteristics include inadequate or overcrowded housing (Evans, 2004; Wynd & Johnson, 2008); high

crime rates (Haney, 2007; Sampson et al., 2002); low employment levels (Krishnan, Jensen, & Rochford, 2002); low educational attainment (Ainsworth, 2002; Levanthal & Brooks-Gunn, 2003); juvenile delinquency and criminal behaviour (Ainsworth, 2002; Fauth et al., 2007; Levanthal & Brooks-Gunn, 2003; Wynd & Johnson, 2008); ill physical and mental health (Haney, 2007; Levanthal & Brooks-Gunn, 2003); and physical abuse or violence (Evans, 2004; Fauth et al., 2007), amongst others. High stress levels due to financial difficulties can also impact on the quality of interactions between parents and their children (Evans, 2004), which may then lead to behavioural issues and low self-esteem in the child (Duncan & Brooks-Gunn, 2000; McLoyd, 1998).

Residing in lower class neighbourhoods can also result in limited exposure to middle class norms and values (Casciano & Massey, 2008). This is an issue as it is these middle class norms and values that largely underpin societal attitudes and behaviours (Thrupp, 2008), which are also related to success at school. Levanthal & Brooks-Gunn (2000) report on studies that indicate an association between neighbourhood socioeconomic status and educational risk. These studies show that there are crucial links between gifted young people from low socioeconomic backgrounds and their communities and neighbourhoods, which may determine whether or not their potential is realised.

The lives that parents lead outside of the family home can have both positive and negative influences on those that they live with (Bronfenbrenner, 2005c). Stephens and Callister (2008) outline some of the effects of the workplace currently impacting on some New Zealand families. These include juggling childcare responsibilities with paid employment, lack of full participation in family life, and stress that contributes to parenting and disciplinary methods. As well, employment instability is reportedly linked with partner violence, family crises, substance abuse, and health problems (Harris, 1996). Gifted young people from low socioeconomic backgrounds

are more likely to have parents who are in low paid employment due to educational background or issues related to the family structure. Consequently, stresses experienced by parents who may be working long hours in jobs that are labour intensive, can impact indirectly on their children.

2.4. Mesosystem

The mesosystem in Bronfenbrenner's (1979) ecological model describes the relations between immediate surroundings, or microsystems. It encompasses the links between two or more microsystems and the similarities and inconsistencies that occur between these contexts. For example, young people who are financially disadvantaged are more likely to live in low-income neighbourhoods and mix with peers from similar circumstances. Their exposure to beliefs and value systems that are believed to be established within these settings determines the nature of their cultural and social capital. As outlined earlier, beliefs, values, and behaviours that result from immediate settings may not be appreciated or valued in other contexts. While there may be common comparisons between one context and another, for gifted individuals from low socioeconomic backgrounds, differences between the environments they occupy can sometimes result in clashes.

Individuals learn how to act in different settings and around different people based on what behaviours they perceive are required in each context (Harris, 1999). For the gifted young person who lives in a financially challenging situation, disarticulation between settings is most likely to occur between home, school, and possibly peer groups. When these settings differ significantly, conflicting messages regarding appropriate ways to 'act' in each context can result (Baker, 1997). A sense of disconnectedness may also be felt when parents and siblings of gifted young people from low socioeconomic situations do not share their abilities or aspirations (Robinson, 2008). Parents might be inexperienced at navigating the school system

due to their own educational experiences (Lareau, 1987), and this can create a distant relationship between home and school. Contradictory messages from home, peers, and school may serve to inhibit the development of a young person's talent. Conversely, the conditions for talent development can be maximised when parents, peers, and school environments align (Subotnik et al., 2003).

It is likely that the most significant clashes between contexts for gifted young people from low socioeconomic backgrounds occur between home and school. Baker (1997) refers to this as 'home/school disarticulation', where norms, values, and beliefs within the family unit differ from those of the education system. Constant moves from one context to another result in conflicting messages regarding behaviour in each setting, and this can lead to confusion in self and group identity. Behaviours that are viewed as positive in one setting may invoke negative responses in the other, and the interpretation of these responses shape further behaviour.

Negative past experiences at school may have resulted in parents developing entrenched attitudes regarding the value of education. As well as being passed on to their children, these attitudes can result in the reluctance of parents to engage with a system that once might have failed them. For those parents who are committed to supporting their children to achieve, low paid jobs with long working hours can impact on quality time spent with their offspring (Lareau, 1987; McLoyd, 1998). In this case, gifted children may inadvertently learn that working for survival should take priority over the pursuit of personal interests. Parents approach relationships with schools with their own sets of social resources and these are often connected with social class. Schools expect specific types of behaviour from parents, regardless of class, and parents from lower class groups are not always able to meet these expectations, or may not share the same goals (Lareau, 1987).

Schools have a duty to identify and nurture children who may experience disadvantage due to the environments they occupy. As mentioned earlier, aspects such as timing, depth, duration, and persistence of poverty all contribute to educational outcomes (Burney & Beilke, 2008; Duncan & Brooks-Gunn, 2000; Fletcher & Dwyer, 2008; Kitano, 2007; McLoyd, 1998; St. John & Wynd, 2008). The difficulties that some of these children experience may well come down to the fact that the adaptive and contextually important skills they have developed in their home and community environments are not skills that are valued in school (Bourdieu, 1997; Sternberg, 2007). Gonzalez and Moll (2002) point out that learning is a social process that is impacted by larger ideological frameworks, which impact students' lives. These authors suggest that what we see or notice is coloured by our own interests and experiences, and these have developed our knowledge system. Children who are limited by conditions associated with low socioeconomic circumstances may respond more positively to opportunities to demonstrate their potential that align more closely with their interests, knowledge, or experiences (Van Tassel-Baska, Johnson, & Avery 2002).

Many writers in the field of giftedness have identified some of the risks and pressures that come with giftedness that might manifest as defensive or avoidant behaviours in talented young people (e.g., Davis et al., 2011; Neihart & Betts, 2010), and these can lead to underachievement. Rimm (2003) identifies three main categories of pressures that gifted young people feel. These are the need to be extraordinarily intelligent or perfect, the desire to be extremely creative or unique, and the concern with being popular amongst peers. In the home environment, gifted young people may live with extreme internal stress as a result of parental admiration of their accomplishments. The sometimes unintentional pressure to achieve that comes from parents can result in the individual 'rebellious' against their ability to reach high levels of attainment. Rimm also suggests that schools that do not value high achievement, or educators who set achievement outcomes which are too high for the gifted individual, can perpetuate the incidence of underachievement. In this case, the potential high

achiever may perceive their talent as unappreciated or give up exerting their best efforts when they constantly fail to meet the expectations of their teachers. Conversely, schools that do not provide challenge in their programmes foster underachievement, as academic and other work can be too easy for gifted young people. Peer expectations and the gifted individual's perceptions about their peer relations can also impact on whether or not talents are displayed.

Some research on underachievers suggests that these young people consistently demonstrate low self-efficacy or poor self-concepts (Davis & Rimm, 1998; Reis & McCoach, 2000). Rimm (2003) stated that underachievement is likely to occur when the habits, efforts, and skills of talented young people cause them to lose their sense of control over educational outcomes. Research by Van Tassel-Baska, Olszewski-Kubilius and Kulieke (1994) proposed that socioeconomic status may be a more significant variable than ethnicity in impeding the achievement of gifted students. Their study indicated that young people who were socioeconomically disadvantaged perceived that they had less support from classmates, friends, parents, and teachers than their more advantaged peers. These young people also perceived themselves as less academically competent and less correct in social and behavioural conduct than advantaged students.

2.5. Microsystem

The microsystem consists of contexts that are directly experienced by an individual, and encompasses settings such as the home, school, or work. Young people who live in low socioeconomic situations occupy microsystems that have distinctive physical features, activities, people, and relationships (Bronfenbrenner, 1979), and these are generally qualitatively different from those occupied by young people from other socioeconomic circumstances. The impact of the direct setting in which gifted children from low socioeconomic backgrounds might live is related directly to the

interactions and nature of relationships with family, peers, school environments, community, and social supports (Levanthal & Brooks-Gunn, 2000). The link between childhood and later adult disadvantage is well established (e.g., Casciano & Massey, 2008). A lack of resources gives young people a much more limited range of educational opportunities, which in turn may restrict options in adulthood. They may also have limited exposure to more highly educated or successful adult role models, which can result in economic disadvantage that can carry over into the next generation.

The school setting provides a primary context for the production, transmission and accumulation of various forms of cultural and social capital (Bourdieu, 1997; Brooker, 2002; Subotnik et al., 2003). Some writers assert that schools maintain privilege by taking the culture and knowledge of dominant or powerful groups and defining it as legitimate knowledge (Apple, 1982; Lareau, 1987). Individuals who are endowed with cultural and social capital early on in life, such as a respect for the value of education and hard work, or a network of strong social ties, are more likely to achieve in the school context (Brooker, 2002; Subotnik et al., 2003). In the area of talent development, schools typically and maybe inadvertently reward middle or upper class performance and presentation. Merton (1968) refers to this as the “Matthew effect”, or accumulation of advantage. For gifted young people from low socioeconomic circumstances, the lack of ‘acceptable’ cultural capital or early educational input may put them at a distinct disadvantage in terms of the recognition and development of their talent.

Families can play an integral role in the realisation of potential, regardless of socioeconomic status (Bloom, 1985; Bronfenbrenner, 2005c; Moon et al., 1998; Olszewski-Kubilius, 2008). In the historic sense, a family’s generational history can affect the degree to which the family is able to assist with talent development (Albert, 1994; Olszewski-Kubilius, 2008). For example, families who have a history of

involvement in a particular domain (e.g., dance) may pass this interest on or have networks that make involvement in specific domains more accessible. The accumulation of educational, social, and financial assets or resources across generations can also help facilitate talent development (Bourdieu, 1997). In the immediate setting, parents provide resources in the form of money and time, reflected in lessons and equipment, extracurricular educational opportunities, and providing transport to practices (Bloom, 1985; Olszewski-Kubilius, 2008). They may also promote values that are conducive to talent development, such as aspirations to achieve, the value of education, and independence of thought or expression (Albert, 1994; Bloom, 1985; Moon et al., 1998).

Children who grow up in low-income families do not have access to financial resources that their higher socioeconomic counterparts may have. There may also be aspects of family life that impact on the amount of time parents are able to spend focusing on the talent development of their children. Where parents from low socioeconomic backgrounds are able to spend time with their children, activities might be less cognitively stimulating and enriching compared to wealthier counterparts (Evans, 2004). Vernon (1979) found that child ability was attributed more to parental education and intellectual stimulation than to material wealth. A lack of resources can be offset by parents optimising interactions with their children and facilitating quality opportunities for learning (Duncan & Brooks-Gunn, 2000). Involvement such as this can act as a form of social capital that may reduce the impact of socioeconomic disadvantage.

The quality of interactions within the family might also be compromised due to financial stress. When family relationships are functional, gifted young people are less likely to experience social or emotional maladjustment (Moon, 2003). Couples who are under financial pressure may suffer greater conflict and less support in their relationships (Evans, 2004). This stress has been found to impact on parenting styles,

and low-income households have sometimes been linked with harsher, disciplinary, and authoritarian styles of parenting (Evans, 2004; McLoyd, 1998). Psychological effects can also play a role in the talent development process (Olszewski-Kubilius, 2008). Aspects such as gender or birth order can affect the way a young person is viewed and socialised by the family. Sibling relationships, perceptions, and experiences may also be impacted by giftedness (Moon, 2003). This can result in animosity, conflict, and the suppression of talent. More specifically, each of these factors can impact on whether or not talent is recognised within and beyond the family context (Olszewski-Kubilius, 2008).

The peer group is also considered to play an important role in the development of gifts and talents. Parental influence is moderated by the peer group and other outside influences, particularly in middle and late adolescence (Harris, 1999; Steinberg, Darling, Fletcher, Brown, & Dornbusch, 2005). Rewards and recognition from peers will often provide the motivation to achieve (Bloom, 1985) and as children grow older, this motivation is, on occasions, stronger than that contributed by the family (Steinberg & Brown, 1989). These relationships serve to help gifted and talented children to view themselves in relation to their talent domain. Close friendships may also be formed as they aspire to the same goals. Bloom (1985) further suggests that, in later years, gifted young people will compare themselves with fellow students and position themselves accordingly.

Amongst the issues associated with the identification of gifted and talented young people are perceptions of disadvantage, egalitarian attitudes, and mixed expectations. Deficit or stereotyped thinking diminishes the ability and willingness of some educators to recognise the potential in their students (Alton-Lee, 2003) and this is particularly relevant for students from low socioeconomic backgrounds. Deficit thinking impedes access to gifted and talented programmes for minority students, including those who are financially disadvantaged (Ford & Whiting, 2008). Some

educators interpret the differences that are sometimes seen in these children as deficits or dysfunctions and, consequently, many socioeconomically disadvantaged students are labeled 'at-risk'. This label can perpetuate views that these children are dysfunctional, resulting in a focus on their shortcomings and weaknesses rather than their strengths (Seeley, 2003). It would seem logical to suggest that when stereotypic thinking persists, the outcome may well be underachievement.

As outlined earlier, young people from low socioeconomic backgrounds may reside in challenging neighbourhoods (Duncan & Brooks-Gunn, 2000). Involvement in enriching extracurricular activities has been shown to be advantageous to the development of gifts and talents; however accessibility to these activities for children from low socioeconomic circumstances is often restricted. Social support in the form of mentors or role models has also been shown to play an important role in the lives of eminent individuals, and particularly for disadvantaged students (Clasen & Clasen, 1997). Limited access to the influence of adults or other significant people may restrict the development of a young person's talent. Olszewski-Kubilius and Lee (2004) stress the importance of investigating aspects that might motivate, influence, or assist gifted young people from low socioeconomic backgrounds to be involved in community activities, and how this involvement affects the development of their talent.

The factors operating within the person-environment system include biological, psychological, and social factors, and these change across time (Gottlieb, 1991). For example, individuals experience changes as a result of biological, cognitive, and emotional experiences. Environments alter as a result of societal changes, or actions that occur within and on the environment (Magnusson, 2005). A significant part of the ecological model refers to how the individual actively selects and constructs their own settings. Sternberg (2007) believes that individuals select new environments in the pursuit of personally-valued goals. Transactions that occur between an individual

and their environments result in individuals not only being shaped by their environments, but also adapting to and shaping their environments (Magnusson, 2005; Plomin & Price, 2003; Rutter, Champion, Quinton, Maughan, & Pickles, 1995; Sternberg, 2007).

Sternberg (2007) proposes that a successful transition will see the individual finding a balance between adaptations and shaping, or changing oneself as well as their environment. He refers to this as 'practical intelligence' or 'street smarts', where individuals find a more optimal fit between themselves and the demands of the environments they are in. However, when individuals find it impossible to accomplish an optimal fit, he or she might decide to select a new environment altogether. Ambrose (2002) suggests that 'street smarts' can entail sophisticated thinking on par with that required of professionals, and that talented young people in deprived environments often learn to express their talents in the form of street survival endeavours, such as gang membership and activity. In these situations, a form of intelligence that is valued in one environment is undervalued in another, as practical intelligence or street smarts are often not recognised or valued in the school setting.

2.6. The individual

At the centre of the ecological framework is the individual and his or her personality, genetic endowment, and other personal factors (Subotnik et al., 2003). These aspects serve to make the individual unique and impact on features such as personality and self-concept. Much like resilience research, Bronfenbrenner's more recent addition to his ecological model adds biological influences to this theory (Bronfenbrenner, 2005a). These biological influences include aspects of heredity, shaping of the brain by the environment (plasticity), and the impact of these on hormone levels and heightened levels of arousal. As noted earlier, various personality traits have been

linked with gifted individuals and these also influence how their talent develops. As well, self-concept and significant transitions or turning points impact on outcomes for the gifted young person from financially challenging circumstances.

Significant events and transitions, or ‘turning’ points’ can literally change the direction of a person’s developmental trajectory, and clarify personal identity and self-understanding (Clausen, 1995). According to Graber and Brooks-Gunn (1996), the way in which transitions are experienced or negotiated can differ depending on development before the transition, timing of the transition, and the context in which it occurs. When turning points occur in the context of transitional periods, they may be more significant, and more likely to result in long lasting changes.

Turning points may come about when individuals behave in such a way that opportunities are either created or built (Clausen, 1995). They might also occur due to chance elements, such as positive learning experiences within a field of talent, significant support from a mentor, and the extent to which the displayed talent is valued at the time (Bloom, 1985). In short, turning points have the potential to alter behaviour, affect, cognition, and context, and may even result in lifelong change (Rutter, 1994). Additionally, turning points can depend on the encouragement of parents and teachers and the availability of resources. For a turning point to occur, an individual does not necessarily have to take a different direction. Instead, this can be indicated by an increased life satisfaction or a sense that the individual has acquired new meaning (Clausen, 1995).

3. Concluding summary

The significance of this ecological model to the present study is apparent in the complexities related to talent development and also to living in poverty. In order to

fully appreciate the influences of both of these on the participants in this study, contexts that are both immediate and broad must be considered. Bronfenbrenner's (1979) ecological model provides an appropriate lens through which to view the experiences of the participants in this study as it emphasises multiple influences that shape development in immediate and broader settings. It also highlights how interactions that occur within and between these contexts might translate into behaviour.

In relation to the present study, Bronfenbrenner's (1979) chronosystem depicts aspects such as which gifts or talents are valued in particular societies at particular times, and the transmission of social and economic advantage or disadvantage across generations. The relationships encompassed within this system, and in interaction with Bronfenbrenner's other systems, are multifaceted. However, some understanding can be gained about what gifted young people from low socioeconomic backgrounds in New Zealand at this present time might be experiencing. The macrosystem, which includes the connections between all of the systems in Bronfenbrenner's model, sheds light on the wider context in which these young people interact, and the processes that are involved in their talent development.

Consideration must also be given to indirect influences, and Bronfenbrenner's (1979) exosystem represents these clearly. Young people living in low socioeconomic situations experience stressors that are indirectly related to their circumstances, such as increased stress levels as a result of low income, or negative effects from neighbourhoods that are perhaps not as well resourced as wealthier communities. Limited exposure to middle class norms and values for young people in low socioeconomic situations may also be an issue, as these underpin what is likely to be most valued in schools that are dominated by middle class ideals (Thrupp, 2008). The discrepancies between what is deemed important in home and school environments can influence whether gifted potential is recognised, and ultimately

realised. These relationships between settings are reflected in Bronfenbrenner's mesosystem.

Immediate contexts, which are most directly experienced by the individual, are represented by the microsystem in Bronfenbrenner's (1979) systems theory. Here, gifted young people from low socioeconomic backgrounds are exposed to settings that have various physical features, activities, people, and relationships, and these may differ to those experienced by peers from other socioeconomic backgrounds. The features of an individual's immediate contexts are also complicated by the ways in which they select and construct their own settings (Sternberg, 2007), and biological influences such as personality traits, plasticity, and hormone levels. The following chapter discusses the dynamic nature of conceptions of giftedness over time and studies that investigate the lives of gifted and talented individuals from low socioeconomic backgrounds. This is followed by a review of notions of resilience and a summary of related research.

Chapter 3

Literature Review

...there can be little doubt that our nation's largest untapped source of human intelligence and creativity is to be found among the vast numbers of individuals in the lower socioeconomic levels.

J. Renzulli (1975, p. 411)

There are two key areas of literature that require examination for the present study and the first relates to talent development. The review of this particular literature is separated into two parts, the first of which provides a general overview of historical ideas that have contributed to contemporary conceptions about giftedness. Sternberg (2004) states, “The way we conceptualise giftedness greatly influences who will have greater and lesser opportunities to contribute to future society” (p. xxv). The inclusion of literature related to general talent development is relevant to this study as it emphasises how ideas about giftedness have changed and it indicates the climate in which gifted individuals from low socioeconomic backgrounds are currently identified and provided for in New Zealand. This section also presents findings from studies that relate to the present research, and finally outlines the New Zealand approach to gifted education. The second part of the review of gifted literature investigates studies of gifted individuals from low socioeconomic backgrounds, which is the central focus of this study.

The risk and resilience construct is the second key area of literature that is examined in the present study, and this provides a framework through which both giftedness and socioeconomic circumstances can be explored.

1. Gifted and talented literature

1.1. Conceptions of giftedness: Changes over time

Since Sir Francis Galton's initial focus on the genetic origins of genius (Galton, 1869), notions of intelligence have altered considerably, and these have shaped contemporary ideas about giftedness (and to a lesser extent, shifts in thinking about giftedness have had an impact on how intelligence is defined and differences in ability explained). To include all studies related to giftedness here would be impractical, and therefore the literature reviewed in this section is intended to provide an overview of shifts in perspective that are most relevant to the focus of this research. Two major shifts in our understanding of talent development hold significance for this study. The first is the move from viewing intelligence as largely inherent and 'fixed', to the recognition of environmental and sociocultural influences on development. The second shift relates to the notion of intelligence as not just intellectual ability, but spanning a broader range of talent areas. What follows is a brief overview of how these conceptions about giftedness have changed over time.

One of the key pioneers of giftedness research is Sir Francis Galton (1822-1911), whose foundational book, *Hereditary Genius* (Galton, 1869), presented an early notion of genius. Prompted by his cousin Charles Darwin's (1860) work on the origin and evolution of the human race, Galton set out to investigate the hereditary factors related to human intelligence through his study of 500 eminent British men. He reported that genius ran in families, and this confirmed his original hypothesis, that genius had its roots in genetics. Galton concluded that geniuses were born, not made, resulting in the common perception that intelligence was innate and fixed.

Galton's concept of 'fixed' intelligence proposed that individuals were born with a predetermined level of intellectual ability that did not change over their lifetimes, and

this idea was highly influential for nearly 100 years (Clark, 2013). While he did acknowledge that various influences could change the amount of knowledge an individual acquired, he believed that the process, level, or speed of thinking remained set according to a person's inherited mental ability. According to Clark, it was not until the 1960s that Galton's notion of fixed intelligence was significantly challenged, despite earlier mention of environmental influences by other researchers.

Early ideas about intelligence were limited without some way of measuring this phenomenon, and it was also Galton who developed the first known test in an attempt to quantify intelligence. Galton measured intelligence by testing psychophysical abilities such as sensory acuity, physical strength, and motor coordination (Sternberg, Jarvin, & Grigorenko, 2011). This later proved inadequate, as these tests failed to differentiate cognitive abilities (Silverman, 2009). However, his empirical undertaking set the scene for further investigation into intelligence testing. In 1905, Frenchman, Alfred Binet (1857-1911) and his colleague Theophilus Simon developed the *Binet-Simon Scale* as an instrument for identifying children who were slow learners and who it was believed would benefit from alternative education (Kaufman & Sternberg, 2008). This scale was developed using the concept of 'mental age', which was based on the idea that children grow in intelligence and therefore could be ahead of or behind their chronological age. Binet's test included a range of tasks that were considered to represent a typical child's ability at various ages.

Over the following six years before his death, Binet revised this scale and it was during this period that he recognised its limitations. Binet did believe that intelligence was a single factor, but he also considered that it may be highly influenced by environmental aspects such as the home context, education, and social influences, and measurements from his original scale did not allow for this. Despite its limitations, Binet's work has had considerable influence on contemporary measures of intelligence. However, according to some writers (e.g., Silverman,

2009), Binet's view of intelligence as a "continuously evolving process" (p. 951) has been somewhat 'lost' in the way that intelligence tests are used today, largely as a means of determining limits of ability. Although the use of IQ tests has changed over the years, the practice of intelligence testing has endured, as it is still thought by some to provide at least a tangible measure of intellectual giftedness (Sternberg et al., 2011). Gardner (1983), and others who define intelligence as encompassing a range of domains, reject this claim.

The debate around whether intelligence comprises a single component or several separate abilities remains unresolved, although most researchers would now agree that intellectual giftedness is multidimensional (Reis & Renzulli, 2011). Charles Spearman (1904) produced one of the earliest 'single component' theories of intelligence, proposing that each individual had a general level of intellectual ability ('g') that could be applied to many areas of endeavour. This idea was the foundation on which most practical assessment of intelligence was based for more than three-quarters of a century (Willis, Dumont, & Kaufman, 2011). In line with the development of other more complex concepts of intelligence, Spearman later acknowledged that some intellectual activities not only required general intelligence, but also specific intelligence ('s') (Piiro, 2007), which was reflected in particular subtests but did not generalise across intelligence tests.

Louis Thurstone (1887-1955) was one of the first researchers to challenge Spearman's single entity notion of 'g', proposing that intelligence encompassed seven primary mental abilities: verbal comprehension; verbal fluency; number; perceptual speed; inductive reasoning; spatial visualisation; and memory (Thurstone, 1938). Interestingly, in much the same way as Spearman had acknowledged the existence of 's', Thurstone's final version of his theory recognised the presence of a general factor of intelligence, similar to that which Spearman had proposed. This paved the way for other researchers to present hierarchical models of intelligence,

which assume 'g' as the highest level of intelligence and more specific abilities on a secondary level.

Spearman's general intelligence theory was not specifically linked to theories of either hereditary or environmental influences on intelligence (Willis et al., 2011), but his idea was that intelligence operated as a single capacity. Other researchers contended that it was environmental influences that affected the expression of 'g'. In the mid twentieth century, Horn and Cattell (1966) introduced the idea of fluid intelligence (primarily determined through genetics) and crystallised intelligence (the influence of experience and cultural context) suggesting that 'g' was made up of these two components. John Carroll (1993) later expanded on Horn and Cattell's work to present the *Three-Stratum Theory*, with stratum one representing highly specialised skills, stratum two reflecting specialised abilities that occur in broad domains of intelligent behaviour, and stratum three consisting of 'g' which underlies all intellectual activity. These theorists later integrated their ideas to form the *Cattell-Horn-Carroll model*, despite some disagreements in their beliefs about the role of 'g' (Davidson & Kemp, 2011).

It was Spearman's notion of general intelligence that was the foundation of work carried out by perhaps the most notable global influence in the field of giftedness and talent. Described by some writers as the 'father' or 'grandfather' of gifted education (Davis et al., 2011; Hunt & Marshall, 2002; Moltzen, 2011a), Lewis Terman's (1877-1956) work has contributed considerably to linking concepts of intelligence with ideas about giftedness (Reis & Renzulli, 2011). Terman's longitudinal study of more than 1500 children with high levels of IQ began in the 1920s and continued over more than half a century. This researcher was responsible for revising Binet's intelligence scale to create the *Stanford-Binet Intelligence Scale*, the first intelligence test to be used to identify gifted school students. He adopted the idea of intelligence quotient (IQ), introduced by Stern in 1912 to indicate a single score on intelligence

tests, to select participants for his own study (Clark, 2013). Terman's participants had an average age of 12, and represented the "top one percent of the school population" (Terman, 1925, p.19), with IQ scores that exceeded 140. Through his research, Terman aimed to uncover the characteristics and behaviour of children with high IQ and to follow their development into adulthood.

One of the key findings from Terman's study was that children with high IQs tended to be higher achievers at school and became well-adjusted adults with above average outcomes in areas such as higher education and health. His follow-up study, undertaken when most of his original participants were in their mid 40s, indicated that the majority had gone on to achieve high levels of success (Terman & Oden, 1959). Terman's work has been criticised for including participants who were predominantly middle-class and not representative of a diverse range of high achievers (e.g., Davis & Rimm, 1998; Simonton, 1999; Winner, 1996). Some writers have also argued that, while his participants generally followed positive educational and occupational trajectories, few went on to produce outstanding achievements later in life (e.g., Gardner, 1997; Reis & Renzulli, 2011; Silverman, 2009; Simonton, 1999). Although Terman's view of giftedness as high IQ influenced thinking for decades, critics would suggest that his study in some ways contradicted the notion of fixed intelligence, as there was indication that there must be other elements apart from high IQ that contribute to or limit giftedness.

A review of Terman's work is not complete without mention of the contribution of Catherine Cox (1890-1984), whose research reinforced the idea that other elements must also contribute to intelligence. Cox was one of Terman's students at Stanford University, who authored Volume 2 of Terman's *Genetic studies of Genius* (Cox, 1926). In 1922, she began a retrospective study of 301 eminent men and women who had lived between 1450 and 1850, which initially focused on their levels of intelligence. As part of her investigation, Cox explored the early environments of

100 eminent individuals from this group, finding that elements of home life such as discipline and family interests, and the amount of education received had a significant influence on later achievement. While most of Cox's 301 men and women came from upper class backgrounds, she argued that this alone did not account for their eminence. She also rated them on 67 character traits and found that, in addition to high IQ, "persistence of motive and effort, confidence in their abilities, and great strength or force of character" (p.218) appeared to be related to high achievement. These findings, that social status alone did not determine success but that there were other environmental and personal aspects that contributed significantly to subsequent achievement, have remained at the fore of ideas about high achievers over the years and hold particular relevance for this study.

The argument for intelligence being influenced by aspects of environment was continued through educational psychologist, Leta Stetter Hollingworth's (1886-1939) work with exceptional children. This work began around the 1920s and coincided with the period during which Terman was carrying out his research. One of Hollingworth's more significant contributions was the proposal that intellectual giftedness was not simply inherited, but that education and environment also played a role in the development of talent. There was clear evidence in her research of early environmental stimulation in all of these exceptional children, along with a strong correlation between intelligence, and desirable character and temperament traits (Clark, 2013). Hollingworth claimed that the higher the IQ score, the less exceptional young people were able to adjust socially, and this resulted in such problems as difficulty relating to others, particularly peers, and difficulty knowing when it was appropriate to conform or to disagree (Robinson & Clinkenbeard, 2008).

With an interest in the ideas proposed in both Terman's and Hollingworth's work, Paul Witty (1898-1976) set about investigating approximately 100 high achieving children with IQs of 140 or over (Witty, 1930). These children were compared with a

control group in relation to their aptitude and achievements. Witty's research differed from Terman's in that he included a focus on additional variables such as school data records from teachers, play interests and other home information from parents, and social and moral traits of the participants in his study. He followed up this initial study with another investigation that also incorporated school and extracurricular activities, interests, and future plans. The findings of these two studies were similar to Terman's, which is perhaps not surprising as these researchers tended to investigate similar variables with participants who were selected on the same basis. Witty came to the conclusion that giftedness was indeed a product of both nature and nurture, and that it encompassed drive and opportunity as well as ability.

In an era when superior ability was still seen as largely innate, despite research suggesting otherwise, Sidney Pressey (1955) recommended that researchers "get outside of current habits of thought" (p.123) and begin to adjust their traditional ideas about giftedness. Pressey's study of eminent European musicians in the nineteenth century and American athletes in the twentieth century attempted to show that superior innate capacities in interaction with favourable circumstances developed into genius. In light of this, Pressey also believed that geniuses could be 'made' rather than simply discovered. He suggested that five key elements were important for the development of talent, and these included: early opportunities and encouragement from family and friends; superior early and continuing guidance and instruction; frequent and continuous opportunities to practice and extend abilities; close association with others in the field of talent; and opportunities for real accomplishment with increasing challenge and recognition for achievement. Pressey also made suggestions for educational practice, including the appointment of school coordinators who should identify, guide, and provide opportunities for gifted students, and the adaptation of the curriculum to suit gifted students' needs.

By this time, around the 1960s, the idea of intelligence as ‘fixed’ was beginning to be significantly challenged and, with a growing emphasis on environmental influences, ideas about intelligence and intellectual giftedness were broadening. Guilford (1897-1987) was one prominent writer who challenged the idea of intelligence as a single entity, holding the view that the interaction of various factors was what constituted intelligence. His *Structure of the Intellect* model posited that there were in fact 120 independent abilities, and that these could be separated into four categories: the figural; the symbolic; the semantic; and the behavioural (Guilford, 1967). Guilford’s model of 120 factors provided arguably the most dramatic contrast to Spearman’s concept of ‘g’ as a single factor underlying intelligence. Further refinements of his theory only added to the complexity, with his final model proposing 180 types of intelligence (Willis et al., 2011). Guilford was also instrumental in highlighting the concept of creativity as a factor in intelligence and, while his theory has been criticised for the lack of evidence supporting the existence of its classifications (Carroll, 1993), his ideas about divergent thinking have had some influence on contemporary perspectives of giftedness.

As notions of intelligence comprising a number of factors continued to become prominent, three pivotal initiatives in the United States emerged, that also had an influence on the field of gifted education in New Zealand (Moltzen, 2011c). The first of these was *The Marland Report* (Marland, 1972), initiated by the United States Office of Education (USOE), which paved the way for a new definition of gifted students that reflected a broader view of intelligence. The authors of this report proposed that gifted children were those who demonstrated achievement or potential ability in areas such as general intellectual aptitude, specific academic aptitude, creative and productive thinking, leadership ability, visual and performing arts, and psychomotor ability. This definition, refined and developed over the last few decades, underlies contemporary school-based definitions in the United States, and features in guidelines for gifted education in New Zealand (Ministry of Education, 2000, 2012).

The idea that giftedness could be found across all groups in society was a focus of the *Javits Act* (Javits, 1988), a second major initiative in the field of gifted education in the United States. While the definition of giftedness proposed in this act was similar to that in the *Marland Report*, what defined this initiative was the drive towards viewing gifted and talented individuals as a natural resource that was “vital” for the future of the nation. Another important aspect of this initiative, and particularly relevant to the present study, was that it gave attention to, and provided funding for, projects aimed at the identification and nurturing of gifted students from cultural minority groups, those living in poverty, and those with disabilities (Van Tassel-Baska, Worley, & Friend, 2006). For several years following the introduction of this act, a range of research projects (some of which are elaborated on later in this literature review) were focused on underrepresented groups in gifted education. Following these first two important initiatives was a third report that highlighted the low level of funding for educating gifted learners. *National Excellence: A Case for Developing America’s Talent* (Ross, 1993) further focused on the needs of gifted students from a diverse range of backgrounds, including economically disadvantaged and minority students. It also encouraged the identification of talent across a variety of areas, including intellectual capacity, creative or artistic areas, leadership ability, and specific academic fields.

New Zealand guidelines for gifted and talented education also highlight a number of theorists who have made significant contributions in relation to multicategory concepts of giftedness and approaches to gifted education. One of these is Howard Gardner, whose theory of multiple intelligences (MI) has been considerably influential in broadening views of intelligence and emphasising the interaction of genetics and environment (Clark, 2013). Gardner (1983) proposes that intelligence is composed of eight categories, comprising linguistic, logical-mathematical, musical, visual-spatial, bodily-kinesthetic, naturalistic, interpersonal, and intrapersonal. Unlike some other models, which propose that particular components collectively constitute intelligence, Gardner’s eight categories are viewed as independent of each

other. Each of these intelligences evolves through the interaction of biological predispositions and opportunities within various contexts (Davidson & Kemp, 2011). Based on several studies of gifted individuals, including his own work, Gardner (1998) also suggests that gifted young people require support from others to reach their full potential. His model has had particular significance for gifted education in New Zealand, as it allows for meeting the diverse needs of learners, which directly encompasses the Ministry of Education's (2007) aim that all students experience an inclusive curriculum. This model also fits well with a culturally responsive approach to gifted education, as it highlights areas of giftedness that are valued by a variety of cultures.

Another writer whose work has been influential in New Zealand is Robert Sternberg, whose *Triarchic Theory* of intelligence issued a challenge to the notion of IQ as a viable definition of intelligence (Feldman, 2003). In contrast to Gardner's separate intelligences, Sternberg's (1985) theory proposed that three components – analytical (e.g., evaluating, analysing, comparing), creative (e.g., invention, discovery, problem solving), and practical (applying what is learned in appropriate settings) abilities – interact to allow individuals to achieve to high levels. Another concept developed by Sternberg suggested that giftedness could be understood in relation to five criteria, all of which must be present for a person to be considered gifted. The *Pentagonal Implicit Theory of Giftedness* (Sternberg & Zhang, 1995) includes excellence, rarity, productivity, demonstrability, and value. According to these authors, these criteria present the gifted individual as being superior in some dimension and possessing high levels of a particular attribute that is rare relative to their peers. As well, the area or areas in which the individual is deemed superior should lead to productivity, be demonstrable through valid assessment, and be valued in the society or context in which the person is living.

More recently, and perhaps most salient to the present study, Sternberg proposed the *Wisdom, Intelligence, Creativity, Synthesised (WICS)* model, which suggests that a gifted individual will possess a synthesis of these three attributes (Sternberg, 2005). Intelligence is the underlying component in this model and it is typically defined according to Sternberg's notion of 'successful intelligence.' Successful intelligence is made up of four elements: the individual's capacity to achieve their goals within their sociocultural context; the ability to capitalise on strengths and compensate for weaknesses; the skill to adapt, shape, and select environments; and the use of analytical, creative, and practical abilities. Sternberg's attention to environmental influences outlined the development of intelligence as being the result of the interaction between the internal and external worlds of the individual (Clark, 2013). Sternberg posits that a gifted individual is not only able to modify themselves to fit into an environment (adaptation), but they are also able to modify the environment to fit themselves (shaping) and to recognise when it is appropriate to select another environment (selecting) (Sternberg, 2006), ideas which connect strongly with Bronfenbrenner's (1979) systems theory. Sternberg also contends that motivation is important, but signals that this is situational.

Joseph Renzulli's (1986) *Three-Ring Definition* of giftedness also features strongly in New Zealand conceptions of giftedness (e.g., Ministry of Education, 2000, 2012). This definition proposes that the interaction of three distinct characteristics is essential for the development of talent. Renzulli's theory suggests that gifted children are those who develop three traits - above average ability, creativity, and task commitment - and then apply them to a specific area of performance. Borland (2004) describes this theory as one of the most influential contemporary models as it challenges entrenched assumptions about the primacy of general ability. Makel and Plucker (2008) interpret the *Three-Ring Definition* as reflecting a relationship between the three elements with the interaction of personality and environment included.

Renzulli (2005) has expanded on this conception of giftedness recently to emphasise a broader range of traits that he believes are essential for talent development. These six characteristics are optimism, courage, romance with a topic or discipline, sensitivity to human concerns, physical/mental energy, and vision/sense of destiny. Renzulli also makes a distinction between “schoolhouse” giftedness and creative-productive giftedness, which draws attention to the value of gifts and talents in different settings. The first of these is giftedness evident in schools, predominantly intelligence, which is more likely to be demonstrated by highly able students who do well on standardised tests. Creative-productive giftedness on the other hand is more difficult to measure but is demonstrated through high level performance and innovative ideas that are perhaps less recognised in schools but are more likely to impact on society.

Perhaps one of the more influential and comprehensive models of giftedness is the *Differentiated Model of Giftedness and Talent* (DMGT), proposed by Francoys Gagné. Gagné’s (2005) model captures shifts in thinking in a manner that aptly explains contemporary ideas about the source of giftedness and the realisation of talent. While there have been several critiques of Gagné’s work, Sternberg et al. (2011) believe that this construct recognises the dynamic nature of talent development. One of few that differentiate between gifts and talents, Gagné’s (2005) model reflects the role of both hereditary and environmental factors. In his view, giftedness reflects the genetic characteristics of the person and represents natural abilities and intelligence. Gagné posits that giftedness can be divided into at least five domains that include intellectual, creative, social, perceptual, and muscular or motor. Talent, on the other hand, represents the products achieved, and it is intrapersonal (e.g., motivation and temperament) and environmental catalysts (e.g., physical and sociocultural environments) that impact on whether or not giftedness develops into talent.

The element of chance features in Gagné's (2005) model, highlighting that a natural ability or gift might predict future achievement in a particular domain, but does not guarantee it. The notion of 'chance' as a factor that can determine whether or not innate abilities are transformed into exceptional achievement directly relates to the present study. In Gagné's model, chance incorporates aspects such as genetic makeup as well as environmental aspects such as socioeconomic status. Gagné refers to Atkinson's (1978) belief that human accomplishment is determined by "two crucial rolls of the dice" (p. 221), one of which determines an individual's hereditary and the other his or her formative environment. In this view, chance is not a causal factor, but instead it reflects the predictability of control, or lack of control, over giftedness.

Gagné's (2005) model represents an appropriate framework for the present study as it holds significance for gifted underachievers, including those who may be in this category because of socioeconomic challenges or limitations. Reflected in Gagné's idea is that underachievers may well be gifted in a particular area, but might not display corresponding talents. Gagné argues that giftedness (or natural abilities) is the *potential* one holds in particular domains, while talent (or developed abilities) is remarkable *performance* in these domains. The relevance of this idea to underachieving gifted young people, or indeed those who are underrepresented in gifted and talented programmes, is that students may be gifted (or hold potential) but may not have the opportunity to develop their talents (or display high achievement in these areas).

As shifts have occurred in conceptualisations about what giftedness is and what characterises gifted individuals, there has also been a change to the labels ascribed to this group of people. For example, prior to the nineteenth century, and before the term 'gifted' was coined, children with special abilities were sometimes referred to as 'supernormal' (Borland, 1997). In New Zealand, from the 1960s to the 1990s, this

group was commonly referred to as children (or students) with special abilities (C/SWSA). This changed to 'gifted' during the 1990s, and was then expanded to 'gifted and talented', a term that aligns New Zealand more with international policy and signals a significant shift in our acceptance of gifted children.

1.2. Relevant studies in the field of giftedness and talent

Over the years there has been some influential research undertaken in the field of talent development, and some of these studies are outlined in this section as they highlight aspects that are relevant to the present study. One such work is Victor and Mildred Goertzel's (1962), *Cradles of Eminence*, which attempted to shed light on the home and school contexts of 400 eminent individuals of the twentieth century. A sequel to their original study was published in 1978, along with their son (Goertzel, Goertzel, & Goertzel, 1978). The Goertzels' study focused on a range of talent areas, with the main criteria for selection being that participants were people of high standing in comparison to others and that they had been the subject of at least two biographies. Aspects that were found to have some significance in the eminence of these individuals included parental support and nurturing, particularly from their mothers. Goertzel and Goertzel found that at least one parent in each household was driven towards achievement and this appeared to have some impact on siblings also, who were described as being capable and intelligent.

Goertzel and Goertzel's (1962) research challenged two existing notions of giftedness and talent in particular; the first was that gifted individuals generally grew up in supportive and stable home environments and the second maintained that these individuals enjoyed fulfilling school experiences. Contrary to these beliefs, the Goertzels found that a large majority of their subjects came from impoverished or challenging home situations, which is reflective of the circumstances of many of the participants in the present study. These authors suggested that, rather than having a

negative influence on what these individuals achieved, these challenges may well have been a catalyst for high levels of motivation. As well, while these individuals had a love of learning, the majority did not enjoy their formal school experiences and this was particularly so for males. The fact that many of these eminent individuals were not all-rounders and tended not to readily conform could well have had some influence on their school experiences.

Clinical psychologist Anne Roe's (1952) study of eminent scientists also provided insight into how talent might develop. Roe included biologists, physical scientists, and social scientists as participants in her research, all of whom were male. The home environments of these individuals were mostly upper middle class and, much like the households of the Goertzel's subjects, were characterised by a love of learning. Roe found that a significant proportion of her participants were first born or only children and she concluded that this may be more conducive to opportunities for development. Reading was an activity favoured by many of these participants and a significant number showed ability at a young age. Despite this, the participants in Roe's study were driven by their work and she concluded that how well a person did in life was due to work ethic more than ability.

