‘Time on my side’:
Experiences of accelerated students who entered university early in Aotearoa New Zealand

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Dedication

This thesis is dedicated to my beloved father,
who passed away just before my PhD journey began,
but who has been here with me, in spirit, all the way.

Gordon William Davys
15 January 1926 – 28 June 2009

Dad, you and Mum always encouraged me to do my best and
I know that you would have been very proud of my achievements.
I will love you forever.

Abstract

This qualitative study investigated the lived experiences of 10 young people who had been accelerated in their schooling and entered university at a much earlier age than is typical for students in Aotearoa New Zealand. Although the literature suggests that academic acceleration is an effective educational intervention for high-ability students, it is not a common form of provision in New Zealand schools and early admission to university is comparatively rare. A phenomenological methodology was adopted for this exploratory study to ensure that the individual voices of the participants were heard and acknowledged as an integral component of the research process. Consistent with this approach, in-depth, semi-structured interviews were undertaken to explore the impact of acceleration and early entry to university, as perceived by the participants. Interpretative phenomenological analysis (IPA) (Smith, Flowers, & Larkin, 2009) was selected as the most appropriate method of data analysis for this study because it has an explicit focus on the idiographic nature of lived experience. The findings were structured around three superordinate themes, each of which represents a distinct temporal phase of the participants' lived experiences: (1) Pathways to University; (2) 'Being at' University; and (3) Critical Reflections. Analysis of the interview transcripts revealed that many of the young people in this study had endured years of boredom and frustration at school, as well as ongoing issues with bullying and social isolation. Although some participants found the initial transition from secondary school to university difficult, the findings suggest that most of the challenges they faced were relatively minor and tended to be short-lived. Ongoing support and encouragement from family/whānau and friends, as well as active involvement in extra-curricular activities, were viewed by the young people in this study as critical enabling factors for positive adjustment. Overall, the results of this study demonstrate that accelerated students who gain early admission to university can be very successful, not only in terms of their academic achievement but also in relation to their social and emotional development. With the benefit of hindsight, none of the participants regretted their decision to enter university early

and most could identify significant advantages, such as being awarded prestigious international scholarships and having more time for early career exploration. The findings presented in this thesis highlight a need for parents/whānau and educators to be better informed about the potential benefits of academic acceleration and early admission to university as a legitimate pathway for high-ability students in New Zealand schools.

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To my family, I admire you all for putting up with me during times of chaos and despair. Thank you to my children, Ashley and Caitlin, for your unwavering belief in my ability to complete this project; your personal achievements are a constant source of pride and inspiration for me. A special mention also to my husband, Mike, who designed a customised

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Introduction

Ko te ahurei o te tamaiti arahia ō tātou māhi

Let the uniqueness of the child guide our work

(Ministry of Education, 2009, p. 9)

1.1 Setting the scene

In New Zealand, as in many other developed countries, education is compulsory for all students between the ages of six and 16 years, with entitlement for free education until the age of 19 years. However, in practice, most children begin school on their fifth birthday and tend to move through the education system as a year-level cohort, along with their same-age peers. This system of school organisation has remained largely unchanged since 1877, when compulsory primary education was first introduced in New Zealand. The philosophy underpinning this approach was based on the notion that children of the same age have very similar learning needs and, therefore, can be taught as a relatively homogeneous group. During the 1900s, this view was further reinforced by the influential 'age-stage' theorists, such as Piaget (1929), Erikson (1965), and Kohlberg (1981), who identified universal stages of cognitive, social, and moral development respectively through which children tend to progress at particular ages.

However, over the years, numerous commentators have pointed out that chronological age is not necessarily the most relevant indicator of readiness to learn (e.g., Gross, 2006b; Rogers, 2002b; Tomlinson et al., 2003; Townsend, 2011). In most classrooms, there is likely to be a wide range of individual differences amongst students that influence achievement, including prior knowledge and experiences, interests, and abilities. Therefore, at any particular year level, some students may need to spend more time learning basic skills and concepts, while others may be ready for more challenging learning experiences. As a result, it is evident that a 'one-size-fits-all' approach to teaching and learning is no longer appropriate to meet the needs of diverse learners (Alton-Lee, 2003;

Tomlinson, 2001). Indeed, some researchers have estimated that the 'learning gap' between the highest- and lowest-achieving students in the same class can be up to five years, and may be even higher in schools that predominantly serve students from lower socioeconomic and minority groups (Gross, 2006b; Olszewski-Kubilius & Thomson, 2010; Plucker & Harris, 2015; Renzulli, 2013; VanTassel-Baska & Stambaugh, 2007).

While numerous studies have shown that cognitive ability is a significant predictor of academic achievement, there is also evidence to suggest that high-ability students do not automatically succeed in regular classroom settings. For example, in an interesting study of teacher effectiveness conducted in the United States, Sanders, Wright, and Horn (1997) reported that, contrary to predictions, students in grades three to five who scored highly on standardised tests actually made *less* progress in their learning than other groups of students:

> Disproportionately, high-scoring students were found to make somewhat lower gains than average and lower-scoring students. Possible explanations include lack of opportunity for high-scoring students to proceed at their own pace, lack of challenging materials, lack of accelerated course offerings, and concentration of instruction on the average or below-average student. This finding indicates that it cannot be assumed that higher-achieving students will "make it on their own". (p. 66)

George Parkyn, one of New Zealand's most distinguished scholars in the field of educational research, first drew attention to the needs of gifted students[1] in this country more than 70 years ago. In his classic text, *Children of High Intelligence: A New Zealand Study*, Parkyn (1948) observed that "in the ordinary mixed-ability classes of the primary school the bright child often spends a large part of his school time waiting for the next

[1] The terms 'gifted', 'gifted and talented', 'high achieving', and 'high ability' are used interchangeably throughout this thesis to refer to students who have the potential to perform at an advanced level in their specific area(s) of talent, compared with other students of the same chronological age.

question, the next turn, the next subject, the next task, and so on" (p. 145). He believed that some form of ability grouping, either within the regular classroom or on a wider scale throughout the school, was critical to ensure that 'bright' students remained challenged and motivated in their learning. Parkyn (1948) also proposed that, in order to improve the education of 'more intelligent' students, teachers needed to ascertain each child's level and rate of development and plan lessons accordingly, an idea that was considered novel at the time.

Nevertheless, until recently, little sustained interest or attention has been given to the needs of gifted students in New Zealand schools. While some improvements have been made over the last 20 years, Moltzen (2011) reported that these gains have often resulted from the efforts of just a handful of individuals and have been relatively short-lived. He suggested that one of the major factors that has constrained attempts to implement appropriate educational provisions for this group of learners is the 'misguided' notion of egalitarianism. From this perspective, the gifted are seen as 'innately advantaged' and, therefore, any form of special provision is regarded as 'elitist' (Moltzen, 2011). Other commentators have also noted that there is a general lack of awareness about the needs of gifted students in New Zealand, as reflected in the 'tall poppy syndrome' and associated myths and misconceptions about giftedness and talent (Bourne, 2009; Cathcart, 2017; Horsley, 2010, August 1; Riley, 2017; Riley, Bevan-Brown, Bicknell, Carroll-Lind, & Kearney, 2004; Riley & Bicknell, 2013; Tapper, 2017, October 13; Tapper & Riley, 2015).

Over the last 20 years, a number of government initiatives have been introduced in an attempt to strengthen schools' capability to meet the needs of gifted students. These include:

- 1997: Appointment of a national Gifted Education Advisory Group;
- 2000: Publication of a handbook for schools (Ministry of Education, 2000);
- 2000: Development of supporting materials on the Ministry of Education's portal website Te Kete Ipurangi (TKI);

- 2001: Establishment of a Ministerial Working Party on Gifted Education;
- 2002: Publication of a set of national policy initiatives (Office of the Minister of Education, 2002);
- 2001–2009: Funding for gifted education advisory support to schools provided through each of the Colleges of Education;
- 2003: Amendment of the National Administration Guidelines (NAGs) to include gifted students as a group of learners with special educational needs (New Zealand Government, 2003, December 18);
- 2003–2009: Establishment of a national coordination team and a contestable funding pool designed to encourage the development of innovative programmes for gifted students;
- 2004: National research into schools' provision for gifted students (Riley et al., 2004);
- 2006: Ministry-sponsored *Rising Tides* national gifted education conference, which attracted more than 750 delegates;
- 2008: Publication of a handbook for parents and whānau of gifted and talented children (Bevan-Brown & Taylor, 2008);
- 2010–2011: Targeted funding to build regional capability in gifted and talented education (Office of the Minister of Education, 2002);
- 2012: Revision of the Ministry handbook for schools (Ministry of Education, 2012); and
- 2012–2018: Limited funding for in-service teacher professional learning and development in gifted and talented education.

Arguably, the most significant change was an amendment to the National Administration Guidelines (NAGs) in 2003, whereby gifted and talented students were specifically included as a group of learners with special educational needs (New Zealand Government, 2003, December 18). Since the beginning of 2005, it has been mandatory for all state and state-integrated schools in New Zealand to identify gifted students and to plan and implement appropriate programmes to meet their needs. According to Moltzen (2011), these developments signalled an 'unprecedented' level

of commitment from the then Labour-led government (1999–2008). However, like many other initiatives in the history of gifted education in this country, the momentum generated by this support does not appear to have been sustained long term. New Zealand still does not have a national gifted education policy, advisory support to schools has largely been disestablished, and opportunities for specialist teacher training at the pre-service level are both minimal and optional (Riley & Rawlinson, 2005, 2006, 2008).

In New Zealand, the preferred approach to provision for gifted students is firmly centred on enrichment in the regular classroom (McDonough, 2004; Riley et al., 2004; Riley & Bicknell, 2013; Townsend, 2011). Although the Ministry of Education (2012) recommends that schools utilise a continuum of approaches to meet the needs of gifted learners, including both enrichment and acceleration, in practice, very few students are accelerated in this country (McDonald, 1988). A comprehensive national survey of educational provision for gifted students found that acceleration by means of early entry to various levels of schooling was the least frequently cited form of school-based provision, with just 8.3 per cent of schools mentioning that they utilised this approach (Riley et al., 2004). Furthermore, only 2.7 per cent of schools in this study reported that acceleration was their preferred method for catering for gifted students. A follow-up study conducted a decade later found very similar results, with even fewer schools (1.8%) reporting that they provided opportunities for acceleration, such as early entry or dual enrolment (Riley & Bicknell, 2013).

Acceleration is an educational intervention that is specifically designed to meet the identified needs of students who are capable of working at a highly-advanced level. According to the National Association for Gifted Children (NAGC, 2004), acceleration provides an 'optimal match' between the level, complexity, and pace of the curriculum and a student's demonstrated readiness and motivation to learn. Acceleration can take many different forms and includes procedures that are largely administrative in nature (e.g., cross-class grouping, subject acceleration,

year level acceleration, and early entry to higher levels of schooling), as well as strategies that may involve significant modification of the curriculum (e.g., individualised education plans (IEPs), curriculum compacting, and curriculum telescoping) (Rogers, 2015). The term 'radical acceleration' is also used to describe intervention strategies that enable students to complete their secondary schooling three or more years earlier than is customary (Gross, 2004b; Gross & van Vliet, 2005, 2003; Jung & Gross, 2015).

There is a considerable body of literature, accumulated over more than 75 years of research, which attests to the positive effects of most forms of acceleration. Numerous studies have reported that acceleration leads to significant gains in academic achievement (e.g., Brody, Muratori, & Stanley, 2004; Gross, 1993, 2004a, 2006a; Hattie, 2009; Kulik, 1992, 2004; Kulik & Kulik, 1984a, 1992; Lubinski, 2004; Lubinski, Webb, Morelock, & Benbow, 2001; Rogers, 1991a, 2002a, 2004; Swiatek, 2002; Swiatek & Benbow, 1991). The research literature also suggests that acceleration promotes healthy social and emotional adjustment, although the findings are less equivocal in this area (e.g., Cornell, Callahan, Bassin, & Ramsay, 1991; Hoekman, McCormack, & Gross, 1999; Neihart, 2007; Noble, Arndt, Nicholson, Sletten, & Zamora, 1998; Richardson & Benbow, 1990; Robinson, 2004). Furthermore, evidence from longitudinal studies of giftedness indicates that *failure* to accelerate highly gifted students may result in social isolation and rejection and, in some cases, can lead to patterns of lifelong underachievement (e.g., Gross, 1993; Gross, 2004a, 2006a; Lubinski et al., 2001; McCall, Evan, & Kratzer, 1992; Perrone, Wright, Ksiazak, Crane, & Vannatter, 2010).

Yet, despite the positive findings about acceleration reported in the literature, it would appear that many educators still hold concerns about the efficacy of this approach. In particular, critics have argued that gifted students who are accelerated at school may have significant gaps in their learning or that they may experience social and emotional difficulties as a result of being moved ahead of their age peers (e.g., Freeman, 1997; Heinbokel, 1997, 2002; Schiever & Maker, 2003; Southern, Jones, & Fiscus,

1989; Townsend & Patrick, 1993). The obvious discrepancy between the research on acceleration and what happens in classroom practice has been highlighted in two major international reports published in the United States over the past decade. Each of these reports was written in two volumes, with the first providing an overview of critical issues relating to acceleration and the second containing original research syntheses for each of these topics. The first report, *A Nation Deceived: How Schools Hold Back America's Brightest Students* (Colangelo, Assouline, & Gross, 2004a, 2004b), was designed to inform teachers and parents about the extensive and mainly positive research base on acceleration in order to stimulate discussion on this important topic. The second report, *A Nation Empowered: Evidence Trumps the Excuses Holding Back America's Brightest Students* (Assouline, Colangelo, & VanTassel-Baska, 2015; Assouline, Colangelo, VanTassel-Baska, & Lupkowski-Shoplik, 2015), reviewed the progress made during the previous 10 years and provided an updated evidence base on acceleration.

1.2 Rationale for the study

As noted above, the vast majority of research on acceleration and early entrance to university has been undertaken in the United States and, to date, very little research has been conducted in a New Zealand context. Although a number of articles and reviews have been written on this topic (Horsley, 2009b; Margrain, 2001; Martin, 2002; Reid, 1991; Thornton-Pett, 2004; Townsend, 2011; van Rijn, 2004), only a handful of studies have examined the outcomes of acceleration for gifted students in this country. For example, three studies have investigated the attitudes and beliefs of classroom teachers and teacher education students about acceleration (Townsend & Patrick, 1993; Wardman, 2009; Watts, 2006). Other research has explored the effects of acceleration from the perspectives of students, parents, teachers and school administrators (Anthony, Rawlins, Riley, & Winsley, 2002; Crawford, 2016; Kirby & Townsend, 2005; Martin, 2006; Rawlins, 2000; Wardman, 2010, 2015; Wardman & Hattie, 2012). However, most of these studies have only looked at one accelerative option (i.e., full-year acceleration or 'grade skipping') in relation to the compulsory schooling sector and there has been very little research about gifted

students at the tertiary level (Davies et al., 2010; Horsley, 2009a; Rubie-Davies et al., 2015; Wardman, 2010). The purpose of the current study, therefore, was to investigate the lived experiences of young people who were accelerated at school and entered university early in Aotearoa New Zealand, a group whose views have not been explored previously.

A critical aspect of this study was the research methodology, which utilised a phenomenological theoretical framework (van Manen, 1990). Coleman, Guo, and Dabbs (2007) suggested that qualitative methods of research have much to contribute to our knowledge in the field of gifted education. Previous studies on acceleration have mainly used quantitative research methods, such as meta-analyses, or mixed-methods approaches. According to Bailey (1997), the literature has also tended to report group findings, rather than examine individual cases that may provide an alternative perspective. Cross, Stewart, and Coleman (2003) argued that phenomenological research has the potential to focus a "different lens" on complex topics relating to gifted individuals:

> Unlike other qualitative approaches to inquiry that make no efforts to claim generalizability, phenomenologists believe that it uncovers invariant structures that represent the essence of human experience (Husserl, 1962). This difference is potentially very important in the field of gifted studies. (p. 292)

Hoogeveen (2008) also pointed out that, although the research literature suggests that acceleration does not have a negative effect on academic outcomes or social-emotional development, this finding is not necessarily applicable to each and every individual student. Furthermore, she posited that unsuccessful acceleration experiences may have a profound influence on teachers and schools, leading to reservations in subsequent decisions about whether or not to accelerate a student. As a result, Hoogeveen concluded that "more insight into the merits and demerits of acceleration not only serves important diagnostic goals, but may also lead to an increased insight into intra-individual variation in harms and benefits associated with acceleration" (p. 62).

It was hoped that the findings of this study would inform knowledge and understanding of best practices for high-ability students in New Zealand and suggest possible directions for future research. Our education system is renowned internationally for its innovative approach to teaching and learning and there is potential for schools to develop flexible approaches to provision for highly able students. For example, the *New Zealand Curriculum* (NZC) allows for variable progression through the broad-based achievement levels and encourages schools to tailor programmes of study to meet individual student needs (Ministry of Education, 2007). Similarly, the structure of the *National Certificate of Educational Achievement* (NCEA), the main exit qualification for school leavers in New Zealand, is inherently flexible and students may be enrolled concurrently in achievement standards at different levels of the qualifications framework (New Zealand Qualifications Authority, 2017a).

Current government priorities for the schooling sector are to raise student achievement and to ensure that all students leave school with worthwhile qualifications (Ministry of Education, 2016a). A number of policy initiatives have already been put in place to achieve these goals, including the introduction of National Standards[2] in reading, writing, and mathematics for students in Years 1–8 (Ministry of Education, 2015b). However, some commentators believe that the explicit focus on literacy and numeracy in primary schools could lead to a narrowing of the curriculum (Bourne, 2009; Fisher & Ussher, 2014). As a result, gifted students who have strengths in other learning areas, such as the arts or science, may have fewer opportunities to be identified and nurtured.

This concern is highlighted by mounting evidence from other countries, which suggests that the introduction of national educational reforms designed to reduce the 'achievement gap' have instead hindered the efforts of schools to cultivate students' aptitudes and talents (Hess, 2011).

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[2] At the time of writing, the newly-elected Labour-led coalition government announced that, as from the beginning of 2018, it would no longer be mandatory for primary and intermediate schools to assess and report student achievement against the National Standards.