The school experiences of these eminent scientists contrasted in general with those in the Goertzel's study. Many of Roe's (1952) participants enjoyed school, and this may be due to the fact that their interests lay in areas that were largely valued in the academic environment. Despite this, many felt different to their peers and experienced bullying and social isolation. As well, some of these young people were held back a class because they were considered 'dull' and, much like Goertzel and Goertzel's (1962) participants, these individuals were generally not all-rounders.

The argument that giftedness is influenced by environmental opportunity was developed through Benjamin Bloom's (1985) study of 120 high achieving individuals. In the initial chapter of his book, *Developing Talent in Young People*, Bloom states that "no matter what the initial characteristics (or gifts) of the individuals, unless there is a long and intensive process of encouragement, nurturance, education, and training, the individuals will not attain extreme levels of capability in these particular fields" (p. 3). In his study of concert pianists, sculptors, research mathematicians, research neurologists, Olympic swimmers, and tennis champions, Bloom set out to determine the personal characteristics, contextual factors, and sources of motivation that enabled his participants to achieve to high levels. Similar to earlier studies, the parents of Bloom's participants valued learning and achievement and were committed to encouraging curiosity and nurturing their child's talent. These parents differed in levels of education and socioeconomic status but most were hard working and believed in doing the best one could in everything they did. The participants in this study tended to have responsibilities around the house at a young age, and their home environments were generally ordered and structured.

Like Gagné, Bloom (1985) also recognised chance elements in his study, citing examples such as having positive initial learning experiences in a talent area, the support of others when needed, and 'trial and error' processes that allowed participants to find their areas of interest. Bloom concluded that talent development involved high standards, dedication, and effort. Interestingly, only a small percentage of participants in this study were regarded as high achievers at an early age and Bloom suggested that the activity, the processes of engagement, and changes over time affected talent development more so than the amount of time spent at an activity. Bloom acknowledged that a limitation of his research was that only six fields of talent were studied and he envisaged that other researchers would expand on this.

1.3. New Zealand's approach to gifted education

One of the earliest and most influential researchers in the field of gifted education in New Zealand was George Parkyn (1910-1993), who carried out the country's first study on gifted children (Parkyn, 1948). Much like other researchers around this time, Parkyn began his exploration of giftedness with a focus on IQ. However, in later years he embraced socioemotional and creative aspects of giftedness and became an advocate for a broader multicategory concept of giftedness in New Zealand (McAlpine, 2005). Parkyn's research focused on the traits of 10 and 11 year old children from Dunedin with IQs of 125 and above, and he followed these children over a period of six years. His findings were published in his book, *Children of High Intelligence: A New Zealand Study*, and this research set the scene for a later surge in interest in gifted education in New Zealand. Based on his research, Parkyn concluded that gifted children had specific needs that required a special curriculum. He also emphasised the importance of individual motivation and the home environment in his investigation.

Moltzen (2011a) provides an overview of developments in the field of gifted education in New Zealand since Parkyn's research, beginning with an increased interest in gifted children around the 1950s. A committee established around the time of Parkyn's (1948) publication presented their investigation into the education of children of high intelligence in 1955. In their report they strongly suggested that gifted students be educated in the regular classroom rather than segregated, and that enrichment was preferable to acceleration. This recommendation was consistent with what Parkyn had believed would happen in New Zealand education, despite his exploration into the positive aspects of acceleration for the children in his own study. Moltzen reports that it was during this decade also that the first national professional development for teachers with an interest in gifted education was held.

As mentioned earlier, New Zealand has been largely influenced by the United States in perceptions of giftedness and provisions for gifted students. The launching of the satellite *Sputnik* in 1957 by the Soviet Union was a pivotal point for the USA, leaving Americans with a sense of educational failure and this resulted in a surge towards developing the country's most able (Van Tassel-Baska et al., 2006). This drive sparked a renewed interest in New Zealand also, which resulted in a focus on the identification and nurturing of the gifted and saw existing notions of intelligence being questioned (Moltzen, 2011a). Unfortunately, the Department of Education at this time did not believe it necessary to provide official direction for the education of gifted children and this was left largely to the discretion of individual schools and teachers.

Moltzen (2011a) describes the 1970s as a “relatively uneventful era in relation to the gifted in New Zealand” (p. 7), however by the 1980s, international conceptions of giftedness were reflecting a more multicategorical approach, and New Zealand followed suit. The New Zealand Department of Education (1986) defined children with special abilities, their preferred term to ‘gifted’ or ‘gifted and talented’, as those who demonstrated high performance relative to their educational context in a variety of areas including academic achievement, creative thinking, the arts, physical abilities, social skills and leadership, and cultural traditions and values. A multicategory approach has also continued through to more recent Ministry of Education documents (Ministry of Education, 2000, 2012), which provide a detailed examination of concepts of giftedness and talent, with a multicultural emphasis.

As outlined earlier, a multicategorical approach to giftedness reflects the perspective that gifted students are not solely those with high academic intelligence, as defined by standardised testing. Multicategorical approaches have the scope to encompass the unique characteristics of a multicultural society as these reflect a much broader range of talent areas. In the New Zealand context, this is particularly important for Māori

and Pasifika students, and other minority cultures. Several New Zealand writers (e.g., Bevan-Brown, 1999, 2011; Cathcart & Pou, 1992; Macfarlane & Moltzen, 2005; Webber, 2011) have emphasised the abilities and qualities that are valued in traditional Māori culture. Components of a Māori concept of giftedness, according to Bevan-Brown (2011), place importance on ‘qualities’ as well as abilities’, the consideration that an individual’s gifts and talents can be ‘owned’ by a group, and an expectation that a person’s gifts and talents will be used to benefit others. Pasifika concepts of giftedness have been less widely researched in New Zealand (Ministry of Education, 2012), however there is an increasing recognition of the need to address the underrepresentation of this group in programmes for gifted and talented students (Miller, 2011).

The last decade has seen a significant increase in research and other initiatives related to gifted and talented education in New Zealand, some of which have been outlined in Chapter 1. However, the Ministry of Education (2012) maintains that there remain ‘gaps’ in New Zealand research in a number of areas. These areas include how to address the needs of those groups who have been consistently underrepresented in gifted and talented programmes, including the gifted and talented young people from low socioeconomic backgrounds who are the focus of the present study. The review of studies in the following section provides some insight into what is currently known about this group.

2. Research on gifted individuals from low socioeconomic backgrounds

There has been limited research undertaken in New Zealand that specifically relates to gifted and talented individuals from low socioeconomic backgrounds and there could be several reasons for this. The lack of investigation in this area may reflect New Zealand’s fairly recent focus on the effects of increasing poverty rates. Another reason for a lack of research in this area, as mentioned earlier, might be the

difficulties associated with the identification of this group of learners. Traditional methods of identification tend to be ineffective with this group, and stereotypical attitudes may be one reason for this (Ministry of Education, 2012). Another reason, also outlined earlier, is that this group's performance generally declines over the time they are at school in comparison to more advantaged students. If gifted and talented young people from low socioeconomic backgrounds are not identified early, their abilities may not be as evident, and finding research participants amongst this group may become more difficult.

Internationally, there is more research focused on gifted young people from low-income backgrounds, and many of these studies derive from the USA. An earlier section of this literature review made reference to the passing of the *Jacob K. Javits Gifted and Talented Students Education Act* in 1988, which generated a wave of research focused on the issues of underrepresentation amongst low-income and minority children. Following this, the report *National Excellence: The Case for Developing America's Talent* (Ross, 1993), expanded the definition of giftedness to include the consideration of different cultural groups and socioeconomic levels. This acknowledgement, in combination with the funding of research projects, has further highlighted the issue of underrepresented populations in gifted programmes.

While the focus on identifying gifted students from underrepresented populations has increased in the USA, there are still claims that there is little research or knowledge about gifted individuals from low socioeconomic backgrounds (Cross, 2003; Ford, 2007). This may be due to the fact that minority ethnic groups are overrepresented in low socioeconomic populations and these two variables have not really been adequately differentiated in research in the USA (Baldwin, 2007; Borland, 2004; Hunsaker et al., 1995). Only recently have attempts been made to determine which differences can be attributed to either ethnicity or poverty, although Lee, Olszewski-Kubilius, and Peternel (2009) acknowledge that these factors are difficult to separate.

The lack of distinction between gifted individuals from minority ethnic groups and those from impoverished backgrounds contributes to the dearth of knowledge in this area. Complicating this is the high degree of overlap between ethnic minority and impoverished groups in society.

There are also limited empirical studies that have focused on personal and environmental factors that contribute to or limit achievement amongst gifted young people from low socioeconomic backgrounds. Much of the recent international research undertaken with this group has tended to focus on identification and selection procedures (e.g., Borland & Wright, 1994; Frasier et. al, 1995a; Hunsaker et.al, 1995; Van Tassel-Baska, Johnson, & Avery, 2002), assessment instruments and practices (e.g., Callahan, Tomlinson, Moon, Tomchin, & Plucker, 1995; Van Tassel-Baska & Stambaugh, 2006), and curriculum programmes and interventions (e.g., Baldwin, 1994; Burney & Cross, 2006; Lee, Olszewski-Kubilius, & Peternel, 2010; Miller & Gentry, 2010; Swanson, 2006). The nature of this research has meant that there has been more consideration of the school context than other environments, such as the family and home environments (Hunsaker et. al, 1995). Olszewski-Kubilius (2007) suggests that there needs to be further qualitative studies undertaken that explore the processes that occur within and between the family, peer groups, and school settings.

This section provides an examination of key studies that have focused on the personal and environmental characteristics of gifted people living in poverty, and which have relevance to the present study. As noted earlier, the majority of these studies were undertaken in the United States, perhaps as a result of the increased emphasis on, and funding for, research on this particular population of gifted individuals.

An early study that specifically investigated the personal and environmental characteristics of gifted young people from low socioeconomic backgrounds was undertaken by Edward Frierson (1965). Frierson's aim was to examine generalisations that had been made about gifted children and to increase understandings about gifted children from both upper and lower socioeconomic backgrounds. With an interest in the effects of deprivation on the gifted child, Frierson made reference to two notions about socioeconomic status and achievement. The first, consistent with traditional notions of intelligence, was the view that heredity played more of a role in recognised giftedness than the environment. The second contended that low socioeconomic status generally led to underachievement.

Frierson (1965) compared groups of gifted (those scoring 125 or higher on an IQ test) and 'average' (those scoring between 85 and 115 on an IQ test) elementary school children from upper and lower status backgrounds using measures such as height and weight, personality traits, interests and activities, and creative thinking. His definition of socioeconomic background as operationalised in the study included people not only living in the same area with the same living conditions, but also of the same ethnicity. The ethnicity of the participants in Frierson's study was not identified in the outline of his research.

Frierson (1965) did not expect to find any significant differences between gifted children from upper and lower socioeconomic backgrounds on the measures he tested for and the results of his study indicated that this was true of the physical measurements, height and weight. There were also no noteworthy differences with height and weight between gifted and average children. Interests and activities did differ between the participant groups, however, with gifted children from upper socioeconomic backgrounds inclined to read more and gifted children of lower socioeconomic backgrounds preferring competitive sports to a greater extent than the upper socioeconomic gifted group. Frierson also found that the gifted children from

wealthier backgrounds were more aware of their parents' aspirations for them to move on to higher education. The gifted children of lower socioeconomic backgrounds were not as aware of parental support and tended to dislike school more than their counterparts.

There were also distinct differences found in the activities and interests of both gifted and average children from low socioeconomic backgrounds in Frierson's (1965) study. Gifted children from low socioeconomic backgrounds were more likely to play musical instruments, aspired to higher status occupations, were more creative in their game playing, and again preferred competitive sports to a greater extent than the average children from low status backgrounds. They also tended to earn high grades in reading, unlike the average children who were inclined to dislike reading as an activity.

A personality test administered to all four participant groups showed some differences between children from upper and lower socioeconomic backgrounds, however Frierson (1965) did acknowledge that the authors of the personality test cautioned users about their interpretations. The test indicated that both gifted and average children from upper socioeconomic backgrounds tended to be more conscientious, more attentive to rules, and more persevering. As well, the tests showed evidence that these children were more self-controlled, more ambitious, and better able to control their emotions. Children in both the gifted and average lower socioeconomic groups were considered more likely to be demanding, attention seeking, overactive, and undependable. However, these tests also indicated that both gifted and average children from low socioeconomic backgrounds tended to be astute, realistic in their thinking, and less easygoing. While some of these findings may be consistent with other studies of gifted personalities, the reliability of this test could well be presumed to be more biased and perhaps less culturally 'fair' than tests designed in more recent times.

In terms of creative thinking, Frierson (1965) proposed that performance was influenced by sociocultural factors. Five creative elements were tested for and these included fluency, flexibility, adequacy, originality, and elaboration. Frierson found that the gifted children from upper socioeconomic backgrounds performed higher on every measure than gifted children of low socioeconomic backgrounds. It is not known whether Frierson's study considered other contextual aspects, such as family structure or educational experiences, and therefore it is unclear how other environmental features may also have influenced creative thinking. Frierson reached two key conclusions from his research; first, that differences in socioeconomic status accounts for several differences between groups of gifted children, and second, that there are a number of differences between gifted children and average children regardless of their socioeconomic backgrounds.

At around the same period as Frierson's (1965) research, Davidson and Greenberg (1967) carried out a study as part of a contract with the Office of Education in the United States that explored the cognitive, affective, motivational, and physical characteristics of high achieving students from "deprived" backgrounds. This study contrasted 80 high achieving students with 80 low achievers across 10 schools in New York. All of the participants were 10 or 11 years of age and were in the same grade at school. The groups were divided equally by gender, and each of the 160 participants lived in low socioeconomic situations and was African American. Participants were selected on the basis of demonstrated academic performance in reading and mathematics. Davidson and Greenberg hypothesised that high achievers were superior to low achievers in cognitive functioning, physical condition, and general and emotional health. They also proposed that high achievers displayed greater motivation and effort in academic work, and had a more positive attitude towards authority figures. As well, high achievers were thought to be more positive about themselves.

Data were collected from a variety of sources. The participants in this study were given a range of psychological tests including IQ tests, object tests, oral language tests, and drawing tasks, amongst other measures. A physical examination of each child was conducted to test aspects such as blood pressure, pulse rates, abnormalities, posture, and nutrition. The students were also interviewed about their after school activities and interests, school subjects, academic goals and career aspirations, and family relationships. As well, a home visit was carried out to verify the participants' social class and to observe the physical conditions of the home environment. Interviews were conducted with parents of the participants and these included questions about aspirations for their children, family life, and parenting styles.

Consistent with what they expected to discover, Davidson and Greenberg (1967) found that the high achieving participants in their study had a more positive sense of self-competence than the low achievers, in academic qualities as well as social and personal characteristics. They assumed more responsibility for their own learning and strived to achieve. Teachers also perceived this group as having more desirable personal qualities, showing greater effort in their schoolwork and conforming more readily to behavioural expectations. The high achievers had better-developed cognitive skills, more intellectual interests, and were more reflective than the low achievers. These students also had fewer absences from school. The families of the high achieving students showed greater concern about their children's education and were more aware about social issues. Their homes were orderly and structured and they tended to be better off financially, suggesting that even small differences in socioeconomic level could be associated with achievement at school.

There were also some similarities between these two groups. Both high and low achievers in this study showed sensitivity to their environments. They were similar in their levels of drive and aspirations, although the high achievers showed more specific achievement motivation than the low achievers and had more confidence in

their future. High achievers also appeared to have better quality relationships with adults.

Davidson and Greenberg (1967) concluded that high achievers from low socioeconomic backgrounds came with some initial advantages compared with low achievers (e.g., cognitive abilities and more stable home environments). They had better developed conceptual abilities and were more original and creative in their thinking. They also had stronger self-concepts and this was largely due to their teachers' attitudes towards them. Teachers tended to show greater interest in conforming students and expectations were inclined to be lower for children from lower socioeconomic backgrounds. These researchers found that while socioeconomic level had some bearing on academic achievement, attributes of self in interaction with the school environment had more influence. They concluded that the development of self (defined in this study as personal, academic, social, and nonintellectual competence) is closely linked with cognitive growth. Davidson and Greenberg acknowledged that, while the data from their study did not provide direct evidence of causal factors related to achievement, it did reflect complex relationships between gifted individuals, their home environments, and practices in their school settings.

In response to increasing interest in the role of parents in the educational achievement of minority students, Prom-Jackson, Johnson, and Wallace (1987) investigated the home environments of 767 low-income, academically talented minority youth. The participants of this study had earlier taken part in *A Better Chance (ABC)*, an organisation that identifies academically talented children from low socioeconomic backgrounds as candidates for college preparatory secondary schools in America. In this study, participants were asked to retrospectively reflect on their earlier experiences. The research was focused on the way in which parent configuration

(i.e., single parenting versus two parenting) interacted with other environmental factors to influence academic achievement.

The framework for this study was based on three specific aspects. First, these researchers considered that the *interaction* of home environmental factors should be studied rather than focusing on each of these variables in isolation. As well, the study should focus on the home environments of children who achieve to a high level despite circumstances that are generally assumed to lead to maladaptive outcomes. Finally, investigating the instilling of values and beliefs from families that determined success or failure in the school setting was considered to be important.

The method of data collection for this study was a survey that focused on elementary and high school experiences (including academic performance, career choice, personal perceptions of their abilities, leadership and athletic skills, personality and attitudes), home environmental factors (including parents' educational levels, parents' occupational statuses, family size, and parental expectations and support), and personality, attitudes, and perceptions about self (Prom-Jackson, Johnson, & Wallace, 1987). Personal characteristics were considered to interact with parenting styles and values as part of a reciprocal process that influenced academic performance.

While the emphasis of the study was on parent configuration, this was not found to be a significant influence on academic talent. What made more of a difference for this group of young people were the high aspirations and expectations that their parents had for them, despite their own low levels of education and the socioeconomic challenges they faced. The participants in this study reported that their parents, and particularly their mothers, were supportive of their interests and abilities, and encouraged them to develop a strong sense of self. In addition, these young people were reported to have very positive self-concepts, a strong internal locus of control,

and high levels of task orientation and perseverance. In the school context, many of these young people were apparently influenced by teachers who provided high quality teaching and positive learning environments.

Prom-Jackson, Johnson, and Wallace (1987) concluded that the participants' positive personal characteristics and schooling experiences reinforced parents' high expectations for their children and attitudes towards education, which in turn influenced the participants' academic achievement overall. These researchers suggested that schools and educators needed to work with parents to provide positive experiences that could develop the character and improve the self-perceptions of young people from low socioeconomic backgrounds. One explanation for these findings, and arguably a limitation of this study, is that this group of students had already been recognised for their academic giftedness, and therefore self-esteem and responses from others tended to be more positive. Consideration of a broader range of talent areas in this study, including those that are perhaps not as traditionally acknowledged in school settings (e.g., creative arts), might well have indicated different results. Children whose gifts are not readily acknowledged in the school setting may feel less positive about themselves, engage in less desirable behaviour, and elicit less positive responses from their teachers and parents.

The influence of family on the achievement of 15 gifted young people from low socioeconomic backgrounds was also the focus of Van Tassel-Baska's (1989) research. Using questionnaires and interviews to gather data, Van Tassel-Baska found that key influences in the development of her participants' talents included the value their families placed on education and hard work, and the educational opportunities provided by their school. The importance of family relationships was also highlighted in this study, with parents (particularly mothers) and extended family (particularly grandmothers) playing a pivotal role in terms of support for academic achievement. Van Tassel-Baska concluded that the families of high achieving

students from low socioeconomic backgrounds tended to encourage them and carefully monitor their progress. Parents held and communicated high expectations for their children and generally viewed the challenges associated with their socioeconomic circumstances as motivators to succeed.

Personal attributes were also found to be significant for these gifted young people. Van Tassel-Baska (1989) found that motivation to achieve, independence, and skills for coping with the demands of school were common amongst this group. While these young people reported that they struggled with some of the challenges associated with their personal circumstances, they typically reported having feelings of self-competence and a strong belief in self. Teachers who acknowledged and nurtured their talents were reported to be influential in their talent development and, in contrast to some other studies, this group of gifted young people indicated that their peers were largely supportive of their academic accomplishments.

Project Synergy ran over the course of six years, beginning in 1990 with the nontraditional identification of a cohort of approximately 15 potentially gifted kindergarten students from an elementary school in Harlem, New York City (Borland, 1994). The majority of students at this school came from low socioeconomic backgrounds, with most students of African-American ethnicity, and around a quarter Hispanic. The neighbourhood within which this school was situated, and where many of these students lived, was characterised by violence and drug use. Most of these children would not have been identified as gifted using traditional methods. The aim of the project was to develop procedures for the identification of gifted young people from low socioeconomic backgrounds, to develop ways of working with these children, their families and their teachers to nurture potential, and to place them in the appropriate educational programmes (Borland et al., 2000).

Students attended additional weekend and summer classes with a diverse curriculum that focused on the development of basic reading, writing, and mathematics skills, along with problem solving and developing positive school behaviours and attitudes (Borland et al., 2000). Mentors were also provided for students. Parents were invited to attend workshops that emphasised how the education system worked and how to support their children within this system. At the end of the first year of the programme, progress was evaluated and decisions made about placement in a school for gifted students in the following year.

Borland (1994) outlines a series of preliminary conclusions arising from Project Synergy in its early stages, and some of these are consistent with findings from other studies of gifted individuals from low socioeconomic backgrounds. These include the importance of family involvement and mentors, the need to use nontraditional assessments to identify gifted young people from diverse or minority backgrounds, and the importance of providing differentiated classroom experiences that cater for their individual needs.

In 1992, a follow up study was undertaken with five students from the first cohort of Project Synergy (Borland et al., 2000) who had been identified as potentially gifted and placed in a school for gifted students two years earlier. The purpose of this study was to determine whether their educational placements had been successful. As well, the researchers were concerned with ascertaining information about the participants' personal characteristics, their home and school environments, and their relationships with their peers in order to establish what factors contributed to academic achievement. Data from interviews, observations and achievement tests were collected over a period of 12 months.

This follow up study indicated that the students involved in Project Synergy had particular characteristics that contributed to their academic success. This group of children was reported to aspire to success and realise that education was the key to enabling them to reach their goals. They were also socially adept, emotionally well adjusted, and had a strong sense of self. The families of these five children were considered consistently supportive and provided positive role models for their children. The gifted school environment had a broad view of giftedness, high expectations, and was reported to provide these students with a safe, intellectually stimulating environment. Finally, intervention from Project Synergy was claimed to empower parents to be effectively supportive, and enabled the students to develop their academic skills and attitudes. The important lesson proposed by these researchers was that academic giftedness can be identified, nurtured and developed in *all* groups and schools in society.

While not an empirical research project, Frasier et al. (1995b) used a qualitative content analysis to analyse phrases and sentences in gifted literature to establish core cognitive and affective attributes of giftedness in minority and economically disadvantaged students. According to these researchers, identifying core attributes of giftedness would provide a basis for the establishment of adequate identification and enrichment experiences. While this study focused on a broad range of underrepresented gifted individuals, the research provided insight into personal characteristics that might influence talent development amongst those from low socioeconomic backgrounds. Frasier and her colleagues' analysis found that the literature and research reflected four different approaches to describe the characteristics of this group of students. These included a focus on economic disadvantage and deficiencies in cognitive functioning, a focus on cognitive and creative strengths, the comparison of characteristics of disadvantaged students with more advantaged students, and finally the results of investigations carried out with specific groups of gifted individuals. These authors contended that these approaches might reflect the added issues associated with establishing core characteristics for

disadvantaged groups, such as discrimination, differing meanings of giftedness amongst different groups, and inadequate traditional identification methods.

As part of their analysis, Frasier et.al. (1995b) identified 10 core attributes that were common amongst gifted students of minority ethnicities and economically disadvantaged backgrounds. These included motivation (the desire or drive to learn); communication skills (highly expressive and effective); interest (intense and sometimes unusual); problem solving ability; imagination or creativity (original ideas); memory; inquiry (questions and explores); insight (grasps concepts and connections quickly); reasoning (approaches solutions logically); and humour (conveys and picks up well).

Shumow (1997) presented case studies of three gifted children living in poverty and attending an elementary public school in Wisconsin, United States. These children had been participants in a longitudinal study of 216 children from low-income, urban backgrounds and had scored extremely highly in academic skills tests. This study was concerned with the social capital available to these children, and focused on their activities, resources, and relationships. Information about the children was collected from mothers and included family demographics, children's adjustment, parenting practices, relationships between home and school, and stressors. The participants themselves clarified their activities and interests, relationships and social supports, aspects of neighbourhood safety, and psychological adjustment. More general information about their neighbourhoods was also obtained from observations, the Census Bureau, and the local police department.

These in-depth case studies underscored the importance of providing opportunity for gifted children from low socioeconomic backgrounds to be involved in talent development programmes, and Shumow (1997) suggested that it is up to

professionals to identify appropriate programmes and to make these accessible. This researcher found that only one of the children attended a gifted programme at school while the other two received no enrichment at all, and this appeared to influence their attitudes towards their schooling. The study also highlighted the importance of parents and families in relation to academic achievement. These three children perceived that their parents' involvement and interest in their education was an advantage, and that their mothers in particular were supportive and caring. There was evidence of stimulating home environments and time spent together as a family over a range of activities.

As part of a retrospective investigation, Stewart and Porath (1999) examined the childhoods of five eminent British men born between 1880 and 1933, who had been raised in poverty. These researchers aimed to identify the cultural, familial, personal, and educational influences that contributed to their adult eminence through the examination of biographical and autobiographical accounts. Stewart and Porath found that there were several common factors that influenced the development of these luminaries. First, each of the individuals signalled that poverty was a constant stressor, along with other related aspects such as tension over finances, frequent relocation, and poor health. Alongside these challenges however, ordered home environments, parental influence (particularly of mothers), and supportive mentors were found to contribute to their successes.

The home lives of each of the individuals in this study were generally well structured, with children given responsibilities at a young age. As other studies have shown, mothers had been particularly influential through their strength of character, support, and encouragement. This was shown to promote emotional stability and a sense of identity. Fathers did not feature prominently in relation to the achievements of the subjects, and these researchers concluded that the presence of just one resourceful and encouraging parent seemed to be enough of a stable influence for the boys in this

study. The fact that fathers were not reported to have influenced the development of these boys' talent as much as their mothers may reflect societal expectations around work and paternal roles at the time these boys were growing up. What is also not clear through this research is whether or not fathers might play a similar role with their daughters.

The school environment was found to be largely unstimulating for the boys in this research project, and all five left school as soon as they were able, with only one continuing on to higher study. This may well reflect the rigidity of the school setting at the time these young men were educated, with little or no regard for the divergent learner. However, descriptions of their lives after school reflect their abilities to further their own learning experiences. Stewart and Porath's (1999) subjects also received support outside of their home and school environments, with each making reference to specific mentors who had played significant roles in the development of their interests and aspirations. According to the investigators, these mentors provided opportunities to broaden their knowledge, encouraged the boys' interests, and tolerated some of their more unusual characteristics.

Descriptions of the personal characteristics of these five luminaries might provide valuable insight into their adult successes. All five of the boys in this study were found to be optimistic, with the ability to see the positive in situations and to turn obstacles into opportunities. This disposition is receiving increasing attention by researchers, with other studies also identifying an optimistic outlook as a trait that is sometimes common amongst gifted and talented young people (e.g., Seligman & Csikszentmihalyi, 2000). As well, all five boys had a strong sense of justice and were not afraid to speak out against inequities. These characteristics may have served these subjects well with innovative approaches to their talent areas and the ability to creatively problem solve.

Stewart and Porath (1999) identified two levels of poverty in this study. The lower level reflects dire circumstances, where basic needs are barely being met, perhaps due to intermittent employment. The higher level of poverty is characterised by low wages, which are enough to meet basic needs but restrict the ability to save or to 'get ahead'. This acknowledgment of varying levels of poverty reflects the notion of generational poverty (or longer term poverty across generations) versus circumstantial poverty (short term poverty caused by particular circumstances at particular points in time). It is also consistent with literature that reports that it is the depth, persistence, and timing of poverty that makes a difference to outcomes (Burney & Beilke, 2008; Duncan & Brooks-Gunn, 2000; Fletcher & Dwyer, 2008; Gunasekara & Carter, 2012; Kitano, 2007; McLoyd, 1998; St. John & Wynd, 2008).

There are several limitations of this study, and Stewart and Porath (1999) acknowledge these. First, there were only five subjects studied and these individuals were all males. The researchers point out that women of this generation were generally restricted in their opportunities to pursue careers and therefore it would have been difficult to gather the information required. A second limitation of this study was the data sources. Stewart and Porath point out that autobiographies are often edited carefully for presentation to the public and that biographical data can reflect author bias based on political views or the nature of their relationship with the subject, amongst other complexities. The sociohistorical period in which these five subjects lived might also be considered a limitation. While these authors do provide a brief overview of the sociopolitical context in which their subjects lived, the ability for the findings of this study to be generalised across other populations would require careful consideration. However, there are aspects of this study that are consistent with other gifted and talented research (for example, stable and stimulating home environments, the influence of parents, and disengagement with formal schooling), and this adds weight to some of the overall trends reported in the gifted and talented literature.

In the early 1990s, Reis, Hébert, Diaz, Maxfield, and Ratley (1995) carried out research that compared 18 high achievers with 17 students of similar ability who were underachieving. The 35 participants in this study were attending a large urban high school in America and were predominantly from ethnic minority and low socioeconomic backgrounds. The aim of the study was to examine the perceptions of students and teachers in relation to the participants' school experiences, support systems, relationships, and aspirations, in an attempt to explain reasons for their achievement or underachievement. Data were collected through observation and interviews in the school, homes, and community over a period of three years.

These researchers found that there was no significant relationship between poverty and underachievement, and that all of the students in the study had experienced periods of achievement and underachievement over the years they had been at school. There were however some significant differences between the two groups. High achieving students acknowledged the support of like-minded academically gifted peers and teachers, coaches, or mentors. These young people were also involved in frequent extracurricular activity after school and over summer breaks. Additionally, the high achievers in this study had a strong sense of self and displayed resilience in relation to negative aspects of their family or home environments. The underachieving students believed that their low achievement was due to a lack of appropriate levels of challenge in elementary school. These young people were more likely to come from families in which problems were evident (e.g., separation or divorce, and unemployment) and to be influenced by environmental factors such as gangs and substance abuse. Their abilities were often not recognised by their parents or teachers and this group of students in general did not appear to have a strong belief in themselves.

Reis, Colbert, and Hébert (2005) extended the data analysis of this study to more fully investigate aspects of resilience amongst these two groups of students. These

authors found that a key protective factor for the high achieving students included a strong belief in self, knowing what they wanted to achieve, and how they should get there. As well, they tended to have particular personal characteristics that included determination and drive, sensitivity, and independence. Support systems were in place in the home and school environments, with supportive parents, teachers, and peers playing a major role in their successes. These students also had opportunities for success, which included participation in appropriately challenging advanced classes and involvement in special programmes and extracurricular activities with other like-minded students.

Underachieving students were found to have a range of risk factors operating in their lives. Most did not enjoy school and reported difficulties with establishing peer networks. In general, their interactions with teachers were negative and there was a lack of opportunity for them to develop good work habits. These students had little support at home and experienced challenges such as abusive home environments, exposure to substance abuse, inconsistent parenting styles, and problematic sibling relationships. As a result of this study, Reis et al. (2005) proposed that attention to factors that either contribute to or limit talent development could lead to interventions that may change the outcomes for underachieving gifted students.

A recent study undertaken by Eric Morales (2010) also investigated the protective factors and processes that promoted academic success in the lives of 50 gifted young people from low socioeconomic backgrounds. The purpose of the study was to ascertain whether there were specific protective factors common to these students and how these may have operated together to produce high achievement. This study grew out of research that began in the mid-1990s and was carried out over approximately eight years with participants being added to the study over this period of time. Each of the participants was interviewed three times.

Morales (2010) separated his findings into two ‘clusters’ of protective factors, the first of which symbolises the participants’ positive attitudes towards their giftedness and the second that reflects elements of identity. In the first cluster of protective factors, almost all of the participants reported a desire to change their personal circumstances, the influence of caring teachers, a desire to be a role model for their families and others of the same ethnicity, and strong aspirations for the future. As all of the participants in this study were either African-American or Hispanic, changing their personal circumstances, or “class jumping” (p.167) involved cultural complexities. Nonetheless, many of these students had committed to their goal of moving up in social class, despite running the risk of being seen to be a ‘traitor’ to their own cultural communities. This aspect of Morales’s research has implications for the New Zealand context, and the increasing attention that is being given to cultural diversity in educational settings.

Caring teachers were described by the participants in Morales’s (2010) study as being encouraging, supportive, and empathetic, but also strict. These students saw their teachers as valuable in empowering them to shift between their own low-income, minority culture environments and the middle class, academic environment. Believing that their successes would allow them to be role models, this group of students seemed to have developed a sense of obligation to their families and communities that counteracted challenges that came with their environmental transitions. As well, the participants reported a strong sense of what they wanted to achieve and plans for the future.

The second cluster of protective factors that emerged amongst this group of students included a strong work ethic, persistence, high self-esteem, an internal locus of control, and high parental expectations and support. Students reported that their parents generally had been explicit about their commitment to seeing their children succeed. Consistent with other studies of gifted individuals from low socioeconomic

backgrounds (e.g., Prom-Jackson et al., 1987; Shumow, 1997; Van Tassel-Baska, 1989), mothers in particular were viewed as being sources of inspiration, mainly because of their strong work ethic.

Morales (2010) described the relationship between these protective factors. For example, the demonstrated work ethic of their parents contributed to the participants' sense of obligation to be role models for their families and communities. As well, high self-esteem was reported to be the result of support from others and recognition of their achievements. According to Morales, while these protective factors have been identified in other studies, little attention has been given to the connections between them, and knowing more about these would be valuable. He also identified a limitation of this research, outlining that only resilient students were included and that how these factors and processes apply to nonresilient individuals is not made clear.

Despite the differences in aspects such as participant groups and research methods amongst the studies reviewed in this section, there are definite trends apparent in the findings. Aspects of self, including personal characteristics and self-concept, feature as perhaps one of the most common trends. Home environments, including relationships with family and physical environments, were a strong focus of many of these studies and therefore these features also hold prominence. Additionally, educational experiences and relationships with teachers and peers emerge as aspects of significance. With so many features related to the individual and their various contexts emerging from these studies, it is useful to consider frameworks within which these trends might be best understood. The following section presents an overview of the resilience construct, which provides a valuable lens through which the ability for individuals to 'beat the odds' in order to achieve to high levels, can be viewed.

3. Risk and resilience literature

3.1. The resilience construct

Resilience is conceptualised as manifested competence in the face of adversity or significant challenges to development (Masten & Coatsworth, 1998). However, much like giftedness, debate continues about how to best conceptualise and define this phenomenon (Harvey & Delfabbro, 2004; Masten, 2007). The term resilience infers two fundamental judgments; first, that there is currently or has been in the past significant risk or adversity to overcome and, second, that the individual has adapted positively (Masten & Coatsworth, 1998). The definition or measurement of resilience is dependent on evidence of these two dimensions in a person's life.

The resilience construct is comprehensive and multi-faceted but in general terms, resilience is developed as a result of the complex interactions of risk and protective factors and processes. In short, risk factors encompass the elements that drive an individual towards a less productive outcome, while protective factors move the individual toward adaptive outcomes (Masten, 2002). Each factor on its own can impact an individual, but it is a combination of both internal and external factors and processes that interact to build resilience.

Understandings about risk and resilience have emerged over a period of time in four waves (Masten, 2007). Early studies in the 1960s and 1970s had an emphasis on risk and highlighted links between negative life experiences and issues associated with how individuals adjust (Luthar, 2006). Researchers in this period found that there were children flourishing despite coming from high risk backgrounds. It was during this time that ideas about risk shifted from a predominantly medical-based view to a more positive perspective and researchers became concerned with identifying common correlates of resilience. Two prominent studies in this first wave were

The second wave of research was concerned with uncovering the processes associated with particular risk types and outcomes (Masten, 2007), however this proved complex. To begin with, the broad nature of concepts and measures related to resilience presented specific difficulties. As well, researchers in this wave recognised that longitudinal research was required to really explore resilience in depth. A sense of urgency to assist children who were already facing adversities prompted a third wave of research, with prevention and intervention as the focus (Masten & Obradovic, 2006). During this phase, a construct of resilience emerged, as studies demonstrated that significant numbers of individuals who faced extreme adversities were able to overcome these challenges, even in populations considered to be more at risk (Rutter, 1985). This suggested that there may be other processes involved and research that tested these ideas became the focus.

The initial focus of resilience studies on the successful adjustment of children facing adversity emphasised the existence of the “invulnerable child” (Garmezy, 1976), however contemporary ideas of resilience acknowledge that no child or adult is immune from vulnerabilities (Harvey & Delfabbro, 2004). Instead, resilience is now seen more as a common phenomenon that arises from basic human development and adaptation systems or, as Masten (2001) describes it, “ordinary magic.” Masten and Obradovic (2006) present a list of systems that are commonly identified in literature as playing a crucial role in resilience (see Table 2). These authors contend that resilience is dependent on the normal operation of these adaptive systems. When these systems develop abnormally because of adversity, there is a risk that the individual’s development will suffer.

Table 2 **Adaptive systems implicated in the world literature on resilience**

System	Features
Learning systems of the brain	Problem solving, information processing
Attachment system	Close relationships with caregivers, friends, romantic partners, spiritual figures
Mastery motivation system	Self-efficacy processes, reward systems related to successful behaviour
Stress response systems	Alarm and recovery systems
Self regulation systems	Emotion regulation, executive functioning, activation and inhibition of attention or behaviour
Family system	Parenting, interpersonal dynamics, expectations, cohesion, rituals, norms
School system	Teaching, values, standards, expectations
Peer system	Friendships, peer groups, values, norms
Cultural and societal systems	Religion, traditions, rituals, values, standards, laws

(Masten & Obradovic, 2006, p. 21)

Another important shift in resilience research is attention to resilience as a process rather than a fixed characteristic (Luthar, 2006; Masten & Powell, 2003; Rutter, 2000). Contemporary researchers portray resilience as being a product of underlying

processes operating over time rather than separate variables that are linked with competence. In other words, an individual's resilience can alter as their circumstances change and in various contexts. Rather than being a personality trait, resilience represents the process by which children use personal and environmental resources to positively adapt in the face of adversity (Yates, Egeland, & Sroufe, 2003).

More recently, a fourth wave of resilience research has seen an emphasis on psychobiological influences and gene-environment interactions (Masten, 2007), and this is discussed more fully later in this section. Masten and Obradovic (2006) outline a series of cautions for fourth wave researchers which have arisen over the previous three waves of work. Amongst these are important reminders about the complexities involved with conceptualising and operationalising resilience, the multiple processes and pathways involved, and the influence of cultural, developmental, and historical contexts on resilience definitions and concepts.

Resilience studies have raised a series of questions. What are the criteria for 'good adaptation' and who decides what these criteria are (Luthar & Burack, 2000; Masten, 2002)? And if the criteria for resilience differ across studies, how can knowledge about this phenomenon be adequately developed (Luthar, Cicchetti, & Becker, 2000; Masten, 2002)? Another uncertainty, and relevant to this study, is whether or not individuals who achieve under adversity actually suffer psychological distress (Masten & Obradovic, 2006). Related to this is the question of whether resilience is linked with positive internal or external adaptation, or whether this phenomenon actually refers to both (Luthar & Burack, 2000). As well, how does one distinguish between factors that *promote* resilience and those that are *consequences* of resilience (Harvey & Delfabbro, 2004)?

3.2. Risk and protective factors and processes

Risk refers to biological and environmental conditions or influences that increase the likelihood of undesirable outcomes (Masten, 2002). Luthar (2006) maintains that risk can be defined in terms of statistical variables, with a high-risk condition being one that is most likely to result in maladaptive outcomes. A number of risk factors have been shown to be common across risk and resilience research, and poverty is frequently referred to as high risk.

While these commonly cited risk factors may be useful in determining potential threats to individuals, Racz, McMahon, and Luthar (2011) caution against making assumptions about various populations and the likelihood of risk conditions. For example, low socioeconomic status is seen to be a considerable risk; however these authors outline that studies of affluent children have shown that high socioeconomic status can pose just as many difficulties. Additionally, making assumptions about what is or is not a risk factor for an individual can reflect narrow perspectives. According to Luthar (1999), behaviours that are perceived by others as deviant might be the very behaviours that enable individuals to maintain high self-esteem and a sense of value amongst peers or in their communities. In addition, Harvey and Delfabbro (2004) point out that there are significant differences in the ways people respond to risk and disadvantage, and that this can vary across time and cultures.

Additive risk models describe how individual risk factors contribute independently to development and propose that each of these factors contributes a main effect. These models suggest a direct relationship between the number of risk influences and negative outcomes. Additive models indicate that the number of resources or assets available to an individual can counterbalance negative effects of adversity or challenging life experiences (Masten & Powell, 2003).

The multiplicative risk model assumes that a single risk factor is not necessarily problematic, but that combinations of risk factors can be detrimental to development and this is dependent on significant interactions among factors (Pungello, Kupersmidt, Burchinal, & Patterson, 1996; Sameroff, Gutman, & Peck, 2003). For example, some stressors can be exacerbated by the presence of another stressor. As risk factors coexist, when taken into consideration collectively, it is difficult to ascertain which risk factors represent higher risk. The exposure to multiple risks impacts adversely on socioemotional and cognitive outcomes (Evans, 2004; Werner & Smith, 1982), and the contexts that these risks occur in change over time. It is likely that the timing and duration of risk periods may impact more than the actual risk itself.

A protective factor is referred to as something that modifies the effects of risk, resulting in positive adaptation (Luthar, Sawyer, & Brown, 2006). As with risk factors, protective factors rarely operate in isolation. Instead, it is the combination of protective factors in interaction with risk factors that promote resilience. The idea of coexistence has resulted in a shift in focus for resilience research, from the identification of characteristics of resilient children to an exploration of what it is *about* these characteristics that promotes resilience. Researchers (e.g., Garmezy, 1991; Masten, Best, & Garmezy, 1990; Werner & Smith, 1982) tend to separate protective factors into three broad variables, including attributes of individuals, family context, and the wider social context and this is reflected in the “short list” of characteristics of resilience included earlier (see Table 1).

Luthar et al. (2006) point out that there has been confusion in resilience literature about the definition and measurement of risk and protective factors. Some researchers assume that protective factors are simply the opposite of risk factors. For example, high IQ is considered to be a protective factor and therefore this has been interpreted to mean that low IQ implies risk. Luthar (2006) suggests that there are

other more complex variables that determine whether or not a risk factor will essentially worsen the effects of the risk. In another example, Luthar's (1991) study found that high intelligence was actually working as a vulnerability mechanism for participants as during times of stress they demonstrated competency levels similar to those of less intelligent children, and this emphasises the complexity of the resilience construct.

More than 50 years of resilience research has consistently shown that two of the most important protective factors and predictors of resilience are good intellectual capacity and a caring adult, for example, a parent, teacher, or mentor (Masten & Coatsworth, 1998; Rutter, 1987). One likely explanation for this could be that both of these factors can generate additional advantages, such as self-confidence and self-efficacy. Good intellectual capacity is valued in the school context and therefore is likely to generate positive responses from teachers and some peers. Positive interactions with teachers and peers are likely to increase self-esteem. The involvement of parents and family interactions can act as a form of social capital that reduces the impact of economic disadvantage on educational outcomes (Duncan & Brooks-Gunn, 2000). In the absence of a supportive parent, teachers and other significant adults can provide a buffer in the form of an encouraging mentor or role model (Werner & Smith, 1982).