Other studies have also found that efforts to raise the achievement of students who are 'below' or 'well below' national curriculum expectations have led teachers to make this their key focus, often at the expense of their gifted students (Griffin, 2012). Furthermore, detailed analysis of student achievement data has shown that, in contrast to the accelerated progress of low-performing students, high-ability students made little or no progress over the course of the year and, in some cases, regressed in their achievement (Sanders et al., 1997). This finding was reinforced in a recent large-scale Australian study, which reported that the top 25 per cent of students in Grades 3 to 10 in Victorian schools made hardly any improvement in tests of reading comprehension, mathematics, and critical thinking during the academic year (Griffin, 2012).

Another current educational priority identified by the government is the strengthening of collaboration between secondary schools, industry training organisations, and tertiary institutions (Ministry of Education, 2016a). A related funding initiative, the Secondary Tertiary Alignment Resource (STAR), provides alternative pathways for senior secondary students by enabling them to enrol concurrently in selected tertiary courses while they are still at school (Ministry of Education, 2016b). The most recent statistics compiled by the Ministry of Education (2017b) show that 1,220 students (155 equivalent full-time students) were dual enrolled in university courses through the STAR programme in 2016. The long-term implications of this policy may well see greater numbers of students who complete their formal schooling earlier and apply to enter university at a younger age. It is important, therefore, that we know more about this group of young people in order to develop responsive practices that will enable early entrants to be successful at the tertiary education level.

1.3 Personal perspectives

I trained as a regular classroom teacher and taught in several different primary and intermediate schools during my teaching career. The range of abilities, needs, and interests of the students in my classes never ceased to amaze me. Looking back, I recognise that I was always intrigued by children who asked the 'hard questions' and those who tended to think

'outside the square'. However, like many people working in the field of education, my initial interest in the research topic was sparked by the personal experiences of a close family member – my son, Ashley[3].

Ashley had been identified as a gifted child by his early childhood teachers and taught himself to read before he went to school. He had an exceptional memory and was physically and socially mature for his age. The primary school he attended had an excellent reputation for learner-centred education and students with profound special needs were mainstreamed in regular classes, long before inclusion became official Government policy. The school also had a bilingual whānau class (Y1–6) and a well-established programme for gifted and talented students, which I coordinated for many years.

Despite these initiatives, after spending nearly two years in the junior school, it was apparent that Ashley needed greater intellectual challenge. He was bored in class and started to exhibit some problematic behaviours at home (e.g., not wanting to go to school). I approached the principal to find out whether Ashley could skip a year and go straight into Year 4 the following year. In response, I was told that the school had a formal policy that students born after 31 March (in the year in which they first entered school) could not be placed into a higher year level. Ashley missed this cut-off date by six weeks, which meant that he would always be one of the oldest students in his class. This seemed ironic, considering that he was highly advanced in his learning and had several friends who would be moving through to the next class level at the end of the year. When I pointed this out, the principal responded that it would be 'unfair' to promote Ashley ahead of other students of the same age. His main concern appeared to be that such a move would set a precedent for other families within the school community, a situation that he wanted to avoid.

Although the school eventually agreed to my request after a protracted debate, this experience made me realise that many teachers are not aware

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[3] Real name used with permission.

of the needs of high-ability students and do not know about the positive research base on acceleration. As a result, I went back to university as an adult student and completed a Master of Special Education degree, with a specific focus on gifted and talented students. This decision led to a change of career and, for the past twenty years, I have worked in the field of teacher education at both the pre- and in-service levels. My role as project leader for several Ministry-funded teacher professional learning and development (PLD) contracts in gifted and talented education and my experience as national coordinator for gifted education advisory support (2003–2009) has given me a unique perspective on what is (or is *not*) happening for this group of learners in New Zealand.

My work with schools has led me to believe that most teachers genuinely want to do the best for their students. However, from my observations, regular classroom teachers have limited knowledge and understanding of best practices for gifted and talented learners. Very few schools are willing to consider acceleration as a valid educational option, with many teachers citing erroneous concerns about the potential negative effects on students' social and emotional well-being. It would appear that teachers' negative attitudes towards acceleration are often based on a lack of awareness about the accumulated research evidence in this area. In many ways this is not surprising, since most New Zealand teachers do not receive any specific training about gifted and talented students, either during their initial teacher education or as part of their ongoing professional learning and development.

Due to skipping Year 3 in primary school, Ashley entered university at the age of 17, one year earlier than is typical for most students in New Zealand. He had very few problems adjusting to the demands of tertiary study and completed a MSc degree in biochemistry with First Class Honours. Subsequently, he was awarded a Woolf Fisher Scholarship to undertake postgraduate study at the University of Cambridge and graduated with a PhD in molecular biology in 2014. During the time that Ashley was attending the University of Waikato, he often spoke about his fellow students, some of whom had begun their studies at an even

younger age. I was intrigued by these stories and wanted to find out more about this remarkable group of young people. It is their individual experiences and perspectives that provided the impetus for the current study; I am just the storyteller.

1.4 Research questions

The purpose of this qualitative study was to investigate the lived experiences of young people who had been accelerated at school and gained early admission to university in Aotearoa New Zealand. Two overarching questions were developed that guided all aspects of the research process:

- What are the lived experiences of accelerated students who enter university early in New Zealand?
- How do accelerated students perceive/make sense of their lived experiences of early entrance to university?

By talking to young people who had gained early admission to university about their lived experiences, and the meanings that they attributed to those experiences, I hoped to gain a better appreciation of some of the issues surrounding academic acceleration and early entrance to university in New Zealand. It was anticipated that the findings of this exploratory study might provide some useful insights for parents/whānau and teachers who are considering academic acceleration as a possible educational option for individual children, as well as policy implications for university administrators who have regulatory discretion to admit students at a younger age than is typical.

1.5 Thesis structure

This thesis consists of seven chapters. The first chapter introduced the rationale for the study and outlined the context in which the research was conducted. The underlying issues that led to the focus for the study were described and the process of developing the research questions was explained. Consistent with a phenomenological approach, my personal perspectives and motivation for carrying out the research were also made explicit.

Chapter Two explores relevant aspects of the literature on academic acceleration and early entrance to university. The chapter begins by discussing the underlying rationale for academic acceleration, followed by a critical analysis of the debates in the literature around this practice. The next section outlines the international research on academic acceleration, with a particular emphasis on studies that have investigated long-term outcomes for students. The final section examines studies carried out in New Zealand that have looked at academic acceleration. Gaps in the literature are identified to provide a context for the research questions.

Chapter Three outlines the methodological framework that underpins this study. It positions the research within a qualitative interpretive paradigm and explains its alignment with hermeneutic phenomenology as a means of accessing the lived experiences of the participants. The research methods that were chosen for this study are explained, including the recruitment of participants, methods of data collection, and the selection of interpretative phenomenological analysis (IPA) as the most appropriate method of data analysis. Ethical issues and considerations for ensuring the credibility and trustworthiness of the research are also discussed.

The findings and discussion are presented in three separate chapters, each of which relates to a different temporal phase of the participants' experiences. Knowledge claims are supported with verbatim quotes from the participants to communicate their perspectives using authentic voices. Consistent with the idiographic focus of IPA, the findings highlight unique points of view, as well as shared understandings that emerged from the participants' stories. Each chapter concludes by discussing the major findings in relation to the literature.

Chapter Four: 'Pathways to University' introduces the 10 young people who were the focus of this study through a series of constructed biographies. These narrative accounts describe their family backgrounds and experiences of school, and the types of special provision that enabled them to enter university early. Although each participant recounted unique experiences, their individual stories were crafted using a replicable

format to enable comparisons to be made across the whole group. The discussion section is organised around three subthemes: 'A family of artists and musicians'; 'Finding the right fit'; and 'Bridging the gap'.

Chapter Five: 'Being at University' provides a rich description of what is was like for the young people in this study to enter university early in Aotearoa New Zealand. The findings are organised around two major subthemes: 'Academic adjustment' and 'Social relationships'. A number of contributing ideas were identified in relation to each of these subthemes: 'A big step up'; 'Easier than school'; 'Freedom to choose'; 'Not standing out'; and 'Love of family'.

Chapter Six: 'Critical Reflections' examines the meanings that the young people in this study attributed to their experiences of entering university early. It looks at some of the potential advantages and disadvantages of early admission, as perceived by the participants, and explores the impact of these experiences in relation to their future career and family aspirations. The findings are organised around three subthemes: 'Time on my side'; 'The road ahead'; and 'No regrets'.

Chapter Seven looks at the insights I have gained from conducting this study and outlines the implications of the key findings for students, parents/whānau, educators, and administrators. Potential limitations of the study are noted and the chapter concludes with suggestions for further research into the phenomenon of early entrance to university in Aotearoa New Zealand.

Chapter Two:
Review of the Literature

2.1 Introduction

This chapter reviews relevant literature on academic acceleration and explores some of the issues relating to this educational intervention from an evidence-based perspective. Various types of acceleration are examined, with a specific focus on full-year acceleration (also known as 'grade skipping'), radical acceleration, and early entrance to university. The strengths and limitations of these approaches are evaluated with respect to both academic and social-emotional effects, as well as the long-term impact of acceleration. Although the majority of the research has been conducted in the United States, a range of international perspectives is presented and discussed in relation to the New Zealand context. The chapter concludes by identifying knowledge gaps in the research base in order to establish a sound rationale for the current study.

2.2 Academic acceleration

Over the past 75 years, the academic acceleration of gifted children has been the subject of much controversy amongst researchers, educators, and parents. The basic premise underpinning the use of acceleration is that the pacing of educational programmes should be responsive to the needs and abilities of individual children (Wells, Lohman, & Marron, 2009). However, as Southern and Jones (1991) pointed out in their classic text, acceleration is an educational issue about which almost everybody appears to have a strong opinion. Indeed, VanTassel-Baska (1992), commenting on the early effects of the school reform movement in the United States, maintained that "acceleration is one of the lightning rod issues that test the level of acceptance that gifted programs enjoy in a local school district" (p. 68). She also suggested that many teachers and parents do not really understand what acceleration means: "Too frequently it is perceived as an intervention visited upon children to speed up their program and drive them to graduate from various levels of schooling earlier" (p. 68). Similarly, in a synthesis of research on gifted youth,

Feldhusen (1989) stated that acceleration is a “misnomer” and argued that the process is more about "bringing gifted and talented youth up to a suitable level of instruction commensurate with their achievement levels and readiness so that they are properly challenged to learn the new material" (p. 8).

This thesis uses the definition of acceleration proposed by the National Association for Gifted Children (NAGC, 2004) in their most recent position paper, which states that “acceleration practices involve allowing a student to move through traditional educational organizations more rapidly, based on readiness and motivation” (p. 1). There are two main arguments given in the literature to justify the use of accelerative practices with high-ability students. The first is that acceleration shortens the length of time gifted students are required to spend at school, thereby alleviating boredom and repetition and enabling them to begin their professional careers at an earlier age. The second, and more defensible rationale, is that acceleration has proven to be overwhelmingly beneficial for gifted students on both academic and social and emotional grounds (Assouline, Colangelo, & VanTassel-Baska, 2015; Assouline, Colangelo, VanTassel-Baska, et al., 2015; Colangelo et al., 2004a, 2004b; National Work Group on Acceleration, 2010).

Acceleration can take many different forms, ranging from individualised programmes within the regular classroom setting or acceleration in individual subject areas (e.g., mathematics) through to full-time placement in more advanced classes (often referred to as ‘grade skipping’) or early entrance to different levels of schooling. A further distinction can be made by grouping together those practices that are basically administrative in nature, such as advanced class placement or individual subject acceleration, and those that attempt to differentiate the curriculum in a qualitative manner. In a recent meta-analysis, Rogers (2015) identified more than 20 different forms of acceleration, which can be grouped into two broad types:

> *Subject-based acceleration* allows gifted learners to flexibly progress through the general K–12 curriculum or exposes these learners to knowledge, skills, and understandings beyond expected age or grade levels.
>
> *Grade-based acceleration* allows gifted learners to progress more quickly through the general K–12 curriculum, leaving the system anywhere from one to four years earlier than the normal age/grade lockstep system provides. (pp. 22-23, italics added)

Grade skipping

Grade skipping is an educational intervention that provides intellectually precocious students with developmentally appropriate content by skipping over what they already know, or can rapidly assimilate, and groups them with peers who are older in chronological age (Lupkowski-Shoplik, Assouline, & Colangelo, 2015; Southern & Jones, 2015). In some countries, including New Zealand, this approach is referred to as 'year-level' or 'whole-year' acceleration because it results in higher class placement on a full-time basis.

Radical acceleration

Radical acceleration results from a combination of accelerative procedures that have been adopted to meet the needs of high-ability students (e.g., curriculum compacting, subject acceleration, grade skipping, dual enrolment). According to Gross and van Vliet (2003), students who have been radically accelerated often enter university three or four years earlier than is customary. Having studied radical acceleration for decades, Gross (2004b) stated that radical acceleration is particularly suited to young people who are "exceptionally" (IQ 160–179) or "profoundly" (IQ 180+) gifted (p. 87). She listed eight predictors of successful radical acceleration: early acceleration; student engagement in educational planning; family support; informative and supportive mentors; a broad range of acceleration opportunities; above average performance; exposure to advanced content prior to acceleration; and self-knowledge and careful pre-planning.

In a comprehensive review of the research on radical acceleration and early college entrance, Gross and van Vliet (2005) argued that the academic effects of radical acceleration were "highly impressive" (p. 168). As documented in numerous studies, these effects included: earning higher grade point averages (GPAs); having a high probability of finishing university early; being awarded honours; making the dean's list; pursuing graduate degrees; engaging in research; and embarking on prestigious careers. With regard to social and emotional effects, Gross and van Vliet (2005) also maintained that the research evidence demonstrates positive outcomes. They cited several studies showing that students who had been radically accelerated adjusted well to new learning contexts, made friends without difficulty, were accepted by older students, and experienced increased levels of self-esteem and self-confidence. Overall, Gross and van Vliet concluded that "research provides strong support for the use of thoughtfully planned and monitored radical acceleration as a process allowing educators to respond to the academic and affective needs of a significant subgroup of the gifted population" (p. 168).

Early entrance to university

Early entrance to university is a logical outcome for students who have been radically accelerated through the compulsory education system and graduate from secondary school earlier than their age peers. In the United States, this trend appears to be increasing as a wider range of accelerative options become available for gifted students (Brody & Muratori, 2015). For example, academically able students in grades two through nine, identified through nationwide Talent Search programmes, are eligible to attend fast-paced summer enrichment courses or other special accelerative programmes taught on university campuses throughout the academic year (Olszewski-Kubilius, 2015). At the high school level, gifted students may enrol concurrently at a local university or undertake distance education papers on a part-time basis. Alternatively, senior students can complete Advanced Placement (AP) courses to earn first-year university credits while still enrolled at school. As well as academic benefits, many of these programmes also provide gifted students with opportunities to meet and socialise with like-minded peers and to experience campus life first-hand while they are still enrolled at school (College Board, 2017)

The widespread success of these initiatives has led a number of American universities to develop special programmes for accelerated students who graduate from high school early (Boothe, Sethna, Stanley, & Colgate, 1999; Brody & Muratori, 2015). For example, at the Advanced Academy of Georgia, early entrants complete 11th and 12th grade concurrently with the first two years of university (Sethna, Wickstrom, Boothe, & Stanley, 2001). At Mary Baldwin College in Virginia, females may apply for entry to the Program for the Exceptionally Gifted (PEG) as early as 8th grade (Cornell, Callahan, & Lloyd, 1991b). The University of Washington and Johns Hopkins University in Baltimore also have well-established programmes for early entrants (Hertzog & Chung, 2015; Noble & Childers, 2008). Some early entrance programmes, such as that offered by the National Academy of Arts, Sciences, and Engineering (NAASE) at the University of Iowa, are residential and provide individual mentoring and counselling support to help accelerated students adjust to university life (Brody & Muratori, 2015; Muratori, Colangelo, & Assouline, 2003).
As with most other forms of acceleration, the literature shows that early entrance to university can result in positive outcomes for highly able students (Brody et al., 2004; Gross & van Vliet, 2005). Studies that have examined the short-term academic benefits of this approach suggest that early entrants tend to graduate in a shorter period of time, earn more honours overall, and generally go on to successfully complete higher degrees in their chosen field (e.g., Brody, Assouline, & Stanley, 1990; Brody et al., 2004; Gross & van Vliet, 2005; Janos & Robinson, 1985; Janos, Robinson, & Lunneborg, 1989; Muratori et al., 2006; Swiatek & Benbow, 1991).

Other studies have indicated that early entry to university also has a beneficial effect on students' social and emotional development (e.g., Brody et al., 2004; Cornell, Callahan, & Lloyd, 1991a; Gross & van Vliet, 2005; Ingersoll & Cornell, 1995; Janos et al., 1988; Janos et al., 1989; Lupowski, Whitmore, & Ramsay, 1992; Muratori et al., 2003). Several studies have tracked the progress of students who entered university early through to adulthood (e.g., Lubinski et al., 2001; Noble, Robinson, & Gunderson, 1993; Noble & Smyth, 1995; Noble et al., 2007; Swiatek &

Benbow, 1991). Although there are individual cases where acceleration has not been successful, the results of these studies provide strong evidence that early entrance can be a successful option for gifted students who are highly motivated and willing to be challenged in their learning.

A handful of studies have looked specifically at factors that contribute to successful outcomes for accelerated students who enter university early (e.g., Brody et al., 1990; Brody et al., 2004; Brody & Stanley, 1991; Carter, 1996; Gross & van Vliet, 2005; Schumaker, Sayler, & Bembry, 1995). For example, Schumaker et al. (1995) found that advanced study skills and independent learning strategies were relevant for academic success among a group of early college entrants. Brody et al. (2004) also suggested that students who enter university early need to be capable of achieving in the top quartile of their class and should have exhausted all other accelerative options available to them, prior to enrolling in university full-time.

Criticisms of acceleration

A large number of studies have reported both the short- and long-term benefits of all forms of acceleration on the academic achievement of gifted children at various stages in their lifespan (e.g., Brody et al., 2004; Feldhusen, 1989; Gross, 1993, 2004a, 2006a; Kulik, 1992, 2004; Kulik & Kulik, 1984a, 1984b, 1992; Lubinski, 2004; Lubinski et al., 2001; Rogers, 1991b, 2002a, 2004; Southern & Jones, 1991; Swiatek, 2002; Swiatek & Benbow, 1991; VanTassel-Baska, 1992). In fact, Benbow (1991) once suggested that it is difficult to locate a single research study showing that acceleration may be educationally detrimental. Yet, despite these findings, the idea of moving gifted students through the curriculum ahead of their age peers is still not accepted by many educators 25 years later.