3.3. Biology of resilience

The current wave of resilience research is concerned with the investigation of biological aspects of resilience and this has come about with increased knowledge about brain development and function. In their seminal work, Curtis and Cicchetti (2003) provide an overview of five broad areas that directly or indirectly relate to biological aspects of resilience. These authors believe that a complete understanding of resilience will not be achieved without consideration of biological perspectives.

The first area identified by Curtis and Cicchetti (2003) is genetics. These authors explain that there may be genetic contributors to resilience that act as protective elements in families where maladaptation or the development of psychological disorders is prevalent. Additionally, genetic factors might also serve as protective 'buffers' against environmental challenges. Genetic effects on behaviour may also influence the extent to which an individual is likely to be exposed to environmental risk and how they will react to it (Rutter, 1997). They may also affect how susceptible a person is to environmental risks or challenges. These impacts may vary according to social context, current circumstances and the meaning an individual makes of previous background and experience (Rutter, Champion, Quinton, Maughan, & Pickles, 1995). Kim-Cohen, Moffitt, Caspi, and Taylor (2004) found in their investigation into children's resilience and vulnerability to socioeconomic deprivation that protective factors have both genetic and environmental components. These researchers suggest that specific interventions can modify genetic effects on cognitive and behavioural development.

The second area that relates to biological aspects of resilience is neuroendocrinology, which refers to the effects that stress and adversity have on the brain and cognitive performance (Curtis & Cicchetti, 2003). These authors cite research that has shown the effects of traumatic events and adversity on stress and brain systems. However, while persistent stress is more likely to be associated with harmful outcomes, these stressful experiences may not necessarily have the same effect on all individuals. Curtis and Cicchetti add that genetic makeup along with aspects such as prior experiences and developmental history also influences an individual's reaction to a stressful event. They propose that individuals who have experienced neural and endocrinal changes are different from who they were before those experiences. These authors suggest that, based on the changes that have occurred, these individuals engage with, and seek out, new experiences.

Emotion is a third area linked with biological aspects of resilience and, according to Curtis and Cicchetti (2003), this incorporates regulation, perception, and expression. The ability to regulate emotion is often cited in resilience studies as a potential protective factor against adversity. Cognitive skills and the development of a strong sense of identity are thought to be two personal factors that help to build the ability to regulate emotions. Environmental factors also assist this process, and those claimed to be particularly influential are parental responses to, and tolerance of, displays of emotion.

As indicated earlier (see Table 1), high levels of cognitive functioning are viewed as a major protective factor for those who grow up in adverse circumstances (Masten & Coatsworth, 1998). Curtis and Cicchetti (2003) outline that cognitive processing functions such as planning ability, problem solving, attention, and logic appear to be particularly linked to adaptive outcomes. However, given that cognitive processes are extremely complex, these authors suggest that more research is required in this area to draw specific conclusions about what aspects of intellectual functioning promote resilience.

The final area outlined by Curtis and Cicchetti (2003) linked to resilience is neural plasticity, which is evidenced by structural and functional changes in the brain as a result of environmental input and experience (Luthar & Brown, 2007). Curtis and Nelson (2003) suggest that experience changes the brain and the modified brain then alters how the individual interacts with their world. Young people from low socioeconomic backgrounds who have developed the resilience to significantly achieve, despite the adversities they might face, may well have acted in ways that have strengthened their brains to promote adaptive outcomes (Kim-Cohen et.al, 2004). Grimmond (2011) refers to research that suggests that a child's experience of poverty early in life can be particularly damaging as a young child's rapid brain

development leaves them vulnerable to environmental conditions. However, ongoing research in this field reinforces the plasticity of the brain across the lifespan.

4. The relevance and significance of the literature

The study of giftedness and talent is comprehensive and complex, and the literature presented in this chapter endeavours to emphasise some of these intricacies. In earlier parts of this review, literature related to general talent development highlights that our understanding of giftedness is influenced by ideas that have changed over time and represent the contexts in which they have been established. These ideas reflect the current climate for talent development amongst diverse populations, however, and this ascribes importance to the studies included here that focus on giftedness in young people from socioeconomically challenging backgrounds. The resilience construct, which presents its own complexities, represents part of a broader framework for interpreting the ways in which we develop. In the context of the present study, the inclusion of literature related to risk and resilience provides a useful theoretical lens through which the issues and complexities associated with talent development amongst this population of gifted young people can be explored.

The relevance of the resilience construct to the present study is especially evident in the connections between resilience, giftedness, and low socioeconomic status. Resilience literature strongly suggests that conditions associated with poverty are considered to be a significant risk factor (Gallagher, 2008; Pianta & Walsh, 1998; Pungello et al., 1996; Schoon, Parsons, & Sacker, 2004) and that the resources that come with giftedness are a major protective factor (Bland & Sowa, 1994; Masten & Coatsworth, 1998; Werner, 2000). When personal or environmental features related to poverty pose a risk to positive outcomes for the individual, intellect, gifts, and talents can serve as protective factors that counteract the likelihood of maladaptive outcomes (Seeley, 2003).

This connection may appear simplistic, however Harvey and Delfabbro (2004) remind us that the relationship is much more complex. Pungello et al. (1996) propose that children raised in families with low incomes are more likely to experience other risk factors in addition to poverty. Rutter (2007) describes poverty as a 'risk indicator' because it actually provides the base for a number of specific stressors, and exposure to multiple rather than singular stressors is thought to be a key feature of the environment of childhood poverty (Evans, 2004). For example, violence is one risk factor associated with socioeconomic disadvantage, and exposure to violence can have long lasting effects on individuals. These effects include the increased probability of internalising problems, greater vulnerability to externalising behaviours such as delinquency, and reduced academic attainment (Luthar, 2006).

As pointed out earlier, not all gifted young people who are from low socioeconomic backgrounds flounder and there are numerous examples of highly successful gifted adults who have come from disadvantaged backgrounds. For some of these individuals, the experience of adversity may present particular opportunities that actually promote resilience (Rutter, 2007). The interrelatedness of environmental and biological influences, and risk and protective processes in the lives of individuals who live in low socioeconomic circumstances has a direct impact on whether or not their gifts and talents are realised, and the complex processes involved require further exploration.

Studies of gifted and talented individuals indicate that resilience and giftedness are closely related and Morales (2010) believes that increasing understanding of one construct can inform the other. Mueller (2009) points out that there are two contrasting perspectives relating to the resilience of gifted young people. The first view is that some of the potential characteristics of their giftedness (e.g., perfectionism, oversensitivity) may lead to young people being at risk for psychosocial adjustment issues. The second argument, as mentioned earlier, is that

their giftedness acts as a protective factor because of the additional resources that are available to them. Some gifted young people may share common characteristics with resilient individuals, including high self-concept and good self-efficacy, amongst others (Neihart, 2002). However, this author also identifies categories of gifted young people who are very much 'at-risk' (Neihart & Betts, 2010). Pfeiffer and Stocking (2000) outline five specific risk factors that relate to academically gifted children (see Table 3).

Table 3 Risk factors common to gifted and talented young people

Uneven or asynchronous development
Unrealistic expectations of parents, teachers, and significant others
Parental over-involvement or enmeshment
Mismatch between capabilities and the instructional environment
Social and emotional issues resulting from difficulties with the peer group

(Pfeiffer & Stocking, 2000)

The first of these relates to asynchronous development across cognitive, emotional, social, and physical domains, which may leave these individuals with a sense of not belonging to their more regular peer group. Alternatively, this can impact on self-esteem if, for example, emotional maturity is not on par with their academic abilities. This may be exacerbated with higher levels of giftedness. Second, the unrealistic expectations of others can result in excessive praise for achievements which in turn can lead to the gifted young person developing misguided ideas about their potential and abilities. In the long term, unrealistic expectations can result in underachievement, depression, and defiance. Related to this, over-involvement of

parents who are perhaps attempting to live their lives through their gifted children might result in similar behaviours.

It is not uncommon for gifted young people to experience a 'mismatch' between their capabilities and the instructional environment, and this is sometimes brought about by the attitudes or misunderstandings of teachers. Those who believe that the gifted child will do well regardless are quite likely contributing to the gifted child's boredom, lack of stimulation, and disengagement. Difficulties with the peer group due to a mismatch of intellectual, social, and emotional maturity puts the gifted young person at risk of underachievement through hiding their talents. This might also impact on self-esteem and social confidence.

The following chapter explores some of the common themes emerging from the studies in this chapter. Some of the complexities related to talent development, particularly amongst young people from low socioeconomic backgrounds, are evident in this discussion. The resilience construct outlined in this chapter allows some insight into how personal and environmental aspects might influence how the development of talent occurs in the presence of socioeconomic adversity.

Chapter 4

Themes across Studies

Probably no one would, if he could, assign gifted children to an early life of poverty, but it is, nevertheless, a fact that many children born on a low socio-economic level owe their later eminence to that fact.

H. A. Carroll (1940, p. 37)

This section provides an overview of common themes from the studies on gifted individuals from low socioeconomic backgrounds reviewed in the previous chapter, with consideration of the links between giftedness, poverty, and resilience. The discussion focuses on aspects of the literature that relate most directly to the present study.

1. Self-concept

One of the most highlighted aspects in the studies of gifted individuals from low socioeconomic backgrounds reviewed in the previous chapter is self-concept. Traditionally, this term has been defined in a number of ways across a range of disciplines and this has made a single definition somewhat difficult. In general terms, however, self-concept can be seen as a way of perceiving oneself, or a global evaluation of oneself. This evaluation might encompass aspects such as self-esteem, self-worth, and self-identity. While some writers refer to these aspects as separate entities, these can arguably contribute to an overall understanding of self-concept, which is the perspective taken in the present research project. In the studies reviewed

in the previous chapter, the belief in and awareness of one's abilities could also be incorporated into this construct.

Early theories of self proposed that self-perceptions are constructed through interactions with others, and these ideas still underpin our thinking today. William James's (1890) description of self was based on a person's evaluation of their possessions, career, and relationships. Cooley (1902) introduced the idea of the 'looking glass' self, suggesting that other people serve as a mirror in which we see ourselves. This theory posits that self emerges in response to, and from interactions with other people, cultures, systems, and structures (Hopson, 2010). Mead (1934) expanded on these ideas, suggesting that our perceptions of self are formed by incorporating our perceptions of what others think of us into our self-concepts. Writers in the second half of the 20th century (e.g., Purkey, 1966; Rogers, 1961) described self-concept as dynamic, suggesting that this shifts and changes throughout our lives.

Markus and Nurius (1986) developed the concept of 'possible selves', which relates to how people think about their potential and their future. This theory of self-concept suggests that what one envisions he or she *could* be is unique to the individual but related to comparisons of themselves with others. Individuals organise past experiences by creating schemas and then draw on these schemas to recognise and interpret the social environment. How a person 'creates' themselves is influenced by sociohistorical contexts, social experiences and interpretations of 'past selves'. Ideas about what one could become provide a link between motivation and self-concept as the individual performs or avoids actions that will shape their future selves. A key component of Markus's (1977) theory is the idea that self-concept is dynamic and capable of change. Self-concept not only reflects an individual's behaviour but also mediates and regulates it.

Postmodern concepts of self incorporate Gergen's (1991) idea of the 'saturated self'. Gergen argued that increases in technology and greater exposure to diverse cultures and ideas have created a more complex 'self', with multiple potentials for being that are defined by others. These multiple potentials can be advantageous in that they shape identity and guide behaviour. On the other hand, however, multiple potentials can pose a threat to a consistent identity or a secure sense of self and, as Gergen describes, "committed identity becomes an increasingly arduous achievement" (p.73). The view of an 'authentic self' is challenged and, ultimately, the saturation of self through emerging technologies and more complex interactions is proposed by Gergen to result in "no self at all" (p.7).

There are contrasting findings in the literature about the self-concepts of gifted young people. In their synthesis of some of these findings, Sampson and Chason (2008) outline that low self-concept can be common amongst gifted students, although this is not clear cut. For example, academic self-concept amongst the gifted and talented might rate highly, but social or interpersonal self-concept may rate significantly lower (Clark, 2013). On the other hand, Gruber (1986) holds the view that gifted individuals have a 'feeling of specialness' about their giftedness, and that this influences the development of their self-concept. He maintains that gifted individuals tend to be visionaries who see the 'possible' and not just the 'actual', much like Markus's (1977) notion of possible selves. This pushes them to commit considerable time and energy to realising their aspirations.

The link between possible selves and young people from low socioeconomic backgrounds was recently explored by Oyserman, Johnson, and James (2010). This research found that children from more disadvantaged neighbourhoods were more likely than children from wealthier communities to view educational attainment as important, and doing well in school as a possibility for them. However, this group was less likely to have strategies to reach these attainments. These researchers

suggest that, rather than needing help to raise their expectations and goals, young people from low socioeconomic backgrounds are likely to already see themselves as able to succeed. What these young people need instead is help to develop strategies to attain this possible self.

The participants in the studies of talented young people from low socioeconomic backgrounds reviewed earlier were reported to have generally high self-concepts, although only one of these studies distinguished between academic, social, or other areas of self-concept (Davidson & Greenberg, 1967). Hoge and Renzulli (1993) point out that having high levels of ability which translate into achievements might generally be considered to enhance self-esteem. However, given the complexities of human development, this view could be considered simplistic and contributing to the myth that gifted children will ‘do okay’ regardless. In contrast, these authors emphasise three reasons that self-concept for a gifted individual might actually be more negative than for others. The first reason is that being labeled ‘gifted’ may result in others communicating high expectations that contribute to feelings of failure. Second, a gifted individual might be more sensitive to and analytic of social cues, which may impair performance. Finally, social comparison with others of high ability could well lead to a decline in self-esteem.

There may be several explanations for the reportedly high self-concepts of participants in the studies reviewed earlier. To begin with, many of the participants taking part in this research represent a portion of the gifted population who are already ‘doing well’, regardless of their low socioeconomic or challenging backgrounds. Identifying gifted individuals from similar backgrounds who are underachieving can be difficult, and therefore the focus tends to fall on those who are already achieving and who may, by default, have higher self-concepts. As the school context was often a focus, it is not clear in some of these studies whether other contextual aspects had an influence on levels of self-esteem. Those studies that also

considered home and community environments recognised the influence of aspects such as parenting styles and peer relationships, which are likely to have had some impact on the self-concepts of the participants.

The rewarding of particular talents and behaviours above others in school and educational contexts might also provide an explanation for these participants having a greater sense of self. It could well be that many of these participants are included in the studies because they are readily identified as having talents of value, and recognition of these talents within the educational context has a strong influence on their self-concepts and sense of belonging. McCoach and Siegle (2003) indicate that gifted students should be able to maintain high academic self-concepts, for example, because their academic abilities compare favourably with those of many of their classmates. This in itself might also depend on the classroom context, how students are grouped, or teacher perceptions, as mentioned in Davidson and Greenberg's (1967) study. This issue has implications for how gifted students are identified and catered for, as it is clear from the literature and research that certain groups of gifted students are underachieving. A salient question might be whether or not current methods of identification are providing gifted and talented young people the best opportunities to have their abilities recognised. A second question might concern the ways in which schools are catering for gifted learners, particularly in the New Zealand system, where schools are making provisions for these students with a significant degree of autonomy.

Another point to note in the reviewed studies is that gifted young people from low socioeconomic backgrounds who are high achievers tend to have a strong internal locus of control (e.g., Morales, 2010; Prom-Jackson et al., 1999). These young people are inclined to view their successes and failures as related to internal factors rather than outside influences. An individual with a strong internal locus of control feels responsible for his or her successes and is likely to use failures constructively (Davis et al., 2011). A high internal locus of control may also be contributed to by

the *experience* of success, and not simply the outcome of it. Those who are externally controlled tend to take limited responsibility for success or failure, instead attributing these to outside influences. According to Seeley (2003), an external locus of control can hinder achievement, as young people who attribute personal and educational outcomes to external factors rather than internal factors may exert less effort.

This notion of internal and external control links with Dweck's (2000) frameworks for understanding intelligence and achievement. Much like early conceptions, the 'entity theory' portrays intelligence as a fixed trait that cannot be changed. Those who believe that intelligence is fixed are likely to put their energy into looking smart at any cost. In contrast, the 'incremental theory' portrays intelligence as malleable, or able to be increased with effort. Individuals who consider intelligence to be malleable believe that it can be developed, and these people are more likely to exert effort or to take opportunities to learn. Dweck proposes that an entity view of intelligence encourages vulnerability in terms of self-esteem as it develops an "overconcern with looking smart, a distaste for challenge, and a decreased ability to cope with setbacks" (p. 3). In contrast, an incremental view of intelligence promotes high self-esteem, as the individual believes that their efforts to learn new things, even if there are errors made along the way, will result in development or mastery of skills and knowledge. Both the locus of control and entity theories have implications for the way in which teachers nurture their gifted and talented students.

Berk (2012) describes self-esteem as the evaluative element of self-concept, and this adjusts as feedback is received about who we are or how we perform in comparison with peers. Taylor (2002) indicates that the cognitive aspect of self-concept forms a personal blueprint for action, guiding thoughts, feelings, and actions, and addresses the question 'Who am I?' The emotional aspect, or self-esteem, arises from constant evaluations of self that integrate to become a global evaluation, raising the question

‘Am I worthy?’ As students move through their schooling they develop larger frames of reference by which to judge themselves, and self-esteem can decrease as a result. These issues again raise questions about the ways in which gifted and talented learners are provided for in the school context, including methods of assessment at local and national levels.

Haney (2007) outlines three influences on self-esteem. These are *reflective appraisals*, when self-esteem is based on how one is viewed by others; *social comparison*, where self-esteem is influenced by how the individual compares him or herself to others; and *self attribution*, where judgment of self is made based on the achievement of desired ends. Factors that appear to contribute to positive self-concept in gifted young people include the extent to which their abilities have been recognised or actualised (Hoge & Renzulli, 1993). Negative self-concept can occur when high expectations result in perceived failure or when a change occurs in the group they are comparing themselves with.

Poor self-esteem and low self-concepts are considered to contribute significantly to poor student achievement (Seeley, 2003). Bandura’s (1986) social cognitive theory outlines that perceived self-efficacy is an individual’s belief in their ability to take steps to achieve the goals required in a given situation. This directly impacts on the level of challenge an individual pursues, the effort they put into particular tasks, and their degree of perseverance. He suggests that there are two major sources of perceived futility. The first occurs when an individual doubts their ability to accomplish what is expected. The second occasion sees the individual give up trying regardless of their confidence in ability, because they believe that their efforts will not be valued in the current environment (Bandura, 1982).

The consideration of context in theories of self-concept is important as aspects such as confidence, effort, and persistence can manifest differently in various settings. For example, beliefs about themselves, their abilities, and their futures appear to be fuelled by different sets of experiences for young people from low socioeconomic backgrounds in comparison to more advantaged youths (Connell & Halpern-Felsher, 1997). These authors suggest that role models, messages conveyed by the majority culture, physical conditions of neighbourhoods and schools, and the availability and quality of support from significant adults can influence the self-perceptions of young people. Albert (1992) proposes that a sense of identity informs individuals of what opportunities are available to them and young people draw on aspects of self in order to cope in their environments.

Jackson and Warin (2000) claim that when young people move into unfamiliar social contexts they draw on more entrenched aspects of self-concept, those that have worked for them on previous occasions, in order to cope. Gifted young people from low socioeconomic backgrounds face the challenge of selecting from at least two potentially conflicting sources of self; those that are important in the context of their socioeconomic circumstances and those which are central to their high cognitive functioning. It is possible that the greater the conflict between these two sources, the more difficult it may be for this group of young people to develop their concepts of self in relation to the contexts they exist within.

2. Personal characteristics

As evidenced by some of the studies reviewed earlier, there is agreement amongst many writers that gifted and talented individuals share distinct personality traits. For example, Terman's (1925) study of eminent individuals claimed that, while these high achievers were "not free from faults" (p. 638), they were reported to be honest, trustworthy, and of high moral character. Parkyn's (1948) investigation of New

Zealand gifted children reported that high intelligence is positively correlated with desirable qualities such as common sense, a desire to know and excel, and originality. However, while there does appear to be characteristics that are common amongst gifted and talented individuals, the participants in many of these studies do not necessarily represent a diverse range of gifted individuals. For the most part, researchers have tended to work with participants who are more easily identified as gifted rather than people who perhaps represent a more diverse population (such as underachievers or those deemed to be ‘at-risk’). In this case, it is perhaps not the distinct traits proposed by writers that are important, but how these traits come about, and what contributes to how these traits manifest.

As understandings and definitions of giftedness have become broader, these lists of characteristics have grown and there is now widespread recognition that gifted people are unique individuals rather than a homogenous group. Specific characteristics are more commonly being classified into broader categories by contemporary researchers. Gardner’s (1983) multiple intelligences are an example of this, proposing eight broad types of intelligence, under which more specific traits can be identified. The New Zealand Ministry of Education (2012) also distinguishes five broad categories of traits, including learning, creative-thinking, motivational, social leadership, and self-determination characteristics.

A number of researchers have cautioned against stringently assessing the personality traits of gifted individuals. Parkyn (1948) highlighted three key issues associated with determining common characteristics of the gifted. The first is concerned with the ‘halo effect’, where judgment of character can be influenced by a gifted young person’s already known abilities, or by their conformist natures. It can be argued that some teachers mistake ‘bright’ children, who do well at school, follow instructions, and are well-liked, for ‘gifted’ children. In their study of gifted young people from low socioeconomic backgrounds, Davidson and Greenberg (1967) indicated that high

achievers were perceived by teachers to have more desirable personal qualities than low achieving gifted students. In this particular study, gifted high achievers were noted to conform to behavioural expectations and to show more effort in their schoolwork. The judgments made by these teachers might arguably reflect the halo effect. There are, however, many high achievers who are less compliant, tend to question authority, and show a lack of concern for pleasing their teachers, and this is reflected in gifted and talented literature that outlines the 'flipside' to the more positively perceived gifted personality (e.g., Davis et al., 2011).

Parkyn's (1948) second issue suggests that limitations of the setting in which these characteristics are assessed might 'mask' the capabilities and characteristics of some gifted young people. For example, the resources available within the school setting might only cater for certain types of abilities, which means that those who have gifts in more divergent areas might never have the opportunity to demonstrate these. Simonton (2009) examined the development of creatively gifted individuals and takes the position that these people are often perceived as 'quirky' or 'eccentric', and are shown in various studies to be most at risk for mental illness. He suggested that, in some cases, psychopathology could be the cost of attaining greatness (Simonton, 1994). Neihart (1999), on the other hand, would suggest that gifted people experience no more psychosocial difficulties than the general population, although her review of empirical literature indicated that creatively gifted writers and visual artists were more inclined towards mood disorders and suicides. The issue here is that behaviours that are seen to be 'out of the norm' can sometimes result in highly creative individuals' gifts and talents being overlooked. According to Nettle (2001), however, the traits that generate psychopathology may be the very traits that underlie the heightened creativity valued by society. Fraser (2010) believes that when traditional psychopathological behaviours are viewed in alternative ways, creatively gifted individuals can be supported to express themselves in ways that are better understood and more appreciated.

Parkyn's final issue emphasises that traits that might be assessed as common to gifted individuals cannot necessarily be generalised across contexts. It is clear that particular environments elicit different behaviours according to the features of those environments and the people who are present in these settings. For example, a gifted child may present in a particular way to his or her parents in a home environment that lacks stimulation, but quite differently amongst like-minded peers in the school context. Characteristics that may be common amongst gifted individuals might not always be obvious, or may be seen in some contexts and not others. Likewise, the opportunity to *display* characteristics that would indicate giftedness in particular settings is not necessarily afforded to young people from all backgrounds. This has particular implications for those students identified as less likely to be represented in gifted programmes in New Zealand schools, in particular gifted Māori students, young people from other minority cultures, students with learning difficulties, and gifted young people from low socioeconomic backgrounds (Ministry of Education, 2012).

There are other complications that arise when attempting to ascribe particular traits to the gifted and talented. Moltzen (2011d) points out that widespread uncertainty over definitions of giftedness makes the identification of gifted characteristics complex. Others maintain that higher levels of giftedness increase the likelihood of social and emotional difficulties that may result in more negative characteristics being manifested (e.g., Morelock & Feldman, 2003). Moltzen also cautions that preconceived judgments of the characteristics of gifted individuals can result in the 'pathologising' of giftedness and this can influence the way these young people behave and how they are catered for. This may also extend to labels ascribed to gifted and talented young people, which, as pointed out previously, can have particular connotations.

In the same way, young people who come from low socioeconomic or challenging backgrounds can fall prey to preconceived judgments, particularly when compared with a more ‘socially acceptable’ group. Some of the studies reviewed in the previous chapter that compare gifted young people from low socioeconomic backgrounds with their higher socioeconomic counterparts tend to portray those from less privileged backgrounds as having less desirable personal characteristics (e.g., Frierson, 1965), which reflects the middle-class bias of schools. Other studies indicate that socioeconomic difference appeared to have very little effect on the personal characteristics of gifted young people (e.g., Davidson & Greenberg, 1967). The differences indicated in these studies may reflect the environments these young people grew up in. For example, those from less advantaged neighbourhoods might present with ‘harder’ temperaments than those from more desirable neighbourhoods. However, those from the first group could well be more ‘streetwise’ than those from the second. These differences could also reflect variations in motivational factors for each group.

Studies in the previous chapter that focus only on gifted young people from low socioeconomic backgrounds with no comparison group, tend to portray a more positive view of their personal characteristics. An explanation for this might lie in the sources of data. For example, in Prom-Jackson et al.’s (1987) study, data was predominantly obtained from the participants and their families, whose perspectives might differ somewhat from other potential sources such as educators or other outside professionals. Another explanation might be that, in the absence of a perhaps more conforming group to compare these participants with, the researchers were less likely to assume that their personal characteristics would be less desirable.

While the individuality of gifted and talented young people is increasingly acknowledged, there is little doubt from the literature that there are some particular characteristics that seem to ‘fit’ with the gifted personality. For example, Winner

(1996) suggested that three characteristics are typical of gifted young people regardless of their field of talent. These are precocity (or advanced ability), an insistence on marching to their own drummer (learning at a faster rate and in a qualitatively different way to their peers), and a rage to master (high levels of motivation in their areas of ability or interest). Renzulli (1986) similarly proposed a three-ring approach to giftedness. This theory suggests that gifted and talented young people possess three traits (above average ability, task commitment, and creativity), which are applied to a performance area to produce high level functioning. Piechowski (1991) maintains that gifted individuals are characterised by high levels of emotional sensitivity or ‘overexcitabilities’ that may manifest as behaviour that others may consider extreme. Piirto (2007) also includes overexcitabilities amongst the personality attributes of gifted individuals in her *Pyramid of Talent Development*. In this model, she proposes that traits such as imagination, intuition, perceptiveness, and persistence are among those common to gifted individuals.

As mentioned earlier, the gifted and talented literature makes it abundantly clear that the personal characteristics of gifted young people are not always viewed as positive (e.g., Davis et al., 2011). In fact, many of the characteristics that might be seen as common amongst gifted young people most certainly have a ‘flipside’. For example, perfectionism might propel the gifted individual to set realistic goals to produce work of an excellent standard (Flett & Hewitt, 2002). However, extreme perfectionism might be typically motivated by a fear of failure so strong that their sense of self-worth is dependent on how well they perform (Hess, 1994). Another example might be that academic superiority coupled with advanced language ability could well result in opinionated and nonconforming behaviour (Davis et al., 2011). Context is likely to make a difference to how these traits might manifest, and studies that focus on the broader ecological context may help to explain some of the differences in how personal characteristics of the gifted and talented are demonstrated.

One characteristic that does appear consistently in studies of the gifted and talented is drive. As noted, drive is described in a number of ways including a rage to master (Winner, 1996), task commitment (Renzulli, 1986), and persistence (Pirto, 2007). Other writers and researchers have used terms such as motivation (Gagné, 2010; Gottfried, Gottfried, & Guerin, 2006) and effort (Davis et al., 2011) to describe this attribute. Drive also features strongly in the studies of gifted young people from low socioeconomic backgrounds reviewed in the previous chapter. Those characteristics that featured most consistently throughout these studies were attributes closely linked to drive. The participants in these studies are noted as having high aspirations (Borland et al., 2000; Morales, 2010), strong work ethics (Davidson & Greenberg, 1967; Morales, 2010), being perseverant (Morales, 2010; Prom-Jackson et al., 1987), striving to achieve (Davidson & Greenberg, 1967), and taking responsibility for their own learning (Davidson & Greenberg, 1967; Reis et al., 2005; Stewart & Porath, 1999; Van Tassel-Baska, 1989).

Murray (1938) provided one of the first empirical theories of motivation, and this was based on the idea that particular motives were basic to human functioning.

McClelland (1961) suggested that those individuals who were high in achievement motivation were striving to constantly better themselves and their achievements.

Bandura (1977) put forth the idea of competence motivation, referring to a person's belief in their own abilities to solve problems at hand. He proposed that this type of motivation was stimulated by both intrinsic and extrinsic reward. For example, the intrinsic reward for demonstrating competence might be a boost in self-esteem, whereas extrinsic rewards might include receiving praise and affirmation from a teacher.

The strong link between self-concept and motivation or drive is well established (e.g., Reis et al., 2005; Wigfield & Wagner, 2005) and this may explain why these two characteristics are often commonly cited together in research on the gifted. Maslow

(1968) purported that we all have an innate need to become competent and a desire to improve ourselves. Foote (1951) proposed that motivation is a consequence of identity and that, when self-concept decreases, action is halted. Zuo and Cramond (2001) suggested that motivation, perseverance, and drive are indicators of a strong sense of identity that keeps individuals focused on achieving established goals.

While drive features consistently in studies of gifted individuals, it is more difficult to ascertain where this motivation comes from. Embedded in many of the terms used by researchers to describe the driven nature of gifted individuals is an implication of deliberate effort on the part of the gifted young person. However, a number of eminent individuals describe having an 'inner drive' which might suggest that there is something innate about their capacity to spend large amounts of time and energy on their areas of passion. Another notable point about these terms is that there are implications from both genetic and environmental influences. While there is evidence of biological influences on personality, there is also considerable evidence to suggest that environmental aspects have an influence on how personal characteristics are expressed (e.g., Bronfenbrenner & Ceci, 1994; Dweck, 2000).

According to Gottfried and Gottfried (2004), drive or motivation has been described in gifted literature as a "prerequisite for, component of, catalyst of, and even an outcome of giftedness" (p.121). However, these authors put forward the preliminary notion of motivation as an actual area of giftedness, and provide four key points of evidence from related research to support and provide a foundation for their conceptualisation. First, compared to their nongifted peers, gifted young people demonstrate significantly higher academic intrinsic motivation. Second, academic intrinsic motivation appears to have considerable continuity throughout childhood and adolescence, and these young people demonstrate superior persistence, attention, and enjoyment of learning. Finally, Gottfried and Gottfried believe that aspects of the environment such as recognition from teachers, parenting styles, and stimulating

home environments play a significant role in relation to academic intrinsic motivation.

3. Relationships

Resilience researchers highlight the importance of positive relationships for adaptive outcomes and, as noted earlier, the presence of a supportive and caring adult is considered to make a significant difference in a young person's life (Masten & Coatsworth, 1998; Rutter, 1987). Gifted and talented research also indicates that caring and supportive adults are shown to be influential in positive outcomes for these young people (e.g., Bloom, 1985; Moon, Jurich, & Feldhusen, 1998). These adults include parents, extended family, teachers, and other mentors, such as coaches. Some studies also refer to peers as playing a part in the participants' development, particularly those who are like-minded (e.g., Davis & Rimm, 1998; Reis et al., 2005; Reis & McCoach, 2000; Van Tassel-Baska, 1989).

In the studies reviewed in the previous chapter, most researchers reported that relationships with parents were a strong influence on positive outcomes for gifted young people from low socioeconomic backgrounds. It is significant that, of the nine studies reviewed, five indicated that mothers in particular were most influential by being encouraging and supportive role models (Morales, 2010; Prom-Jackson et al., 1987; Shumow, 1997; Stewart & Porath, 1999; Van Tassel-Baska, 1989). This could reflect societal expectations around the roles of parents at the times some of these studies were carried out. For example, fathers may tend to take the role of primary 'breadwinner', while mothers are more available to interact with their children. The configuration of families might also make a difference to parent-child relationships. With single parent households becoming more common, mothers rather than fathers may tend to have more contact time with their children. However, societal changes in recent years indicate that fathers may be having greater involvement with their

children, and the influence of fathers may feature in more contemporary studies of gifted individuals.

Much like the personal characteristics of the gifted individuals in the studies reviewed earlier, there were differences related to relationships in studies that compared those from low socioeconomic backgrounds with those from high socioeconomic backgrounds. For example, Frierson (1965) found that young people from low socioeconomic households were less aware of parental support than their higher socioeconomic counterparts. One explanation for this could be that parents on low incomes face constant financial pressures that might draw their focus from quality interactions with their children. However, Davidson and Greenberg (1967) found that high achieving participants from low socioeconomic backgrounds had better quality relationships with adults than those from higher socioeconomic backgrounds.

In contrast, studies that only focused on gifted individuals from low socioeconomic backgrounds portrayed these young people as being more aware of relationship influences. These participants reported that their relationships with their parents encouraged a strong sense of self (Prom-Jackson et al., 1987) and promoted emotional stability (Stewart & Porath, 1999). Morales (2010) found that parents of gifted young people from less advantaged backgrounds tended to be more explicit about seeing their children succeed. These findings are consistent with resilience literature in that strong relationships with significant adults appear to play an important role in adaptive outcomes. Kitano (2003) stated that parents and families are strong influences on children's academic performance, and this is particularly so for children who face challenges associated with poverty.

The importance of relationships outside of the home is evident in the studies reviewed earlier also. Participants in Morales's (2010) research indicated that their

relationships with significant people outside of the home helped them to ‘bridge the gap’ between their lower socioeconomic home environments and other contexts. This was particularly important in relation to their cultural backgrounds, as the expectations of their own cultural and socioeconomic groups differed significantly with the cultural and socioeconomic contexts with which they were engaged. Many of the participants specifically acknowledged the contribution of mentors who helped them to develop their interests and aspirations, encouraged broader perspectives, and provided opportunities that might not be offered in the home or neighbourhood environment. These findings have particular significance for the gifted young people who are the focus of this study, and for other gifted underachievers.

Teachers are some of the commonly mentioned ‘outsiders’ who play significant roles in the lives of gifted young people from low socioeconomic backgrounds, according to the studies cited earlier (e.g., Morales, 2010; Reis et al., 2005; Van Tassel-Baska, 1989). One likely explanation for this is that the school environment is where the young person spends a large proportion of his or her time, and therefore is inclined to develop relationships with the adults in this context. As well, teaching tends to be a caring profession that generally attracts people who are concerned about the needs of others, and this could also explain consistent accounts of encouragement, support, and empowerment.

It appears that the recognition and acknowledgement of their talents was important for many of the participants in the studies reviewed in Chapter 3, and this occurred in both the home and school settings. This suggests a strong link between supportive and nurturing relationships and self-concept, and it could be that recognition from significant others in their lives adds weight to Gruber’s (1986) claim that gifted young people have a sense that they are special.

4. Home environments

Aspects of home environments that are thought to limit or enhance the development of talent have been indicated in numerous studies of gifted individuals (e.g., Goertzel & Goertzel, 1962; Roe, 1952). Reports of the socioeconomic conditions of people around the globe also paint a picture of the challenges that those living in impoverished households might face (e.g., OECD, 2010, 2011). The studies of gifted individuals from low socioeconomic backgrounds reviewed in Chapter 3 indicate that there are some elements of home life that appear to be common to this group of young people. First, their home environments tended to be characterised by order and structure (Davidson & Greenberg, 1967; Stewart & Porath, 1999), despite reports that the challenges associated with low income were very much at the fore (Stewart & Porath, 1989; Van Tassel-Baska, 1989). The importance of elements of the home environment is highlighted in Reis et al.'s (2005) comparison of gifted achievers and underachievers. In this study, gifted underachievers were limited in their capacity to develop their talents because of challenges in the home that related to socioeconomic circumstances (identified by these researchers as abusive home environments, substance abuse, and inconsistent parenting styles, amongst other aspects). In contrast, those who were high achieving students experienced more supportive home environments.

The second element that appeared common to home environments across these studies was the motivation and stimulation to learn. Shumow (1997) found that participants and their families spent time together engaged in a range of activities. Frierson (1965) concluded that gifted young people from low socioeconomic backgrounds were less inclined to be readers compared to those from wealthier households. However, this contrasts with other gifted and talented studies that report on the considerable amounts of reading undertaken by gifted young people (e.g., Cox, 1926; Terman, 1925). This inconsistency might reflect the availability or lack of reading material in each participant group's respective households, rather than the

lack of interest of the individuals themselves. On the other hand, Frierson's participants were more inclined to engage in competitive activities, play musical instruments, and be more creative in their game playing. For these participants, a lack of resources available in the household as compared to their wealthier counterparts may have stimulated them to create their own activities.

A third element common to the home environments of the young people in these studies was that their families tended to hold strong values associated with education and work (Van Tassel-Baska, 1989). This work ethic was sometimes related to the family view that their challenging circumstances should be a motivation to succeed. The high achievers in these studies were typically given responsibilities at a young age (Stewart & Porath, 1999). As well, parents held high expectations for their children (Prom-Jackson et al., 1987) and took a keen interest in their education (Davidson & Greenberg, 1967), characteristics that are perhaps not stereotypically expected in low socioeconomic households.

Research on low-income households in New Zealand indicates that parent configuration does have some influence on the developmental outcomes of children (e.g., Harold, 2011; Perry, 2012). However, the studies of gifted young people from low socioeconomic backgrounds in Chapter 3 suggest that parent configuration did not appear to play a significant role in the development of these young people. This links with earlier discussion about relationships, which suggested that one caring adult in a household may be enough to have a positive influence on the development of gifted young people in low-income situations. This also resonates with resilience literature outlined earlier, which indicates that some young people from single parent households appear to be able to achieve similar positive outcomes to those from two parent families. However, again, the numbers of gifted young people who remain unidentified or are underachieving may not be represented in these studies, and therefore this claim remains tenuous. It must be acknowledged that this association is

complex, as there are other social, emotional, and cognitive processes underlying each family's circumstances.

Home and family environments represent more than just a physical environment. These contexts also reflect cultural values, which can differ vastly in different households. New Zealand has become increasingly multicultural and the range of cultures that populate this country is unique, as is the cultural mix in other countries. The home environments of gifted young people from low socioeconomic backgrounds in New Zealand may differ vastly, reflecting values and traditions that might be characteristic of particular cultures. Māori and Pasifika cultures are overrepresented in low-income households in New Zealand (Perry, 2012) and, as mentioned earlier, these cultures hold different values in relation to what constitutes giftedness or talent (see Chapter 2). This is particularly significant for the present study, as aspects of the participants' home environments might reflect some of these cultural differences.

5. Education

As highlighted previously, relationships with supportive teachers who hold high expectations for their students are important for the development of talent in gifted young people from low socioeconomic backgrounds. According to the studies reviewed earlier, the second highest significant factor relating to talent development amongst this population is opportunities for extension or development within the school context (e.g., Reis et al., 2005; Shumow, 1997; Van Tassel-Baska, 1989). This might come as no surprise given that resources in the home environment tend to be limited for gifted young people from low-income households, and schools likely provide the resources and opportunities that are lacking in their home contexts.

At this point, a salient question is “What *types* of opportunities are most effective for this group of young people?” Some of the earlier studies indicate common elements of school life that were reported to be influential. For many of these participants, a range of activities that broadened their learning experiences seemed to be a key element in their development. This is consistent with elements of the home environment that also appeared to make a difference in the talent development of these young people. Enriched learning activities that were appropriately challenging and intellectually stimulating (Borland et al., 2000; Reis et al., 2005), and extracurricular activities that occurred outside of regular school life were reported to increase participants’ enjoyment of school and helped to shape the identities of these young people. Davidson and Greenberg (1967) found in their research that their participants had high self-concepts, and the combination of their personal attributes and school environment was more influential than the challenges associated with their socioeconomic circumstances.

The use of nontraditional identification tools factored in a number of these studies as capturing a broader range of abilities and a more diverse group of potentially talented students (Borland et al., 2000). Consistent with other gifted and talented research, many of these young people thrived when given the opportunity to work closely with likeminded peers (Reis et al., 2005).

The issue of how to group gifted students is widespread in schools in New Zealand and around the world. While enrichment is the preferred option in New Zealand schools (Ministry of Education, 2012), some choose to accelerate or segregate their gifted students, and this is largely at their own discretion. In what he describes as “a touchy subject” (Gagné, 2007, p.109), Gagné suggests that it is essential that controversial questions associated with providing for gifted students be addressed in order to increase the diversity of gifts and talents that might be identified in school settings. It could be that a review of what has arguably become the most

‘comfortable’ rather than the most effective way of catering for gifted and talented students is long overdue in some New Zealand schools.

Only one study in those reviewed in Chapter 3 explicitly reported that their participants largely found school to be unstimulating (Stewart & Porath, 1999), and this perhaps reflects the era (late 19th and early 20th centuries) in which these subjects were educated. However, other studies related to eminent individuals not mentioned in the earlier literature review have also found that school was a relatively unstimulating experience for them. The contrast between these studies may be related to domains in which the participants’ gifts and talents lay. As mentioned earlier, those who are highly creative are more likely to find schooling experiences less rewarding. For example, Csikszentmihalyi’s (1996) study of 91 eminent creators showed that school was largely unstimulating and served to ‘squash’ their creativity. In these schools, support was more likely to be given to those who displayed ability in more traditional academic subjects, such as science or mathematics. As noted in Chapter 2, educational practices have changed considerably over the decades, and it is now more likely that New Zealand schools offer a broader range of opportunities for their gifted and talented students.

6. Concluding summary

This overview of common themes related to studies of gifted individuals from low socioeconomic backgrounds indicates that there are common threads amongst this group. For example, it appears that elements that are significantly connected to the development of talent amongst this group of gifted exist not only with the individual but also in a range of contexts. This provides clear support for ecological approaches to giftedness and resilience.

The importance of a strong self-concept is evident, although the elements that assist in its development are not overly explicit. While some of these elements can be presumed from the analysis of these studies, there is less information about the underlying processes that might contribute to high self-concept. It appears that a complex combination of individual traits, temperament, supportive relationships, and positive environments and experiences is likely to contribute to a generally robust concept of self, however this may fluctuate over time and in various contexts.

As discussed in this chapter, there are particular personal characteristics that appear to be common to gifted individuals, and these characteristics generally seem to be relevant to high achievers from low socioeconomic backgrounds also. However, some researchers report that gifted young people from socioeconomically challenging circumstances tend to demonstrate more negative temperaments, behaviours, and traits. It is possible that these reports reflect deficit thinking about the contexts within which these studies were carried out. As pointed out in Chapter 1, studies undertaken by various New Zealand researchers (e.g., Alton-Lee, 2003; Bishop & Berryman, 2006; Thrupp, 2008) indicate clearly how entrenched and negative attitudes towards people from low socioeconomic backgrounds can be.