Educational interventions, such as grade skipping and radical acceleration, which result in students being placed in classes with older students on a full-time basis, tend to attract more criticism than other forms of acceleration. A common concern expressed in the literature is that high-ability students who are accelerated at school may have gaps in their knowledge or be unable to retain material learned at a faster pace (Southern & Jones, 1991). A related issue is that students may 'burn out' if

they are placed in classes that are advanced for their chronological age. However, Brody and Benbow (1987) found that mathematically gifted students who had been accelerated at high school generally earned more overall honours and attended more prestigious colleges than equally able students who had not been accelerated. In a five year follow-up study, Brody, Assouline and Stanley (1990) reported that, among accelerated students, ongoing opportunities for fast-paced, advanced course work was the best predictor of high achievement in college.

Another recurring theme in the literature is that many educators are reluctant to accelerate gifted students because of the perceived negative effects on their social and emotional development. Critics have put forward a number of objections to acceleration, claiming that it places unrealistic demands on children by 'hurrying' them through the curriculum, thereby reducing the amount of time available for extra-curricular activities and forcing students into making early career decisions based on a limited range of life experiences (Freeman, 1991; Southern & Jones, 1991).

Although the findings are not quite so clear cut in this area, there is still a substantial body of evidence, which suggests that gifted children who are accelerated at school do not suffer any long-term harmful social or emotional consequences as a result of this experience (e.g., Cornell, Callahan, Bassin, et al., 1991; Feldhusen, 1989; Hoekman et al., 1999; Neihart, 2007; Noble et al., 1998; Richardson & Benbow, 1990; Robinson, 2004; Southern & Jones, 1991; VanTassel-Baska, 1992). A comprehensive review of the psychosocial adjustment of gifted students undertaken by Janos and Robinson (1985) concluded that highly able students often preferred older playmates because of their advanced intellectual capacity and that gifted students who entered college early were equally well-adjusted, compared with peers who had not been accelerated.

Similarly, Feldhusen, Proctor, and Black (2002) found that gifted children who had been admitted to school early, or who had been placed in a higher year level at school, did not display any significant personal or

social problems, providing that acceleration had been carried out after careful examination of each child's individual circumstances. In a series of studies undertaken in the Netherlands, Hoogeveen (2008) reported that there were minimal differences in the social-emotional characteristics of accelerated and non-accelerated gifted students and that any differences tended to favour the accelerated students. Furthermore, the results appeared to suggest that multiple grade skipping does not have negative effects on social-emotional characteristics and that long-term effects of acceleration tend to be positive.

A small-scale study conducted in New South Wales also confirmed the positive psychosocial effects of educational acceleration reported elsewhere in the literature (Vialle, Ashton, Carlon, & Rankin, 1997). The participants in this study ranged from six to 16 years of age and each had experienced at least one year-level skip. Prior to being accelerated, these students had all demonstrated a tendency to socialise with older children. They described being far happier, both socially and emotionally, following acceleration and reported increased feelings of personal fulfilment and self-confidence as a result of this experience.

There is also growing awareness amongst researchers that failure to provide gifted students with challenging learning experiences may lead to reduced motivation, poor study habits, and long-term problems of underachievement (e.g., Rimm, 1986; Rimm & Lovance, 1992; Silverman, 1993; Whittier, 1980). In a longitudinal study of profoundly gifted children in Australia, Gross (1993, 2004a) reported that all but one of the 15 students in her sample group admitted that they had deliberately underachieved at school in order to fit in and gain peer acceptance. Another longitudinal study of gifted students in the United States (McCall et al., 1992) also showed that patterns of underachievement often persisted well beyond high school, resulting in less successful marriages and work histories, as well as reduced opportunities for higher education.

2.3 Long-term effects of academic acceleration

A number of studies have tracked the progress of gifted individuals over time in order to identify specific factors that have contributed to their developmental trajectories at various stages in their lifespan. The next section examines the findings from three well-known longitudinal studies in the field of gifted education.

Genetic Studies of Genius

The ground-breaking work of Lewis Terman and his associates at Stanford University, which began in 1921, is widely regarded as the first longitudinal study undertaken in the field of psychology. Terman believed that intelligence was innate (i.e., fixed at birth) and he was interested to find out the extent to which a high IQ, as measured in childhood, was predictive of later success in life. His pioneering work, published in the five-volume series *Genetic Studies of Genius* (Burks, Jensen, & Terman, 1930; Cox, 1926; Terman, 1926; Terman & Oden, 1947, 1959), continued for many years after his death in 1956 and still remains an important source of historical data for contemporary researchers.

Terman's sample group consisted of 1,528 gifted children (857 boys and 671 girls), ranging in age from 3 to 19 years, who had an IQ of 135 or above (mean IQ 147). The participants were mainly white, middle-class children from urban schools in the California Bay area who had been nominated by their classroom teachers[4]. The initial fieldwork was undertaken in 1921–1922 and planned follow-up studies were conducted in 1927–1928 (during adolescence), in 1939–1940 (in early adulthood), and again in 1950–1952 (at mid-life). An extensive battery of psychometric tests was administered by a team of researchers to measure the children's cognitive ability, school achievement, personality characteristics, and health and physical development. These data were supplemented at regular intervals by qualitative information related to their progress and

[4] Terman and Oden (1947) later acknowledged that, in comparison with the general population statistics of the cities canvassed at that time, African-American, Hispanic and Asian students were significantly under-represented in their main sample group.

achievement obtained from parent questionnaires, teacher surveys and rating scales, observational interviews, and self-report instruments.

Terman's (1926) early findings were impressive, with the gifted children performing better than their same-age peers in virtually every aspect of their lives. During childhood, they were physically advanced for their age and reached the normal developmental milestones (e.g., speaking, walking, and learning to read) earlier than other children. At school, teachers' ratings of academic achievement indicated that, in general, the gifted children were performing at a 'superior' level compared to their classmates. As a group, standardised tests of achievement showed that they had successfully mastered the regular school curriculum to an average of 40 per cent above their chronological age. Contrary to popular stereotypes, the majority of gifted children in Terman's sample group were also socially well-adjusted and participated in sports and other extracurricular activities in comparable numbers to their same-age peers.

Year-level acceleration was a relatively common practice when Terman's (1926) study first began and approximately 85 (5.6%) of the gifted children in the main sample group were accelerated by one or more half-grades at some point in their schooling. For many of the gifted children, this occurred early on; 21 per cent of the group had skipped low-first grade and 10 per cent the entire first grade. However, despite clear evidence of their advanced intellectual ability, Terman and Oden (1947) reported that other children who were equally as gifted were often overlooked by their teachers for promotion. They viewed this as a major failing of the 'age-grade lock-step' system of schooling that was in place at the time and believed that significant numbers of gifted children were being held back and denied the opportunity to work at a level commensurate with their ability:

> The child who starts to school at the age of 6 and a half years with a mental age of 10 years, can be brought to fourth grade achievement before the end of his first school year. We know this as a fact because it has happened over and over among the subjects of this

> group. Others in the group equally capable of making such progress – and this includes half or more of the subjects – have been caught in the lock step and held to school work two or three full grades below the level on which they could have functioned successfully. (pp. 279-280)

In order to further examine factors that might be associated with rate of school progress, Terman and Oden (1947) divided their original sample into three groups using the normal age of high-school graduation (i.e., 18 years, plus or minus six months) as an index of degree of acceleration:

- Group I (n = 62, 5%) had been accelerated by 2 to 4 years and graduated from high school below the age of 15.6 years (mean age 14.9 years);
- Group II (n = 332, 24%) had been accelerated by 1 to 2 years and graduated from high school between the age of 15.6 and 16.6 years (mean age 16.0 years); and
- Group III (n = 998, 72%) had been accelerated by 0 to 1 years and graduated from high school at or above the age of 16.6 years (mean age 17.3 years).

Groups I and II were classified as the 'accelerates' and Group III as the 'nonaccelerates', even though this group included 354 students who had graduated from high school before the age of 17 years. These groups were compared on a number of variables both in childhood and later in life, including: (1) intelligence; (2) educational history; (3) vocational status and avocational interests; (4) social adjustment; (5) marital status; and (6) physical health. Terman and Oden (1947) concluded that, in general, the results favoured the rapidly-promoted children, although no significant differences were found between the two groups on many of the factors examined. Since the progress of children who had been accelerated at school and entered university early is of particular interest to the current study, the following section will explore some of the major findings in this area.

Terman and Oden (1947) reported that students in Group I were more likely to achieve higher grades, be awarded more honours, and graduate from university earlier than those who had not been accelerated to the same degree. As a group, the accelerates tended to remain at university for one or more years of graduate work, particularly in the case of men. In later life, 42.2 per cent of the most highly accelerated men were categorised in the "A" group for vocational success (i.e., the most successful 20% of men) and were employed mainly in professional occupations. Terman and Oden (1947) noted that "especially in such professions as medicine, law, or university teaching, an early entrance into graduate study is a real advantage to the gifted student" (p. 271). There was also evidence to suggest that the accelerates did not experience any significant long-term issues of social and emotional 'maladjustment' due to entering university early and were just as likely to be involved in extracurricular activities as non-accelerates. Overall, they concluded that "children of IQ 135 or higher should be promoted sufficiently to permit college entry by the age of seventeen at latest, and that a majority in this group would be better off to enter at sixteen" (p. 281).

However, it should also be acknowledged that, although most of the gifted students in Terman's study went on to university (87% of men and 85% of women), 30 per cent of the group dropped out and did not graduate. Indeed, a small proportion of the main sample group (three men and nine women) did not even complete high school. In an effort to identify some of the reasons why these students may have failed to live up to their early promise, Terman and Oden (1959) re-examined their educational records but were unable to find any specific reasons to explain this discrepancy. The most common explanation given by participants who dropped out of university was that they underestimated the amount of study necessary to do well at this level because they had always found it easy to achieve high marks in high school. A few participants mentioned that they threw themselves into extracurricular student body or social activities on entering university because they missed the fun and social life of high school and others reported that they did not receive adequate guidance in selecting a major field of study.

Study of Mathematically Precocious Youth

Another study that has examined the long-term effects of educational acceleration is the Study of Mathematically Precocious Youth (SMPY). Founded by Julian Stanley at Johns Hopkins University in 1971, SMPY was designed to identify intellectually gifted adolescents and to facilitate their individual development through the provision of innovative educational programmes (Lubinski & Benbow, 1994). Like Terman, Stanley (1978) believed that children should be allowed to progress through school at their own pace and argued that many gifted students were capable of achieving at a higher level if they were exposed to accelerated educational opportunities:

> The oft-sounded fears that educational acceleration will hurt the social and emotional development of intellectually highly talented youths in the United States who want to move ahead faster than their agemates are groundless. On the contrary, frustrating the natural pace of highly apt students can cause serious academic and emotional damage. (p. 3)

SMPY is a planned 50-year longitudinal study and currently involves more than 5,000 students identified over a 25-year period (1972–1997). The first four cohorts were identified through talent search programmes at age 13 and vary in ability level, ranging from the top three percent to the top .01 percent of students in terms of their mathematical or verbal reasoning skills. Students were selected for participation in SMPY based on their scores on the College Board Scholastic Aptitude Test (SAT-M and SAT-V), which is a college admissions test designed for senior high-school students. The fifth cohort is retrospective in design and includes 714 participants who were identified as first- or second-year mathematics/science graduates attending top US universities in 1992. According to Lubinski and Benbow (1994), the purpose of including this group was to investigate whether the profiles of the graduate students differed substantially from younger students identified by off-level testing through the talent search model.

In order to better understand gifted individuals and the development of intellectual talent throughout the lifespan, SMPY plans to collect follow-up survey data from all four cohorts of talent search participants at ages 18, 23, 33, 50 and 65 years and from the mathematics/science graduate students in cohort 5 at ages 35, 50 and 65 years. Some of these studies have now been completed and the data provide convincing evidence of the long-term impact of a range of accelerative strategies in relation to various outcomes for different groups of students. Academic acceleration is a major empirical focus of SMPY (Swiatek, 2002) and the following section will review some of the key studies that have been conducted in this area. However, it should be noted that all the data collected to date come from the first four phases of the research, since the 50-year follow-up surveys have not yet been completed.

In an early study, Brody and Benbow (1987) examined data from the five-year follow-up survey of cohort 2 (top 0.5% in cognitive ability). The participants were divided into four groups depending on the degree of acceleration they had experienced at high school: Group 1 (n = 143) had skipped one or more grades, graduated from high school early, or entered university early without graduating from high school; Group 2 (n = 277) had taken AP exams or college courses on a part-time basis while in high school; Group 3 (n = 50) had participated in subject matter acceleration, special classes, or tutoring; and Group 4 (n = 40) included students who reported having no specific accelerative experiences.

The four groups were compared in relation to their academic achievement, extracurricular activities, university ranking, goals and aspirations, and social and emotional adjustment. The most accelerated students in Groups 1 and 2 performed just as well or better than students in Groups 3 and 4 in all areas of academic achievement and were more likely to attend highly selective universities and to aspire to higher degrees. Although the students in Group 1 were not as heavily involved in extracurricular activities as students in the other groups, they still participated in university clubs and no discernible difference was found between any of the groups on a wide range of social and emotional

variables. Overall, Brody and Benbow (1987) concluded that their study did not identify any harmful effects of the various accelerative strategies but, rather, highlighted the potential benefits of this approach for students and schools.

Another study conducted by Richardson and Benbow (1990) looked at the effects of academic acceleration on social and emotional adjustment. Data from the five- and 10-year follow-up surveys completed by 1,247 participants in Cohort 1 (top 1% in cognitive ability) were compared to investigate the effects of amount and type of educational acceleration (i.e., grade skipping and subject-matter acceleration) on a range of psychosocial indices, including self-esteem, locus of control, self-acceptance/identity, and social interaction. The findings were mainly positive, with participants reporting that they had not experienced any significant long-term detrimental effects as a result of being accelerated at school.

One exception was in the area of self-esteem, with students who had skipped one or more grades reporting a slight drop (-.09) in their academic self-concept. However, Richardson and Benbow (1990) hypothesised that the negative relation between acceleration and self-esteem may not be due to acceleration but, rather, to changes in the social comparisons made by the students themselves. They suggested that "being placed in a higher grade with older students or in segregated classes for the gifted may result in gifted students' comparing themselves with other gifted or advanced students" (p. 468). This finding is consistent with the results of other studies that have investigated the big-fish-little-pond-effect (BFLPE) in relation to the academic self-concept of gifted students participating in selective programmes (e.g., Dai, Rinn, & Tan, 2013; Dai, Steenbergen-Hu, & Zhou, 2015; Jackman, Wilson, Seaton, & Craven, 2011; Seaton, Marsh, & Craven, 2010; Seaton, Marsh, Parker, Craven, & Yeung, 2015).

In a 10-year follow-up study, Swiatek and Benbow (1991) compared two groups of students (n = 107) from Cohorts 1 and 2 at age 23. The groups were matched for sex and ability but one group had been academically accelerated, while the other had progressed through school at a typical

rate for their age. Further comparisons were made between male and female students and between those students who had entered university one year early and those who had entered university two or more years early. Overall, few significant differences were found between the two groups for any of the individual academic and psychosocial variables studied. Both the accelerates and the nonaccelerates reported impressive academic achievements, as well as high levels of satisfaction with their studies and personal accomplishments. In both groups, male students expressed a stronger preference for mathematics and science than female students, but there was no differential response to acceleration on the basis of gender.

The majority of students in both groups (75% of accelerates and 63% of nonaccelerates) were accepted into graduate schools at highly-ranked universities. However, as a group, the accelerates tended to slightly outperform the nonaccelerates; on average, they began their graduate studies at least a year earlier and the most accelerated students demonstrated a higher internal locus of control. Swiatek and Benbow (1991) concluded that "accelerated students appear to benefit by gaining additional time that they can devote to their own interests, such as professional or advanced educational development" and recommended that gifted students should be permitted to accelerate in their learning "as far as they are willing and able to go" (p. 537).

Lubinski et al. (2001) also conducted a 10-year follow-up study of 320 participants in Cohort 3 (top .01% in cognitive ability). The sample was divided into three groups based on their original SAT profiles: (1) high-verbal; (2) high-maths; and (3) high-flat (students who were equally strong in both mathematical and verbal reasoning ability). The groups were further divided by gender in order to compare their educational and vocational attainments against both normative and idiographic data. In addition, participants were asked about their experiences of academic acceleration at school and their attitudes towards acceleration.
Not surprisingly, the accomplishments of these profoundly gifted individuals (average IQ of 180+) at age 23 were quite remarkable.

Lubinski et al. (2001) reported that, as a group, they were highly successful, both in their academic studies and their professional careers: "They pursued doctoral degrees at rates over 50 times base-rate expectations, with several participants having created noteworthy literary, scientific, or technical products by their early 20s" (p. 718) . Almost all the participants (95%) had been accelerated at school and reported being exposed to a wide range of accelerative options, including grade skipping (49%) and early entrance to university (19%). When prompted to reflect on their experiences of acceleration, the majority of participants (71%) said they were satisfied with the level of acceleration that had been offered to them and indicated that, overall, it did not have a negative impact on their social life or their ability to get along with their age peers.

These same participants were surveyed again 10 years later (at age 33), when they were more established in their professional careers, with similar results. In describing their educational and vocational outcomes, Lubinski, Benbow, Webb, and Bleske-Rechek (2006) reported that 52 per cent of participants had earned doctoral-level credentials and 11 per cent had secured tenured or tenure-track academic postings. A related study conducted by Webb, Lubinski, and Benbow (2010), based on the same dataset, focussed specifically on the participants' views of academic acceleration. The underlying rationale for this study was that this group of young adults was well-positioned to evaluate the long-term effects of academic acceleration, due to their own first-hand experiences as adolescents. Significantly, the vast majority of participants (93%) endorsed the importance of providing opportunities for educational acceleration, especially for older children, and many participants reported strong support for the likelihood that they would pursue various accelerative options for their own children.

More recently, Park, Lubinski, and Benbow (2013) examined the longitudinal effects of grade skipping in relation to adult productivity in science, technology, engineering and mathematics (STEM) using data obtained from the 40-year follow-up surveys. Participants from Cohorts 1, 2, and 3 (top 1% overall in cognitive ability) who had skipped one or more

grades at school (n = 363) were compared with matched controls (n = 657) in each cohort in relation to a wide range of educational and occupational outcomes. The results were impressive and showed that grade skipping is a very effective intervention for highly gifted students: "In every comparison, in every cohort, a greater proportion of grade skippers earned doctoral degrees, STEM PhDs, STEM publications, and patents" (p. 181). Furthermore, Park et al. (2013) reported that grade skippers tended to earn STEM PhDs and author STEM publications earlier than their matched controls. There was also considerable evidence to suggest that reaching these outcomes at an earlier age may be associated with increased STEM career productivity and creative accomplishments over the course of an individual's career, especially for males.