As well, the mismatch between low socioeconomic home environments and schools, which Thrupp (2008) contends are modeled on and set up to 'serve' the middle class, can result in conflicting values. For those from low socioeconomic backgrounds, one challenge that is occasionally reported is the move between contexts that can sometimes reflect different value and belief systems. Students from these backgrounds may appear to be 'noncompliant' and difficult when judged by middle class values. For the most part, the participants in the studies reviewed above reported generally positive school experiences, although literature related to characteristics of gifted and talented individuals indicates that this is not always the case. Davis et al. (2011), for example, point out some of the negative characteristics

of students who are gifted, including nonconformity, the tendency to question authority, and interpersonal difficulties, amongst others. Those young people in the studies reviewed earlier who did not enjoy their educational experiences still went on to achieve to high levels however, and this indicates a link between motivation and learning in general. What is also evident is the possibility of common but undervalued characteristics amongst those who live in low socioeconomic contexts. For example, being 'street wise' may be a combination of sophisticated cognitive abilities and the influences of challenging homes, neighbourhoods, or other environments.

Clear evidence exists for the importance of relationships across various contexts. In the home, caring and supportive parents appear to make a significant difference to the outcomes of their children and this again might challenge stereotypical thinking about those from impoverished backgrounds. Mothers seem to be particularly influential for talent development although, as mentioned earlier, this could be changing in more recent years with the increased involvement of fathers in their children's lives. The recognition of ability by encouraging and nurturing teachers also features strongly, as does the presence of role models or mentors. It is apparent from some studies that these various relationships provide gifted young people from low socioeconomic backgrounds with a broad range of support with which to develop their talent. For example, varying perspectives that cross social and cultural contexts appear to allow these young people to more easily navigate their way to higher achievements in contexts that might usually be unfamiliar.

Despite the sometimes challenging physical environments of low-income households, features of the home environment that are conducive to talent development also appear to exist for this population of gifted young people. Stimulating and enriched environments that encourage activity and a love for learning feature as common

aspects of the high achiever's home environment, and these aspects seem to be carried over by the gifted individual into other contexts.

One of the issues in research associated with giftedness, socioeconomic status, and resilience is the wide range of definitions used to describe these, and this may limit generalisations that can be made across contexts and populations. Another cautionary consideration is that the identification of key themes associated with talent development in different contexts and across populations can sometimes result in the generation of a 'recipe for success'. The important message here is that interactions and processes rather than lists of solitary factors should be the focus, and this has been communicated clearly in literature associated with giftedness, socioeconomic status, and resilience. It is the *interaction* of both personal and environmental features that determines the outcomes for gifted young people from low socioeconomic backgrounds, and this relationship is dynamic and constantly changing. Examining these interactions and processes through an ecological lens allows a more in depth exploration of how these might unfold across the many contexts a person operates in. This ecological approach also enables those who have high levels of ability but encounter challenges in their various contexts to share in building a picture of how these processes might evolve. The salient question for the present study is how giftedness and low socioeconomic circumstances interact in the New Zealand context, and what the implications are for these young people.

Chapter 5

Methodology

Phenomenology insists that the daffodils are indeed different for a wandering poet than they are for a hard-pressed horticulturalist.

P. Ashworth (2008, p. 12)

1. The present study

As noted in the introduction, the aim of this study was to explore the experiences and perceptions of talented young people from low socioeconomic backgrounds, in the hope that those who live or work with young people in similar situations might be better equipped to support the development of their gifts and talents. Another intention was that the research would highlight risk and protective processes that appeared to foster resilience despite potential challenges associated with financial and other associated constraints. These objectives gave rise to the following research questions:

1. What perceptions, evaluations, and attributions do the participants hold in relation to their gifts and their socioeconomic status?

2. What are the personal and environmental features present in the lives of the participants that they consider have enabled them to achieve significantly in their area/s of giftedness or talent?

3. What are the personal and environmental features present in the lives of the participants that they believe have the potential to restrict the development of their gifts and talents?
4. What is the nature of the interactions between personal and environmental features and how do these interactions impact on the development of the participants' gifts and talents?
5. How have the participants' gifts and talents functioned as protective factors, contributed to resilience, or led to vulnerability?
6. How might risk and protective factors related to the participants' personal and environmental experiences be minimalised or capitalised on in order to develop resilience?

The method and methodology used to inform these questions is described in this chapter. This section includes discussion of the qualitative approach, the relevance of the methodology to the present study, and details of how this research was undertaken.

2. Qualitative research

Qualitative research aims to explore, describe, and understand the personal and social experiences of individuals and to capture the meanings that they hold in relation to particular phenomena (Smith & Dunworth, 2003), in this case giftedness and socioeconomic circumstances. It is involved with interpreting and reporting participants' perceptions and understandings of these phenomena and representing the meanings they make of their personal and social worlds (Smith, 2003). An attempt is made by the qualitative researcher to draw insights from a small number of

participant accounts that may be transferable to similar contexts, rather than making generalisations or testing hypotheses on a larger sample (Smith & Dunworth, 2003; Yardley, 2008).

The qualitative approach has characteristics that are relevant to the present study. To begin with, it is particularly useful for the investigation of complex topics, such as giftedness and risk and resilience, where understanding interactive processes is the concern (Smith & Dunworth, 2003). As well, Yardley (2008) outlines that qualitative research is sensitive to culture and context and that there is the potential for practical implications, including an increased understanding of the phenomenon under investigation and a change in the way we think about or treat people. This aligns with the intent of this particular study to influence attitudes and practices of those who work with gifted individuals from challenging socioeconomic situations. A third characteristic of qualitative research is that the dialogue between researcher and participant allows for the co-construction of meaning (Smith & Dunworth, 2003). The voices of the young people represented in this study may bring about a deeper understanding of the lived experiences of these individuals and communities, on the part of the researcher and also the participants.

3. Interpretative phenomenological analysis

The qualitative methodology considered to be most appropriate for this study is Interpretative Phenomenological Analysis (IPA), as it provides an opportunity for understanding personal experience. The research questions for the present study emphasise a desire to explore participants' understandings of their unique experiences in relation to giftedness and socioeconomic circumstances. IPA involves the detailed investigation of lived experience and how individuals make meaning of these experiences (Eatough & Smith, 2008). The participant is seen as the "experiential expert" (Smith & Osborn, 2008, p. 57) and the researcher is attempting to gain an

'inside perspective' of the participant's lifeworld. IPA is suitable for examining processes of development and change over time (Brocki & Wearden, 2006; Smith & Dunworth, 2003) and this fits well with the aim of the present study, to capture how giftedness and socioeconomic circumstances have impacted on participants over time rather than simply providing a 'snapshot' of one period. Another intention was that this study would in part be a celebration of the participants' exceptional achievements. IPA allows participants to be heard regarding their strengths and readily translates into effective practices (Reid, Flowers, & Larkin, 2005), and this may result in the findings of the present study being translated into supportive interventions for the identification and nurturing of gifted individuals from low socioeconomic backgrounds.

There are five central characteristics of IPA; phenomenology, interpretation, idiography, cognition, and the individual case (Brocki & Wearden, 2006; Reid, et al., 2005). IPA is largely a phenomenological approach, but it also shares some of the theoretical underpinnings of symbolic interactionism (Brocki & Wearden, 2006; Denzin, 1995). Phenomenological research is concerned with clarifying situations as they are directly experienced by individuals in the contexts of their lives (Giorgi & Giorgi, 2008). Symbolic interactionism focuses on how meanings are constructed through the activities and interactions within the social and personal worlds of individuals (Henwood & Pidgeon, 2006). Put simply, individuals interpret and understand their worlds in ways that make sense to them.

The interpretative aspect of IPA is paramount throughout the entire research process. The aim is to attempt to understand content and complexity (Smith & Osborn, 2008) through the participants' individual accounts. This is reliant on how participants articulate their experiences and how the investigator analyses this information. A double hermeneutic is involved, where participants are attempting to make sense of their world, and the researcher is "trying to make sense of the participants trying to

make sense of their world” (Smith & Osborn, 2008, p. 53). The final analysis is not merely a categorisation of data, but a detailed interpretative analysis of themes that has come about through careful interviewing and investigation of the participants’ perceptions (Brocki & Wearden, 2006).

IPA is idiographic and typically deals with small sample sizes (Reid, et al., 2005; Smith & Osborn, 2008). Using larger data sets can sometimes lead to the loss of subtle inflections of meaning (Smith, 2003), and it is important that cases are analysed in such a way as to find patterns across these while still preserving the distinctive features of the individual cases. The development of theory is not necessarily a desired outcome in IPA research, but rather a rich description of the phenomenon under investigation and how it occurs within the personal and social worlds of participants is sought (Smith & Dunworth, 2003). According to these researchers, the skill of using this methodology is to provide insight into the generic themes across participants’ accounts, but also to uphold the individual voices of participants who have shared their stories.

A connection between the participants’ stories and underlying cognition is central to IPA, and there is an emphasis on the beliefs, attitudes, and thought processes associated with experiences rather than just the factors of the experience itself (Smith & Osborn, 2008). This addresses calls in the existing risk and resilience literature for researchers to move beyond the consideration of risk and protective factors, to the examination of processes that move developmental trajectories away from less favourable personal outcomes (e.g., Luthar, 2006; Masten & Powell, 2003; Rutter, 2007). Cognition is interpreted differently within the boundaries of IPA; rather than functioning separately, it is seen as an aspect that contributes to an individual’s view of the world, and what participants disclose gives insight into their cognitions and emotions (Eatough & Smith, 2008). The participant and the researcher both attempt

to make sense of these experiences rather than the participant simply providing a descriptive account.

Where IPA is distinctive as a methodology is in the importance given to the individual case (Smith, 2004). Full attention is given to an individual case before moving on to the next case or attempting to analyse across cases. Eatough and Smith (2008) outline two advantages of this approach: the first advantage is that it allows the researcher to learn much more about that particular individual and their lived experiences, which in turn gives more insight into universal or general themes; second, the focus on the individual case enables the researcher to give more attention to understanding the connections between emotions, cognitions, and behaviour, and this provides a more holistic picture of the participant's 'lifeworld' (Giorgi & Giorgi, 2003). Smith (2004) even goes so far as to suggest that future IPA studies could be undertaken with the analysis of just a single case.

Willig (2001) outlines some conceptual and practical limitations of IPA. First, the words participants use to communicate an experience construct a version of the experience rather than an 'accurate' representation. An interview transcript tells us more about the way a participant *articulates* an experience than about the experience itself. The present study is concerned with the perceptions of participants and it was considered that using a range of detailed sources of information may assist with a more complete depiction of their experiences. Another potential shortcoming associated with IPA is that some participants may be unable to articulate their experiences adequately, and this might limit the scope of this methodology. Willig also contends that access to the personal world of the participant can be complicated by the researcher's own conceptions. Smith and Dunworth (2003) concur, but state that these conceptions are also what the researcher draws on to interpret and make sense of the participants' personal worlds.

Semi-structured interviewing is the most common form of data gathering in IPA, as “real-time interaction” (Eatough & Smith, 2008, p.187) with participants allows the researcher to more easily facilitate the exploration of lived experiences. Semi-structured interviews use open-ended questions and language that participants will be familiar with to elicit more detailed responses. An advantage of using semi-structured interviews is that it allows the researcher to explore unplanned areas of interest that emerge during the conversation, and this tends to result in richer data (Smith & Osborn, 2008). This also allows the participant some control over where the interview leads, so that they ‘tell a story’ rather than simply responding to ordered questions. Eatough and Smith (2008) propose that the skill of being able to move away from the interview script to follow the participant into the unfolding of their personal experiences is “at the heart of doing IPA well” (p.189). However, Smith and Osborn also note that this may reduce the control the researcher has over the interview itself. As well, the interviews can take longer to carry out than more structured interviews and they may be more difficult to analyse.

4. Establishing parameters of giftedness and socioeconomic adversity

One of the challenges of this research was to determine what constituted ‘giftedness’ and ‘socioeconomic adversity’ in the context of the present study, and this provoked a number of considerations. First, it was essential to ascertain what categories or areas of giftedness would be most appropriate for the research. Second, criteria for determining a level or degree of achievement that would demonstrate giftedness within each area needed to be established. Finally, an operational ‘measure’ of socioeconomic disadvantage also needed to be considered.

It seemed appropriate that the areas of giftedness chosen for the research should closely reflect those adopted by schools in New Zealand as the selection of participants was largely based on the identification of their gifts and talents in

educational settings. As outlined earlier, the New Zealand Ministry of Education guidelines (Ministry of Education, 2000) suggest an inclusive and multicategorical approach to giftedness. This approach proposes that gifted students are not solely those with high academic abilities, but also include students who may have various other special abilities.

The multicategorical approach (see literature review for an overview of related studies) probably gained ready acceptance in New Zealand because of its attention to inclusive aspects of giftedness. New Zealand has increasingly developed into a multicultural society and, as highlighted earlier, concepts of giftedness vary from culture to culture. For example, Gardner's (1983) theory of multiple intelligences has the scope to encompass the unique characteristics of a multicultural society and the diverse special abilities that different cultures value. As well, Renzulli's (1998) philosophy that a 'rising-tide-lifts-all-ships' reflects his belief that principles of learning associated with gifted children are also beneficial for other children, and this is consistent with the New Zealand notion that potential performance is as legitimate as demonstrated performance. In Gagné's (2005) Differentiated Model of Giftedness and Talent (DMGT), environment is pivotal in the development of natural ability. This model delineates between gifts and talents and includes intrapersonal and environmental catalysts, such as those characteristic of different cultures and social groups, that impact on the development of talents. A multicategory approach to conceptualisations of giftedness is likely to provide more opportunities for success to a broader range of young people.

Fortuitously, a New Zealand organisation exists that identifies students who fit the two broad criteria required for this study. The *First Foundation* (<http://www.firstfoundation.org.nz>), referred to in the introduction, was founded in 1998 as a means of giving a 'hand up' to talented young New Zealanders who come

from financially disadvantaged backgrounds. Students from 44⁹ partnership schools in cities throughout New Zealand are invited to apply for the scholarships once they reach Year 12. These partnership schools range from decile 1 to 3¹⁰, and the majority of their students live in low socioeconomic communities. The *First Foundation* scholarships provide a means for financially disadvantaged students to further their education. Recipients of the scholarships are linked with partnership businesses that partly fund their tertiary studies, as well as providing part time work for the recipients over the course of their studies. In addition, students are paired with a mentor who provides additional support to the student during the scholarship period.

Young people who are selected to receive *First Foundation* scholarships have been identified as talented in a range of areas, in particular academic, sporting, creative arts (including cultural activities), and leadership, talent areas that are likely to be more readily identified in New Zealand school settings. *First Foundation's* multicategorical approach to identifying gifted individuals and their commitment to cultural considerations of giftedness fit well with the conceptual framework of giftedness outlined in the gifted and talented education guidelines (Ministry of Education, 2000) and, for this reason, it was decided to utilise these four key areas of talent as a framework for the present study.

Having established the areas of talent for this research, the levels of achievement that would determine giftedness needed to be identified. Students are encouraged to apply for *First Foundation* scholarships on the basis of their demonstrated ability and these individuals have been identified as being amongst the highest achievers in their schools. The set criterion for scholarship applicants is that they are amongst the top

⁹ There were 44 schools in partnership with *First Foundation* at the time this research was carried out.

¹⁰ A school's decile rating indicates the proportion of its students that come from low socioeconomic communities (Ministry of Education, 2008b). Schools are ranked from decile 1 to decile 10, with decile 1 schools drawing the highest proportion of students from low socioeconomic communities.

academic performers in their schools for NCEA Level 1¹¹. However, applicants are also expected to possess leadership qualities, or to be involved in creative, cultural, or sporting activities, and quite often these qualities are a key area of talent for scholarship applicants, alongside their academic ability.

Low socioeconomic status was arguably less complicated to define, as there are specific measures established by the New Zealand government which outline clear, albeit complex, boundaries for socioeconomic status (Salmond, Crampton, & Atkinson, 2007). What was more of a challenge for this study, however, was finding young people who might fit into the low socioeconomic demographic, given the sensitive nature of their personal circumstances. Sourcing participants from *First Foundation* was beneficial, as this organisation has established criteria for determining financial constraints. In their consideration of potential scholarship applicants, schools are asked to identify students who come from households where the combined income was likely to fall below approximately \$60,000 per year.

One of the limitations of sourcing participants from *First Foundation* was that the parameters of giftedness and socioeconomic status were controlled largely by this organisation's definitions of what constituted giftedness or talent, and what defined financial disadvantage. However, it was considered that the selection of potential recipients was based on measures that were consistent with Ministry of Education guidelines for the identification of gifted and talented students. In short, the presumption could be made that those young people who did receive scholarships from *First Foundation* would likely be considered to be gifted and talented amongst their cohort across New Zealand. In terms of socioeconomic status, whether or not the scholarship applicants selected by schools actually fit within the bounds of *First*

¹¹ The National Certificate of Educational Attainment (NCEA) is the main national qualification for New Zealand secondary school students. NCEA Level 1 is the first of three levels of attainment. At each level, students must achieve a certain number of credits to gain a certificate.

Foundation's criterion is fundamentally a matter of trust. The fact that scholarships are awarded to talented young people who attend low decile schools, however, means that recipients are more likely to live in lower socioeconomic households and neighbourhoods. One other shortcoming associated with the limited researcher control in this study is that selection of scholarship recipients is based on demonstrated ability, and this excludes individuals who might have the *potential* to achieve to high levels. This is by no means a simple limitation to address however, as individuals who have not demonstrated their abilities are usually more difficult to identify in the school setting.

5. Participant selection

The first phase of the study involved an introductory letter (see Appendix A) and online survey (see Appendix B) being distributed to the existing database of 181 past and present *First Foundation* scholarship recipients. As this survey was to be completed voluntarily and anonymously, there was no indication of how many recipients might respond. For the second phase of the research, 10 past or present scholarship recipients were invited to take part in an interview. The aim was to select two participants from each of the four broad talent areas (academic, leadership, creative arts, sport) and two participants who were 'all rounders' or multi-talented across three or more of the four areas. These 10 individuals would need to have completed the majority of their schooling in New Zealand in order to ensure some consistency across educational contexts, and to represent a range of cultures and a mix of genders.

The selection of interview participants was an extensive process. In a sense, their respective schools had already identified them as gifted; the nomination of these students to receive scholarships meant that it could therefore be assumed that each recipient had met *First Foundation's* criteria for giftedness and financially

disadvantaged circumstances. As mentioned previously, a profile which outlined the talents and achievements of each scholarship recipient was included on *First Foundation's* website, and it was decided that the information presented in these profiles would guide the researcher's selection process. A colour coded spreadsheet was established to categorise potential participants into the chosen talent areas.

Once the categorising of talent areas was completed, each individual was 'ranked' according to their 'degree' of talent based on what was reported in their profiles. At this point, those individuals who had been recognised for achievement or performance outside of the school setting, at national or regional levels, were ranked higher than those who had not. Academic experts in each field, particularly in the creative arts and sporting areas, were consulted to advise what might be deemed a 'higher degree' of talent. For example, some of the scholarship recipients' profiles detailed specific awards that they had won, and some of these were considered to be more representative of high achievement than others. At the completion of this process, the top 10 recipients in each of the four talent areas had been identified. It was more difficult to identify recipients who were 'all rounders' or multi-talented equally across the talent areas; while most of these young people were gifted in other pursuits as well as academia, only one young man appeared to have high abilities in all four areas, and three others had significant strengths in three of the four areas.

While this particular process of participant selection was effective in meeting the criteria outlined earlier, there were what could be seen to be potential limitations. First, the identification of individuals who met the two broad criteria for this study had essentially rested on the schools involved, along with *First Foundation* staff. Following this, my own ranking of potential participants could be viewed as a third 'level' of identification and, as mentioned earlier in this section, each level of 'filtering' is bounded by specific conceptions of giftedness and financial disadvantage. There is a possibility that, had participants for this study been sourced

by the researcher directly, a completely different group of individuals may have been identified based on my own conceptions of giftedness and financial disadvantage. A second potential limitation of this process is that some of the *First Foundation* scholarship recipients' profiles contained more information than others, and it was difficult to ascertain where some of these recipients should be ranked based on their profile information. This was particularly relevant to the older scholarship recipient profiles, and this could be seen as limiting the pool of potential participants.

After the top 10 recipients in each of the four talent areas had been identified, invitations to participate (see Appendix C), along with information sheets (see Appendix D) and participant consent forms (see Appendix E), were sent to the top two potential participants in each category of talent. In the first round of invitations, three out of the 10 individuals responded positively within the response period, a response rate of 30%. One of these participants was gifted in the area of creative arts and the other two participants had all round ability, with one of these individuals having strong talent in all four of the talent areas represented in the research. It had been decided prior to the invitations being sent out that a lack of response from any of these individuals would signal that they did not wish to be involved in the research. Therefore, individuals who did not wish or who were unable to take part did not provide reasons for their decisions.

The process was then repeated, and invitations were sent to the next ranked scholarship recipients in the remaining talent areas. After this round of invitations, the total positive responses received entailed one gifted academic, one leader, one creative artist, one sportsperson, and two all round achievers; a response rate of 60%. This meant that a further four potential participants (one academic, one leader, one creative artist, and one sportsperson) were required, and invitation letters were sent to the next ranked people in the required talent areas. At this stage it was decided to proceed with interviewing the confirmed participants so that contact with these individuals would be maintained, despite not having finalised the 10 interviewees.

The following table outlines some demographic characteristics of both survey and interview participants:

Table 4 Demographic details of research participants

Survey participants	Age group	Gender	Ethnicity	Talent area
Total = 93	Under 17yrs = 1 17-21yrs = 73 22-25yrs = 15 Over 25yrs = 4	Male = 26 Female = 67	NZ Māori = 15 NZ European = 38 Pacific Islander = 29 ¹² Other = 41 ¹³	Academic = 66 Leadership = 55 Creative Arts = 27 Sports = 23 Other = 4 ¹⁴

Interview participants (pseudonyms)	Age (at time of interview)	Gender	Ethnicity	Major talent area
Laura	22	F	European	Creative arts (visual)
Kris	20	M	Māori/European	Sport
Ben	19	M	Samoan	All rounder
Jennae	22	F	European	Creative arts (dance)
Niu	22	M	Niuean/European	Sport
Sarah	17	F	Chinese/Cambodian	Academic
Matiu	22	M	Māori/Cook Islander	Leadership
Aroha	18	F	Māori	Leadership

¹² A number of Pacific nations were represented in the survey, predominantly by Samoan, Tongan, Cook Island, Fijian, and Niuean individuals.

¹³ The discrepancy in numbers here reflects the opportunity for participants to select all ethnicities that applied to them. Other ethnicities represented amongst survey participants included Indian, Chinese, Vietnamese, Australian, and Latin American.

¹⁴ Participants were also able to nominate more than one area of talent if this was applicable. The total number of responses here indicates that most participants selected more than one talent area.

6. Data gathering

6.1. Phase 1 - The online survey

As outlined earlier, the first phase of the study consisted of an online survey (see Appendix B). The purpose of this survey was to gather a broad picture of the experiences of talented young people from low socioeconomic backgrounds in relation to their personal characteristics, their gifts and talents, their childhoods and school experiences, their families, peers, and role models, and their socioeconomic circumstances. The invitation to participate in the online survey was sent out in a *First Foundation* e-newsletter. The survey was open initially for a window of three weeks, during which time 59 individuals responded to the 22 survey questions. Following this, a reminder email was sent out to recipients and the survey was extended for two weeks, and this elicited a further eight responses.

After this time, it was decided to extend the date that the survey would close as responses were still being received. When the survey was eventually closed after approximately eight weeks, there had been 93 responses from the potential 181 scholarship recipients, a response rate of just over 50%. The first four questions in the survey focused on demographic details, and this gave a record of the approximate age, ethnicity, and gender of each respondent. It was expected that all of the participants would be aged between 17 and 27 years, however one survey respondent was only 16 years old. It may be that this participant had been accelerated at some stage of her school experience and was consequently a year younger than her peers.

6.2. Phase 2 - The interview process

In contrast to the data obtained from the survey, the purpose of the interviews was to elicit more in depth information in relation to the five categories listed above. The interviews with the selected participants were arranged by email and each participant was asked to nominate a suitable date, time, and location to meet. Apart from the participant who chose to meet at her art studio, five decided to meet with me in various locations at their respective places of study and two at local cafes. Arranging the interviews was a fairly straightforward process, and there may be several reasons for this. First, consistent with communication styles that seem to be characteristic of young people today, email (and later text messaging) contact with these participants prior to their interviews had been respectful but purposely informal, and this appeared to put these young people more at ease and increase their enthusiasm to be part of the study. Another reason may be that the participants were constantly reminded that the option to withdraw from the study at any time was available to them. As well, the researcher's flexibility with where and when the interviews took place meant that these individuals were able to make themselves more available, as there was less intrusion on their busy schedules.

The questions prepared for the interviews in this study (see Appendix F) were designed to guide conversation rather than provide a strict schedule (Smith & Osborn, 2008) and it was anticipated that additional questions might be asked during the interviews depending on the information each participant might disclose. A sample of questions from the interview schedule was given to each participant prior to their interview to allow them time for reflection beforehand.

The interviews generally lasted between one and two hours, and each of the participants gave their consent for the interviews to be audio-tape recorded. Only one interview was held with each participant as it was anticipated that these

individuals would have numerous study and work commitments, along with fulfilling requirements related to their *First Foundation* scholarship awards. However, it was expected that there may be further information that participants wished to share in hindsight. For this reason, participants were encouraged to maintain email contact with the researcher so that information could be added, clarified, adjusted, or deleted as necessary at a later date. Only one participant added to the information she had provided in her interview, although regular ‘update’ emails were received from another participant after her interview had taken place. One other participant was contacted and asked to choose a pseudonym that would reflect his Pacific Island culture, as I was unfamiliar with names that might be appropriate. No other participants made any further amendments on review of their interview transcripts.

After completing eight interviews it was evident that proceeding with the selection and interviewing of a further two participants would be unlikely to ‘add’ to the data already collected. In their review of IPA studies, Brocki and Wearden (2006) refer to this as ‘data saturation’, where no new themes are emerging through continued data collection. In this study, it was decided to limit the number of participants to the 93 online survey respondents and eight interviewees. Smith, Jarman, and Osborn (1999) caution against the idea of ‘saturation’, stating that the iterative nature of analysis could technically continue without end and it could well be the next interview that produces valuable data. However, I was confident that the data collected to this point had achieved the broad goals of the research and that the stories told by participants were rich enough to ensure sufficient and complete analysis. As IPA is typically concerned with smaller sample sizes, this also fit well with the chosen methodology (Brocki & Wearden, 2006).

6.3. Phase 3 – Additional information

At the time of interview, each participant was asked to give consent for the researcher to access his or her *First Foundation* scholarship application files. This process of triangulation (Yardley, 2008) was employed in an attempt to verify the accounts of the interview participants. While the perspectives of people may differ in qualitative studies, the use of other sources can help to enrich understanding of the phenomenon under investigation and this process helps to ensure the trustworthiness of data.

According to Ungar (2003), data are most credible when they reflect the voices of participants, and the decision to access application files was an attempt to enhance the participants' interpretations of their experiences. None of the participants expressed their concern in relation to this procedure, and time was then spent in the *First Foundation* offices gathering further information from each interview participant's file. This additional information came in the form of school records, referee reports, and specific comments made by the participants and supporters on their scholarship application forms.

7. Data analysis

Each interview undertaken for this study was transcribed by the researcher very soon after the interview took place. This was valuable, as it allowed me to reflect on not only what had been said, but also the unspoken messages. These were conveyed in the pauses, laughter, tone of voice, and also in the way participants came across; for example, whether they were nervous or relaxed, stressed or easygoing, indifferent or passionate. As mentioned earlier, none of the interviewees made any amendments to their transcripts upon review, although one added extra information for clarification.

An advantage of IPA is that there are detailed procedural guides for the analysis of data (Brocki & Wearden, 2006; Smith, 2004), which is a key advantage as it provides a systematic guide to this process. However, Smith and Osborn (2008) point out that the use of semi-structured interviewing and IPA is not prescriptive, and there is no definitive way to utilise the method. Nonetheless, there are distinctive steps outlined in the guides, and the first step is to read the transcript and make notes in the left hand margin. The notes should include anything significant or of interest, and these could be about statements the participants have made, the type of language used, body language, and any other observations the researcher has made (Smith & Osborn, 2008).

The second step entails noting down emerging themes in the right hand margin of the transcript (see Appendix G). Concise phrases that capture a higher level of abstraction are used and throughout this process the researcher should be constantly checking that the interpretation is consistent with what has actually been expressed by the participant (Smith & Osborn, 2008). Following this, connections are sought between the emergent themes, and subordinate themes may become apparent. A table of themes is constructed, and during this stage of analysis, themes which are less evident within the transcript may be discarded (see Table 5).

As noted earlier, IPA uses individual cases and then moves to multiple cases to obtain a more comprehensive picture about the phenomenon. Smith and Osborn (2003) suggest that the researcher analyses one case completely before moving on to the next. For subsequent analyses, the themes from the first case can be used as a guide or the researcher can start again, establishing new themes. For the present study, it was decided that the themes established for the first case would be used as a guide and, as each subsequent case was analysed, more emerging themes were added. Earlier transcripts were then reviewed in light of any new themes, consistent with the iterative component of IPA. A spreadsheet was established to record these, and to

later indicate emerging patterns across cases. Table 6 indicates the final themes that arose from the cases in the present study.

Table 5 **Emerging themes from the present study**

<u>Initial analysis of themes</u>	<u>Prioritising themes</u>
Interests & abilities Achievements Future aspirations	General Information
Relationships <i>(with parents, siblings, peers, teachers, role models & mentors, others)</i> Educational experiences Home environment Developmental experiences	Opportunities
Personal characteristics Culture Religion/faith Expectations of self & others Recognition of talent Views of own talent Views of socioeconomic circumstances	Identity
Desire to change circumstances Turning points Motivational factors Sourcing of opportunities Sharing of talent	Drive
Advantages of giftedness Disadvantages of giftedness	Impact of giftedness
Advantages of socioeconomic circumstances Disadvantages of socioeconomic circumstances	Impact of socioeconomic circumstances

Table 6 **Final themes**

Final themes		
Identity	Drive	Opportunities
Personal identity Culture Religion/faith Expectations of self & others Recognition of talent Views of own talent Views of socioeconomic circumstances	Desire to change personal circumstances Motivational factors Turning points	Relationships Educational experiences Home environment Developmental experiences

8. Ethical issues

In its early stages, this research project was subject to the approval of the Faculty of Education, University of Waikato Ethics Committee, and this meant that ethical issues had to be anticipated prior to the commencement of participant selection and data gathering. Three main ethical considerations were particularly relevant to this study. First, it was important to ensure that the participants took part in the research voluntarily rather than feeling coerced or obliged to be involved simply because they were connected with *First Foundation*, the organisation that provided access to these young people. The second concern was ensuring the anonymity of participants, and the third was related to the sensitivity of some of the personal information that might be shared.

The first ethical issue was addressed by inviting potential participants to take part in the study with the reassurance that their participation was completely voluntary. They were also assured that a lack of response to the initial invitation would signal that they did not wish to be involved, and that this would not invoke any further contact. Worthy of mention here also is the relationship that *First Foundation* establishes with their scholarship recipients. The *First Foundation* staff describes their relationships with the recipients as being “like a family.” During the data collection, many of the participants spoke highly of this organisation and the close bonds they had formed with *First Foundation* staff and other scholarship recipients. It appeared that their appreciation of the opportunities they had been provided through the scholarship scheme made them willing to reciprocate by supporting the organisation in any way that they could, and this meant that it was not difficult to secure the involvement of participants for this study.

What became clear as the research unfolded was that the opportunity for participants to share their stories with an interested other was a valuable experience for them. Following the interviews, one participant thanked me for inviting him to be involved and stated that it had allowed him to take the time to reflect on his life, where he had come from, and the direction he was taking. Another participant urged me to continue with the work I was doing, so that other young people facing the challenges that he had faced would be encouraged to persevere through adversity. In the months following her interview, one participant in particular sent several emails updating me on her further successes, and these incidents are perhaps testament to the relationships that were established with the participants during the interview process.

First Foundation had awarded scholarships to 181 young people from a small number of New Zealand high schools over a period of approximately 12 years at the time of research. Most of these young people have been recognised for their achievements in their schools, local communities and regions, and in some cases nationally. There are

profiles of each scholarship recipient on the *First Foundation* website and this information is publically accessible. These factors in combination increased the possibility that participants' identities could quite easily be revealed. The inclusion of their personal information on the organisation's website, however, indicated that these young people had already given their consent for some information to be shared. Consequently, when the issue of anonymity was discussed with the interview participants, most were not particularly concerned about this.

However, several measures were taken to avoid compromising the anonymity of interview participants, despite their general lack of concern. While participants may be comfortable with being identified, what they sometimes overlook is that the information they reveal has the potential to put others at risk of identification. For this reason, it was decided that pseudonyms would be used for each participant and that any names of people, places, or organisations that might make the identities of the participants or others known would be omitted from the final thesis and any other disseminations of the research findings. Participants were also invited to check their interview transcripts before data analysis commenced, and to liaise further with the researcher by way of email, so that they could adjust or omit any information they had provided in the interview if they wished to.

A third ethical consideration for this study was the sensitivity of some of the information shared by participants. As outlined earlier, IPA is concerned with exploring the lived experiences of individuals and sharing personal information can sometimes be daunting. The wellbeing of the participants was of utmost importance throughout the interview process and there were steps taken to avoid any discomfort or emotional distress. For instance, participants were able to preview questions that they may be asked before their interviews took place, which alleviated anxiety and allowed them time to reflect on aspects of their life experiences that they may or may not wish to share. The interviews were also held at locations chosen by the

participants, so that they would feel more comfortable (Smith & Osborn, 2008). As an example, one participant chose to meet at her art studio and, prior to her interview, was able to share some of her art work with me and this appeared to put her more at ease. The interviews were largely informal, and time was spent engaging in conversation prior to research related questions being asked, which meant that the participants were fairly relaxed before they were invited to share more personal stories. Smith and Osborn (2008) suggest that using this approach increases the likelihood that participants will remain responsive throughout the interviews. Participants were also reminded that the recording could be stopped at any time during the interview and that any information they shared during the course of their interviews could be amended or omitted at a later stage.

9. Concluding summary

This study involved a group of 93 gifted young people from low socioeconomic backgrounds who were identified as talented in one or more of the following areas: academic, sporting, creative arts, and leadership. These participants were sourced from *First Foundation*, a New Zealand organisation that awards scholarships to gifted young people from low socioeconomic circumstances. A qualitative approach was adopted so that the personal and social experiences of these young people could be explored, and this involved a survey and semi-structured interviews with eight specifically selected participants which focused on broad topics related to their giftedness and personal circumstances. Interpretative Phenomenological Analysis was the methodology adopted for this study, and this involves the researcher attempting to gain an ‘inside perspective’ of individuals’ lived experiences and how they make meaning of these. Ethical considerations for the study were minimal, and the issue of anonymity was perhaps of most concern. This concern was mitigated through the use of pseudonyms and the opportunity for participants to edit information they communicated as they felt necessary.

Chapter 6

Results and Discussion

This chapter reports the major findings of the study. These findings are based on the accounts of 93 survey and eight interview participants. Many aspects related to the participants' giftedness and socioeconomic circumstances became apparent from the data, however three themes are particularly strong. These are 'Identity', 'Drive', and 'Opportunities'. While these themes will be discussed individually, it should be noted that these are not discrete in participants' lives, but rather they have reciprocal influences on each other. There is considerable overlap between each theme and examples of these complex interactions are conveyed through participant responses. Extracts from survey and interview data have been included in this section to illustrate the emergent themes. Pseudonyms have been used to indicate the extracts taken from interview data. As outlined in the previous chapter, the participants who completed the survey remained anonymous, and therefore extracts from survey data have not been ascribed pseudonyms.

1. Identity

Once formed, an identity furnishes individuals with a historical sense of who they have been, a meaningful sense of who they are now, and a sense of who they might become in the future.

James Marcia

In this present study, identity is represented by the way in which the participants perceive themselves and also how they believe others perceive them in the different

contexts of their lives. Erikson (1974) broadly conceptualises identity as a sense of personal wellbeing that an individual develops through their interactions with their social environments. The participants in this study referred to identity as self-awareness (self-knowing), self-concept (self-esteem and self-worth), and self-assurance (self-confidence and self-belief) in relation to both their giftedness and their socioeconomic circumstances. Several participants talked about cultural components of identity, and religious and gender related aspects were also evident in some responses.

Through the analysis of the participants' accounts, it was apparent that a complex interaction of their experiences with giftedness and socioeconomic adversity in different contexts had contributed to their perceptions of themselves. A number of participants also expressed the reverse; that aspects of their identity had influenced how their gifts and talents had manifested, and also how they perceived and managed their personal circumstances. The following sections outline aspects of this theme related to personal identity, giftedness and identity, and socioeconomic adversity and identity.

1.1. Results

1.1.1. Personal identity

One of the first questions in the survey asked participants to indicate the culture they identified with. Of the 93 survey respondents, 15 identified as being New Zealand Māori and 38 New Zealand European. There were also 29 Pacific Island participants who responded to the survey and these included individuals of Samoan, Tongan, Cook Island Māori, Tokelauan, Niuean, Fijian, and Fijian Indian origins. Of the remaining survey participants, eight identified themselves as Asian, and this group

was predominantly Chinese. Other cultures represented by survey participants included one Australian and one Latin American. Only one participant declined to answer this question, instead responding, “Why does it matter?”

The eight who subsequently participated in the more detailed interviews also represented a range of cultures. Aroha identified as being New Zealand Māori, Laura and Jennae as New Zealand European, and Ben as Samoan. Sarah said that she was a New Zealand born Asian, with one parent being of Chinese origin and the other Cambodian. Three other interview participants indicated that they were of mixed cultural backgrounds, with Kris identifying himself as Māori/European, Niu as Niuean/European, and Matiu as Māori/Cook Islander.

Although questions about ethnicity were not specifically asked of participants in the research, it was evident in their responses that cultural aspects of identity had played a significant role in the way some participants viewed themselves and their abilities. For some participants, this was reflected in a desire to use their gifts to be a role model for others in their cultural communities, and this seemed particularly so for Māori participants. One young Māori survey participant, for example, stated that she felt it was “important to uplift the profile of Māori and this is how I think I may play a role in it, through my successes.” Of the eight interview participants, Matiu and Aroha expressed more about their cultural identities than other interviewees, both strongly articulating the desire to use their gifts to be role models for their families and for other Māori young people.

Interview participants who represented other cultures did not discuss this element of their identities as overtly as Matiu and Aroha, although Ben mentioned that being seen as a role model amongst his Samoan community was important to him also. He described his Pacific Island culture as being a “communal, collective family-like

atmosphere” and stated that it was “all about family – it’s never about you.” While ‘fitting in’ had not been an issue for Ben, he expressed that there was “a bit of tension” between traditional Pasifika cultural understandings and the New Zealand way of life. Jennae’s description of her experience as a gifted European female in a largely Pasifika populated school illustrated how this tension might influence talent development. In relation to her own high abilities, she explained that she had had to adjust to the ‘culture’ of her school environment:

I often feel like I had to downplay my own talents and abilities. That was something I think [was] not necessarily a disadvantage, but it’s just part of surviving in that culture...no one puts themselves forward. Everyone’s sort of quite shy and to get alongside those girls I kind of pretended that I wasn’t that proud of that prize I got.

In terms of the way that others perceived him, one survey respondent reflected that a challenge he felt had constrained his talent development was “Just random people looking down at me because of my ethnicity. It hurts and it actually makes you [wonder] whether you are good enough.” Another stated that “cultural ignorance or prejudice” was a challenge she had faced, particularly in the school environment. Survey participants were asked to consider any issues that they felt were important for schools or teachers to consider in relation to gifted students from financially challenging backgrounds, and one indicated that “taking into consideration our cultural backgrounds and what that means to us and our families” was important.

Sarah specified early in her interview, “I was born here so I don’t really know anything about Asia.” She explained that her mother was Cambodian and her father Chinese and said that “I live with my mum, but she kind of brought us up in a kind of Cambodian-European kind of [way].” Sarah reflected that her identity as a New Zealand born Asian female was complicated by her father’s traditional Asian attitudes. Expressing some resentment towards him, she explained that “with our

Asian tradition preferring male[s]” her father had looked upon her brother’s achievements more favourably than her own.

The personal characteristics of the participants in this study were varied, and six of the interview participants specifically described themselves as having particular traits. Laura saw herself as “stubborn and single minded”, Kris described himself as “competitive”, and Ben felt that he was a “natural leader.” Jennae and Aroha perceived themselves to be role models and encouragers, while Sarah described herself as “shy” but passionate about service to others. The survey participants also described themselves as having a range of traits, many of which made reference to being motivated and driven.

Having a strong faith or an affiliation with a particular religious group was described by 15 of the 93 survey participants as having contributed to their sense of self, because it empowered them to develop confidence in themselves and their abilities. Almost half of these 15 participants attributed their confidence to their faith or beliefs: “My faith in God I truly believe has made me who I am today; creative, confident and ready for challenges anytime.” The remainder felt that their confidence had come from being part of a church community. Of the eight interview participants, Ben and Jennae were involved as leaders in their respective church communities and both felt that this had built their confidence. Sarah’s experience attending church with her family as she grew up differed from Ben and Jennae. While some of her relationships with other members of the church community had inspired her, she expressed that she had also felt displaced in this setting, as many of these people had come from wealthier backgrounds.

1.1.2. Giftedness and identity

Most of the participants in this study were quick to point out the areas in which they felt they were talented. Of the 93 survey participants, 73 responded to a question that asked them to identify in which areas they felt they were gifted, and these participants were asked to select more than one talent area if they felt it appropriate.

Approximately 90% of those who answered this question indicated that they would describe themselves as academically able, which is perhaps not surprising given that this was a criterion for receiving their *First Foundation* scholarships. The next most commonly cited talent area was leadership, with just over 75% of survey respondents identifying themselves as gifted in this area. Creative and sporting abilities were not as prominent, with 37% of participants revealing that they had creative abilities and just over 31% indicating that sport was an area of strength.

As well as having all been identified as academically gifted at school, six of the eight interview participants had held leadership positions, and these included head boy or girl and prefect roles. Along with their academic capabilities, Ben, Matiu, and Aroha reported that leadership was the area of giftedness they most identified with. For Matiu and Aroha, these leadership abilities had not only been realised in their roles as head boy and head girl, but also as leaders of their kapa haka groups. Since leaving school, Ben had also secured a leadership role at university and a position on a government advisory committee. Laura (a visual artist) and Jennae (predominantly a dancer and choreographer, but also musically inclined) identified themselves as creatively gifted. Kris and Niu described their main talents as being their athletic abilities, and both had reached regional and national representative levels in their respective sporting pursuits. While the interview participants identified most with these areas of talent, some were gifted in other areas as well. Ben presented as perhaps the most diversely talented interviewee and, alongside his academic and leadership abilities, he had also achieved to a high level in both music and sport. Aroha had experienced successes in drama and public speaking, and both her and

Matiu's involvement in their kapa haka groups had also enabled them to develop their creative abilities.