Smeets (2013) carried out two related studies using the same dataset to evaluate the long-term impact of acceleration on social and emotional adjustment in mid-life. Participants from the first three SMPY cohorts (top 1% overall in cognitive ability) who had experienced either grade skipping (Park et al., 2013) or subject-based acceleration in STEM (Wai, Lubinski, Benbow, & Steiger, 2010) during adolescence were followed-up to evaluate their physical health and well-being 35 years later. Across both studies, participants reported mostly positive emotions and satisfaction with their lives, themselves, their work, and their relationships. Both groups compared favourably with matched controls and no significant differences were found in the prevalence of physical and mental health issues at age 50; indeed, where differences were observed, they tended to favour the accelerates. Overall, Smeets (2013) concluded that there was no evidence to suggest that academic acceleration had any adverse effects on participants' social and emotional adjustment later in life.

Gulbenkian Project: A different perspective

In contrast to the positive findings cited above, a 35-year longitudinal study of 210 children growing up in England during the 1970s and 1980s raised a number of concerns about the use of academic acceleration (Freeman, 1991, 2001, 2006, 2010, 2013). The participants in this well-known study were divided into three groups of 70 children, closely matched for factors such as age, sex, and socioeconomic status. The target

group was made up of self-identified gifted children; the second group (Control 1) included equally-able children who had *not* been identified as gifted; while the third group (Control 2) comprised children who were selected at random in terms of ability. Although the participants were drawn from 63 different schools, each triad of children belonged to the same class and, therefore, shared similar educational experiences.

In a 10-year follow-up study, Freeman (1991) reported that 17 of the identified gifted students had been accelerated at school; however, with just one exception, they had all struggled to cope with this experience. She claimed that children in the target group had fewer friends and were no less bored at school than equally-able children who had not been accelerated. Furthermore, Freeman argued that "many had found [acceleration] had presented them with such difficulties that it was at times detrimental to their greater well-being" (p. 185). Looking back, some parents also expressed negative views about acceleration. For example, one father whose adolescent son was accelerated by two years at an all boys' school commented: "I felt very sorry for him; he was still a boy and they were men" (Freeman, 2006, p. 395). Some parents also believed that acceleration may have contributed to lowering their children's final examination results, which resulted in them not being selected for entry to prestigious universities. Overall, Freeman (1991) concluded that moving gifted children ahead of their age group was not beneficial for the majority of the young people in her study and recommended that "[acceleration] should be restricted to the physically fit and the emotionally stable; and even then, only as a last resort" (p. 191).

The obvious discrepancy between the findings of Freeman's research and other studies that have documented the long-term positive effects of academic acceleration (e.g., Gross, 1993, 2004a, 2006a) appears to warrant further investigation. One possible explanation may lie in the composition of the target group; the self-identified gifted children in Freeman's study were all drawn from families who belonged to the National Association for Gifted Children (NAGC). It is possible that some of these children may have exhibited atypical behaviours from an early age, which prompted

their parents to seek support from NAGC. Another factor that may have influenced the results is that the children in the target group and Control Group 1 differed in terms of their intellectual ability. Although Freeman (2013) stated that the two groups were identical, the data show that the identified gifted students had a mean IQ of 147, whereas the unlabelled group had a mean IQ of 134, as measured by the Stanford-Binet (SB; Form L-M). This difference is statistically significant and may help to explain why children in the target group experienced more social and emotional difficulties than children in either of the two control groups.

Meta-analytic studies

Since the 1990s, a number of meta-analyses and best-evidence syntheses have been conducted that provide further confirmation of the positive effects of acceleration reported elsewhere in the literature. Glass (1976) defined the concept of meta-analysis as "the statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings" (p. 3). He argued that meta-analysis provides a more rigorous alternative to traditional methods of narrative review by enabling researchers to assimilate the results of studies on topics such as acceleration, where there is an extensive body of published literature, using a common metric.

The best-evidence synthesis method was first proposed by Slavin (1986) in response to concerns that strict adherence to the exhaustive inclusion criteria for meta-analysis meant that some forms of evidence (e.g., correlational studies, studies with small sample sizes) were frequently omitted from research syntheses. Instead, he recommended using well-defined *a priori* criteria to locate all forms of research (including dissertations and institutional reports) that have the potential to contribute relevant information on critical issues. According to Slavin (1986), best evidence synthesis provides “a thorough and unbiased means of synthesizing research” (p. 5) that draws on the relative strengths of both meta-analytic and narrative reviews of the literature.

The findings of meta-analyses and best evidence syntheses are typically reported using the index of effect size (ES) to compare study outcomes.

Based on a survey of articles in the social sciences, Cohen (1977) tentatively suggested that an ES of 0.20 is small, 0.50 medium, and 0.80 large. However, according to Rogers (1992), an ES of 0.30 or higher is generally recognised as being of 'practical significance' to classroom practice. More recently, Hattie (2009) proposed that an average ES of 0.40, which he termed the "hinge-point", should be regarded as the standard from which to judge educational outcomes: "The effect size of 0.40 sets a level where the effects of innovation enhance achievement in such a way that we can notice real-world differences, and this should be a benchmark of such real-world change" (p. 17).

The first meta-analysis on acceleration was conducted by Kulik and Kulik (1984a, 1984b) more than 30 years ago and is still regarded as a landmark study in the field of gifted education. Kulik and Kulik reviewed the findings from 26 controlled studies, covering the period 1932-1974, which investigated the outcomes of accelerated instruction on gifted elementary and secondary school students. Three different types of accelerative strategies were identified: grade skipping; speeding up by compressing the standard curriculum into fewer school years; and speeding up by adding summer sessions to the school year. Thirteen of the primary studies used same-age control groups to measure the effects of acceleration and 13 studies used older-age control groups.

Kulik and Kulik (1984a, 1984b) reported that gifted students who had been accelerated attained significantly higher results on standardised tests of achievement, compared with same-age control groups who had not been accelerated (ES = 0.88). However, in studies where accelerated students were compared with older-age control groups, the younger students held their own and no significant differences in achievement were found (ES = 0.05). Kulik and Kulik (1984a) noted that this result was "especially impressive" (p. 421) since the accelerated students were at least one year younger than their gifted classmates. A relatively small number of studies (n = 11) investigated affective outcomes, such as attitudes toward school, participation in school activities, popularity and adjustment, derived mainly from rating scales and self-report measures. However, in contrast

to the results on academic achievement, Kulik and Kulik reported that the findings in this area were "sketchy and inconclusive" (p. 422) and only showed small non-significant effects for accelerated instruction. Kulik and Kulik (1992) subsequently revisited these findings with very similar results, although three studies from the original meta-analysis were omitted because they did not meet revised inclusion criteria.

Kent (1992) carried out a meta-analysis of 23 studies undertaken from 1928 to 1987 that had investigated the effects of academic acceleration on the social and emotional development of gifted elementary school students. The studies included a large number of social and emotional variables, including indicators of social participation, relationships, behaviour, attitude, autonomy, analytical thinking, and personality characteristics. Overall, Kent reported a slight average positive effect for gifted students in accelerated programmes (ES = 0.13). Sub-group analyses showed that there were few differences between different methods of acceleration or by sex (boys = 0.21, girls = 0.15), while retrospective studies of accelerated students after college showed the greatest effects (ES = 0.28). Although these gains were small, it should be noted that they were all positive and Kent found no evidence of harmful social and emotional effects due to academic acceleration.

In another best-evidence synthesis of 314 studies of acceleration covering the period 1912-1988, Rogers (1992) reported substantial academic gains for most forms of acceleration across all grade levels. The primary studies were categorised according to the type of accelerative option used in the intervention, resulting in the identification of 12 distinct forms of acceleration. However, only 81 studies provided sufficient data for calculating effect sizes. With regard to academic outcomes, Rogers reported significant effects for all three general types of acceleration: grade-based (ES = 0.46); subject-based (ES = 0.49); and college-based (ES = 0.38). Overall, the following accelerative options appeared to be most beneficial for gifted students: grade skipping (ES = 0.78); credit by examination (ES = 0.75); grade telescoping (ES = 0.56); subject acceleration

(ES = 0.49); curriculum compacting (ES = 0.45); early admission to college (ES = 0.44); and mentoring (ES = 0.42).

Kulik (2004) reviewed all of the previous meta-analyses on academic acceleration, including the work of Rogers (1992) and Kent (1992). From this large evidence base, Kulik identified 26 studies that were controlled for cognitive ability; one group of studies (n = 11) compared accelerated students with other children of the same age, while the second group of studies (n = 15) compared accelerated students with older classmates. Overall, the findings tended to confirm the positive effects of acceleration, especially in relation to academic achievement. In each of the studies with same-age groups, the accelerated students outperformed the non-accelerated control group on achievement tests, with an average effect size of 0.80. Similarly, all but two of the studies with older control groups found only minor differences in academic achievement (median ES = -0.14), suggesting that the younger accelerated students performed just as well as their older classmates.