Despite having been formally recognised for their abilities by others, seven of the survey participants in this study mentioned that they did not perceive themselves as being gifted and talented. When asked what they felt was the best thing about being gifted, these participants made comments such as: "I wouldn't call it a gift or talent. I feel like you get out what you put in. I work really hard to be the best I can be." This was also expressed by Sarah, the youngest of the interviewees, who attributed her achievements to hard work rather than natural abilities, and appeared to be the least confident in articulating what she felt she was good at. Referring to academic ability, she stated: "I don't consider myself academically talented. I think I'm just – hard working, that's how I look at it. I think that's my talent!" Matiu joined Sarah in downplaying his abilities stating, "I was never really a master of anything." Three survey participants also expressed that they felt that everyone had gifts and talents.

The single most common aspect reported by both survey and interview participants to have the greatest impact on their identities were the expectations that came with being recognised as highly able. In response to a survey question that asked them to indicate what the worst thing was about being gifted and talented, approximately 75% of the 67 respondents referred to the fear of failure or self doubt that came as a result of the pressure to perform. Participants reported that these high expectations came from themselves as well as from others. One male survey participant stated, "I am my biggest critic and tend to beat myself up a lot when something doesn't go right." In his interview, Kris also described having high expectations for himself: "[I] expect a lot from myself and I'm pretty harsh on myself. If I don't achieve what I want to achieve sometimes I get really – not down, but I get sort of angry." Jennae described herself as being "a perfectionist" and outlined that this had made her "critical of self."

She explained that, at times over the course of her life, the high expectations she had for herself had placed her “on the edge, if not just over the edge of burnout.”

The perceived expectations of other people were also reflected in survey participant responses, through statements such as: “You feel like a failure if you don’t achieve what others expect you to, or if you don’t do as well as what you hope. You feel like you are letting people down.” Other comments revealed some of the personal impacts of these expectations:

The expectation is the worst thing by far. People think that you’re perfect all the time and therefore when you do make a mistake, they fall on top of you like a ton of bricks. If people are watching your every move it becomes distracting because it feels as if they are waiting for you to slip up and fail. People expect you to be on the ball all of the time.

Everyone has such high expectations of you. It can put quite a lot of pressure on you. I have never failed anything in my life and would like to get it out of the way, because now I am afraid that when I finally do fail something I will find it hard to deal with.

Niu talked about pursuing a sport at which his father had also achieved to a high level and how “there was a bit of pressure to live up to [his] reputation” and “there was always someone who would compare us.” Sarah’s experience at high school was that her teachers expected her “to get first in every school subject.” Reflecting on her inability to meet these expectations sometimes, she shared that “When they see your results, it makes you feel really bad. I used to beat myself over the head but now I think of it as - I deserve what I get.”

One consequence of Matiu's giftedness had been a fear of failure, which stemmed from other people's expectations of him and his identity as a Māori male. He described how his teachers had been encouraging and that, in many ways, their high expectations had been a support for him. However, referring to the reported rates of underachievement associated with Māori students in New Zealand schools, he stated, "What's hard is that when you fail it seems like you fail on behalf of everyone that you represent." He went on to point out that "You can't stuff up because you know if you stuff up then you'll just be like another statistic."

In her interview, Laura described how the expectations of others had impacted significantly on her identity as a creative artist. Going against many of her teachers' advice, Laura chose to follow her passion for visual arts rather than a more 'traditional' pathway developing her academic strengths in science and mathematics. Laura described her initial reaction to the expectations of her teachers: "I didn't want to disappoint people, I didn't want to let people down. I felt like maybe I was smart so I owed them. I owed them to be better than just being a selfish artist." Laura stated that "I gave in for awhile" but she eventually made the choice to focus on developing her artistic abilities. Describing herself as "stubborn", she said "they never thought I should do art, and so I kind of did it maybe to prove them wrong in a way."

In her final year at school, Laura explained that she had the highest grade point average, with all of her papers being arts subjects. In the final assembly, however, an award was given to a male peer who had the second highest grade point average but who was pursuing 'more important' or 'valued' subjects, such as physics and maths. Laura described how disappointed she had been:

I took all my arts subjects and that was kind of like 'Look I've proved you wrong – I can do well in whatever I choose to do.' And then that wasn't even acknowledged. But then, you have a little cry about it, and you get over it and

pick yourself up and realise that [the teachers] didn't matter anyway. Because I did what I wanted to do and I did well at it.

Laura believes that her decision to pursue her artistic interests rather than follow the expectations of others paid off as she has gone on to complete a fine arts degree and has recently received a national award for her work.

This episode in Laura's life had a significant impact, but she described how her self-assurance and her definite ideas about what she wanted out of life had kept her focused when these conflicted with her teachers' ideas of success:

What they defined as success was kind of different to what I did. And the things that I valued about what I wanted out of life didn't equate to money or to me being a successful businesswoman, which I could easily do. I could do accounting, I could do medicine, I could do whatever I wanted, and I know that. But that's what *they* thought was best.

When she was asked what message she might have for other gifted young people growing up with the same financial challenges, Laura stated:

For me, the biggest lesson I learnt was just listening to myself, and not disregarding what other people say but knowing that what you think is valid too. And trust your gut. You know what's right. You know what's right for you and if it doesn't feel right then it's not.

Most participants felt that other people held positive views about their gifts and talents, however three survey participants mentioned that other people's stereotypical ideas about giftedness had sometimes influenced the way they felt about themselves. One young woman commented that the worst thing about being gifted was, "The stereotype that gifted kids are all rich, snobby kids who don't care about others, simply about themselves." In her interview, Laura reflected that her giftedness had

caused others to view her sometimes as “unapproachable or lofty”, but stressed that this was not true:

I came across as a snob, but I don't think that I am, but I can see how it can be perceived like that. It's not that I don't engage, it's just that I'm not that patient with people in the first instance which doesn't help and I'm quite single minded and quite hard working so I don't have – not that I don't have time for that, but...my mind's busy and I just don't notice, and then I come across as snobbish.

Almost a quarter of survey participants stated that “people putting you down and not being supportive” and the “negativity of others” had impacted on their self-esteem. One male participant mentioned that “tall poppy syndrome” had made him “quiet and hesitant to put my hand up in class or out do the other students.” Another survey participant said that her talents impacted on her relationships with her parents: “One of my parents is proud of me and the other criticises what I don't do well and never recognises what I do well, almost like they are in competition with me.” While Ben's experience was that his peers would often “commend” him for his achievements, there were times when:

They say it in such a tone like, you know, ‘Congratulations, you're doing so well’ but – it's sort of like a resentful ‘If only we could do the same’ and you know, it sort of cuts you up to hear that sort of thing.

Other participants felt that some people had been “jealous” of their high achievements, and almost a third of survey participants indicated that being gifted had impacted negatively on their relationships with siblings in particular. One survey respondent reflected, “All my life my brother has been jealous of me because I would always get the attention.” This was also the case for two of the interviewees in particular. Jennae believed that she had positive relationships with her siblings but

described how she would “downplay” her successes so as not to “take the spotlight.” About her sister, she stated that she was “acutely aware” that there were “times where I feel it as opposed to her saying that she might be jealous of me.”

Aroha also felt that her achievements had created some tension between her and her sister:

Everything changed...there was a bit of jealousy there...she was living in my shadow for a while. Then I got really angry at the teachers because they kept saying things to her that would upset her. ‘Oh, you’re Aroha’s sister, why are you...’...you know, things like that. You just don’t do that to people, doesn’t matter who they are. You don’t make them live in the shadow of somebody else.

Aroha explained that she had tried not to draw so much attention to herself with her achievements: “I do try and just hide away sometimes, you know, get out of the spotlight if I can.” She went on to say “She’s my baby sister so I have to be mindful of how she’s feeling. There are times there when I just want her to get over it, but then there’s times where I’m just like ‘No, this is how it’s going to be.’”

Six survey participants specifically mentioned that they felt that their areas of talent had been undervalued and all of these participants were creatively gifted. One claimed, “My school didn’t support students who wanted to play classical instruments.” Another made the comment that “At high school, the peak of my academic performance was in the arts field and was therefore not recognised by the school, despite my high marks.” A young male participant vented his frustration: “The education system in New Zealand is a challenge, especially within the creative arts. They lop everyone together and utterly stifle creativity.”

Laura felt that her artistic talent was regarded as less important than academic abilities, saying that “People still see it as second rate, and I can appreciate why and I can accept that but sometimes it’s still difficult. And sometimes I want them to care more but they don’t...you’re still second rate.” She described how her teachers would “make jokes” about her doing art rather than other more academic subjects. What had kept her focused on developing her artistic talent was the fact that “Some of them [teachers] had an understanding. And enough of them had an understanding that I didn’t listen to the ones that didn’t.”

Jenna and Ben had broader views about undervalued talent. Jenna described the difficulties related to achieving recognition in the New Zealand dance scene because of limited funding. Ben had a more general view of how and why talent was or was not valued:

Sometimes if the political or the dominant environment or stratosphere at the time isn’t really looking for the talents that you’ve got it’s kinda like, well, that cycle’s gone. Then you’re left sort of scrambling. It’s like ‘Oh, I’ve gotta remake myself to fit the environment, to adjust to the environment.’

Sarah said that she felt her father did not particularly value her academic giftedness. She explained that her parents had divorced when she was young and that, although both she and her brother were academically gifted, her father “always asks about [brother]” who is strong in both science and mathematics. Sarah stated that she had stopped telling her father about her achievements. She went on to reveal that she resented the fact that her father was “favouring” her brother by sending him “computers and all [this] technology stuff.” He was also “investing” in her brother by providing the finances for him to attend a private school for his last years of high school, while Sarah was to remain in her low decile high school.

Survey participants were asked to describe what the best thing was about being gifted and talented. Of the 70 young people who responded to this question, almost half referred to aspects of personal identity, using terms such as self-confidence, self-belief, self-worth, and a sense of fulfillment. As well as giftedness influencing their sense of identity, many of these respondents indicated that this had also worked in a reciprocal way; that their sense of identity and strong self-awareness had impacted on the way their talents had developed. In response to a survey question that asked participants to identify what they felt had helped them to develop their gifts and talents, 84% cited high expectations for and confidence in themselves as being key aspects.

Two of the interview participants reported that the confidence that came with their high achievements had given them more confidence in other areas. Kris described how his high academic and sporting talents made him more confident all round:

You get to do things other people probably wouldn't be able to and it gives you more confidence. Even if you're good in one area, I feel more confident even if I know I'm not very good at another area, that I could do it if I put my mind to it.

Similarly, Ben pointed out that an advantage of having high abilities is that "You're able to excel purely because you *do* have those talents and those gifts."

Other comments about the positive impacts of giftedness on their sense of wellbeing were made by both survey and interview participants. One young man said that "Having something that I'm passionate about and good at gives me pride and a sense of self-worth." Another survey respondent said: "Knowing there is something that you can do well makes you feel useful. You have value whether you are gifted or not but being useful is a satisfying feeling." One individual summed up the personal sense of fulfillment that came with giftedness:

The best thing about being gifted and talented is that you become a whole new person once you know what your field is. It's a big 'eye-opener' to you and your world. You realise that you have something unique that you can give to others. It's something that no one can take from you because it's embedded in you forever. It's awesome!

In his interview, Matiu elaborated on the personal significance of his successes, describing how these had strengthened his self-belief. Reflecting on how he had felt after experiencing success at school, he stated that at the time he had thought, "If I can do this now, imagine what I *can* do." Matiu made reference to a national award he had recently won and attributed this achievement to an accumulation of smaller successes that had boosted his confidence.

Many of the participants knew at a relatively young age that they had specific abilities. In the survey, participants were asked to identify when they had realised themselves that they were gifted, and almost a third of the 71 respondents to this particular question said that this had been sometime during their primary school years. The second most commonly cited period of self-recognition was during secondary school, according to approximately a quarter of these respondents. Only five survey participants revealed that they had known they had specific abilities prior to starting school, and one individual said she had known she had artistic ability when she was younger, but did not realise her academic ability until she reached secondary school.

Two of the interview participants in this study elaborated on how they had felt particularly self-aware when they were younger. Laura mentioned that she had "always felt like I was older than I was" and that she had had a keen sense of her own capabilities as a child:

I didn't know how to deal with adults who would think I was only a kid. And there's always that age tension because I know what I'm capable of and I'm not scared to say 'I can't do that' but I know what I *can* do and people aren't willing to give you a chance to do it because of how old you are. And I always wanted to be older when I was young, because of that.

Aroha described how, at the age of five, she had told her Nan that she wanted to be a lawyer and, at the time of her interview, this was the career she was pursuing.

Three interviewees could not recall when they had consciously realised that they were gifted, and these participants instead saw themselves as simply having "natural talent." Of her art, Laura said: "I just remember always doing it. I've been trying to think about when I actually decided it's what I wanted to do and I can't even remember. Like, it just always seemed natural." In relation to her dancing abilities, Jennae stated:

I just kind of got in there and did well. I think when I had a natural tendency to do well at that, that was a good realisation. I would say on the whole though, it's been more that intrinsic...it just *is*.

Ben explained that what he did was "just natural talent." He stated that, "You know when you're not feeling comfortable because what you're doing is not really your forte or your area." Ben reflected, "At an early age I loved debating and that sort of thing so I knew that I was, you know, naturally headed towards politics [or] public speaking." Of his leadership abilities, he said "Let's be candid, I was never a follower" and went on to describe how he had noticed at quite a young age that his peers would naturally look to him for direction at school.

Ben also recounted how his leadership abilities were recognised and validated by a teacher early in Year 9: "I had a teacher, and I'll never forget this – it was about the second week of school and she came up and shook my hand and said, 'You're gonna

be head boy when you're in seventh form.'" When asked if he felt that this particular incident and other times that he had been recognised for his abilities had spurred him on, Ben replied:

Oh *definitely!* I mean, sometimes people say 'Well it just feeds your ego.' Well actually, let's take students of my fibre. Because you're financially disadvantaged and, you know, you've been through struggles and that sort of thing, when people commend you, when people recognise that you've done something good and positive and amazing, or when people acknowledge it actually was hard work to do that, and when they say 'Well done' - it's a welcome breath of fresh air.

Being recognised for their abilities and achievements was also conveyed by other participants as being crucial to their self-confidence, talent development, and sense of identity. One survey participant described how the recognition of her talent by others had resulted in her realising her own abilities:

Getting awards and recognition for things has been the most influential in my development. The cumulative effect of having awards for my creative and visual skills made me finally realise that I was better at this aspect of what I was doing over all the others. This made me focus and develop this further.

For Ben, recognition from others was personal confirmation that he was doing well:

It's not so much you want kudos and [to] be put on a pedestal, but that recognition, being told what you're doing is right, it's sort of 'Okay, yeah, you're on track boy, you're doing the right thing' - direction and guidance, you know.

In relation to young people who were financially deprived, Ben believed that recognition and acknowledgement of their abilities made the specific associated challenges seem smaller. He stated that "if you're not acknowledged and encouraged

then that financial deprivation becomes just more of a ginormous mountain than it needs to be.”

The recognition of her talents and abilities by others was also important to Jennae, who stated in her interview that “Secretly you hope that people will notice you and the efforts that you put in.” Sarah shared these sentiments: “I guess everyone wants to be recognised in some way. It’s a human kind of thing.” She described herself as having been “shy” and “really quiet” as a child and considered that, because of this, her teachers had not really noticed her academic abilities. This had coloured her own view of her abilities and she explained that she had not really recognised her own talent until she received a dux award in her early high school years. Sarah said that being recognised was important for her personally because it empowered her to “inspire” others.

Kris expressed disappointment at not being appointed head boy in his final year of high school, describing how he had “put a lot of effort into the four years before just to get that.” He stated, “I like to be recognised. I think people should be recognised when they achieve something. And when it doesn’t happen I sort of feel people are being sold short on what they’re doing.” Instead of head boy or deputy head boy, Kris had been appointed as sports captain in his final year of school, which he described as being “effectively third.”

While participants largely saw the recognition of their gifts and talents as positive, almost a third of survey participants pointed out that their giftedness had also resulted in low self-esteem, self-doubt, and feelings of isolation: “Sometimes when surrounded by gifted and talented people I question how gifted and talented I really am.” Some of these survey respondents talked about how being gifted had simply made them feel different from others: “I find it difficult to connect with people

sometimes because my mind works differently.” Giftedness for one young man had made him feel like “a bit of an outcast”, and another described how he had lost friends as a result of peers at high school who he reported used to “mock my intelligence.”

In their interviews, Sarah and Jennae talked about how they had struggled with self-doubt and low self-esteem at various times as a result of their giftedness. Sarah stated that she had “always doubted” that she was academically talented. She explained that “I don’t have competition at this school” and felt that the reason she was perceived to be academically bright was simply because she was compared to other students who “don’t try hard enough.” Jennae referred to a specific performance she had choreographed recently as “kind of affirming my ability as a choreographer because you doubt it a lot of the time. Almost every day you have wonders, ‘Can I actually do it?’”

1.1.3. Socioeconomic adversity and identity

Socioeconomic adversity and some of the associated challenges clearly had a significant impact on the participants in this study. Almost 70% of respondents to a survey question that asked participants to identify any challenges that had impacted on their talent development identified financial difficulties as having been the most limiting factor. In addition, all of the eight interview participants indicated that they had experienced further limitations as a result of their financial circumstances. The following statement encapsulates what many of the survey participants said about some of the challenges they had experienced:

Having financial constraints is often the cause or part of a whole raft of other issues to do with home life. These issues have been my biggest challenge and

something that, no matter how successful or talented, I needed support in.
And if there had been no support I would likely be dead or in a psych ward.

Less than a third of survey participants and only four interview participants claimed that socioeconomic adversity and associated challenges had significantly impacted on their sense of identity. Instead, participants indicated that financial difficulties had impacted more on access to physical resources and opportunities. Almost three quarters of survey participants outlined that the main constraints of socioeconomic adversity had included inadequate schools, limited resources, and limited access to extracurricular activities. All of the interview participants also described various ways in which their socioeconomic circumstances had limited their access to resources and opportunities.

The small number of young people who *did* acknowledge that their personal circumstances had impacted on their sense of identity cited stress, humiliation, frustration, and a sense of feeling “less than” more affluent peers as being the main impacts. They indicated that these impacts tended to lead to low self-esteem, lack of confidence, and a sense of worthlessness, which in turn, influenced their talent development. As one survey participant pointed out, “Family struggles had a significant impact on my self-esteem so I didn’t want to be noticed. This was a huge impact as I felt I wasn’t important or talented.” Another commented:

Not having the resources or feeling as if you are less than other people because of how much your parents earn can sometimes be degrading and can affect the way you look at your talents. For example, asking yourself whether this is worth developing or am I to end up in the same situation as my parents?

Some comments from these survey participants outlined how the pressure and stresses related to their personal circumstances had affected them personally. One young woman commented that the most limiting factor for her had been:

The constant pressure of knowing that your family is struggling financially. Feeling stressed and embarrassed at the fact that you can't afford this or that. The guilty feeling you have to experience if you have failed to do something knowing that it would've been able to help change the situation within the family.

In her interview, Jennae also talked about how she had been embarrassed to have to front up to school on occasions with notes saying that her parents could not afford to pay for something. Although the school had been supportive and flexible, Jennae described this as having been difficult and humiliating for her.

The perception that “peers had better resources” had led to “envy and a lack of confidence” for one survey participant, and Jennae felt similar in relation to dance opportunities as she was growing up. She stated that “Deep inside I would have loved to kind of milk the experience, take everything, you know, do all of those classes and [I] perhaps got a bit jealous of the other people who were able to do all those things.” The sense of worthlessness that came with being unable to pursue interests or talent areas was captured in a statement from one young person:

When you know you're good at something and you love to do it, there is nothing more frustrating than having to do something else, due to circumstances, whatever they may be. The sense of frustration and pointlessness to life when it is like this can be overwhelming.

Laura explained that she had felt “undeserving” when her parents gave her resources to help her develop her artistic talents:

I felt like my parents offered me things that they couldn't afford and then I'd feel guilty for that because I was acutely aware that they were doing it and I think they didn't realise how aware I was.

These feelings of guilt extended to her experiences at the gifted and talented programme she had been part of during primary school:

That was really expensive and I knew it was really expensive, and then I'd feel *so* guilty for taking that, especially when I had, you know, three younger brothers and sisters and they didn't have that - not because of me taking it away from them, but I felt like I was. I felt like I was taking something away from other people and, not that I didn't deserve it, but that other people deserved it more. And that I couldn't reconcile myself with the fact that by me having this, somebody else isn't.

Laura elaborated on her time at the gifted and talented school, describing how she had felt out of place there, partly because of her low socioeconomic status. She stated that:

A lot of the other kids who were there were from a different place that I wasn't used to. And I went to [primary school] which is – I mean, it's not a really low decile school, but it's like three and very mixed and very multicultural. And then all the kids that went to the [gifted school] were from Epsom and Remuera and Mount Eden, and I found I couldn't relate to them. I just felt less than them.

Other participants described having feelings of not belonging because of their perceived social standing. One survey respondent indicated that “[I] used to find it hard talking to people that I considered were from a higher ‘class’ than me and my family.” In her interview, Sarah mentioned that she had felt like she “did not belong anywhere” because “I had friends that had like, multimillion dollar houses and

businesses and stuff, and then I had mum who couldn't really afford to like, send me to camps and stuff.”

Approximately a quarter of survey participants felt that perceived stereotypical attitudes because of their socioeconomic status had influenced how they felt about themselves and their gifts and talents. One survey respondent commented, “Going to a low decile school, it was often hard for people to see my potential as I was often labeled by the decile as opposed to who I am as a person.” Another said that her talent development had been limited by “Living in a lower class area and [going to] a decile one school and having a negative stereotype so people from some schools judged me because of where I was from, not what I could do.”

Ben commented in his interview that he had found the way other people had viewed him interesting. “People think, ‘Oh well, he’s gifted and talented and he’s smart – of course it’s all good in the ‘hood’.” He went on to say that:

People shrug it off as, you know, ‘Don’t be silly – these kids are smart’, you know. ‘They’re talented, they’re supportive, they’re always at this, that and the other.’ And people seem to downplay the notion or the potential fact that they could be disadvantaged purely because they’re talented and gifted.

Ben did not see this as a disadvantage, but that it was merely other people’s perceptions.

Aspects of identity were also emphasised when survey participants were asked to describe any issues they felt were important for schools and educators to consider in relation to gifted students from financially challenging backgrounds. Of the 55 respondents, 21 reflected the desire to be looked upon as individuals rather than judged by their circumstances. One survey participant said that teachers should

remember “That we are not all equal, and that your background does not determine your mind.” Another believed that teachers should “Develop students to reach their potential regardless of background”, and a third participant stressed that teachers should “Believe in them. Don’t push them aside because they don’t have the funding to back themselves all the way. Their financial background has nothing to do with their abilities.”

Other responses to this particular question outlined that teachers and schools should consider some of the stresses related to these students’ socioeconomic circumstances and the personal humiliation that may be felt:

Don’t expect us to handle everything. Nothing is free unfortunately and just because your parents lived comfortably, doesn’t mean mine did. It’s ridiculous to expect us to try and explain to our parents that we need another \$20 for a trip or book. It is also stupid to expect a child from a financially struggling family to be confident. We get ashamed that we don’t have the funds to always keep up with the trends set up by others.

Treat them like another person of equal value to you and they will rise to it. If you subjugate them they will resent you and therefore what you are teaching them. You have no idea what is going on behind closed doors. The load they are carrying is likely to be far beyond what you think it is no matter how together they and their family appear to be.

In contrast to the third of survey participants who elaborated on the negative personal impacts of socioeconomic adversity, 75% of those who responded to the survey indicated that their adverse socioeconomic circumstances had impacted positively on their sense of identity. Half of these respondents referred to an elevated drive and determination and, because of its obvious significance, this will be discussed later on in this chapter as a separate theme. Other intrinsic benefits of financial adversity

were also mentioned in relation to the participants' sense of identity. As one young woman stated, financially difficult circumstances had made her "realise that you should focus on the journey and not the destination, because it's the journey that determines the type of person you will become."

Developing a strong work ethic and an appreciation for things that other young people perhaps did not place as much value on were cited as significant personal benefits of financial constraints by both survey and interview participants. One survey participant described how financial constraints had heightened her self-awareness:

[Financial constraints] made me appreciate things more and place more value on simple things, taught me the value of hard work, [and] taught me that it is never a reason for failure, because success does not stem from money but from other values, all of which do not have a dollar value.

Out of 63 respondents to this survey question, approximately 75% shared these sentiments, pointing out that socioeconomic adversity "makes you a stronger person as you have to fight for what you want" and that financial constraints "have not allowed me to get pig headed or become arrogant or lazy. I have had to work extra hard to achieve what I have." Others talked about how financial constraints had made them "realise the value of a well earned dollar" and given them the sense of contributing to their own successes without having "everything handed to me on a silver platter."

Laura referred to her work ethic several times throughout her interview, and believed that the physical limitations of her financial circumstances were offset by her strong work ethic: "I never felt like there was something that I really wanted to do that I couldn't 'cause if I really wanted it I'd work for it." Kris said that "me and my brothers, we've always been...really hard on ourselves to do the work properly and

actually put in the extra efforts that other people maybe wouldn't have and so far – that's why I've got the results that I've got.” Relating his strong work ethic and achievements to his sense of self, Kris considered that his talents were “just the result of the effort that I put in, so they're just part of who I am. And if I was to slack off now and go down a different path, I wouldn't be really who I am as a person.”

Almost a fifth of survey participants described having had to “think beyond the square” and find more creative ways to achieve as a result of their adverse personal circumstances. One individual reported “having to use the ‘number 8 wire’ mentality¹⁵ to find creative solutions to challenges.” Others said that their financially difficult circumstances had resulted in them “[being] creative with how you can address the financial constraints.” Two survey participants elaborated on this:

Financial constraints have made me realistic and determined. I can find my own way in life, and don't have to rely on rich parents. I think that some people who are brought up in a rich background do not develop specific personality traits needed to survive in the world because they rely on their upbringing to support them.

It [financial constraints] has served as a way for me to achieve things then look back upon them and realise that I have done them without huge amounts of money backing me. It is far more satisfying and makes me feel like money is not the ‘be all and end all’, and if you want to do it, you can.

¹⁵ The ‘number 8 wire’ mentality, also known as ‘Kiwi ingenuity’, is a term that epitomises creativity, resourcefulness or self-sufficiency. New Zealanders are generally considered to be adaptable, and this term is sometimes used to describe someone who can turn his or her hand to anything. Number 8 wire is a certain gauge of wire that has been used extensively on New Zealand farms for making and strengthening fences, as well as a variety of other tasks.

Jennae and Kris aptly summed up in their interviews what other participants referred to; that while socioeconomic adversity presented definite challenges, many of the physical limitations were short lived. When asked what message she might have for other talented young people from financially disadvantaged backgrounds, Jennae stressed that circumstances could change:

I think I would encourage them to set their sights high, to look beyond the boundaries of their circumstances, which can sometimes feel very constricting, very narrow, and to strive for something that's out of that sphere. And I'd just encourage them that you know, the hard slog of every day does count in the long run, that it will pay off and that things are not forever - that they can change.

Reflecting on his own experience growing up in a low socioeconomic household, Kris stated that “at the time, [physical limitations] seem like a big disadvantage but now it doesn't really seem to faze me anymore because you don't need that stuff at the end of the day.”

1.2. Discussion

While ideas about identity have progressed over the years, the initial belief that identity is developed as individuals interact with and within their social environments has remained (Erikson, 1968; Haney, 2007; Reay, 2010). Wetherell (2009) states that people do not establish their identities alone, but that they are developed with and for others. Taylor (2002) contends that the only source of information upon which one can base their identity is other people. The gifted and talented literature also acknowledges the development of the ‘gifted self’ in relation to and with others. According to Greenspon (1998), the development of self is dependent on how acceptable the gifted individual perceives him or herself to be in the eyes of significant others. Gross (1998) believes that the opportunity for gifted young people to socialise and interact with others of similar abilities assists with the development

of self-identity. For Neihart (1998), a strong sense of identity is achieved when high abilities are recognised and valued by others.

Identity was the single most dominant feature in all of the stories told by the young people in this study, and it could well be that this is reflective of the time in these participants' lives. For Erikson (1950, 1968), the adolescent years are associated with an increased effort to understand the self and explore identity. The fifth stage of his theory, *identity versus identity confusion*, occurs during this period and is a time of grappling with conflicting identities and exploring new roles. While not all of Erikson's proposed stages are considered by other researchers to be valid, his ideas about identity in adolescence have been more readily accepted (Clark, 2010).

Erikson maintains that those who successfully cope with the identity versus identity confusion crisis emerge with a new sense of self. Building on this theory, Marcia (1966) presented four different ways of resolving Erikson's 'crisis' (achievement, moratorium, foreclosure, and diffusion), representing the ways in which a person explores goals, values, and beliefs, and then commits to these. For the young people in this study, there is little doubt that this time of exploration and commitment was significantly influenced by how they situated themselves in terms of their high abilities and also their personal circumstances.

Emerging adulthood (Arnett, 2000) is becoming more accepted as a distinct period of life that refers to the transitional period between the late teens to the mid-twenties, an age group into which the majority of the young people in the present study fall. This term is used to reflect the increasingly delayed transition from youth to adulthood, which can be a time of challenge and uncertainty. In terms of identity, young people in this phase of life are believed to broaden their attitudes and values, develop a more complex self-concept, and evaluate some of the commitments they made during adolescence. However, critics of the emerging adulthood movement contend that this period reflects western notions of development rather than being a global experience

(e.g., Côté & Bynner, 2008). This critique could be relevant in some ways to the participants in the present study, in that identity formation across adolescence and emerging adulthood might differ according to aspects such as culture, gender and socioeconomic status.

The complex processes of identity development occurring during adolescence and emerging adulthood probably explain why this emerged as a significant theme in the present study, and there are two pivotal points around which the participants discuss their identity. The first relates to the reciprocal interaction between self-identity, and giftedness and/or socioeconomic status. In each of their accounts, these young people indicated that their giftedness and personal circumstances certainly impacted on their sense of identity; however, their sense of self also influenced how they managed both their giftedness and their personal circumstances. The second point concerns how these young people view themselves, and their perceptions of how others evaluate them in the contexts of their high abilities and low socioeconomic status.

One of the more significant and surprising findings of the present study was that the limitations associated with having a gift or talent appeared to impact more on the participants' sense of identity than the constraints of socioeconomic adversity, and this stands in stark contrast with much of the research undertaken in the area of risk and resilience. As outlined in Chapter 3, the resilience literature largely reports that giftedness works as more of a protective factor and that poverty generally puts people more at risk of negative outcomes. One explanation for this could relate to the participants in this study having recently been awarded scholarships for their high achievements. It is likely that participants viewed their personal circumstances in a more positive light, in that there had been some benefit for them.

The finding from this study, that giftedness might act as more of a risk factor for individuals than adverse socioeconomic circumstances, does not necessarily contradict ideas presented in risk and resilience literature, but rather adds to these. Luthar's (1991) research is one of few studies that found high intelligence to be working as a risk factor for her participants, and this was particularly evident during times of stress. In the present study, stressors related to their high abilities, in particular the weight of expectations and the fear of failure, were reported by the large majority of these gifted young people to have had the biggest impact on their self-concepts. This finding is consistent with the ideas of Pfeiffer and Stocking (2000), who assert that unrealistic expectations of parents, teachers, and significant others is a risk factor common to gifted young people. While it would be tenuous to claim from the finding in the present study that giftedness acts as a risk factor for all high achieving individuals, the notion that particular elements of their giftedness might exacerbate risk amongst particular groups would be worthy of further exploration.

There are mixed reports in gifted and talented research about the ways in which high abilities influence the identities of eminent individuals. The studies reviewed in Chapter 3 indicate that giftedness can have both positive and negative impacts on self-identity. For example, despite there being evidence of some social difficulties amongst those with higher IQs in Hollingworth's (1942) study, there was a strong connection between high intelligence and desirable character traits. While many studies of gifted individuals indicate that high self-esteem, positive self-concept, and a strong belief in self might be characteristic of those who achieve to high levels, there is also indication of the opposite. Amongst the 'eight great gripes' of gifted children in Galbraith's (1985) research, for example, was reference to the unrealistic expectations of others, feelings of being 'different', and social isolation. Other negative impacts on self-concept for gifted individuals include uneven development (Morelock, 1992), unhealthy perfectionism (Davis et al., 2011), and intense sensitivity (Piechowski, 2003).

The fact that the young people in the present study also gave mixed accounts of the ways in which giftedness impacted on their sense of self emphasises the necessity for caution when generalising about how giftedness influences identity. While these participants generally reported that their giftedness had more negative impacts on their self-identities than their personal circumstances, some of the same individuals reported that their high abilities also had a positive effect on their sense of self. Mueller (2009) points out that characteristics of giftedness are generally viewed in two ways; first, that these put young people at risk for poor psychological adjustment and, second, that resources that come with giftedness act as a protective factor. It would be unwise to suggest that having high abilities impacts in *either* one of these two ways; rather, the interaction between giftedness and identity is far more complex than this and factors that are unique to the contexts of each gifted individual's life can alter these effects. One of these factors for Matiu was his ethnicity, and the fact that young Māori males were not readily identified as being gifted. While he was definite that his cumulative achievements had boosted his self-confidence, the weight of being representative of a minority amongst other gifted young people often resulted in his reported bouts of low self-esteem.

Clark's (2013) proposal that gifted individuals may exhibit high self-concept in particular talent areas and not in others, might also explain why young people in this study thought that their giftedness contributed both positively and negatively to their sense of self. Sarah, for example, came across as having low self-confidence in social situations, however her academic self-concept appeared much higher. This highlights issues concerned with definitions of giftedness, in particular the notion of general talent versus domain-specific talent. Moltzen (2011d) mentions that more researchers are focusing on domain-specific characteristics and behaviours of gifted individuals. In situations where domain-specific talent is overlooked, more gifted young people are at risk of underachievement, as specific gifts they may have in areas that are perceived to be less important are concealed by the more valued abilities of others. In

these cases, a strong sense of identity may be less likely, as these young people may well perceive that their talents are of no value. It is possible that, where talent is undervalued, a strong sense of identity is not established during adolescence or early adulthood. This might well have an effect on how, or indeed whether, these individuals talents 'play out' across their adult lives. Clark's idea about self-concept being specific to talent areas also highlights assumptions made about identity as a construct. In line with Gergen's (1991) ideas about the saturated self, rather than being a singular, static concept, identity can manifest as multiple and varied according to different contexts.

A second noteworthy finding in this study was that socioeconomic adversity appeared to be more valuable than damaging in relation to the identities of these gifted young people. This challenges stereotypical perceptions that may be held about individuals who come from financially disadvantaged backgrounds. However, as mentioned earlier in this discussion, it must be acknowledged that the participants in this study had already received financial support by way of a scholarship. These young people were likely to view this as a benefit of their socioeconomic situations, and potentially report fewer disadvantages. As well, while socioeconomic adversity appeared more valuable for the participants in the present study, this may not necessarily be true of other individuals living in low socioeconomic situations who are not gifted and talented. It could well be that high levels of cognition and other resources associated with giftedness affords those who face the challenges associated with poverty with the opportunity or skill to navigate more adaptive pathways for themselves. For example, while Matiu and Aroha's stories depict perhaps a more extreme picture of poverty, in that the risks present in their childhoods appear to outnumber any protective elements, the intricate interaction of these have resulted in a positive life trajectory so far. This again highlights the complexity of risk and resilience processes, emphasising that it is not the quantity, presence, or absence of risk and protective factors that contribute to adaptive or maladaptive outcomes, but rather the nature of their interactions.

Resilience researchers have begun to investigate why many individuals from impoverished backgrounds thrive regardless of their circumstances, and Rutter (2007) suggests that aspects of the adversities faced by some people could play a part in their resilience. This certainly appeared to be true for many of the participants in the present study. A strong determination or drive to change their personal circumstances was considered by these young people to be the strongest aspect to emerge from their socioeconomic adversity (and this is discussed in the following theme, 'Drive'). Other aspects of identity were also attributed directly to their socioeconomic circumstances, and a second significant benefit for these young people was the development of a strong work ethic, which features in the majority of the studies on gifted individuals from low socioeconomic backgrounds reviewed earlier. Again, however, it should be noted that the 'drive' might actually have been a product of their giftedness rather than directly related to their personal circumstances, in which case the persistence to change their circumstances may have appeared more attainable than it might for those who perhaps do not share the same abilities. Individuals who are not high achievers might instead feel quite helpless, and that their efforts are in vain.

Much like giftedness, there were mixed accounts of the effects of socioeconomic adversity on the identities of participants in the present study. However, these young people tended to view the impacts of socioeconomic adversity on identity as secondary to more physical limitations, such as having limited access to finances and resources. The acknowledgment that their socioeconomic circumstances were intrinsically valuable in many ways may reveal something about the character of the young people in this study. An optimistic outlook was common throughout the stories these young people told, and a number of the participants in this study believed that, while there were definite material challenges associated with financial adversity, there were also significant benefits. Kris, for example, clearly stated that there were definite material challenges associated with his personal circumstances. However, the belief that he could change these, and his determination to do so, meant

that the material limitations of poverty were likely to be short term. This has important implications for those who live or work with talented young people from low socioeconomic backgrounds, as it appears that nurturing self-belief and optimism could empower individuals to more confidently confront fiscal challenges.

The fact that many of the participants shared Kris's beliefs about their abilities to change their physical circumstances reflects Dweck's (2000) notion of incremental intelligence. These ideas posit that individuals who perceive that they are more in control of personal and educational outcomes are likely to exert more effort and make the most of opportunities to develop. In their research, Prom-Jackson et al. (1999) found that their participants exhibited a strong internal locus of control, and that this resulted in high levels of task orientation and perseverance. A strong internal locus of control was also claimed amongst participants in Morales's (2010) research, and he suggests that this aspect was a key protective factor in relation to these individuals' identities. One of the key questions related to this notion is the extent to which locus of control is innate or learned. Those participants in this study who spoke of a 'natural' or 'inner' drive might claim that it was largely innate, in contrast to Dweck's view that it is most likely learnt.

The way in which participants perceived themselves was not necessarily always the same as the ways in which others viewed them and, interestingly, a small number of young people in this study did not actually perceive themselves to be gifted. For these young people, 'giftedness' was an educational term, socially constructed for the setting, and the abilities they had just happened to fit within these boundaries. Rather than subscribe to the gifted 'label', these few participants felt that their achievements were instead a result of their effort and hard work. Borland (2003) questions the usefulness of the 'gifted' label, maintaining that this 'measurement' perpetuates positions of power and control, where a subjective social construct is treated as reality. Rather, he proposes that educators should simply "accept difference as the

rule” (p. 121) and differentiate the curriculum to cater for all children at the levels that they are at. A small number of participants in this study agreed with this sentiment, stating that all students should be given the same opportunities. Many of these young people felt that everyone was gifted in some way and their talents simply had to be ‘discovered’. While this view might seem to resonate with some of the young people in this study, these same perspectives have been used in the past to limit provisions for gifted and talented students, further discriminating against this group. In the New Zealand education system, the guidelines provided afford schools considerable freedom of interpretation. This, along with an emphasis in this country on catering for the individual, could ensure the talents of every child are provided for. However, caution must be taken, as this potential benefit could also result in a ‘watering down’ of provisions for highly talented young people.

Renzulli (1982) points out that ‘schoolhouse’ giftedness (talent that is most visible to teachers) is more likely to be recognised in educational settings than ‘creative-productive’ giftedness, and this means that talents that are not called on or valued in this context can go unnoticed. In this study, Laura’s academic abilities were more valued in the school context than her artistic abilities and she expressed that this had a direct impact on her sense of identity. Going against the advice and expectations of her teachers, Laura chose to pursue her artistic talents and has been highly successful in this area since leaving school. Renzulli suggests that, while ‘schoolhouse’ giftedness is largely recognised in students who do well in standardised tests, those with creative-productive giftedness are more likely to impact on society long term. Stewart and Porath (1999) reported that their research subjects were generally unstimulated at school, however all five went on to achieve eminence once they had left school. It could be that the talents these young men chose to pursue were not readily valued in their educational settings and this, coupled with their reportedly unusual characteristics, might have limited their achievements in the school context. Areas of talent most widely recognised in school settings (e.g., academic and leadership abilities) were common amongst the participants in the present study and

provided a means by which to identify this group. The areas in which these young people perceived themselves to be gifted (as outlined in the results section earlier) indicated what might be perceived as more valued in New Zealand secondary schools today, with academic and leadership abilities being most commonly cited, and creative arts and sporting abilities taking less of a prominent role.

The personal characteristics that the participants in the present study reported they possessed, while unique to each of these young people, still bear the hallmarks of the numerous characteristics reported in literature to be common amongst gifted individuals. Drive or determination stands out as a key characteristic in studies of gifted people, and it is perhaps no surprise then that all of the eight interview participants and a majority of the survey participants talked about having high levels of drive, particularly in their areas of interest and ability. One question that does arise from this study, as with many other studies related to gifted individuals, relates to the source of the participants' drive. A majority of the young people in this study indicated that this source was a desire to change their circumstances and, in some cases, those of their families.

Other commonly reported characteristics of giftedness were reflected in this study also. For example, Laura's stubbornness and single mindedness in relation to her artistic interests is consistent with the precocious natures of Hollingworth's (1942) subjects. Winner (1996) describes this as 'a rage to master' and Renzulli (1986) refers to this as task commitment. Renzulli also includes sensitivity to human concerns in his theory and this is reflected in Sarah's passion to serve others.

While studies of gifted individuals have undoubtedly uncovered traits that appear to be common amongst those with high abilities, some researchers (e.g., Moltzen, 2005; Parkyn, 1948) issue cautions about generalising these across contexts. Some of the

issues related to this include stereotyping and unrealistic expectations of gifted individuals, the subjectivity of definitions of giftedness, cultural differences, and the 'pathologising' of giftedness. An additional caution might also be made regarding generalising personality across talent domains. For example, in this study, Kris and Niu, two talented sporting participants, perceived themselves to be quite competitive. It is not clear, however, whether this trait was a result of their general high abilities or whether it instead reflected the nature of the sports they were involved in. Laura and Jennae, two of the creative artists in this study, came across as particularly strong willed and single minded; the question remains whether these are traits that are common amongst the creatively gifted in particular, or whether these characteristics are just as typical of young people who are gifted in a range of domains.

A question that does arise from this study is whether or not the characteristics of gifted young people from low socioeconomic backgrounds differ in any way from those of gifted individuals from higher socioeconomic backgrounds. What appears evident from studies reviewed earlier is that the answer to this question may vary depending on the focus of the research. Davidson and Greenberg (1967), for example, compared gifted high achievers and gifted low achievers from low socioeconomic backgrounds, and found that teachers perceived the high achieving students to have more desirable personal qualities. Frierson's (1965) study, comparing gifted students from low and high socioeconomic backgrounds, also concluded by way of personality test that those from more privileged circumstances had more 'desirable' qualities. This might simply reflect the potential middle class bias of teachers and the qualities they liked and valued, rather than highlighting a specific difference in characteristics between the two groups. In contrast, those studies that focused only on gifted young people from low socioeconomic backgrounds tended to portray their personal characteristics more positively (e.g., Prom-Jackson et al., 1987). It appears evident here that the way in which these studies were designed and carried out had some bearing on what conclusions were reached, which could render the generalisability of these findings inconclusive.

According to Schwartz, Zamboanga, Weisskirch, & Wang (2010), cultural identity comes about as a result of how individuals define themselves in relation to the groups to which they belong. Research in this area has tended to be separate from literature related to personal identity, however these authors suggest that defining oneself culturally contributes to consolidation of personal identity, which in turn leads to a positive sense of well being. While not a specific focus of this study, cultural aspects had a clear impact on the identities of these young people and it became apparent that this could not easily be separated from other aspects of identity. In the broader sense of the word, low socioeconomic status could also be viewed as a 'culture' in itself, and there is clear evidence in the present study that perceptions of their personal circumstances, along with a range of other elements, influenced the participants' strength of identity.

The range of ethnicities represented in the present study was broad and this probably reflects New Zealand's increasing multicultural population. Schwarz et al. (2010) believe that both minority and majority cultures are developing stronger cultural identities as nations around the world become more multicultural. According to Phinney (2006), exploring and adapting values from one's own culture as well as others can result in the development of a stronger identity. In the present study, this notion is reflected in part in Jennae's story, where her attendance as a European female at a predominantly Pasifika populated school, 'forced' her to examine her own values and beliefs in relation to those of the dominant culture in her school setting. Although she was part of the dominant New Zealand culture, Jennae found herself to be a minority amongst her Pasifika peers and she expressed that these experiences had heightened her sense of self in a number of ways. For example, Jennae's natural propensity to take pride in and publicly celebrate her achievements contrasted with the traditional Pasifika inclination towards humility. Her recognition of this allowed her to work through the tensions between these two contrasting perspectives of celebrating success, and she was able to adapt in such a way that her own values were not completely compromised.

Being part of a minority culture is not always that easy, however, and it is perhaps no surprise that some of these young people felt that stereotypical attitudes had significantly impacted on their self-esteem. For Aroha, her Māori ethnicity in combination with low socioeconomic status attracted quite demeaning responses from others at times. Other participants talked about their abilities being overlooked simply because they had been judged foremostly on their ethnicities. All of these young people were asked to reveal their ethnicities early on in the study and many expressed pride in their cultural backgrounds. One young person did question the necessity of this information, and it is possible that this reaction could be due to having been subjected to stereotypical attitudes in the past.

Biddulph et al. (2003) maintain that ethnicity and culture are strongly linked to achievement, but that low socioeconomic status complicates this. When giftedness is a factor also, these complications are increased. Jackson and Warin (2000) suggest that people draw on entrenched aspects of self in order to cope in unfamiliar situations, and these aspects can potentially conflict with the expectations of particular environments. In this study, Matiu struggled with maintaining his Māori identity and values related to whānau in what he described as an “individualistic” world. In contrast, Ben appeared to cope with this more competently, seemingly moving with ease between his traditional Samoan household into New Zealand school and work environments. Wetherell (2009) contends that developing a strong cultural identity is associated with higher self-esteem and a sense of mastery over the environment, both of which were evident in Ben’s account.

The struggle to maintain a strong cultural identity appeared to be more difficult for Māori participants in this study in particular, and this may in part reflect sociohistorical issues related to Māori and European relations in this country. In New Zealand, there exists a large body of literature that addresses issues related to gifted Māori learners (e.g., Bevan-Brown, 2011; Bishop, Berryman, Tiakiwai, &

Richardson, 2003; Durie, 2005; Macfarlane, 2004) and it is beyond the scope of this thesis to examine this in depth. However, Bevan-Brown (2011) outlines how Māori concepts of giftedness differ from European ideas, the latter which have traditionally dominated the New Zealand educational context. One key expectation of giftedness in the Māori worldview is that a person's gifts and talents should be used to benefit others, and this reflects both Matiu and Aroha's strong desires to be role models for others in their Māori communities. Webber (2011) discusses how negative stereotypes can impact on the performance and motivation of gifted Māori learners, as this group is statistically overrepresented as underachievers. The development of a strong cultural identity amongst gifted Māori students is important and, according to Webber, language and culture should not be compromised to 'fit in' with traditional European-dominated views of giftedness.

One of the individual characteristics of resilient young people identified by Masten and Coatsworth (1998) is faith (see Table 1), and a number of the participants in this study attributed their strong sense of self to their religious beliefs. Masten and Coatsworth also list connections to prosocial organisations as a protective factor in the extrafamilial context and it seemed that an equal number of participants perceived that their involvement as a member of the church group, rather than their faith itself, was what contributed to a strong sense of identity. For example, Jennae expressed that both her faith and the opportunities to develop her artistic and leadership talents in the church environment contributed to her self-confidence. In contrast, Sarah opted out of her involvement with a church group because she felt socially isolated due to her socioeconomic status, despite reporting that mixing with some of the other church members had inspired her to be successful. Ben experienced church as more of a 'community', where he shared common values and perspectives with extended family and friends. While attending church may have been reflective of Ben's Pacific Island upbringing, where gathering regularly with extended family and friends at church is common, this may also have been a place where the sharing of values and perspectives served to affirm his identity.

1.3. Conclusion

The findings of the present study in the area of identity are similar to numerous other studies of gifted individuals, in that those who achieve to high levels in their fields of talent are generally characterised by high self-concepts and a strong belief in themselves. Many of the participants in this study acknowledged that their giftedness strengthened their sense of identity and that this, in turn, contributed to their talent development. A point of difference in this study, however, is the element of socioeconomic adversity. Much of the literature associated with poverty paints a picture of disadvantage and personal vulnerability, however the accounts of many of these young people pointed to aspects of their low socioeconomic circumstances that appeared to be intrinsically beneficial.

The majority of the young people in this study considered that giftedness impacted more negatively on their identities than their low socioeconomic circumstances, and this contrasts with many studies in the areas of giftedness, poverty, and risk and resilience. Most participants identified that unrealistic expectations, which led to the pressure to perform and a fear of failure, were most detrimental to their self-concepts. Other studies have identified links between unrealistic expectations and low self-esteem, however high expectations have also been found to have a positive effect on achievement. What appears to be critical here is conveying sufficient expectation that gifted young people feel challenged, but not overwhelmed.

The participants' experiences with poverty led to a determination or drive to change their personal circumstances. A strong work ethic and an optimistic outlook also contributed to the efforts of many of these young people. Risk and resilience researchers generally consider that experiences of adversity play a part in resilience, and there is speculation amongst some gifted researchers that this might also be the case for talent development. The literature related to poverty tends to report the more

negative effects of this on personal wellbeing, and the complexity of this is highlighted in the second key finding in the area of identity; that socioeconomic adversity was reported to be more valuable than damaging for the participants in this study in relation to their sense of self. This finding should not minimise the experiences of participants in this study who did make strong statements about the embarrassment and humiliation related to their socioeconomic circumstances, despite having received some support through the receipt of their *First Foundation* scholarships. However, it certainly calls for consideration of some of the more complex processes involved in the influences of both giftedness and poverty on identity.

Cultural aspects of identity were found to be significant for the young people in this study also. This has been reported in other studies, particularly of gifted individuals from ethnic minority and low socioeconomic backgrounds, however much of the research related to these groups does not clearly distinguish between ethnicity and social status. While the intention of this study was to focus on aspects of socioeconomic adversity rather than culture, it is evident that both of these aspects are intertwined, and considerably influence the development of a strong sense of self.

2. Drive

It takes work to become a renowned genius. These individuals are driven by huge motivational forces that far eclipse the impetus behind less accomplished colleagues...Where does this drive come from? The answer to this question is one of the great mysteries of psychology.

(Simonton, 1994, pp.140-141)

Research indicates that drive is a common characteristic amongst gifted individuals (e.g., Bloom, 1985; Cox, 1926; Moltzen, 2005; Morales, 2010; Van Tassel-Baska, 1989) and it is perhaps not surprising that ‘drive’ emerged as a dominant theme in this study also. As indicated in the previous theme (Identity), drive or determination emerged as the single most common personal characteristic identified by the participants in the present study. While drive has been described in a number of ways, there is general understanding that this characteristic refers to the energy or momentum displayed by many gifted individuals. What is not clear is what creates or causes this intense determination and a number of young people in this study were unsure about where their drive came from. However, a significant number of participants were able to articulate what they felt was behind their driven natures.

2.1. Results

‘Drive’ was not specifically focused on in the survey or interview questions for this study, however there were two questions in particular that elicited extensive reference to this characteristic. The first of these questions asked participants to indicate what had helped them to develop their gifts and talents and, as noted in the results for the previous theme (Identity), approximately half of the 51 survey respondents and a similar proportion of interviewees attributed this to ‘drive’ or the determination to achieve. While some of these young people actually used the word ‘drive’ in their responses, this characteristic was also described in other ways. Some survey participants called their determination a “fuelled desire” or a “driving force”, something that made them highly motivated, focused, and perseverant. Others talked about being strong willed, stubborn, single minded, and passionate. One young man stated that he would “go all out” to achieve, a sentiment shared by many other participants who referred to the strong work ethic they had developed as a result of their ambition or will to succeed. In their interviews, Sarah and Niu both saw drive as their talent, not academia or sport. Sarah said that “I think I’m just hard working, that’s how I look at it. I think that’s my talent.” Niu echoed this: “I think my biggest

talent is if I'm, I guess, driven for something, that's what I go for. If I've got the time to do it, I'll go out and pretty much put everything I've got into that.”

The second item that elicited a strong reference to their drive and determination asked participants to describe how they felt financial constraints had contributed to the development of their gifts and talents. Approximately three quarters of survey participants who responded to this question indicated that socioeconomic adversity had resulted in significant personal gain. Half of these young people described the largest personal gain as being an intense drive, and reported that the catalyst for their determination had been a strong resolve to change their personal circumstances:

When you're surrounded by a less than positive environment and characterised by negative stereotypes, there's no shortage of motivation to better yourself by developing your talents or skills to break the mould and defy those narrow minded views.

I've seen the good side and bad side of New Zealand society. I made a decision early on that I was not going to follow the path of negativity. I want to 'get out of the gutter' so to speak. This burning desire to get out has helped me develop my gifts or talents.

Six of the eight interview participants talked at length about their determination to change their personal circumstances. While Jennae was appreciative of her modest upbringing and spoke fairly positively about her school experiences, she aspired to greater things: “I definitely have a desire not to be a West Auckland girl for the rest of my life.” Both Laura and Sarah indicated that they did not want their lives to replicate those of their parents', and that this had driven them to work hard. Of the financial challenges her family had faced, Laura said “I think it just encouraged me to work harder for the things that I wanted. I'm not driven by money but I want to have a comfortable life.” She went on to say that “I *want* more – not that I think badly of

what my parents have or anything like that but I want more and I aspire to more, and so I need to work to *get* more.” Sarah had seen both of her parents endure financial struggles after their divorce when she was a young child and she stated: “I just don’t want to become my parents. I don’t want to be there in I don’t know how many years time - I will not settle for that at all.”

In reviewing all eight interviews it became clear that, while socioeconomic challenges had not been easy for them as they had grown up, Sarah’s comment “I think I turn the obstacles around” was consistent with all of their accounts. Kris had made a conscious decision not to let the challenges associated with financial difficulties discourage him:

Not having so much has sort of made it...I haven’t let it get me down or [any]thing, but I’ve always thought well, you know, I can make something better than this later on and it’s always acted as like a motivating tool for me.

He went so far as to say that financial challenges had been “beneficial in many ways” and explained how these challenges had become his motivation:

You haven’t got spoilt, you know. You’ve always been thankful for what you got and that makes you want to do more later on, you know, to show that you haven’t had everything you’ve wanted when you’re younger but you can have it when you’re older if you work hard enough for it.

Aroha’s upbringing, much like Matiu’s, was characterised by unemployment, substance abuse, and violence, and they described their families as being caught in a “poverty cycle.” Their comments were typical of many of the young people in this study, whose drive to change their own circumstances also extended to a desire to impact the lives of their families. Aroha reflected that “being in that environment sort of makes me angry and upset that that’s the way that we have to live and that became my motivation and my inspiration.” She went on to say that:

I really didn't want my [brothers] to grow up in an environment like that knowing that that's all that's there. So I'm out here busting it every day trying to prove to them that there's something more. You know, trying to break that chain of unemployment around my family - it's such a cliché but in my family, that's what I'm trying to break. So I want to be the first to sort of break through the ice, and then make a path for them so that, yeah – they live a good life instead of having to struggle.

Matiu's determination to break out of the cycle his extended family had lived in for years had developed at a young age: "From the beginning I knew [what] I wanted to be, you know, and I put it in my head from a young age that it didn't matter what I *wanted* to be, I [knew] I didn't want to be that."

While the desire to change their personal circumstances was clearly the strongest source of drive for the young people in this study, there were three other key sources of motivation that were given primacy. The first of these was significant others; people who had impacted on them beyond simply being encouraging and supportive, to become driving influences in their lives. Laura could not name anyone specific who had played this role in her life, but she summed up the influence of significant people in the following way:

I see the potential and the investment that other people have made in me and I can't let them down. I have to live up to what I can be for them. I think a sense of, not obligation, but duty is involved. This isn't in a negative sense either. It has pushed me forward and helped me to achieve things I couldn't have imagined possible. If people believe in me then I owe them to believe in myself. I feel a sense of duty to those who have encouraged me and made these things possible.

All participants were asked to indicate what they felt had contributed most to the development of their gifts and talents, and the six most common responses amongst survey participants indicated that people-related aspects had influenced their levels of drive. The least important aspects according to respondents to this question were material, such as access to funding and resources. Later in the survey, participants were asked to nominate one or more people who they felt had been most influential in terms of their talent development, and just over 80% of these respondents revealed that this had been a family member, predominantly parents or caregivers. Second to a supportive family member was the influence of teachers (35%), followed closely by friends (24%), role models (23%), and mentors (20%). Only five survey participants indicated that they felt that there had been no one who had significantly influenced their talent development.

Even though there were tensions with their parents, Sarah, Matiu, and Aroha all acknowledged in their interviews that they had been supportive in different ways. Although she did not really “look up to” her parents, Sarah was grateful for their high expectations. Matiu believed that his relationship with his parents was significant in his development, despite his fractured home life. He stated, “I knew my mother loved me” and “she looked after me like anything.” He described his father as “a good worker” and believed that this had driven him to develop his own strong work ethic. Aroha reflected on her difficult relationship with her father, stating, “If he didn’t put me through that stuff then I wouldn’t be as strong as I am now. People don’t understand how I can still love him – but it’s the truth.”

Mothers were considered by four of the eight interview participants to be more instrumental in their talent development than fathers. Ben and Niu both came from single parent families and acknowledged how influential their mothers had been. Despite his strong belief that individuals play a large part in their own successes, Ben also identified that “Mum has definitely always been the driving factor.” Niu

reflected that he “Got a lot of enjoyment [out of] impressing my mum. I really found when she was impressed with something that, you know, I’d sort of – done the job – and that’s what I really like doing.” A survey participant also outlined what it was about her relationship with her mother that had spurred her on:

My mother is a significant support person in my life. My father passed away when I had just turned four and so she became a full-time single parent. She raised my elder sister and I to believe that we could achieve whatever we wanted to in life and was always supportive. I don’t ever remember her stating that whatever we chose to pursue would be a foolish idea or unrealistic achievement. She has always believed in me and my decisions.

Kris and Sarah acknowledged parenting styles as having impacted on their levels of drive and consequently their achievements. About his parents, Kris said:

They’ve always put the onus on us. They’ve always said like, ‘If you don’t want to do the work that’s fine, but later on it’ll bite you in the arse and you won’t get into the course you want to.’ So me and my brothers, we’ve always been really hard on ourselves to do the work properly and actually put in the extra efforts that other people maybe wouldn’t have, and so far that’s why I’ve got the results that I’ve got.

Sarah explained that her mother “never settles for second best.” She stated:

I’ve always felt like what I’ve done has never been enough and I think that’s what has been some of the motivation – oh, not motivation, more like drive - just to kind of do better than I already am.

Teachers were ranked second highest by survey participants as having influenced their motivation to achieve and some respondents specifically named those teachers who had gone “out of their way” to help them realise their capabilities. Of the

interview participants, Niu, Sarah, and Aroha all mentioned particular teachers who had encouraged and supported them. One of Niu's primary school teachers had become like a "grandmother" to him, and he fondly mentioned others, particularly sports teachers, who had had an impact on him at various times throughout his childhood and adolescence. Sarah referred to a favourite teacher who was "charismatic" and "inspirational" several times throughout her interview, and Aroha described one of her high school teachers as being "sort of the turning point in my life." She reflected that "She's sort of kicked me in the butt so many times and she's really pushed me – *really* pushed me when other teachers gave up on me." Laura was the only interview participant who expressed a general disappointment with her schools and teachers, and this was largely because she felt that her creative talent had been undervalued.

Drive was specifically mentioned as a trait that participants admired in others. Close to three quarters of survey participants who responded to a question asking them if they currently had a role model or mentor who coached, supported, or guided them, indicated that they had people who they looked up to. For some, these were family members and for others these were teachers, friends, and other people in their lives. These young people described their mentors as people who were "not afraid to push the boundaries" and who were "gutsy", "strong willed", "independent", and "determined." In his interview, Kris also described what he was drawn to most in those he looked up to:

It's probably just the determination, you know, the willingness not to give up and they have their goal in mind and it doesn't matter what life throws at them. You've always got to sort of stay tuned and stay focused on what you want to do and if people say you can't do it - you can do whatever you want to do basically. So it's just their drive not to give up - that's the main thing.

Another key source of drive and determination for just over a third of survey respondents in this study were significant events that appeared to have operated as ‘turning points’ in their lives. To other people, some of these turning points would seem insignificant, but what became clear was that participants viewed these experiences as having a lasting impact or being a point of change in their lives. Two survey respondents referred to seemingly minor incidents at school that had spurred them on:

My chemistry teacher went berserk at me once when I was talking in class. The gist of what he said was that I was one of the smartest people he had met, [and] if I worked hard, the world was my oyster. It was a bit of a kick that I needed.

I remember at primary school they had basically written me off and treated me like I was stupid. I remember feeling really upset about it and felt quite useless. I remember wanting to be the best and so I began working really hard.

Other survey participants talked at length about the loss of a significant person in their lives being a turning point for them:

The death of my father I feel was the start for me. I’m the eldest of three with two younger sisters. When my father passed away I knew that it was time for me to stand up and take his place and most of his responsibilities. It was me who had to set the standards for my younger sisters to follow. This motivated me to be a stronger person [and] also improved my leadership skills, which I have used in all areas of my life.

My grandmother’s death at the end of year 10 was heart shattering. I was completely knocked down. My whole world revolved around her and it had just been taken away in the space of a night. I decided then that I would pick myself up and soldier on for her, live in her memory to the best that I could.

She didn't have half the things I do and she turned out to be the strongest woman I knew. And if I become half the woman she was I know that I will have succeeded in life.

Four of the eight interviewees also spoke about events that had acted as turning points for them to varying degrees. Aroha described a gang related incident she had experienced during Year 10 that had radically changed her attitude and her behaviour:

One of my friends, she was quite a hardheaded blabbermouth, and she got us all into real big trouble and it ended up with me and my friend getting a really big beating. After I got that massive hiding, it was sort of like, 'Oh my god, if I keep going this way, this is what it's going to be for me.'

In a reference provided as part of her *First Foundation* scholarship application, Aroha's high school principal wrote that he had been impressed with the resiliency Aroha had shown by overcoming adversity and developing a strong sense of purpose and determination.

Kris and Sarah also reflected on turning points in their lives and, while these incidents perhaps appeared to be less dramatic than Aroha's, they were still influential. During his interview, Kris enthusiastically recalled how the recent American election had motivated him:

I stood back and I sort of looked at it as a whole and saw that's what I wanted to do - that's really where I wanted *my* life to go, so that sort of solidified, you know, my vision of the future.

For Sarah, hearing a guest speaker at a combined school Model United Nations¹⁶ event had stirred her passion for “service to others” and significantly impacted on her desire to “make the most of life.”

Niu’s battle with a disability that he viewed as being more of a challenge than his socioeconomic circumstances was a significant event for him during his childhood. As he was growing up, he was never sure whether this would affect his ability to play sport:

At the beginning stages I was a bit worried about it. I think it’s partly why I wanted to play all the sports as well, and go through and do whatever I could because – like when you get told as a kid, you know, you might not be able to do this again in two weeks – it sort of makes you value what time you *do* have to do it. And yeah, it partly made me go out and do whatever I could, whatever I could get my hands on, whatever sport I could play, whatever I could do.

Although there were periods in his childhood when he had been slowed down by his disability, Niu said he had not allowed this to stand in the way of his achievements.

A fourth significant source of motivation for the young people in this study was exposure to competition. Not one person mentioned competition when they were asked what had helped them to develop their talents, but the importance of competition was evident through their responses to other questions, and nine survey participants specifically described themselves as being competitive. One young man pointed out that “Having high achieving peers and wanting to match them” had

¹⁶ Model United Nations is a conference that simulates the real working of a United Nations assembly. Secondary school students assume the roles of delegates to the United Nations, representing a member state, and negotiate together to find solutions to global concerns. This gives students a chance to experience first-hand the decision making processes that guide international relations.

helped him to develop his talents. Another survey participant described how competition had been part of his school's 'culture':

My time at intermediate allowed me to grow up in an environment where nothing but the best was accepted. This made all the students want to step up and stand out from the crowd, which meant we were always trying to outdo each other.

Friends and like minded peers provided stimulation for the competitive natures of other survey participants and one young man pointed out that "being around people of the same ability made it great to strive for goals." He explained, "My best friend and I would always subconsciously compete for the best projects – healthy competition that made me push myself." Kris also commented in his interview that he thrived on the challenge of reaching his personal goals, but this extended to being competitive with others. He explained, "Even just in anything, like with my friends, I always try to beat them - not for an egotistical reason, just for the point of proving to myself that I can do it." Kris mentioned that his home environment had encouraged his competitive streak:

Me and my older brother, we have similar interests so we've always been competing against each other and basically everything we do, everything in our house is a competition so that's always been the major reason which has helped me grow my talents. I always tried to beat him.

Competition seemed to be particularly important to those interview participants who excelled in sport, and both Niu and Kris talked about the need for competition to develop their athletic talents. Niu explained that his friends had the biggest influence on what he endeavoured to achieve: "If one of my mates is playing basketball and he can do a hook shot, you know, *I* want to do a hook shot." Niu described himself as "pretty competitive but I think to a point." He emphasised:

I'm not competitive enough to go out and just wipe the floors and you know, train 24/7 just to make sure I can beat them. You know, I want to be able to do what they can do but that's really as far as it goes.

For other participants it was a lack of competition that was highlighted as limiting their talent development and stifling their drive. When asked what aspects of their schooling had limited their talent development, two survey participants commented, "Having no competition limited my academic goals" and "I attended a decile one school so I felt I had no competition." Sarah outlined in her interview that her experiences at low decile schools had impacted on her motivation also and, in reference to her high school and peers she said "I don't have competition at this school. Well, I do have competition but I feel as though they don't try hard enough for it to be called competition." Sarah believed that attending higher decile schools may have provided her with the competition she needed.

While all of the eight interview participants recognised that they were driven, four were unsure about what they would attribute this determination to. Ben believed that it was a combination of factors that fuelled him, citing both personal characteristics and environmental aspects as having an influence. He described his source of drive as being "that natural conviction" but added, "I think it's nature and nurture. It's nature – you've grown up with it, but it's also nurture – it's like the experiences that you go through." As his interview continued it became apparent that Ben believed that, while being exposed to opportunity was beneficial, it was a person's own determination and efforts that resulted in achievements and successes:

It's kind of like lead a horse to water, can't make it drink. Well – the water's always been there, it's just a matter of you. You know at the end of the day, it's like, if you want to pass, you'll pass. If you want to fail, you'll fail. It's totally up to you. So I reached that conviction at an early age, you know, it starts with you. People can motivate you and try this, that and the other, but if

you don't want to do it yourself, well...so I suppose it's been me wanting this and me wanting that.

In reference to financial challenges, he said that there are definite limitations but "if you don't have that inner conviction and drive, it's like well, are you going to let this make you a better person or are you going to let it break you?"

Other interviewees described their determination as a "self", "personal", or "inner" drive or motivation. Kris felt that his determined nature was simply "my personality" and he stated, "I'm always trying to push myself and do as much as I can and it's just personal motivation really. I'm pretty motivated – if I set my mind to do something, I have to do it." Jennae also saw her determination as being intrinsic:

I don't know where it comes from exactly but, yeah my motivation seems pretty high. Of course you have your off days but I find myself striving for those one hundred percent results, A pluses - without even needing to tell myself to do that.

Laura's comment also summed up her sense of inner drive:

I want to be good, but not for good's sake. I want to do as well as I can and know that I couldn't have done anything more. I don't want to do well at the expense of other people doing well also, or not out of a competitive need to be top, it's just about my internal competition with myself. My ambition is also fuelled by my big ideas. It just seems that the things I want and want to do are big and that I don't let that daunt me. Instead, the difficulty of achieving big spurs me on. I like the challenge and the risk taking side - the chance of failure ensures my commitment.

Like many other characteristics, three of the eight interview participants mentioned that their drive had a 'flipside' and they went on to describe some of the adverse

effects of their determination. Jennae pointed out that being driven “can be a disadvantage because I’m really stretched quite thin but I don’t realise until the breaking point.” Sarah, the youngest of the interview participants, regularly found her driven nature to be overwhelming:

It kind of gets too much at times, not being able to just settle for okay. I’m so used to just crashing and burning and just breaking down, that it’s become kind of like a monthly, weekly kind of habit. But yeah, I guess that’s a weakness of mine – like, the downfall of the obsessive drive.

When she was asked if she felt this may become easier to manage as she gets older, Sarah laughed and replied “Yes – but that’s the scary bit ‘cause if I can manage that, then I’ll probably push myself even more.”

Laura admitted that her driven personality had sometimes impacted on her relationships with others: “I’m quite single minded and quite hardworking so my mind’s busy. I just don’t notice, and then I come across as snobbish. That’s just part of my personality and I think people, once they get to know me can realise that.” She reflected that, as a child, she “kind of had my mind on bigger things than my peers” and as she had grown older, Laura had found it difficult to understand people who were not driven:

It sounds really harsh and really judgmental of me but I feel like other people can be lazy, and they don’t want things and I don’t understand that. I don’t understand how – you’re doing something, you’re supposed to like it - why are you not doing it? And that’s frustrating. I don’t know, maybe I’m idealistic but I just think that people should *enjoy* what they do. I also think hard work and determination are good because they exhibit your perseverance and commitment. I think that’s what it is, that when people see I’m working as hard as I am they know that I’m committed and that if you’re committed to something it’s because you want it.

Near the end of their interviews, participants were asked if there was a message they might have for other young people who are gifted and talented and living in financially difficult circumstances. Ben's response reflected his strong determination and self-belief, and echoed the ideas of many other participants in the study:

Just go for gold. It's all you - it is all up to you. It doesn't matter if the system or the structure is set up so that it actually pushes you towards failure, or it doesn't matter if that encouragement isn't there from teachers and peers. It doesn't matter if, you know, your mum isn't supportive, that sort of thing, it's all you – it's all *about* you. You've got to sit back and just think, do I want this or not? Because at the end of the day, if you don't want it, well what's the point?

2.2. Discussion

As indicated earlier, drive has been noted by researchers to be a recurrent theme in the studies of gifted individuals over the years, and the present study was no exception. In his study of eminent men, Galton (1869) described passion and a strong work ethic as having contributed to their standing, alongside heredity factors. Terman's (1925) more than 1500 research participants rated highly in their levels of desire to excel, will power, and intensity of interest. After analysing over 300 biographical accounts, Cox (1926) reached the conclusion that eminence was not only characterised by high intellect, but that "persistence of motive and effort" (p. 218) also played a part in extraordinary achievements. More recently, Walberg, Williams, and Zeiser (2003) analysed the biographies of 256 eminent women of the 20th century and found perseverance and hard work to be two of their most common traits.

Other writers have also given primacy to drive in their attempts to determine the key characteristics related to talent development. Renzulli (1978) included task

commitment as one of three traits he believed are essential for a person to be considered as gifted. Similarly, Tannenbaum (2003) proposed that gifted individuals need a degree of motivation and perseverance in order for their talents to flourish. For Winner (2000), drive represents deep intrinsic motivation to master a specific domain, and she stated that intrinsic drive is “part and parcel of an exceptional, inborn giftedness” (p.163). Those focused on creative giftedness also identify drive as being essential for the development of talent. Simonton (1987) believed that enduring motivation and perseverance results in outstanding work, while Amabile (1996) cited task motivation as being a key component for creative eminence. Amongst his participants, Csikszentmihalyi (1996) found that curiosity and drive were required for the actualisation of creativity, with drive providing inner focus and achievement orientation.

There is no question that drive was also a common trait amongst the participants in the present study, however the accounts of some of these young people is consistent with ideas of those who study this group, that ascertaining exactly what produces drive is not always easy. Many participants referred to a range of both extrinsic and intrinsic aspects that they felt had contributed to their strong motivation and determination. Despite identifying this broad range of aspects, it became evident amongst the majority of the young people in this study that the desire to change their personal circumstances had been a major contributing factor in terms of their determination to succeed.

There are few other studies that indicate a direct association between the participants’ high levels of drive and a resolve to improve their socioeconomic circumstances. However, research does indicate that a significant proportion of eminent individuals experienced challenges throughout their childhoods, and some of these challenges may have been a direct result of their socioeconomic situations. Goertzel and Goertzel (1962), for example, found that three quarters of their participants came

from 'troubled' homes, and some of this group lived in poverty. A small number of Roe's (1952) eminent scientists were also reported to have come from relatively poor households. In his investigation of the life stories of gifted New Zealand adults, Moltzen (2005) found that, contrary to most longitudinal studies in this area, the majority of his participants had experienced some hardship throughout their childhoods. The idea that socioeconomic adversity ranks strongly as a source of drive for talented individuals from financially challenging backgrounds provides an interesting point for further study. With rates of child poverty in New Zealand increasing (Fletcher & Dwyer, 2008; OCC, 2012), the relationship between socioeconomic circumstances and educational achievement is increasingly becoming an area of important focus. Future studies could provide some insight into the complex interrelationship of exceptional ability and poverty.

The idea that adversity might contribute to a high level of drive is also discussed in risk and resilience literature. Werner (1993) reported that the resilient adults in her research had been determined throughout childhood that they would conquer their circumstances. In their longitudinal study of 698 children from the island of Kauai in Hawaii, Werner and Smith (1982) found that, despite being at high risk due to biological and social influences which included growing up in poverty, many of these young people developed into competent, well-functioning adults. Morales (2010) found the same amongst his academically successful young people from low socioeconomic backgrounds, reporting that a strong desire to change their personal circumstances was a key protective factor for almost all of his 50 participants.

Why does adversity seem to generate drive in some people and not in others? Researchers from a range of fields have explored this question extensively, and many early theorists contended that drive is instinctive and based on primary needs. Freud's (1917) theory of psychosexual development was built on the assertion that all behaviours are reducible to primary instincts such as sex or aggression, and he

contended that these instincts (or drives) largely operate unconsciously. Murray (1938) conceptualised that when a 'need' (or drive) becomes active, certain characteristic behaviours will ensue. Hull (1943), arguably the most influential drive theorist, also proposed that drive was the major underlying instigator of all behaviour, and that this motivation could be attributed to drives such as hunger, thirst, and the avoidance of pain. For the young people in the present study, it could well be that adversity generated these same 'survival instincts', giving them a purpose in life that led them to manage obstacles and hardships related to poverty. Gordon and Song (1994) called this "defiance" (p.145), where multiple risk factors cause a person to intentionally move away from negative circumstances towards more positive situations.

In his work with creatively gifted individuals, Simonton (1999) suggested that aspects of hardship might play an integral role in the development of talent, and he outlined that the benefits of adversity during childhood and adolescence may arise out of abnormal socialisation experiences, emotional disequilibrium, or emotional robustness. Even the creatively gifted in the present study did not appear to have been influenced greatly by abnormal socialisation experiences or emotional disequilibrium. Most of these young people reported that they were socially well adjusted, and their accounts gave examples of generally positive interactions with peers. As pointed out earlier, this could be due to the fact that their talents had been recognised and valued enough to have been nominated for scholarship funding. A small number of the young people in this study described feelings of emotional disequilibrium, mainly in relation to significant others who had passed away. These events had spurred them on to "live in their memory" and for these few participants this appeared to be quite a significant motivation. The aspect that was reported most commonly in the accounts of this group of young people, however, reflects Simonton's notion of emotional robustness (or resilience), where individuals were intent on refusing to allow obstacles to stand in the way of their achievements.

Even those participants who believed that their socioeconomic circumstances were a primary catalyst for their drive reported that other factors also influenced their levels of motivation. Second to personal circumstances, the most important of these was relationships and interactions with others. Significant events (or turning points) and competition were also found to be important sources of drive amongst this group. A small number of the young people in this study believed that they simply possessed an ‘inner drive’, something that was intrinsic and not attributable to anything in particular except a genetic disposition. What is apparent from the accounts of the young people in this study is that drive appears to come from many sources.

Relationships with others have long been reported to be influential in relation to talent development (e.g., Goertzel & Goertzel, 1962) and resilience (e.g., Masten & Coatsworth, 1998) and, for the participants in this study, the most influential relationships seemed to offer more than simply care and encouragement. Perhaps contrary to stereotypical perceptions of many lower socioeconomic families, the large majority (80%) of these young people reported that their parents had influenced their levels of drive and this rated well above other people in their lives. Given the recent focus on resilience processes rather than single resilience factors, a salient question might be ‘what is it about the parent-child relationship that generates such high levels of drive?’ Ford (1992) proposes that it is the quality of the relationship that has motivational significance. For the gifted child, the evaluations they make about their relationships and contexts, almost certainly can play a role in their decision-making regarding the pursuit of personal goals.

One of the more significant aspects mentioned by the young people in the present study about their relationships with their parents was parenting styles, an aspect that is also reflected in gifted and talented literature. Many of the parents of Bloom’s (1985) participants were devoted to their children and modeled a strong work ethic. These parents encouraged their children to use their time productively, to set high

standards, and to strive for excellence in all that they did, much like several of the parents in this study. Dai and Feldhusen (1996) proposed that the parents of academically gifted children are less likely to demand conformity and more likely to allow their children to develop with autonomy, and both Kris and Laura in particular mentioned that this was how they had been parented. Feldhusen (2003) also proposed that talent development depends on the impact of family in the early years of development and this might explain the determination and perseverance of some of the participants in the present study. This sentiment is shared by Kagan and Moss (1962), who believe that habits of perseverance established early in life lead to achievements in later life. With an increasing number of organisations in New Zealand offering support to parents and families as poverty rates rise, an understanding of particular elements that might enhance the achievements of all children, not only those with gifts and talents, is valuable.

Another finding that resonates with other studies of gifted individuals from low socioeconomic backgrounds (e.g., Morales, 2010; Prom-Jackson et al., 1987; Shumow, 1997; Stewart & Porath, 1999; Van Tassel-Baska, 1989) is that mothers tended to play a more significant role in terms of talent development than fathers. There may be several reasons for this, and the first is that a number of the young people in this study were from single parent households, and mostly living with their mothers. Not all authors agree that single parent households can nurture talent most effectively however; Csikszentmihalyi, Rathunde, and Whalen (1993) suggested that the “burden of bringing up a gifted child is too much for one to manage” and that “two complementary parents” provide the best environment for developing talent (p.150). According to these researchers, an increase in single parent families is likely to result in an enormous waste of talent, and this clearly sits in contrast to the findings of the present study. It would be spurious to make the claim based on the findings of this study that gifted young people living in single parent, low-income homes will ‘make it’ any more or less easily than those who live in two parent households. Research has indicated successful outcomes related to both of these parental and

household configurations. The key consideration here is that there are a range of other factors that might also come into play. Cultural factors, for example, might provide another explanation for the influence of mothers amongst this group; expectations amongst various cultural communities related to the roles of mothers and fathers could well have determined which parent was most influential in terms of their child's talent development.

Interestingly, a small number of participants who described their home lives as particularly challenging and their relationships with their parents as distant or inconsistent still attributed their strong determination to the influence of their caregivers. For example, Aroha's account portrayed her relationship with her father as difficult and frequently disappointing, yet she acknowledged this relationship as having been a source of drive. Matiu's story was similar, in that he had moved away from his difficult family situation as a teenager in order to pursue his academic abilities. Throughout his interview, however, Matiu spoke appreciatively of his mother's love for him and his father's example as a hard worker. Research by Kauffman, Grunebaum, Cohler, and Gamer (1979) could provide an explanation for these participants' stories. These researchers suggest that, even when parents are a source of stress for a child, resilient children are able to distinguish between the parents' problem behaviours and the parents' feelings for the child. Another explanation for the high levels of drive amongst some of these participants, despite the challenges they faced, could be that they were determined to achieve what their parents could not. Olszewski-Kubilius (2008) refers to individuals turning challenges into a 'life mission'. For example, a child who lives in poverty and whose family experiences poor health due to inadequate medical care may eventually become a doctor who establishes clinics for low-income families.

Only five of the young people in this study could not attribute their drive to succeed to any other person and, instead, they tended to ascribe their achievements to an

'inner' drive. Many of the other participants also mentioned that they felt their drive had come from within, and this is also believed to be the case by some researchers in this field. Galton (1869) believed that drive was inherent, as did Gardner (1998), who suggested that innate intelligence and drive needed to be present in order for external support to be influential in talent development. Gottfried and Gottfried (2004) suggested that drive or motivation might actually be an area of giftedness in itself, an idea that was also put forward by two of the young people in this study. For Taylor (2002), drive is "the property of a person, not the environment" (p. 108) and high achievement occurs because it has become a central component of an individual's psychological makeup, where a person is directing their energy towards a future goal.

Gagné (2010) gives an overview of the role of drive in his differentiated model of giftedness and talent, which posits that motivation is a key catalyst for turning natural ability (gifts) into talented performance. Gagné proposes that there are specific motives related to talent development and the first of these, intrinsic versus extrinsic motivation, clarifies the reason that a person immerses him or herself into a task. Those who are intrinsically motivated are exploring an area for the sheer pleasure gained, whereas those who are extrinsically motivated are pursuing an activity for reasons other than enjoyment. A second motive identified by Gagné is passion, and this was evident amongst a number of the participants in the present study who invested their time and energy in areas they deemed enjoyable or important. Laura's passion for art, for example, resulted in her making the decision to pursue this interest regardless of alternate advice. Despite motivation occupying a pivotal role in Gagné's model, however, he acknowledged that the source of this drive was difficult to determine and likely to be more than a single element, a sentiment also conveyed by the participants in this study.

One construct that may serve as useful for explaining the commitment of talented individuals to particular areas of giftedness is ‘crystallising experiences’, or turning points, and some of the young people in the present study experienced these. According to Freeman (1999), crystallising experiences describe “a sudden moment of insight that sets a person on their life’s course” (p. 76). This was frequent amongst the gifted young male musicians in her study, and these experiences were reported to have long-term effects on their self-concepts. For example, participants who described their crystallising experiences (such as being told at a young age that they had strong musical ability or giving a perfect performance of a particular piece of music) described these as profound, and stated that these had increased their confidence considerably. After analysing the biographical information of eminent mathematicians, musicians, and artists, Walters and Gardner (1986) also found crystallising experiences to be a common feature. These researchers found that crystallising experiences tended to happen early in life, particularly for those who had been exposed early to potential talent domains.

There were few participants in this study who referred to turning points, or crystallising experiences, however Aroha was an obvious exception. Her moment of insight came in the form of a violent act that occurred as a direct result of her impoverished upbringing, and this appeared to have an immediate effect on her determined conviction to change her circumstances. Other young people in this study mentioned much smaller every day events that had influenced the way they perceived their talents or acted on them. It appears that the size of, or challenge associated with crystallising experiences is not what makes a difference, but rather the perceptions, emotions, and understandings of the individual experiencing the event itself. It could also be that the same event might have a different impact on an individual at different times of their lives, or in different contexts, and this complexity of the associated processes makes potential ‘turning points’ another intriguing area for further exploration.

A small but significant number of the young people in the present study indicated that competition or challenge was a contributing factor to their high levels of drive, something that has not been widely reported in other studies on gifted and talented individuals. Amongst the studies of gifted individuals from low socioeconomic backgrounds reviewed in Chapter 3, however, two of these made mention of competition. Frierson (1965) found that gifted children from low socioeconomic situations preferred competitive sports to a greater extent than their higher socioeconomic counterparts. When comparing gifted and average children, both from low socioeconomically adverse backgrounds, Frierson again found that the gifted group was more partial to competition. In Reis et al.'s (1995) research, which compared gifted achievers and underachievers from low socioeconomic backgrounds, the group of gifted underachievers believed their low achievement to be a result of a lack of challenge. While it would be inappropriate to draw any definitive conclusions based on these findings and those of the present study, the question of whether competition and challenge contributes to drive amongst gifted young people from socioeconomically adverse backgrounds in particular would be useful to explore.

2.3. Conclusion

Many studies related to talent development cite drive as a key characteristic of gifted individuals, and the present study is no exception. Amongst this group, however, there were differences in their explanations of where the source of their motivation lay. The majority of the young people in this study reported that their socioeconomic circumstances were the primary source of their drive to achieve. In general, the participants in this study exemplify the resilient individual, whose interaction with and reaction to adversity has resulted in positive or adaptive outcomes.

While their personal circumstances were clearly influential in terms of motivation, the young people in this study did have difficulty pinpointing other sources, and this

is also consistent with other research on giftedness. Gottfried and Gottfried (2004) pointed out that literature refers to drive in such different ways - as a prerequisite for, and a component, catalyst, or outcome of giftedness - and this appears to be what complicates concepts of motivation. Despite this, there were commonly reported elements amongst this group. Second to socioeconomic adversity, participants in this study reported that relationships with significant others were key, and that parents were particularly important. What became apparent from the participants' accounts, however, is that it is the nature of relationships rather than the relationship itself that holds the key to motivation and resilience, and a number of the young people in the present study regarded the way that they were parented as influencing their levels of drive. Of particular importance were mothers, who a number of participants regarded as strong role models in terms of work ethic.

A small number of participants in the present study referred to significant events as having influenced their drive and, while most of these were relatively minor incidents, these clearly had quite an impact on them. Competition or challenge was also regarded as important, particularly in the school setting, and those who did not experience sufficient challenge conveyed feelings of having been restricted in their ability to develop their talents. There is currently a tendency in New Zealand schools towards equity for all children. It could well be that gifted young people actually require an appropriate level of competition as part of their educational experiences in order to further develop their talents.

For a number of participants, their motivation could only be described as an 'inner drive', something innate and that, according to one young person, "just is." These young people could often not put words to where their motivation came from and those who could, much like a number of theorists who have investigated talent development, described it as intrinsic and unexplained.

3. Opportunities

Outliers are those who have been given opportunities – and who have had the strength and presence of mind to seize them.

Malcolm Gladwell (2008, p. 267)

A plethora of studies in this field have indicated that specific opportunities need to be given to gifted young people to enable them to fully develop their talents. In more recent decades, research has focused on how best to cater for gifted young people who are generally perceived to be disadvantaged, like those in the present study. Recommendations for opportunities have largely been concentrated around the classroom and school environment, and less around the home or other contexts. While this research has been useful, there are few studies that take into account what opportunities gifted young people from financially challenging backgrounds feel that they need in order to develop their potential. The participants in this study did not only identify what types of opportunities had been most beneficial for them over their lives so far, but also the ways in which their high abilities, socioeconomic circumstances, and opportunities interacted to further their talent development. Many of the young people in this study perceived themselves to be opportunistic in nature, and it was evident that this characteristic also had a bearing on their ability to develop themselves.

3.1. Results

Opportunities, or the lack of opportunities, significantly impacted on the ability of participants in this study to develop their gifts and talents, and this group of young people gave numerous examples of these in their accounts. These included tangible

opportunities such as funding or access to extracurricular activities, and less measurable opportunities such as perceived support from other people and exposure to different activities and environments. The participants in this study tended to discuss opportunities mainly in the context of their home and school environments, and less in the wider community context.

Approximately 70% of survey respondents considered that being gifted increased the quantity and quality of opportunities they received. As one participant pointed out, “Achievement provides opportunity. The career path that I have now would not be available to me if I wasn’t academically able.” The reverse was also typical of their experiences; that is, having access to opportunities had also enabled them to develop their gifts and talents, and this in turn led to more opportunities. One survey participant aptly captured this cyclic connection: “I have had so many opportunities because I am bright and confident. Or perhaps I’m like this because of the opportunities?”

What was notable about many of the participants’ stories was that it was not only their giftedness that afforded these young people opportunities to develop. Both survey and interview participants also spoke extensively about opportunities they had had as a result of their low socioeconomic circumstances. When participants were asked to describe how they felt financial constraints had positively contributed to the development of their talents, all but two of the 63 survey respondents, and each of the eight interviewees, outlined how their low socioeconomic circumstances had presented specific opportunities. Only two survey participants felt that their personal situations had not created any opportunities for them at all. Distinguishing which opportunities most commonly came as a result of high abilities and which were offered because of socioeconomic circumstances was not always straightforward. For example, some young people talked about opportunities such as funding, which they

had received as a result of their giftedness, while other participants received financial opportunities because of their personal circumstances.

Interview participants talked about two key opportunities that appeared to be common in the contexts of their homes, and these echoed the opportunities mentioned by survey participants. These were stimulating home environments and supportive relationships. Kris described his home as a “good environment to grow up learning lots of stuff” as there were always thought-provoking discussions with his parents and brothers. Jennae grew up in a creative home environment, which she described as a “feeding ground.” Her family was largely musical but she regarded them as “talented across the board” and outlined how she had been exposed to a wide range of “rich experiences”, including imaginative play and cultural activities. Sarah described her mother as being “efficient” and “organised”, and viewed this structured environment as having positively influenced her.

As noted in the previous theme (Drive), 82% of the survey participants in this study indicated that the most significant opportunity in their home environments came in the form of supportive relationships with family members. When asked who it was they felt had been the most influential in the development of their talents, these respondents nominated a family member and their comments referred predominantly to their parents:

I would have to say my parents are hugely responsible. They have always pushed me to join lots of sports teams and always taken an interest in my homework and have always been so supportive and this has boosted my confidence. As a child they encouraged me to join a lot of extracurricular activities and although I did not do well in some of them it meant that I was exposed to several different options and I was able to find what I was really good at. I then continued with the things I enjoyed and eventually excelled.

All of the eight interview participants considered that their parents had provided a range of opportunities for them and mothers tended to be mentioned more often than fathers. Ben described his mother as being a source of support because she was “always consistent” with her “straight up, candid comments and encouragement.” Niu also acknowledged his mother as having been the “biggest influence” in his life and he stated that she did her best to support him to get involved in various activities:

The biggest thing was her guiding me in the right direction and then letting me take over once I got there. If I didn't want to do it, that was fine, but if I wanted to go on it was my responsibility to go and make sure that I let her know that. And then she would make sure that all the resources were there for me - she'd give us an avenue for doing it.

The school setting appeared to present the most opportunities for participants in this study in relation to their talent development. Supportive relationships with teachers were cited by both survey respondents and interviewees as being valuable, as these often resulted in further opportunities for participants. Survey participants were asked to indicate what aspects of their schooling had contributed to their talent development and just over half of the 59 respondents to this question signalled that this had been supportive and encouraging teachers. Participants were also asked to identify aspects of their education that had limited their talent development. Conversely, responses to this question revealed that teachers who were discouraging or did not cater effectively for these young people were considered to be one of the most limiting factors.

Individual teachers who had provided participants with opportunities to develop were fondly identified by name by several of the young people in this study, and some described how their high school teachers in particular had spent many hours of their own time helping them to develop their potential. Other teachers saw that participants were extended by enrolling them in university papers if appropriate, spending time preparing them for extracurricular exams, and continuing supportive

relationships once students had left school. Some teachers went so far as to fund or subsidise sports fees for promising athletes.

With the exception of Laura, all of the interview participants described how influential teachers had been in their talent development. Niu talked about his relationships with two teachers in particular. One became like “an honorary grandparent” through her ongoing support of Niu and his family, and this relationship continued after he left the school. Another of his teachers offered him additional opportunities to pursue sporting and creative interests. Sarah had one particular teacher who she described as having “always been there as – like a back board, showing me ideas and stuff like that.” She went on to say that this teacher had recognised her passion and extended her accordingly. When asked what advice she had for teachers of talented young people from low socioeconomic backgrounds, Aroha’s comment reflected the relationship she had had with one particularly supportive teacher through her high school years: “It does take a lot of patience, consistency, resilience, and encouragement – encouragement’s a huge thing.”

Not all of the young people in this study viewed their teachers as supportive and encouraging, and instead described them as “discouraging” and “nitpicking.” One survey respondent commented that her opportunities had been limited by “teachers who do not want to take or make the time to push you beyond your boundaries and like to play it safe and hug the status quo.” Another young woman pointed out that she would “get left to ‘work independently’ during class” because she was considered capable. One survey participant described how she had felt in the classroom setting:

I do feel that sometimes people are intimidated or put off by my talent. Teachers approach me differently than other students. I am not always asked the same questions because they already know that I know which sometimes is frustrating.

Three other key opportunities that were significant for both survey and interview participants throughout their school years included the age at which their high abilities were recognised, eligibility for funding and scholarships, and extension or developmental opportunities. Participants appeared to place significance on ‘when’ their high abilities were recognised by others:

Being recognised at an early age and having this nurtured in a healthy way was a major mitigating factor in the success that I’ve had to date. The support network that one has when they are younger has a resounding effect on whether they will then see within themselves a talent or whether they will ignore what it is that makes them a success.

The recognition of giftedness by other people tended to occur predominantly in the school setting. A survey question asked participants when they remembered other people having recognised them as gifted and, for almost half of the 69 respondents to this question, this had been during their primary school years. The remaining participants had been identified as gifted during intermediate school and high school, with the exception of eight respondents, who indicated that other people had identified them as gifted prior to starting school. One survey participant made the comment, “Other than getting scholarships and stuff I don’t think anyone has called me ‘gifted or talented.’”

Almost all of the eight interview participants were formally recognised as being academically able by being placed in extension classes or programmes at varying stages of their schooling. Six interviewees described having been placed in streamed or enrichment classes at the primary or intermediate school level. For Aroha, placement in such classes occurred much later in high school due to personal circumstances that had affected her studies during her early high school years. Niu was allowed to study an extra paper by correspondence in his final year at school, as well as being placed in top stream classes.

Throughout their educational experiences, all of the participants were eligible for funding and scholarships based on both their giftedness and their financial situations. Developing networks with like-minded people and gaining work experience as a result of these scholarships was also noted as important. As one survey participant pointed out: “Having financial constraints has made me eligible for the *First Foundation* scholarship, which not only provides me with financial support but also has given me work experiences and a mentor, and all that has been very beneficial for me.” All eight of the interview participants outlined how scholarship funding had significantly contributed to their talent development. Laura was adamant that she would not have taken the opportunity to pursue visual arts if she had not received the scholarship that was awarded because of her socioeconomic circumstances. Jennae stated that her scholarship “cleared the way a little bit.” She expressed that having less financial stress had allowed her the extra time to “dance with all my heart” and this had subsequently led to high achievement and ongoing positions of responsibility in the arts.

As well, extension and developmental opportunities for this group of young people in the school context were wide-ranging and these were also offered as a result of both their high abilities and their socioeconomic circumstances. These opportunities typically included leadership development programmes, access to extracurricular activities, and academic extension. When asked how they felt their abilities were catered for at each level of schooling, approximately 75% of survey respondents indicated that they considered their secondary schools had catered best for them, with primary school experiences rated as second (57%) and intermediate school experiences ranked least effective (48%).

Both survey and interview participants constantly mentioned being extended at school, and this took different forms. When asked to describe what aspects of their schooling had contributed to their talent development, almost one third of survey

respondents stated that acceleration, streaming, advanced classes, or extracurricular programmes had contributed considerably to their successes. In his interview, Kris outlined that he was in streamed classes through his high school years and affirmed that “streaming worked for me.” He believed that academically gifted young people in mixed ability classes found it “pretty easy” and were easily bored. Likewise, Jennae enjoyed being in extension classes and having the opportunity to participate in alternative projects as she was “mixing with similar characters or people who have that work ethic.”

Ben was the only interview participant who reflected that, while his schools were supportive environments, there had not really been specific programmes for the academically talented. In terms of recognition at school, he said:

I’d merely say it was acknowledgement and identification. It was more as though ‘He’s just a smart kid’ or ‘He’s ahead of his age’, that sort of thing. I don’t think the fibre of the time sort of acknowledged that there were talented and gifted kids. It was just ‘Well, he’s a *brainy* kid.’

Just over half of survey participants considered that their schools had not provided appropriate opportunities to extend them. Laura’s account also reflected this, and she stated that she had left a primary school because she was not being adequately catered for: “I had a teacher who didn’t know how to handle the fact that I’d finished my work, and so I spent half the time doing absolutely nothing and then I’d get in trouble.” She went on to say that she was streamed in intermediate and high school “so I was with people who were on a similar wavelength.” Other survey participants also made comments about a lack of extension at school: “My school was not a very academic school. It didn’t push me to do my best and aimed to get students to just pass.” A few young people were extended in some areas but not in others:

In many ways I benefited greatly and I was able to develop many more leadership and musical abilities. However, academically I was not stretched or challenged enough, and was bored with the course work throughout much of high school. I was able to always do well without studying, so just became used to not having to study, so I could have learnt a lot more and developed my academic skills if I had been challenged more.

A survey question asked participants to state their view as to whether gifted and talented students should receive extra support or be specially catered for at school and two thirds of respondents to this question gave a positive response. One survey participant stated, "Having the classes in our school streamed helped, especially in low decile schools where in many groups education isn't given as much import." Nine other respondents indicated that they did not think gifted students should be specially catered for, and these young people made comments such as "Each student should be given the same opportunities and attention from teachers. Being 'gifted' shouldn't be exclusive." Another pointed out that labels such as 'gifted' created a "very real, formalised distinction" between these students and the rest of their peers.

Survey participants were also asked to indicate how they felt financial constraints had limited their talent development and approximately a quarter of respondents to this question made reference to attending low decile schools. These young people felt that attending low decile schools "hindered" them reaching their maximum potential and did not provide "the opportunities the students at wealthier schools had." One young person pointed out that "influences around me at school often made it hard to continue, and *want* to continue, developing my talents." Another young man stated:

Not having access to resources I sometimes needed and couldn't get meant I definitely got left behind a bit. On a national education level the playing field was not even. Wealthier individuals or schools had a clear and unfair advantage. This is keenly felt when you are aware that you are talented and

know that the only reason for your lack of success is lack of finance, especially when the reward for success is often more resources. At times this will anger and frustrate you and make you think there is no point and just give up. And at other times it can motivate you to try harder and make up for in sheer effort and brilliance what you lack in resource.

While most participants acknowledged that their low decile schools may have had fewer resources than higher decile schools, these young people tended to be content with their schooling experiences. Commenting on the schools he had attended, one survey participant stated, “I am the person I am because of those schools and the people and teachers I met there.” Another said, “If we had more money I might have gone to the other [higher decile] school and I do not think I would be who I am today.” Kris and Jennae outlined that, while their schools did not have the resources or networking opportunities that other schools might have had, in hindsight they would not have chosen to go to other schools. According to Jennae, the college she had attended “definitely didn’t have state of the art equipment or anything” but the environment and culture of the school had made her “thankful” she had spent time there. Sarah seemed more uncertain about her satisfaction with the low decile high school she was attending, but she acknowledged: “I’ve kind of realised that it is sometimes about the school, but it’s mainly about just making the most of what we have right here.”

Participants did not talk a lot about opportunities in the community, however there were some specific developmental opportunities noted. Ten survey participants mentioned their involvement with various churches and stated that these had been particularly supportive environments, as did Ben and Jennae in their interviews. For Ben, church was a natural part of his Samoan upbringing, and he was the choir master and music director of his local church and region, although he did not feel that being part of a church environment had necessarily influenced his talent development.

Jennae, on the other hand, explained that the church environment was “encouraging of people functioning in their element.” She attributed her talent development to her faith, stating, “I think my faith in God has been another area that’s been something that’s helped me maybe realise *given* abilities or *given* talents.” Other participants talked about their experiences with organisations such as YWCA Future Leaders¹⁷, Project K¹⁸, Rotary¹⁹ leadership courses, and Outward Bound²⁰, stating that these opportunities had helped them to “develop confidence.”

It became increasingly evident through interactions with both the survey and interview participants that the young people in this study were largely opportunistic and that their successes could also be attributed to the ability to seek out, recognise, and capitalise on opportunities that came their way. When asked what had helped develop her gifts or talents, one survey participant responded: “Being able to identify when someone is trying to help you and not being too proud to accept that help.” Another young man stated: “I just made the most of opportunities that were presented to me. I made myself known around the school and helped out with anything I could. Hard work pays off.”

All of the eight interviewees indicated that they were opportunistic to varying degrees, and they described how they had sought out opportunities for themselves. This included creating networks with significant people, putting themselves forward for various tasks or roles, and strategising about the future. Laura stated that she had

¹⁷ YWCA Future Leaders is a mentoring programme that works with young women aged 14-18 years who have leadership potential.

¹⁸ Project K is a youth development programme that empowers young people to build self-confidence and teaches life skills such as goal setting and teamwork.

¹⁹ Rotary runs a number of programmes for youth and young adults that are designed to challenge, inspire, and provide practical personal growth opportunities.

²⁰ Outward Bound is an organisation that runs outdoor adventure courses in the outdoors. The youth programme is designed to challenge young people to push their limits, learn about themselves through success and failure, and increase their confidence and motivation.

a “tendency to rely on myself to make things happen. I don’t want to sit and wait for the world to approach me. It’s not very often that fate falls out of the sky and lands on your lap.” Ben said:

Unless you go out there and do it for yourself, it’s not going to happen, but hey, that’s the name of the game - shape up or ship out. If you’re out in the forest and you’re alone and you’re hungry, no one’s going to fly in Air New Zealand and say ‘Here’s a three course meal.’ You’ve got to go out and fend for yourself.

Matiu reflected, “Whatever anyone offered, I’d take it.” He went on to say that “Some people might say that’s being a user or something like that, but I don’t mind, you know, if something’s on offer I’ll take it – I’ll take it with both hands and then I’ll run with it.”

Participants also talked about specific instances where they had sought out opportunities to get around financial barriers. For Laura and Niu, this involved working hard to raise their own funds to attend trips. When asked if he had a message for other talented young people who faced financial barriers, Kris stated:

Don’t use it as an excuse not to try and chase your goals. Don’t say I can’t do it because I don’t have enough money because when you think about it, there are probably people that come from far worse places than you’ve been and they’ve done a whole lot.

Aroha’s message for young people facing financial difficulties was:

It’s up to you to get out there and make it happen. Let people see that you have the potential to do things. If you’re unhappy with the way that things are at home or if you feel that you’re struggling, if you find that things are hard, you need to dig deep, keep focused and just go for it.

Despite their optimistic outlooks, there was no denying that financial constraints had limited opportunities for participants also. As mentioned in an earlier theme (Identity) close to three quarters of survey participants and a similar number of interviewees indicated that financial challenges had limited their opportunities to develop. Over half of these young people also stated that family struggles and challenges, many as a result of financial constraints, were barriers they had faced. Some of these participants mentioned not being able to access resources or funding, and missing out on trips, programmes, or extra tuition that would contribute to their talent development:

I haven't been able to participate in extracurricular activities, which all my friends were involved in. Most of the time I wasn't able to bond socially with people because if there was no money to go anywhere then I stayed home. Another limit is when I have been exposed to money I waste it because I never had it, and I don't really know what to do with it. I'm so used to living on nothing that it doesn't matter if I don't have money because I don't remember a life with it.

In his interview, Ben talked about the family financial situation as being the “underlying factor” for everything. He outlined that “It's just those little things, you know – the selection of courses, or you pick your subjects because you know mum gets paid next week and mum gets paid ‘x’ amount of dollars.” Of his family, he went on to say that “You couldn't really play sports for clubs and you couldn't really go out there and belong to things because there just wasn't extra money for that.”

Participants were asked to briefly describe issues that teachers and schools needed to consider in relation to gifted young people from financially challenging backgrounds, and approximately half of the survey respondents indicated clearly that access to opportunities needed to be provided in a variety of areas. Throughout the responses in the survey and interviews, it became clear that people-related opportunities were more valuable to them than tangible financial or resource opportunities. When survey

participants were asked what had helped them to develop their gifts and talents, their highest responses were confidence in themselves and support from others, including family members, teachers, role models, mentors, and friends. Survey participants ranked more tangible opportunities, such as access to finances and resources much lower.

Throughout the participants' accounts, one opportunity that stood out as being most significant was the opportunity to share their gifts and talents with others. When participants were asked to identify the best thing about being gifted, over a third of the young people who responded to this survey question, along with six of the eight interview participants, felt that having the ability to share their gifts was a major benefit. Participants typically highlighted this as an opportunity that stemmed from their high abilities but was strengthened through their personal circumstances. This was particularly evident in Matiu and Aroha's interview accounts.

Both Matiu and Aroha believed that their particularly adverse experiences had strengthened their resolve to be role models for others, and Matiu's passion was reflected in the comments he made:

There've been a lot of events that have shaped me to what I want to think and how I want to do it and why I want to achieve. And at the end of the day all I want to do is get families out of that cycle, you know?

Aroha echoed these sentiments: "For me, the bottom line, the thing that matters most in the world other than my family is being able to bring people like my family, and even others outside that circle, up." In her last three years of high school, and particularly in her role as head girl, Aroha had already been a role model for many of her peers:

You say my name round the school and people know who I am. And it's not a cocky sort of reputation but, you know, people know that she's gone

through hardship and she knows what it's like to struggle - so if she can do it, *I can do it.*

3.2 Discussion

It would probably be considered that, given the right opportunities, any person might have the chance to succeed in life. Numerous biographies and autobiographies document stories of remarkable people who identify particular opportunities that led to their successes across a range of domains. In relation to the participants in this study, two important questions come to the fore. The first is, what types of opportunities enable gifted young people from low socioeconomic backgrounds to realise their potential? Second, how do socioeconomic circumstances influence the nature and quality of opportunities that gifted young people might receive?

The opportunities identified in the present study fall primarily into two categories; physical opportunities, including funding and access to resources, and those that are less tangible, such as perceived support from other people. These opportunities were most often discussed as occurring in the home and school environments, and this is likely to be due to the amount of time spent by the participants in these two contexts compared to other settings. Through the accounts of the young people in this study, it became clear that there was a distinct relationship between opportunities, giftedness and socioeconomic circumstances. However, these links were not always easily defined, and a fitting example of this is the participants' *First Foundation* scholarships, which were awarded based on both high achievement and financial adversity.

One of the reasons that opportunity emerged as a major theme in the present study could perhaps be attributed to the remarkably opportunistic natures of the young

people involved, which were reflected in what they said and how they presented. Many researchers in the fields of giftedness and resilience would agree that this is characteristically typical of the individuals they study, suggesting that both talented and resilient people are generally able to identify and engage relationships and environments that promote growth and stimulation (Milgram & Palti, 1993; Plomin & Price, 2003; Porter, 2005; Rutter et.al, 1995; Wang, Haertel, & Walberg, 1998). An ‘easy temperament’, commonly cited as a protective factor in resilience literature, allows a young person to negotiate their world on easier terms and to elicit more positive responses from other people (Werner, 1993; Wolff, 1995). Ideas about the opportunistic natures of gifted individuals are expanded in gifted and talented literature. For example, in their study of 52 disadvantaged high and low achieving boys, Milgram and Palti (1993) found that high achievers were superior in social support seeking and support attracting skills, despite the effects of poverty and other potentially disadvantageous external influences. A limitation of some studies however, much like the present study, is that participants have already been identified as gifted or resilient, and it is less evident whether gifted underachievers might share the same opportunistic traits.

While the debate about heredity and environment interactions is complex, Scarr and McCartney (1983) offer some theoretical insights into environment selection and modification that might shed light on the opportunistic natures of the young people in the present study. These authors believe that genotype determines environmental experience and that individuals modify and select environments that are conducive to their personalities, preferences and talents. While their ideas about the genetic origins of experiences have been critiqued (e.g., Baumrind, 1993), Scarr and McCartney outline three gene-environment effects that resonate with the accounts of some of the young people in the present study. Some of these participants provide examples of passive effects, where their parents provide environments that reflect what they enjoy or are skilled at, and this is ‘transferred’ to the child. In Jennae’s case, music was her parents’ passion and this became a large part of her own life as

she was naturally exposed to creative opportunities. Kris was brought up in a family that had a particular penchant for sport and, consequently, athletic ability combined with exposure to this environment provided him the opportunity to excel in this area.

Evocative effects were also evident in the participants' accounts. According to Scarr and McCartney (1983), those with attentive, cooperative, or pleasant dispositions, or those with skills and talents that are valued, tend to evoke more positive responses from others in their environments. Ben described how his positive personality had attracted favourable responses from many of his high school teachers in particular, and this in turn further reinforced and extended his development. Scarr and McCartney refer to a presentation by Garmezy in the early 1980s, in which he stated that young people from low socioeconomic backgrounds who are gifted are likely to evoke more approval and support from educators than those from the same backgrounds who were not identified as gifted, and this certainly seems to be the case for the majority of the young people in this study. One must ask the question, however, about the implications of this for underachieving gifted young people whose socioeconomic situations are perhaps masking their abilities, or for those who display less socially acceptable behaviours or appearances.

A third type of gene-environment effect outlined by Scarr and McCartney (1983) demonstrates how individuals seek out environments, or 'niche-pick,' and this can be seen from the accounts of several participants in the present study. Niu, for example, went out of his way to find environments and peer groups that he found stimulating and compatible, choosing to respond to and learn from some aspects, and to ignore others. Scarr and McCartney propose that it is the motivational, personality, and intellectual aspects of genotype that steer a person to select these environments and that the experiences had within these environments determine further experiences. This relates to Sternberg's (2007) notion that personally valued interests and goals push individuals to find an optimal fit between themselves and their environments

and, if not successful, a new environment is sought. Older children or adolescents are much more free than to select and create their environments as they are moving in and out of contexts beyond the family influence. This is more reflective of the period of life of the participants in the present study, and might provide explanation for why these young people's opportunistic natures appeared so pronounced.

It became apparent through the course of this study that people-related opportunities within the various contexts of their lives were considerably more important to the participants than physical or material opportunities. These relationships provided support and encouragement, but they also offered crucial access to additional opportunities. Almost all participants spoke extensively about the significance of role models, mentors, and other social supports present in their homes, at school, and in the community context. Niu, for example, mentioned his mother's efforts to guide him towards people and resources that would assist him to pursue his interests, and this was reiterated by a number of other participants. Even those who felt that attending low decile schools had been a disadvantage mentioned that their relationships with specific teachers had compensated for some of the physical limitations of their school environments. Community supports included organisations as well as individuals, and it was notable that many of the participants spoke about the significance of the relationships they had formed through winning their *First Foundation* scholarships over and above the financial gains. The importance of relationships with parents, teachers, and other adult role models has also been extensively highlighted in both giftedness (e.g., Clasen & Clasen, 1997; Moltzen, 2005; Parkyn, 1948) and resilience research (Masten & Coatsworth, 1998; Rutter, 1987).

The fact that relationships with significant others in the home environment made such a difference in the lives of the young people in the present study contrasts with assumptions that might exist about impoverished households. The literature related

to this tends to report the less desirable aspects of living in poverty and, as evidenced by their accounts, there is little doubt that many of their socioeconomic situations afforded these participants fewer assets or advantages with which to navigate life. However, consistent with some of the studies reviewed in Chapter 3 (e.g., Bloom, 1985; Shumow, 1997; Van Tassel-Baska, 1989), despite the challenges associated with their personal circumstances, the parents of many of these young people generally valued education and achievement and also tended to expose their children to a range of environments and activities, giving them a broader perspective of options available to them. Parents who optimise interactions with their children can compensate for a lack of financial or other resources (Biddulph et al., 2003; Duncan & Brooks-Gunn, 2000) and this was certainly the case for participants like Kris, who spoke appreciatively of stimulating family discussions and learning experiences in his home. According to Masten and Obradovic (2006), these are also aspects of family life that play a crucial role in resilience.

In the school setting, relationships with teachers were also highly significant for access to further opportunities, and one of the key opportunities that appeared to come largely as a result of these relationships was extension and developmental opportunities. How gifted and talented students should be catered for in New Zealand schools has been a contentious issue over the years and, as mentioned in Chapter 1, enrichment (providing learning activities that offer depth and breadth in line with students' learning needs) rather than acceleration (exposure to content at an earlier age than other children) has been the preferred method of catering for gifted students in this country (Ministry of Education, 2000; Townsend, 2011). More recent gifted education guidelines encourage a balance between these two approaches (Ministry of Education, 2012), however Townsend contends that New Zealand's history in the use of acceleration practices is weak.

In studies of gifted individuals from low socioeconomic backgrounds, enrichment has also been highlighted as important for talent development. Borland et al.'s (2000) follow up study of their gifted minority students revealed that being placed in a gifted school environment had significantly contributed to the development of their respective talents. In Shumow's (1997) research, the two participants who had received no enrichment at all had poor attitudes towards their schooling, whereas the third participant who attended a gifted programme at school was much more positive about his or her educational experiences. In their comparison of high achieving and underachieving gifted students from low socioeconomic backgrounds, Reis et al. (1995) found that their high achieving participants had been frequently involved in extra curricular activities, while the underachieving students reported a lack of what they felt to be appropriate challenge.

There is no doubt that gifted and talented young people require some sort of enrichment and challenge in order to develop their potential, but just which type of intervention is most suitable is a hotly debated issue. Acceleration across year levels is arguably the most controversial method of catering for gifted students in New Zealand schools (Townsend, 2011). Very few of the participants in the present study specifically mentioned having been accelerated across year levels, and this is possibly reflective of the change in approaches to catering for gifted students in recent years. Social-emotional issues are one of the most common arguments put forth in relation to the acceleration of gifted students (Davis & Rimm, 1998; Townsend, 2011), and Borland (2003) believes that educators and parents remain resistant due to misunderstanding and uncertainty. Many studies have demonstrated extensive positive academic and social-emotional effects of acceleration (Gross, 2009; Rogers, 1991; Steenbergen-Hu & Moon, 2011).

Other forms of enrichment were experienced by many of the young people in the present study, and streamed or advanced classes (ability grouping) tended to be

looked upon most favourably by this group, although this is also a method of extension that some educators are apprehensive about. With the New Zealand education system's current emphasis on inclusion for all students, many would prefer that gifted students remain in mixed ability classrooms and that enrichment is provided within this context. Interestingly, the young people in this study tended to discuss the academic benefits of being in advanced classes with like-minded peers above any detrimental social issues related to being apart from 'regular' students, and this is consistent with Townsend's (2011) claim that there is "overwhelming evidence of its positive effects" (p. 269).

Another argument that is sometimes used against ability grouping is the impact on students who remain in lower streamed classrooms, as these students are said to miss out on mixing with peers who may be of assistance academically, or assume leadership responsibilities amongst their peers. Ironically, this perspective can actually be seen as exclusive rather than inclusive of gifted and talented students, as being in a classroom that might be inadequately challenging (as reported by some of the participants in this study who were schooled in mainstream classes), can result in ineffective catering for those who are gifted. George Parkyn (1948) addressed this many years ago, stating:

Equality of opportunity, however, does not mean providing the same opportunity for all: in order that each may have the best conditions under which to develop his potentialities such careful attention to individual differences is required that it almost calls for a different kind of opportunity for every person. (p. 231)

What seemed to be important for the participants in the present study in relation to how their learning needs were catered for was a focus on the development of their academic abilities over and above their socioemotional needs. Laura, for example, outlined the experiences she had in a class with likeminded students of similar ability.

While others in the school sometimes treated Laura and her classmates as ‘outsiders’, this was secondary to the sense of belonging she felt as part of her gifted class. Laura felt that, regardless of where she was placed, her regular school peers would have treated her differently and the fact that she had some support from likeminded peers in the gifted class she was placed in, made this much more easy to cope with. This account resonates with Townsend’s (2011) suggestion that a more positive attitude towards both enrichment and acceleration practices in New Zealand schools, rather than an approach based on the apprehension of teachers and parents, will ensure that the individual needs of gifted and talented learners are more effectively met.

Of course, not all of the young people in the present study had good relationships with their teachers and, to the same extent that positive relationships were fundamental in terms of talent development, less supportive relationships with teachers appeared to have quite a damaging effect. Those participants in the present study who did not enjoy their school experiences mostly attributed this to teachers who were discouraging and, as one described, “nitpicky”. These young people generally felt that their indifferent attitudes were due to a lack of challenge by teachers who regularly left them to their own devices. Others, and particularly those who were creatively gifted, felt that their talents were undervalued and that teachers gave more support to those who were inclined more towards exceptional academic achievement. This again highlights the ‘hierarchy of values’ attributed to different types of talent, which perhaps reflects the largely European, middle class values of many educators.

The fact that most of the participants in this study were recognised as being gifted early on in their lives might partly explain their successes. The majority of these young people had their abilities acknowledged during their primary school years, and this obviously allowed more time for opportunities to present themselves over the remainder of their schooling. There may be several reasons for why this group was

recognised as talented so early in their schooling, and the first is personality. As mentioned earlier, an 'easy temperament' is more likely to attract positive response from others and, with the exception of a few, the participants in this study appeared to be socially adept, to have generally healthy self-concepts and to be well-liked by teachers and peers. Another factor that might explain their early recognition and subsequent successes is the time at which this particular research was undertaken. As outlined earlier, educational approaches have altered in recent years and aspects such as innovation and inquiry are now arguably encouraged more in New Zealand classrooms (Ministry of Education, 2007). The group of young people involved in the present study has likely been exposed to environments that more readily foster the pursuit of individual interests that are broader than those encouraged in years past.

One of the more commonly cited community opportunities mentioned by the young people in the present study was involvement with churches or other religious communities. Through her resilience research, Werner (1993) discovered that many of those who had emerged successfully from impoverished environments had cited religious faith as being instrumental in them overcoming their circumstances. There is also evidence in other literature of the significance of religious activity. Masten and Obradovic (2006) identify religion, values, and standards as contributing to adaptive developmental outcomes. The young people in the present study saw religious involvement as being advantageous in two particular ways; first as a gateway to further opportunities to develop and share their talents, and second as a source of hope and personal strength.

The final aspect of opportunity that emerged from many of these participants' accounts was the benefits of being able to share their talent with others, and this appeared to be an outcome of both their giftedness and their personal circumstances. Several of these young people reported that the ability to share their talents stemmed from their giftedness but the desire to do so was heightened by their socioeconomic

circumstances. In this sense, opportunities emerged in different forms for the participants; opportunities came as a result of their giftedness and their low socioeconomic circumstances, their talent was developed as a result of opportunities, and this enabled them the ultimate opportunity to share their talent with others in their lives. The significance of this notion of ‘paying it forward’ may well be reflective of some of the cultures represented in this study. For example, Bevan-Brown (2011) outlines that service to others resonates with a Māori view of giftedness, as mentioned earlier in this chapter.

3.3. Conclusion

According to Katz (1997), numerous meaningful opportunities are the key to developing resilience, and these provide the chance for young people such as those in the present study to find their way out of circumstances that potentially put them at risk. There is no disputing that opportunities came as a result of these participants’ giftedness and related assets (such as desirable personal characteristics and heightened motivation) and also their low socioeconomic circumstances. While it was difficult to distinguish which opportunities resulted from which at times for the young people in this study, what did emerge was an indication of the types of opportunities that mattered most for this particular group of people. Much like the previous two themes in this research (Identity and Drive), this particular aspect had a reciprocal effect on participants in that giftedness and low socioeconomic status created opportunities, but opportunities also further influenced talent development and, at times, improved personal circumstances.

Along with this reciprocal relationship, the majority of the young people in this study considered that their giftedness presented the ultimate opportunity to share their gifts and talents with others and their personal circumstances appeared to fuel the determination to do so, particularly with others from similar backgrounds. Studies of

eminent individuals from less impoverished backgrounds do not specifically emphasise this desire, however this is not to say that these people do not use their talents for the benefit of others. What does appear to be evident in the present study is that the combination of high ability and challenges associated with socioeconomic circumstances led to a heightened desire amongst the participants to use their talents to potentially improve the situations of others who might experience similar difficulties. This desire may well be connected to levels of empathy amongst the group also, however the accounts of the participants in this study did not make this clear.

The opportunistic natures of the participants in the present study reflect what several other researchers have found in relation to the characteristics of both gifted and resilient young people. This trait was common amongst the participants and appeared to enable them to recognise, identify, seek out, and make the most of environments and relationships with other people, such as teachers or mentors that would enhance their talent development. Relationships across all contexts of their lives emerged as one of the most important opportunities for these young people, and this is also consistent with numerous studies in the fields of giftedness and resilience. These relationships were cited over and above material opportunities as being instrumental to their talent development, and the most important aspect of these relationships was that they were often catalysts for further, more tangible opportunities. Contrary to some of the literature associated with poverty, parents in particular were influential in exposing their children to stimulating home environments and providing a protective buffer against the potential detrimental effects of socioeconomic situations.

Developmental opportunities in the school setting were also significant for the young people in this study, and the majority identified the need to be stimulated and challenged primarily by way of extension and streamed classes, but also through other enrichment opportunities. This again highlights the ongoing debate about how

best to cater for gifted young people in New Zealand schools, and emphasises a need for educators to expose young people from low socioeconomic backgrounds to extension opportunities that may not be readily available in the contexts of their homes.

Chapter 7

Conclusions and Implications

If the children and youth of a nation are afforded opportunity to develop their capacities to the fullest, if they are given the knowledge to understand the world and the wisdom to change it, then the prospects for the future are bright.

Urie Bronfenbrenner

Studies of high achievers and the development of talent are extensive, and recent, more formal recognition of gifted and talented students in educational settings has increased interest in how talent develops. However, research in this area in the New Zealand context could still be regarded as relatively young, and there has traditionally been reliance on international studies to inform practice. Despite its limitations, the present study is unique in that it is the only New Zealand study that has specifically investigated the experiences of gifted young people who have grown up in, or are still experiencing, socioeconomic adversity and the challenges that may come with this. Another distinctive feature of this study is its focus on lived experiences as opposed to studies that rely on mostly second hand accounts. This particular research method evidenced some findings that could be unique to gifted young people from these particular backgrounds.

Earlier chapters of this study outlined the current educational and economic climates in New Zealand. While children and young people in this country are considered fortunate to experience a generally robust and well-regarded education system, there are specific groups who are readily identified by the Ministry of Education (2012) as ‘disadvantaged’. Amongst these are gifted and talented young people from low socioeconomic backgrounds, who are the focus of the present study. In a context

where poverty rates are increasing (Fletcher & Dwyer, 2008; OCC, 2012) and the gap between the wealthy and the poor continues to widen (Ministry of Social Development, 2010; St. John & Wynd, 2008), growing numbers of talented New Zealand children and young people are likely to face challenges similar to those in the present study. This research is timely, in that it offers insight into the lived experiences of young people from such backgrounds, and explores how support might be offered to nurture their talents and see their potential realised.

In this chapter, the limitations of this study are considered, and these are followed by suggestions for further research. The major findings from this study are then summarised with reference to the research questions, and a series of implications outlined.

1. Limitations of the study and suggestions for further research

The information gathered for this research came from an anonymous survey of 93 young people, single interviews with eight participants, which were followed up with further contact if required, and formal information about these eight participants from their *First Foundation* scholarship application files. The anonymity of the survey probably meant that more people were willing to respond, however the result of this was that information provided by these participants was unable to be followed up on. As well, the information gathered from scholarship application files was possibly tailored for a successful application. Speaking to some of the teachers and principals who provided written references for these applications might have provided more complete pictures of these gifted and talented young people, however this might also have compromised the phenomenological intent of the study.

The data gathered for this study were collected at a particular static point in time, and it may be that following this group of gifted young people into adulthood and across their lives would provide valuable information about the ongoing impacts of socioeconomic status on gifted individuals. The participants in this study were young enough not to have experienced the full impact of wider life contexts (outside of home and school) on their high achievements. Extending this research project into a longitudinal study might provide insight into whether or not these gifted and talented young people become eminent adults, and what bearing childhood poverty might have on this.

A key finding in this study offers a challenge to popular conceptions about risk and resilience, in that the limitations of having a gift or talent presented as more of a risk factor for many of these participants than did the challenges associated with their socioeconomic circumstances. While there is limited evidence of this in other resilience studies (e.g., Luthar, 1991), this has several implications for our understanding of risk and protective processes, and resilience as a whole. Further research in this area is recommended, as the study of resilience is still considered to be quite ‘young’, and therefore new ideas are still developing.

Another limitation of this research, and perhaps the most difficult to address, is the fact that these participants had already been identified as high achievers and were therefore likely to be having very different experiences to what gifted underachievers from similar backgrounds might have. As expressed earlier in this study, gifted underachievers are extremely difficult to identify for a variety of reasons. If these challenges could be overcome, a similar study carried out with these gifted underachievers would provide an interesting comparison, and extend existing knowledge about the experiences of gifted and talented young people from low socioeconomic backgrounds.

This study concentrated on a range of talent domains and, while some patterns emerged across these areas, it would be interesting to repeat this study based on more specific areas of talent. For example, those participants in the present study who were creatively gifted appeared to have quite different experiences to those who were talented in other domains, particularly in the school context. Again, following these young people over time to reflect their experiences in wider contexts would be of interest, as it is evident that experiencing success in the arts beyond educational settings can be extremely challenging in the New Zealand context. In the same way, the students in this study could be viewed as resilient and how the factors and processes that contributed strongly to this in the present research might apply to nonresilient individuals is not clear.

A final recommendation for further research based on the findings of this study would be an exploration of some of the significant but perhaps less evident findings that emerged. For example, entrenched ideas about methods of catering for gifted and talented students in New Zealand schools are rampant and there have been cautions about an unbalanced approach to the way we cater for these students (e.g., Townsend, 2011). The present study indicates that gifted and talented young people from low socioeconomic backgrounds also differ in terms of what they need. Gathering more information about how various schools around New Zealand are catering for this group of gifted learners, along with information concerning what these young people perceive to be most effective for their individual development, would be of benefit. A second significant aspect that should be explored further is the effective use of competition in the school and classroom settings.

2. Conclusions and implications of the present study

This study investigated the lived experiences of gifted and talented young people from low socioeconomic backgrounds in an attempt to gain some insight into the

personal and environmental features that have enabled them to achieve to high levels. The key findings from this study fall under four main areas, which include: perceptions, evaluations, and attributions; identity, personality, and environment; relationships across contexts; and opportunities. There are several findings from this research that are consistent with other studies that have been undertaken in the areas of giftedness and talent, and risk and resilience. However, beyond this, the major findings of this study are as follows:

- Challenges associated with being gifted and talented presented as more of a risk factor for these young people than limitations associated with their socioeconomic circumstances.
- Low socioeconomic circumstances can be a catalyst for the development of resilience and positive life outcomes. The desire to change these circumstances was the single most common source of drive for the participants in this study.
- Optimism and opportunism were two important personal characteristics that directly influenced these participants' determination and ability to excel in their talent areas.
- People-related opportunities (relationships with others) were more valuable to these young people than material opportunities (resources and funding), however both were essential for talent development.

These major findings are outlined in more detail in the following discussion.

2.1. Adversity and the development of talent: Perceptions, evaluations, and attributions

Several studies that have focused on high achievers have indicated that these individuals do not necessarily always enjoy middle or upper class home and school

environments as they grow up (e.g., Goertzel & Goertzel, 1962). Instead, there is evidence that many high achievers contend with remarkably difficult experiences across their lives, sometimes as a result of financial adversity. As Bronfenbrenner (1979) pointed out, the difficulty with investigating development from an ecological perspective is that both people and contexts are constantly evolving and, according to this theorist, “in ecological research, the principal main effects are likely to be interactions” (p. 38). This study, consistent with previous studies, indicates that it is not simply socioeconomic status that determines levels of achievement; instead, the complex combination of other aspects of the home, school, and wider environments and the unique personal attributes of the gifted individual is what ultimately leads to talent development.

As outlined in Chapter 5, phenomenological research focuses on lived experiences and how individuals make sense of these. The first research question in the present study relates to how the participants perceive and evaluate their giftedness and socioeconomic status, and how they respond to these aspects of their lives. Bronfenbrenner (1979) draws on the work of Kurt Lewin, suggesting that reality exists in the minds of people and their perceptions of the environments they interact with and within. This highlights one of the challenges related to phenomenological research, as the researcher’s interpretation of the participants’ experiences is dependent on the way in which they make sense of their own reality. The strength of this though, evident from the accounts in the present study, is that participants have the scope to reveal their beliefs, attitudes, and thought processes rather than merely describe their experiences.

The findings from this and earlier studies leave little doubt that being gifted presents advantages as well as challenges. For the most part, the young people in this study enjoyed recognition and reward as a result of their high abilities, and the majority perceived giftedness as having played a largely positive role in their lives. The way

in which this research was conducted might provide an explanation for this; participants were selected from a pool of young people whose high levels of achievement had been validated through the receipt of a scholarship award and whose talents were essentially valued by others. However, this is not always the case; some high achievers experience social and emotional difficulties and negative schooling experiences throughout childhood and adolescence, which can result in their talents going unnoticed. This emphasises one of the principal limitations of this study and it could well be that undertaking similar research with gifted underachievers, who are essentially more difficult to identify, would elicit different results.

Giftedness can also come at a price, and some of the studies reviewed in Chapter 2 indicate that high achievers sometimes contend with challenges that less able people may not necessarily face. The young people in the present study were no exception, and the difficulties they encountered generally appeared to relate to perceptions and expectations that other people held of their high abilities. Being talented typically meant that others, particularly in the school setting expected and sometimes pressured them to constantly perform well, and some participants reported that they received limited support because of the perception that gifted individuals would succeed regardless.

Of course, the additional challenge for this present group of young people was their low socioeconomic circumstances and the majority could clearly articulate how financial adversity had influenced their talent development. There is strong evidence in literature and media reports that persistent and long-term poverty is particularly impacting, and this was undeniably the case for some of the participants in this study. The literature tends to focus on the less favourable aspects of living in poverty and this can perpetuate stereotypical perceptions of people who live in low socioeconomic circumstances. Interestingly, what emerged from the present study is that those who come from impoverished backgrounds do not appear to evaluate their circumstances

in the same way. There may be a number of reasons for this. First, the harsh realities of poverty (such as violence, criminal behaviour, or substance abuse) that are most commonly reported in the media are usually extreme cases, and may not represent the experiences of the majority of these individuals and their families. They are also not exclusive to this group, and there is clear evidence of maladaptive outcomes amongst those from more privileged backgrounds. Second, people from low socioeconomic backgrounds generally occupy microsystems that are qualitatively different to their wealthier counterparts, and these are distinctive in terms of physical features, activities, and social interactions (Bronfenbrenner, 1979). Some of the participants in this study indicated that, until they grew older and interacted within a wider range of social settings, they regarded these microsystems and their social interactions within these systems as ‘the norm.’

The most significant and perhaps surprising perception that was evident amongst the majority of young people in this study was that the challenges associated with their giftedness presented as more of a risk factor than the limitations of their personal circumstances. This finding is inconsistent with studies that focus on the relationship between giftedness and low socioeconomic status. It also contrasts with perceptions that might be commonly held by others (such as those mentioned earlier) about high achievers and those who live in poverty. The most likely explanation here is that giftedness, regardless of whether or not it is recognised by others, is enduring and the personal challenges that come with having exceptional abilities, hidden or otherwise, are likely to be experienced across the lifetime. In contrast, the limitations of low socioeconomic status are more likely to be less enduring for those who have gifts and talents and, while some of these limitations can be equally as challenging, there is capacity for these circumstances to change over time.

Based on this finding, it might be natural for some to reach the conclusion that gifted and talented young people from low socioeconomic backgrounds do not really require

extra support. However, this needs to be considered in light of the additional findings from this study, in particular that access to opportunities also emerged as a critical component related to the development of talent amongst this group of young people. Another factor to consider here is that conditions associated with socioeconomic status do not affect people in the same ways. As mentioned earlier, there is evidence that the timing and persistence of poverty makes a difference to how this impacts on individuals. At the same time, genes, individual characteristics, and other environmental features are also influencing how a person copes with the challenges of financial adversity. The implication here is that those who work with gifted young people from low socioeconomic backgrounds need to be cautious around making assumptions or generalisations about how their high abilities and personal circumstances might be impacting on their wellbeing and the development of potential.

2.2. Identity, personal characteristics, and environment

Gifted and talented people are first and foremostly unique individuals and, just like other people, their individuality is shaped by genetic factors and interactions with other people and environments. However, studies of gifted individuals do indicate that there are common traits that seem to be characteristic of high achievers, and it would come as no surprise that these traits were also common amongst many of the young people in this present study. One of these is drive, and this characteristic emerged so strongly in the present study that it warranted becoming a theme on its own. What is not as clear from other studies of high achievers is where this drive comes from, and this has been attributed to a range of sources, with some studies describing it simply as an unexplained inner motivation. The findings from the present study differ in this regard as, while many of these young people also provided a range of potential sources for their drive, a large majority explicitly attributed their strong motivation directly to their low socioeconomic circumstances.

Several previous studies of high achievers have also indicated that adversity may play a role in the development of persistence and perseverance (e.g., Goertzel & Goertzel, 1962; Morales, 2010). However, this is not to suggest that all young people who grow up in adverse circumstances inevitably develop high levels of drive or achieve great things; nor does this imply that young people from low socioeconomic backgrounds should be left to face challenges without support or intervention. Likewise, this finding does not infer that young people who grow up in wealthier households are less driven than their lower socioeconomic peers, as there is clear evidence that people of all socioeconomic backgrounds can develop the perseverance and determination to achieve in life. One of the most positive findings from this and other studies is that poverty does not automatically assume maladaptive outcomes and, as with Werner's (1993) participants, financial hardship can instead be a key catalyst for resilience and positive outcomes in later life.

Evident amongst those who linked their drive with socioeconomic adversity in the present study was an active and conscious effort to overcome their personal circumstances, and this resulted in a strong work ethic. Gordon and Song (1994) would describe these people as 'defiant' rather than simply passively resilient and what is relevant to consider here is how other gifted young people might be explicitly empowered to tackle similarly adverse influences. It would be reasonable to propose that an element of challenge can be a catalyst for effort if there is sufficient reason to confront a particular challenge. This might suggest that educators in particular should be mindful of providing opportunities for gifted young people to engage in activities that provide adequate challenge and require the appropriate effort for developing the talents they may have, although this will clearly vary from child to child.

Increased effort and persistence, and the commitment to achieve challenging goals is linked with a strong sense of identity (Bandura, 1989), and the generally high self-concepts of the participants in the present study could well be ascribed to the nature

of the sample in this study. These young people represent a group whose talents have been recognised because they are valued, particularly in the school environment. Identity is highly dependent on how we believe others perceive us and, for the participants in this study, this was for the most part positive. Scarr and McCartney's (1983) ideas about person-environment interactions might also contribute to reasons for this group's generally strong self-concepts. Many of these young people appeared to have enthusiastic, optimistic, and pleasant dispositions, which seemed to evoke positive responses from others, particularly in the school context. Masten and Coatsworth (1998) would refer to this as an 'easy temperament', which is also characteristic of resilient young people.

However, it would be premature to claim that only those with a strong sense of identity go on to achieve to high levels as self-concept is changeable across time and context. Other studies of high achievers readily identify the social and emotional struggles that many talented individuals grapple with and the young people in this study also spoke extensively about times of self-doubt and low confidence. As outlined in the previous section, one of the key findings in this study was that giftedness appeared to be working as more of a risk factor than low socioeconomic circumstances, and this was particularly evident in relation to the participants' self-concepts. Many of these young people reported that, while having high abilities generally boosted their confidence, these had more adverse effects on identity and self-concept than socioeconomic adversity. Consistent with Pfeiffer and Stocking's (2000) risk factors common amongst gifted individuals, it was the unrealistic expectations of others that were reported by the participants in this study to have had the most influence on their self-concepts.

An implication here is the need to balance the provision of or exposure to challenge with appropriate performance expectations. There is clearly a fine line between these and tipping the balance could mean the difference between gifted young people

soaring to great heights and underachieving. This is the case for all gifted students and not just those who come from low socioeconomic backgrounds. However, those from financially challenging situations might be more vulnerable if, like many of the young people in this study, they are so driven to change life circumstances for themselves and their families. The participants in the present study appeared to view their gifts and talents as a 'vehicle' that would enable them to improve their socioeconomic situations in time, and this seemed to give them a more optimistic perspective of their current circumstances.

Optimistic outlooks and opportunistic natures were two further characteristics that were particularly representative of the young people in the present study. However, much like drive and a strong sense of identity, it is almost impossible to ascertain where these traits come from. There are those who would argue that optimism and the tendency to seek out opportunities are a trademark of giftedness, and these characteristics of high achievers have certainly been identified by other writers (e.g., Renzulli, 2005; Seligman & Csikszentmihalyi, 2000). Others would suggest that an optimistic outlook is perhaps genetic, or a result of positive environmental experiences, and that this naturally leads to an individual making the most of opportunities that might come their way. There are definitely explanations from the participants in this present study that would support both of these claims, but the point of interest here is how these two characteristics operated in the participants' lives. Scarr and McCartney (1983) would say that optimistic individuals attract attention from others and that opportunistic people are superior at seeking out supportive others and optimal fit environments. A key point for parents and educators of gifted young people from socioeconomically adverse backgrounds who share these two particular traits is that these individuals are likely to have the capacity to seek out the people they consider to be of most support and the environments they believe can help them grow, regardless of whether these are seen to be the 'best' supports by others.

2.3. Relationships across contexts

It would come as no surprise to those familiar with studies of resilient individuals that relationships were ascribed as playing a critical role in the successes of the young people in this study. Resilience research reports that relationships with supportive adults in particular, appear to be most significant. Even those participants in the present study who attributed their successes predominantly to their own efforts identified at least one significant adult who had been influential. For a variety of reasons, young people from low socioeconomic families may not necessarily receive adequate support from adults in the home environment. Single parent households are more likely to experience low socioeconomic conditions, and single parents can often experience added stresses related to juggling the roles of ‘breadwinner’ and carer. As outlined in earlier chapters, poverty can also contribute to relationship pressures that range from tension in the household to extreme cases of violence. However, participants in this study who did not have strong relationships with adults in their home environments still appeared to perceive these relationships as advantageous, and it is likely that their fundamentally opportunistic natures (discussed earlier) contributed to this.

Care, encouragement, and support may not be the only aspects of relationships that contribute most to the development of resilience in gifted young people from adverse situations. What appeared evident from the accounts of the participants in the present study is that they were also drawn towards people who modeled qualities that inspired them (mainly drive, determination, and passion) and capabilities to which they aspired. Role model relationships can help instill self-beliefs that will influence outcomes for gifted young people (Schunk & Pajares, 2005), and studies of other eminent individuals indicate that many of their parents possessed these qualities and capabilities (e.g., Bloom, 1985; Goertzel et al., 1978), as did influential teachers, and other mentors. There are clear implications here for educators in particular, as gifted

young people from low socioeconomic backgrounds are likely to spend most of their time in the school setting second to their home environments. In this instance, teachers may inadvertently become role models for gifted and talented young people from potentially challenging and chaotic backgrounds, who can offer something more than what these individuals might see modeled in their home contexts. It appears that the young people in the present study sought out relationships that gave them something to evaluate themselves against, and these qualities epitomise the types of educators who might be most effective at empowering gifted young people from challenging backgrounds to develop their potential.

The fact that sibling and peer relationships appeared to be less important for the young people in the present study does not suggest that these were not significant. If adult relationships presented opportunities to evaluate themselves, sibling and peer relationships provided the chance for these young people to compete, and competition was generally reported to have a significant influence on talent development amongst this group. The notion of competition has many facets to it when considered in the context of education and its implementation amongst different groups of learners is not straightforward. However, the general desire of many of the participants in this study was to work with like-minded peers and, for competition to be present, young people need opportunities to interact with others of similar levels of ability. This has implications for the way gifted children are grouped in schools and, even in classrooms with students of mixed ability, educators need to be aware of providing opportunities for gifted young people to participate in competitive activities, as this might further aid talent development.

2.4. Opportunities

Young people from middle and upper socioeconomic backgrounds may well have initial advantages compared to those from lower socioeconomic backgrounds,

however it is what a person does with these that determine their life outcomes. The opportunistic natures of the young people in the present study meant that they had the ability to recognise, seek out, and make the most of opportunities, despite the limitations of their socioeconomic circumstances. While many studies that have focused on high achievers have reported that these individuals tend to be superior in seeking out support and opportunities, it would be tenuous to claim that all gifted and talented people share this characteristic. However, Sternberg's (2007) idea that individuals look for an optimal fit between themselves and their environments certainly reflects well with the young people in this study.

The element of chance has been given prominence in some studies and models of giftedness (e.g., Gagné, 2005; Tannenbaum, 2003) in more recent years. Atkinson (1978) believed that every accomplishment could be attributed to "two crucial rolls of the dice over which no individual exerts any personal control" (p. 221). According to this researcher, the first 'roll' determines heredity and the other environment, and it is these two elements that set the scene for talent development possibilities. What is interesting is that no participant in the present study specifically mentioned chance as playing a role in their achievements, although this was implied in a few of these young people's accounts. This may well have been as a result of the types of questions they were asked, and hence a potential limitation of the study. Instead, as mentioned earlier, these participants largely viewed their successes as being a result of hard work and their efforts in creating opportunities to further themselves.

Achieving to high levels requires more than hard work; there are many people who put enormous efforts into their endeavours and still do not achieve eminence. Like many gifted individuals in other research, the young people in this study acknowledged that, along with drive and a strong work ethic, outside influences also affected their talent development. The key aspect here is not the quantity of opportunities these young people receive; rather, based on the accounts in the present

study, it is the type of opportunity that appears to make the difference. For these high achievers, people-related opportunities were more valuable than material opportunities, and this might partly explain why relationships emerged as so significant in this study. This might also be reflective of cultural aspects amongst this group. As outlined earlier, Māori and Pasifika communities in particular place great importance on social networks (Bevan-Brown, 2011) and, in light of this, it may have been useful to explore whether relationships with others was important across all cultures in this study (and therefore perhaps related more to their socioeconomic circumstances), or just some.

The findings of this present study should not be taken to suggest that it is not necessary to provide gifted young people from low socioeconomic backgrounds with tangible opportunities to succeed. Study after study has indicated that all gifted children need to be given opportunities in order for their talents to develop. What this research does confirm is that strong, supportive relationships with other people are crucial for enabling the talent development process and, according to the accounts of these participants, this is primarily because it is other people who can facilitate access to further developmental opportunities. Again, a limitation of this study might well be that the significance of relationships for various cultural groups was not specifically investigated, and this might have shed more light on whether socioeconomic status had any influence here.

Many studies of high achievers have found that a critical element for talent development is exposure to enriched environments, and the present study confirmed this. While these young people lived in varying states of poverty, several described how they were exposed to rich learning experiences in their home and family environments, and this is what set the foundation for further development in other environments. High achievements were also ascribed partly to enriched learning experiences in the school setting. The value of school experiences for the gifted and

talented is mixed across other studies, and this might reflect the timing of these studies in particular. Earlier research that was undertaken at a time when educational practice was more conducive to those who were academically inclined tends to indicate a higher incidence of dissatisfaction with schooling experiences (e.g., Stewart & Porath, 1999). More recent studies show evidence of a greater acceptance of diverse abilities in the school context.

The schooling experiences of the young people in the present study were generally positive, with only few indicating that they did not particularly enjoy school. One of the struggles for those who did not have particularly positive experiences at school was the perception that their talents were undervalued. It would come as no surprise to those familiar with studies of creative people that those who had the most difficulty in this area were generally those who were gifted in creative arts. Robinson (2006) contends that schools 'kill' creativity by implying a hierarchy of importance with curriculum subjects, and the arts are inevitably at the bottom of the list. This particular area is often less valued than more traditional academic areas of talent and a few of the participants in the present study expressed that forging a path as a creative artist in the wider New Zealand community was also difficult. The implications of this for educators in particular are vast as there have been recent moves towards focusing on the academic 'basics' in schools (in particular literacy and numeracy skills). This first and foremostly can send the message to creatively gifted young people that their gifts and talents are less valued, and this may impact on identity and wellbeing. In light of this, teachers need to recognise the necessity to provide opportunities for their creatively gifted students to engage with learning activities that will develop the abilities they already have. Failure to do so may well result in increased underachievement amongst this group of students and, sadly, diminish the contribution the arts make to society.

A small number of participants in this study also made reference to having attended low decile schools and, for some, this raised unanswered questions focused on the ‘what ifs?’. Even though many of these participants spoke highly of their schooling experiences in general, some were left wondering how different their opportunities to develop their abilities might have been if they had attended higher decile, and probably better resourced schools. It would seem that the opportunistic natures of these young people may have come into play here, however. For the most part, the young people in this study simply made the most of what they had available to them, and this clearly enabled them to reach significant levels of success in their respective talent areas regardless.

Two key aspects of school life were particularly important to the young people in the present study. The first of these was competition which, as mentioned in earlier parts of this study, appeared to be important to many of these participants. This aspect of school life has generally been actively discouraged in educational settings over recent years, with a push towards ‘protecting’ children from being explicitly compared with others or experiencing failure. Claxton (2007) contends that developing abilities requires being stretched into areas where learning is difficult, and he stresses that gifted and talented students who ‘glide’ through school are simply wasting their time. This writer uses the analogy of an athlete who sets up a training session in which they never break sweat or raise their heartbeat to illustrate how worthless activity without challenge can be. In Claxton’s view, a potentiating environment, where there is opportunity to get confused, become frustrated, or face setbacks is vital for developing abilities. For gifted and talented young people, exposure to appropriate levels of competition may be crucial because in general situations, these individuals might seldom encounter challenges or experience failure. Again, the notion of competition is complicated when considered in the school environment with a diverse range of learners. However, it could well be that, in our efforts to create a more egalitarian society, we have become overly concerned about alleged damage to self-

esteem that we have removed elements that might actually enhance levels of achievement.

A second aspect of school life that was particularly important to the young people in this study was access to developmental opportunities, regardless of the levels of resourcing in their schools. Enrichment and acceleration options have been outlined in the previous chapter, however appropriate class placements were also considered to be crucial for many of the participants in this study. As mentioned earlier, opportunities to work and interact with likeminded peers were cited as being important to these young people. Current practice in New Zealand schools tends towards creating inclusive environments, and this is often interpreted as a mixed range of abilities being grouped together in one classroom. While this definitely has advantages for some students, it sometimes means that students who are amongst the minority (including gifted and talented students) are not catered for as effectively as they could be. This raises issues of equality, which seems to contradict the intent behind a move towards ‘inclusive’ education as many educators may currently interpret it. In other words, in our efforts to be inclusive, we may actually be perpetuating a sense of exclusion. Gifted and talented learners are equally entitled to an education that caters to their needs in the best way possible. In light of this, there is scope for learning environments that cater specifically for the gifted and talented individual to be more prominently established in New Zealand, as these may well cater for those gifted young people who are not well served in current educational settings.

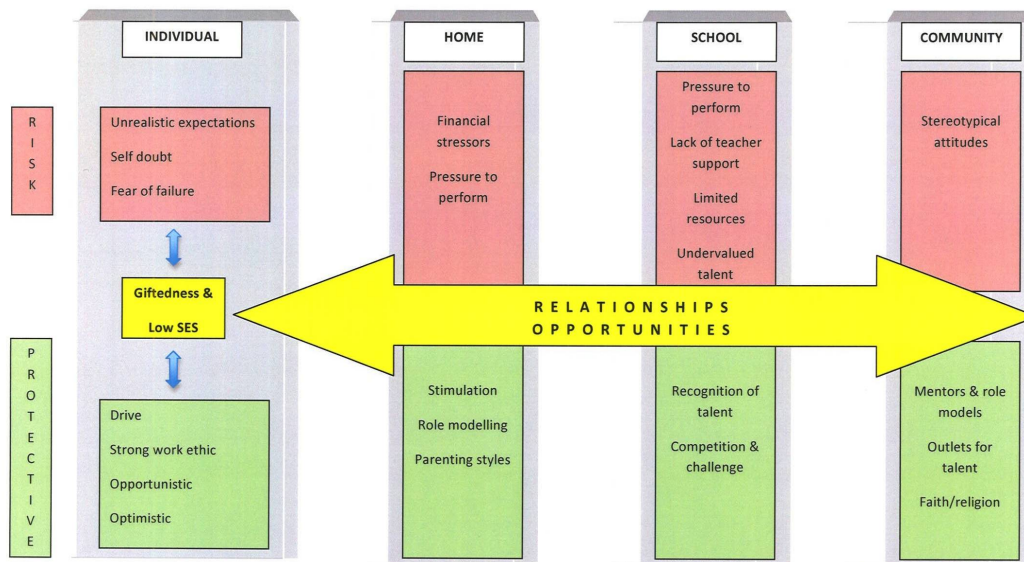
2.5. Pathways to resilience: Risk and protective factors and processes

Discussing the findings of the present study separately in some ways does not give primacy to the complexities of talent development or resilience. Current understandings of resilience emphasise the *processes* associated with positive

adaptation rather than resilience as a fixed trait, and the intricate connections between the key elements that emerged from the present study add to contemporary ideas about how young people positively adapt in adverse circumstances.

The model that follows indicates personal and environmental risk and protective factors that emerged as strongest for the gifted young people in the present study across the contexts of their lives. What became apparent in the participants' accounts was that there were several connections between these factors, and an attempt has also been made here to illustrate some of the *processes* involved in the development of resilience.

Figure 1 Resilience model for gifted and talented young people from low socioeconomic backgrounds



The first point to note is that, consistent with recent resilience literature (e.g., Pianta, 2006), giftedness and low socioeconomic status (SES) generated risk and protective

processes that occurred across all contexts of these gifted young people's lives. A second indication is that both risk and protective factors had additive effects for these participants, and each of these individually contributed a main effect. However, multiplicative risk and protective effects were clearly evident in the lives of these young people and there is difficulty in ascertaining which of these elements result in greater or reduced adaptation. A further element is that, over time and as contexts change, risk and protective elements and processes also change. While this model may be relevant to the young people in this study at the time this research was undertaken, it would be tenuous to suggest that this combination of risk and protective factors will have similar effects as they grow older and move into different contexts (for example, out of the educational context and into the work force).

Two principal protective elements that applied across all contexts for the gifted young people in the present study were relationships and opportunities, both of which are discussed widely in other studies of gifted and resilient people, and these were closely linked. For these participants, relationships generated opportunities for development, and access to opportunities exposed them to broader social interactions, which in turn offered further opportunities. There were also cause and effect processes occurring between these two elements and many of the individually listed risk and protective factors operating in the participants' lives. What is interesting about this model is that, amongst the protective factors, there is an absence of reference to financial resources. While limitations associated with socioeconomic adversity featured amongst risk factors in this study, access to resources or funding did not feature strongly as a protective element. This highlights again the importance of relationships with others as opposed to more material opportunities.

2.6. Implications of the findings

There are a number of implications that arise from these findings, some of which have already been discussed. Many of these have significance for educators and other professionals who might work with gifted and talented young people from low socioeconomic backgrounds in their school settings. The first implication, and perhaps most important, is the need for schools to nurture enriching relationships between teachers and gifted students. There is clear evidence in the accounts of participants in this study that, beyond the home, teachers have significant influence on their students, not only in relation to their learning but also to their personal wellbeing. Gifted and talented young people from low socioeconomic backgrounds may face complex and potentially heightened challenges and, consequently, their relationships with their teachers are of great importance.

Of concern in the current educational climate is the recent ‘lapse’ in focus on provisions for gifted and talented students at an official level (Moltzen, 2011a). While there remains strong advocacy amongst national and community organisations, the withdrawal of support at a governmental level impacts in several ways. First, this sends a clear message to gifted and talented students, as well as those who work with them, that this group is perhaps not as important or valued as other learners. A second insinuation is that gifted and talented young people require less support than other students, and this serves to perpetuate myths that these young people will ‘make it’ on their own, simply because of their existing abilities. Also related to a decrease in support for gifted and talented students is a disregard for their wellbeing and the need to fulfill their potential, which has obvious ongoing consequences for society as a whole.

Growing up in poverty increases the challenges associated with a lack of support for gifted and talented students in educational settings, and this provides added weight

for the importance of nurturing enriching relationships between these particular young people and their teachers. As was evident in some of the accounts in the present study, teachers sometimes offer resources and opportunities that gifted students from impoverished backgrounds may not be exposed to at home. For example, teachers may well be more highly educated than parents from low-income households, and their support might enable gifted young people from these backgrounds to learn how to more easily navigate contexts that are characteristically middle or higher class. As well, meaningful relationships with teachers, as evidenced in the participants' stories from this study, can be the catalyst for access to a range of wider opportunities such as enrichment activities or the creation of networks with others in their areas of talent. A relevant example of this is the pivotal role that teachers played in nominating participants in this study for *First Foundation* scholarship awards.

The message here is that relationships on their own are not sufficient for assisting gifted young people from low socioeconomic backgrounds to develop their potential. While aspects of relationships are clearly important, it is the opportunities that come *with* these relationships that appear necessary for these young people to thrive. Teachers need to be encouraged and resourced to develop relationships with gifted and talented young people from low socioeconomic backgrounds that are supportive and encouraging, but that can also offer opportunities that these individuals can then grasp and capitalise upon. The presence of a largely opportunistic nature amongst this group means that their capacity to make the most of these opportunities is increased.

It was clear that a strong sense of identity was a major contributor to the development of talent amongst the participants in this particular study, and it could be argued that this is important for *all* students to achieve. In relation to gifted and talented young people from low socioeconomic backgrounds however, the development of a strong

sense of identity has implications for the types of opportunities that are offered, particularly in educational settings. Material opportunities in the form of resourcing and funding are definitely beneficial in terms of assisting this group of gifted learners to develop their respective talents; however, given the emphasis the participants in this study placed on a sense of identity, primacy should be given to opportunities that enhance the development of strong self-concepts as opposed to those that provide a 'quick fix'. The challenge here is for educators to determine what a strong sense of identity might mean for gifted and talented young people from low socioeconomic backgrounds. It is widely recognised that all learners have different needs and this is no different for establishing a strong identity. For some gifted young people from socioeconomically challenging backgrounds, this could be related to personal identity, and for others, the need to develop cultural or other aspects of identity might be what is required to enhance their abilities to develop their talents.

Other implications for the school setting are that a range of different forms of extension should be offered to gifted and talented students, and not only those from low socioeconomic backgrounds. A 'one-size-fits-all' approach does not work in regular classroom contexts, and it is the same for gifted learners. There has traditionally been an emphasis on enrichment within the regular classroom setting for gifted and talented students in New Zealand, and this approach clearly did not effectively meet the needs of all of the young people in the present study. There is a danger of becoming 'stuck' with familiar and comfortable approaches in our efforts to cater for gifted students and the stories from the participants in the present study indicate that a wider range of educational options is required to best meet their individual needs. Townsend (2011) provides strong argument in his discussion around enrichment and acceleration methods that these should be well balanced in order to provide all gifted and talented students with the opportunity to explore which method most effectively caters for their needs. These students should also be given the opportunity to participate in decisions made about which specific forms of extension would be best for them.

Providing the most effective means of enrichment for gifted and talented individuals from low socioeconomic backgrounds means that there is an increased chance that their need for challenge and competition will be satisfied. As indicated in several of the accounts of the young people in this study, placement in regular classroom settings does not always provide the levels of challenge and competition that they require. Being grouped with likeminded peers tended to more readily satisfy these needs and, in regular classroom settings, the range of likeminded peers available to 'compete' with is much smaller. Careful consideration of what it means to be inclusive of gifted and talented learners is required in order to address some of these issues, as being inclusive of one group of learners does not necessarily work for other groups. Gifted and talented students who require a certain level of challenge or competition in their school day, such as was expressed by those in this present study, or who feel more socially at ease with likeminded peers, might actually experience feelings of exclusion in regular classroom settings. Again, the key implication here for educators is the need to incorporate a variety of approaches when providing for gifted and talented learners, rather than favouring one particular method of catering for this group over another.

A final implication in relation to this study can be seen in the strong desire of many of these gifted young people to give back to others. The majority of these young people perceived their giftedness as a 'vehicle', or an opportunity to improve their personal circumstances and to use their talents to help others to do the same. There may be strong links here with cultural conceptions of giftedness, for example, the expectation amongst the Māori culture that talents should be used in service to others (Bevan-Brown, 2011). However, this could also be representative of a difference between gifted and talented individuals from low socioeconomic circumstances and their wealthier counterparts. In other words, the combination of having talent and facing distinct and specific challenges related to their personal circumstances might well provide the impetus for this desire to give back. This difference is not explicitly clear in the present study, however this should still be taken into consideration. For

example, providing opportunities that allow gifted and talented young people from low socioeconomic backgrounds to give back to others who may be experiencing similar challenges, would not only fulfill their need to do so, but also have positive effects on their identity and wellbeing.

3. Final remarks

It is clear from this study that gifted young people who experience socioeconomic constraints face definite challenges in relation to developing their gifts and talents. However, there is also evidence that a remarkable number of these young people are able to overcome these adversities and achieve to high levels. The lack of effective catering for gifted and talented young people from low socioeconomic backgrounds is detrimental to New Zealand as a whole, particularly as the gap between rich and poor is widening and the occurrence of poverty increasing (Fletcher & Dwyer, 2008; Ministry of Social Development, 2010; St. John & Wynd, 2008). Parkyn (1948) reported in the introduction of his study that the time at which he carried this out was marked by a homogenous society, with a lack of extreme differences in social class and educational opportunity, and an absence of large numbers of groups of differing nationalities and cultural backgrounds. New Zealand is a very different place in the 21st century. With marked changes in all of these areas, considerations associated with how to cater for gifted and talented young people who are increasingly facing more diverse challenges, are crucial.

The findings from this present study contribute to existing knowledge about gifted and talented learners in a broad sense, but also provide some insight into the lived experiences of those from impoverished backgrounds. In New Zealand, research focused on this population of gifted and talented young people has been sparse, and there is an increasing need to explore this area further. In a climate where provisions for gifted and talented students have again been put to the side at an official level, it is

crucial that organisations and communities who advocate for these young people remain strong. With an increasing number of gifted and talented young people facing challenges related to poverty, attention needs to be given to more effective means of identifying and nurturing this group. Focusing attention on assisting these young people to effectively fulfill their own potential, is also devoting attention to the ability of this nation, heading into the future, to effectively compete and contribute on the world stage.

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Appendices

Appendix A

Dear First Foundation scholarship recipient

I am currently studying towards a Doctor of Philosophy (PhD) and am undertaking research entitled '*Defying the odds*': *Gifted and talented young people from low socioeconomic backgrounds*. The purpose of the study is to explore the personal characteristics and other elements that have contributed to the significant achievements of young people from these circumstances.

My interest in this area has grown from my own experiences as a young person who displayed talent in specific areas at school. I grew up in a single parent family with a low income, and these circumstances had both positive and negative impacts on how my talents developed as I got older. Based on these experiences, I am particularly interested in talented young people who are, or have been financially disadvantaged, and their perceptions of how these circumstances relate to their talents and achievements.

Recently you received a First Foundation scholarship in recognition of your exceptional achievements in the face of financial difficulties. Consequently, I would like to invite you to complete an online survey about your gifts and talents, and some of the experiences you have had related to these. The survey should take between 10 to 30 minutes to complete, depending on which questions you choose to answer, and your responses will be electronically submitted directly to me. The survey is anonymous, and you will not be asked to disclose any details that will identify you in any way. Although a significant number of responses would be beneficial for the research as a whole, the survey is also voluntary, and you are not obliged to complete it.

Once received, all responses will be collated to determine any trends or patterns associated with both talent and financially challenging circumstances. I am

anticipating that this information will be helpful in identifying and making some positive changes for young people who deserve to have their talents recognised. I am also intending to use the information as part of my written thesis, and in journal publications or conference presentations that are related to this research. Again, in these instances, every effort will be made to ensure that you remain unidentified. For your interest, a summary of findings from the survey responses will be emailed to you once the data has been collated.

If you have any questions or concerns related to the survey, please feel free to contact me by email or phone. I am currently working as a tutor at the University of Waikato, School of Education in Tauranga. My email address is _____ and my phone number is _____. If you have any concerns that you would like to discuss with someone other than me, please contact my chief supervisor, Dr Roger Moltzen _____, University of Waikato.

I hope that you consider this study to be worthwhile, and that you will agree to be part of it. If you are keen, I need you to complete the survey within the next three weeks, by __[date]____, so that I can collate and analyse the data ready for reporting. If you are happy to assist with this research, please follow the link below to complete the survey. The password you will need to begin the survey is giftedkiwi.

Thanks for your support

Nadine Ballam

Appendix B

Online Survey

1. How old are you?

Under 17 years

17 to 21 years

22 to 25 years

Over 25 years

2. Are you male or female?

3. How long have you been at school in New Zealand?

I have completed all of my schooling so far in NZ

I have completed 10 years or more of my schooling so far in NZ

I have completed between 5 and 10 years of my schooling so far in NZ

I have completed less than 5 years of my schooling so far in NZ

4. What nationality are you? (You may select all that apply)

New Zealand Māori

New Zealand European

Pacific Islander (please specify below)

Other (please specify below)

5. In which of these areas would you describe yourself as gifted or talented?

(You may select all that apply)

Academic

Sports

Creative arts

Leadership

Other (please specify below)

6. Please briefly describe any significant achievements related to each of the gifts or talents you have identified above.
7. Which of the following have helped you to develop one or more of your gifts or talents? (You may select all that apply. You may also comment further on any of these below if you wish).
- A role model or mentor
 - High expectations of myself or confidence in myself
 - Supportive friends
 - Access to funding or finances
 - Access to necessary resources or equipment
 - Supportive family member or members
 - A supportive school
 - Healthy expectations and encouragement from others
 - Nothing has really helped me to develop my gifts or talents

8. The list above is not extensive and really represents my own ideas about aspects that might support the development of talent. Please identify below any other aspects that YOU feel have helped you to develop one or more of your gifts or talents.

9. What challenges have you faced that have impacted on the development of one or more of your gifts or talents? (You may select all that apply. You may also comment further on any of these below if you wish).

- Disability
- A lack of mentors or role models
- Bad choice of friends
- Financial difficulties
- Family struggles and challenges
- English is not my first language
- Change of schools

Moving to NZ from another country
The expectations of others
My own expectations
Low confidence or low self-esteem
None – there have been no challenges along the way

10. Again, this is not an extensive list and is representative of some of my own ideas about challenges that may limit talent development. Please identify below any other challenges that YOU feel have constrained your ability to develop your talent.

11. In your experience, what is the best thing about being gifted or talented?

12. In your experience, what is the worst thing about being gifted or talented?

13. Is there a particular event, time, person, or place that you remember as having significantly impacted on the development of your gifts or talents? If so, please briefly describe this below.

14. Do you remember a point in time when YOU identified YOURSELF as having specific ability in an area or areas? If so, when was this?

At home, before I started preschool or school

In preschool or kindergarten

In primary school

In intermediate school

In secondary school

Post secondary school

I have never really thought of myself as being gifted or talented

I can't remember

Other (please specify below)

15. Do you remember when you were FIRST recognised BY OTHERS as being gifted or talented in a specific area or areas? If so, when was this?

At home, before I started preschool or school

In preschool or kindergarten

In primary school

In intermediate school

In secondary school

Post secondary school

I can't remember

Other (please specify below)

16. Briefly state your view as to whether gifted and talented students should receive extra support or be specially catered for at school (e.g. by way of extra programmes, advanced classes, etc).

17. Please rate how you feel your abilities were catered for at each level of schooling. (You may make further comments below if you wish)

Primary school

Intermediate school

Secondary school

18. Please list any aspects of your schooling or education that you consider to have contributed to the development of your talents.

19. Please list any aspects of your schooling or education that you consider have limited the development of your talents.

20. Please briefly describe any issues that you believe are important for schools or teachers to consider in relation to gifted students who come from financially challenging backgrounds.

21. Please indicate who has been the MOST influential in the development of your talents. (You may select more than one if you feel they have been equally influential).

A family member

A peer or friend

A teacher

A role model (someone I look up to)

A mentor (someone who has supported me in some way)

No one has been significantly influential in the development of my talents

Other (please specify below)

22. Do you currently have a role model or mentor who teaches, coaches, supports, or guides you in your area of talent?

23. Are there particular aspects (such as personality traits, relationship qualities, etc) that your role model or mentor possesses that have impacted on the development of your talent? If so, please list these below.

24. Please rate the degree to which you feel being gifted impacts POSITIVELY on your relationships or interactions with the people or groups below. (You may make further comments below if you wish).

Significantly Mildly Not at all

Parents

Siblings

Peers

Teachers

25. Please rate the degree to which you feel being gifted impacts NEGATIVELY on your relationships or interactions with the people or groups below. (You may make further comments below if you wish).

Significantly Mildly Not at all

Parents

Siblings

Peers

Teachers

26. Please list as many ways as you can in which financial constraints have
POSITIVELY CONTRIBUTED to the development of your talent.

27. Please list as many ways as you can in which financial constraints have
LIMITED the development of your talent.

Appendix C

Dear _____

I am currently studying towards a Doctor of Philosophy (PhD) and am undertaking research entitled '*Defying the odds*': *Gifted and talented young people from financially disadvantaged backgrounds*. The purpose of the study is to explore the personal characteristics and other elements that have contributed to the significant achievements of young people from these circumstances. Recently, a voluntary survey was sent out to First Foundation scholarship recipients as phase one of this research, and you may or may not have chosen to complete this.

During your schooling you received a scholarship from First Foundation in recognition of your exceptional achievements in the face of financial disadvantage. For the next phase of my research, I am intending to interview young people who are talented and who have overcome specific challenges that are often associated with financially difficult situations. If you consider this to have been part of your experience, I would be keen to explore with you how you feel these circumstances may have enhanced or limited your ability to achieve significantly in your area or areas of talent. This letter is an invitation for you to take part in an interview about your talents and achievements, and some of the opportunities or challenges you may have faced through the course of your life.

Attached to this letter is an information sheet that outlines further what this project and the interview process will entail. Please take the time to read this if you are interested in participating. I have included a consent form, as well as a stamped and addressed return envelope for you to send back to me if you decide that you would like to be involved. Once I have received your response, I will make contact with you to arrange a convenient time and location for an interview to take place. If I do not receive a response from you within three weeks, by _____, I will assume that you have chosen not to participate in the interview process. In this case, another First Foundation scholarship recipient will be invited to take part.

I am expecting that this investigation will result in some positive changes for young people who deserve to have their talents recognised. I hope that you consider this study to be worthwhile, and that you will agree to be part of it. I look forward to hearing from you shortly.

Yours sincerely

Nadine Ballam

Appendix D

Information Sheet

My interest in this area has grown from my own experiences as a young person who displayed talent in specific areas at school. I grew up in a single parent family with a low income, and these circumstances had both positive and negative impacts on how my talents developed as I got older. Based on these experiences, I am particularly interested in young people who are considered to have come from financially disadvantaged backgrounds, and their perceptions of how these circumstances relate to their talents and achievements.

Recent statistics show that young people from financially disadvantaged backgrounds are less likely to be represented in gifted and talented programmes at school, and this might be for a variety of reasons. I am hoping that this research project will help to show how some gifted young people develop skills to avoid what some of the current statistics tell us. I am also hopeful that the findings might be useful for altering these statistics – in other words, that it will provide some indication of why schools might overlook the talents that students in these situations have, and how schools can identify and help to develop their talents.

I am inviting 10 First Foundation scholarship recipients to be involved in this phase of the research project. My intention is to spend some time talking with each of you individually, and focusing on your perceptions and experiences related to both your specific talents and achievements, and your personal circumstances. Some of the areas that will be covered in the interviews include talents and interests, education and schooling, family and friends, role models and mentors, and childhood experiences. I am happy for you to bring a support person to the interview if you wish, and also to nominate the best time and place for the interview. I would also like to remain in contact with you by email for a short period after the interview, for the purpose of clarification and so that you can provide additional information if you wish to.

The interview will be recorded and, once this has been transcribed, you will be given a copy of the transcript so that you can clarify or edit what was discussed if required. **All of the information from the interview will remain confidential**, and the

interview recordings and transcripts will be stored securely. Every effort will be made to protect your identity. Pseudonyms will be used for yourself and any other person or organisation that is mentioned in the interview. It is quite okay for you to decline to answer any specific questions if you choose, and you also have the option to withdraw participation at any time up until the start of the data analysis.

Please feel free to contact me by email, phone, or post if you would like to discuss anything more about what the research entails. I am currently working as a tutor at the University of Waikato, School of Education in Tauranga. My email address is _____ and my phone number is _____. Alternatively you can make contact by writing to me at _____. If you have any concerns that you would like to discuss with someone other than me, please contact my chief supervisor, Dr Roger Moltzen _____, University of Waikato.

Appendix E

Participant Consent Form

I have been informed about what is involved in the research and what is expected of me and consent to participating in this project. I understand that this will involve participation in a 90-120 minute face-to-face interview followed by further email communication for the purpose of clarifying and adding information. I have also been informed that the interview will be audio-taped, and that the discussion will then be transcribed.

I consent to the use of extracts from this transcript in the written thesis. I understand that every effort will be made to ensure that these transcripts will only be used in such a way that I, or anyone associated with me, cannot be identified. I also consent to these extracts being used under the same terms in journal publications or conference presentations that are related to this research.

I give my consent with the understanding that I will have the opportunity to change or edit the transcript of the interview in which I am involved, before the report is written. I also understand that I may withdraw from the project at any stage up until the start of data analysis, which is scheduled to commence in December, 2009.

Signed: _____

Date: _____

Name: _____

Address: _____

Email: _____

Telephone: _____

Appendix F

Interview Questions

Talents and Interests:

- In what area/s would you describe yourself as gifted, talented, successful, or having high abilities?
- What are some of the achievements you are most proud of?
- How do you intend/desire to use the specific abilities you have and what do you hope these talents will lead to in the future?
- What do you attribute your talents or abilities to?
- Are there any significant events or circumstances you can identify in your life which have inspired you to achieve or be successful?
- What are some of the advantages and disadvantages of having a talent or special ability?
- What are some of the things that have helped you to develop your talent over your life so far?
- What are some of the things that have been obstacles in the development of your talent?
- How would you describe the relationship between talent and self worth or confidence?

Childhood Experiences

- When did you or other people (outside of school) first realise that you had talent or specific ability in any particular area and how did this impact on you?
- Describe any particular events, times, people, or places that have significantly impacted on the development of your talent.
- What was it like for you growing up in financially challenging circumstances?

- What was it like to be talented or highly able and growing up in financially challenging circumstances?
- In what ways do you feel your socioeconomic/financial status impacted on the way others viewed or treated you (at home, school, or elsewhere) as you grew up?

Education and Schooling:

- When were your talents or abilities first recognised at school and in what ways did this affect you?
- How did your talents or abilities influence your relationships with your teachers?
- How did your talents and abilities influence your relationships with your peers?
- How do you feel your talents or abilities were catered for during your schooling?
- In what ways do you think you could have been better catered for in relation to your specific talents?
- How do you feel your financial status/circumstances impacted on your education and the development of your talents?
- What advice would you give to schools and teachers about how they can best cater for talented young people who come from financially challenging backgrounds?

Family and Friends

- How do you think your talents or abilities are perceived by members of your family and friends?
- How do you think your talents or abilities impact on your relationships with your family and friends?
- Describe the support that members of your family and your friends have given you in relation to the development of your talent.

- How have aspects of your family life/circumstances impacted positively or negatively on the development of your talent?

Role Models and Mentors

- Who would you describe as being most influential in the development of your talents and what is it about this person that has impacted on you most?
- Describe the influence that role models or mentors have had on you over the course of your life.
- In your experience, what do you consider to be the qualities that are most important for a role model or mentor to have? Why?

Appendix G

Sample of textual analysis

- JA: Advantages...
- NB: How is – how has, um, having a talent worked for you? What’s been the advantages of that?
- JA: Having talent, um...I sort of...it’s just helped me learn a lot more – a lot faster...
- NB: Yep
- JA: ...so having, um, the talent to be able to speak and...um, lead people has helped me to learn more about myself more than anything. So leading people, you know, I get to learn about how other people are and how other people behave and how other people like to go about things...
- NB: Yeah
- JA: ...and how I have to change things myself to make sure that it suits them. It’s a, you know, win-win situation, so it’s helped me to develop more um, in my way of thinking how to lead and being able to speak is – it’s – it’s awesome for me ‘cause I feel like I can relate to people, and if I can relate to people then I have their attention. If you have their attention, then you can turn that into whatever you want it to be.
- NB: Yeah
- JA: So if you want them to go this way, you can make them go that way with a bit of persuasion. But it’s all about – for me it’s – it’s all about connecting with others...
- NB: Yep
- JA: ...and with my talents, yeah – that’s – the advantage for me is that – if I couldn’t – if I didn’t have that connection with people, then I wouldn’t know what to do with myself, ‘cause for me, the bottom line is – the thing that matters most in the world other than my family is being able to bring people like my family, and even others outside that circle, up.
- NB: Yeah
- JA: Raise the bar with them, with us, on the same waka – boat...
- NB: Yeah
- JA: ...on the same boat, you know, not leaving anybody behind.
- Talent increases ability to learn/pick things up quickly
- Opportunities related to talent = learn more about self + others
- Relates well to people – views this as important for initiating change
- Talent allows her to connect with others
- Strong desire to break poverty cycle amongst family
- Cultural analogy
- Picks things up quickly
- Opportunistic
- Relatable
- Intuitive
- Desire to make a difference to others
- Desire to change circumstances
- Culture