Only 13 studies investigated the effects of academic acceleration on social and emotional adjustment, such as educational plans, liking for school, extracurricular interests, and personal adjustment. However, the results of these studies were fragmented and inconsistent and no combined effect size could be calculated. Overall, Kulik (2004) concluded that while accelerated students tended to have a slightly lower assessment of self, they had higher educational aspirations and were just as likely to participate in social activities as equally able students who had not been accelerated. As noted previously, the big-fish-little-pond-effect may explain this negative impact on academic self-concept (Marsh & Hau, 2003). Other experts in the field have suggested that this decrease can lead to a more realistic appraisal of self-competence and, therefore, should not necessarily be considered harmful (e.g., Dai, 2004; Neihart, 2007; Plucker et al., 2004).

Steenbergen-Hu (2009) carried out a more recent analysis of 38 studies on academic acceleration published between 1994 and 2008. The overall

effects for both academic achievement and social emotional adjustment were analysed first using a random effects model. The studies were then broken down according to developmental levels (P–12 and postsecondary) and comparison groups (whether accelerated students were compared with same age, older age, or mixed-age peers). Steenbergen-Hu reported that positive effects were found for academic achievement (g = 0.180, 95% CI = -.072, .431) across both developmental levels, although the impact of acceleration was more discernible when accelerated high-ability learners were compared with their non-accelerated same-age peers. The effects on high-ability learners' social-emotional development also appeared to be slightly positive (g = 0.076, 95% CI = -.025, .176), although this effect was not as strong as for academic achievement. Overall, Steenbergen-Hu concluded that these findings were consistent with the results of previous meta-analytic studies and provide further evidence that high-ability learners can benefit from academic acceleration, both in the short term and in the long run.

More recently, Rogers (2010, 2015) carried out two further best-evidence syntheses covering the research on acceleration conducted since 1990. The first synthesis examined 276 studies published from 1990 to 2008 (Rogers, 2010), while the second synthesis included a further 46 studies published from 2008 to 2013 (Rogers, 2015). Overall, Rogers (2015) found positive academic effects for gifted learners across all levels of schooling (elementary, middle, and high school) for both subject-based (ES = 0.51) and grade-based (ES = 0.50) forms of acceleration. However, she reported that grade-based acceleration options produced stronger socialisation and psychological effects than subject-based acceleration, although these effects were only moderate. While these findings tend to confirm the positive effects of acceleration on a wide range of outcomes, Rogers (2015) pointed out that, in some cases, the effect sizes varied considerably to those reported in earlier research syntheses. In part, she attributed this discrepancy to the fact that there has been a noticeable shift in the focus of research undertaken since 1990, with more studies examining the effects of accelerative strategies on students at the secondary and post-secondary

levels (e.g., Advanced Placement, International Baccalaureate, Talent Search programmes, and early entrance to university).

Other relevant research, conducted by Hattie (2009) over a period of 15 years, synthesised more than 800 meta-analyses relating to possible influences on achievement in school-aged students. In this study, acceleration was ranked fifth out of a total of 138 educational strategies for raising student achievement and was listed as the top school-based intervention. Hattie (2017) has since updated these findings and the latest statistics published on the Visible Learning Plus website (http://visible-learning.org) show that acceleration is still ranked amongst the top influences related to student achievement, with an overall effect size of 0.68 (Waack, 2018). Considering the demonstrated effectiveness of this approach, Hattie and other educational researchers (e.g., Horsley, 2009b; Margrain, 2001; Wardman & Hattie, 2012) have repeatedly questioned why acceleration remains one of the least used methods of intervention in New Zealand schools.

2.4 International perspectives

International perspectives of acceleration are informed by the different political and sociocultural contexts that underpin the development of educational policies and practices in each country (Luke, 2011). However, as noted previously, most of the published research on academic acceleration has been undertaken in the United States and tends to reflect Western European beliefs and values. According to Freeman (1998), acceleration has achieved greater prominence in the United States because the American education system is more lockstep and, therefore, "teaching is slower and less differentiated than that in Europe" (Part 3). The following section examines how academic acceleration is viewed in different countries to provide a wider comparison with the New Zealand context.

Comparative studies

An international survey undertaken by Freeman, Raffan, and Warwick (2010) found that enrichment was the most common approach to

provision for gifted students worldwide (89%). In many countries, the major focus was on meeting the needs of gifted students in the regular classroom setting, with 65 per cent of practitioners reporting that they viewed curriculum differentiation as a key factor for success. Acceleration was mentioned by 39 per cent of respondents, with 59 per cent of practitioners reporting an advanced curriculum and 42 per cent reporting a faster pace. Freeman et al. (2010) also noted that most countries appeared to use a range of strategies, including both enrichment and acceleration: "Very few responses indicated a commitment to one at the expense of the other, and all were built on local context" (p. 19).

A briefing report prepared for the European Union (EU) Council summarised educational policies and provisions for gifted students amongst 30 nations belonging to the Eurydice education network (Eurydice, 2006). The report identified four broad, overlapping approaches that were used to cater for this group of learners in European countries: (1) more advanced, or more varied, activities within mainstream classes; (2) differentiated provision or differentiated curriculum, practiced either in mixed-ability or separate groups; (3) non-school based activities, such as academic competitions, cultural events, or sports tournaments; and (4) fast tracking, a formal process that enables students to bypass classes and move through the school system more rapidly (Eurydice, 2006). The report found that the type and number of measures were relatively similar at both primary and secondary levels of education in virtually all the countries surveyed, and included a mix of enrichment and acceleration strategies. However, although most European countries permitted gifted students to progress through school faster, Eurydice (2006) noted that attitudes and beliefs about acceleration varied significantly between member nations:

> While all European countries agree that young people with exceptional abilities – like all young people – should be given an opportunity to develop their natural gifts as fully as possible and to grow up well adjusted within the education system, it is

> nevertheless clear that there are contrasting views on how best to satisfy their needs. (p. 25)

The findings showed that acceleration is not legally permitted in Cyprus, Greece, or Latvia, while other European countries placed strict limitations on its use (Eurydice, 2006). In Italy, for example, students can only be accelerated once during the first eight years of school or in the last year of secondary school. Similarly, in Spain, acceleration consists of advancing the student one academic year and students can only skip up to a maximum of three grades. In some countries, such as Sweden and Romania, grade skipping is the *only* provision that is available for gifted students (Eurydice, 2006).

Data from the Eurydice (2006) report and other comparative studies (e.g., Freeman, 1998, 2011; Freeman et al., 2010; Heinbokel, 2010; Hermann & Nevo, 2011; Heuser, Wang, & Shahid, 2017; Hoogeveen, 2015; Sękowski & Łubianka, 2015; Ziegler, Stoeger, Harder, & Balestrini, 2013) suggest that there are two main approaches to the education of gifted students worldwide – integration and segregation:

> Cultural viewpoints divide roughly into two and can be conflicting. In one, the gifted are seen as only a tiny fixed proportion of the population, selected by achievement. In the other, the gifted are widespread and seen in terms of high-level potential and hard work. The two dominant approaches to gifts and talents come from the constant political struggle between elitism and egalitarianism – in effect, between the relative cultural importance given to genetics and environment. (Freeman, 1998, Part 3)

However, the Eurydice (2006) report acknowledged that these approaches tend to overlap and, in practice, many countries utilise a continuum of provision to meet regional and local needs. Freeman (2011) also noted that, in recent years, there has been an international trend away from specific provision for the "chosen few" towards a more inclusive and collaborative approach to the education of gifted students:

> Political and social attitudes are often more influential than resources in provision for the educational needs of the gifted. Overall, enrichment and open access to high-level resources are becoming more favoured than extra education in one area of study, except for such talents as music, dance and sport. (p. 8)

'One-size-fits-all' approach

In many developing countries, gifted education is still in its infancy and acceleration is virtually non-existent. For example, in India, the current education focus is on making sure that all children are enrolled in compulsory schooling. In this context, the needs of gifted students are not generally regarded as a high priority. According to Kurup and Maithreyi (2012), "programs for the gifted are often seen as elitist and going against the narrow conception of equality and social justice" (p. 9). As a result, there is almost no official recognition for gifted students in India and very few opportunities for academic acceleration.

In some countries, education is highly centralised and all students follow the same national curriculum in a lockstep fashion. For example, Ieridou (2013) reported that academic acceleration is not permitted in Cyprus and teachers are expected to use the official textbook for each subject to teach the prescribed curriculum. Similarly, in Japan, education has become increasingly standardised since the end of World War II and all schools, both public and private, must adhere to the national course of study, which sets out the specific content to be covered (Sumida, 2013). In Peru, chronological age is the sole criterion for grade placement at all levels of schooling and there are limited options for gifted students (Blumen, 2013).

Inclusive approach

In countries that have a strong egalitarian philosophy, the focus is on meeting the needs of *all* students within the regular classroom through differentiated programmes. According to O'Reilly (2012), those with an inclusive philosophy of education often oppose homogeneous grouping of high-ability students on the grounds that separate classes are 'elitist' and believe that gifted students can 'make it on their own' without any special intervention. In other countries, gifted students are regarded as students

with special education needs and their rights to an appropriate education are legally mandated in education policy documents (Eurydice, 2006).

However, there is often a significant difference between official guidelines and what happens in practice. For example, although schools in Ireland are required to provide services for students with special education needs, gifted children are not included in this category (O'Reilly, 2012). As a result, there is no targeted funding or resources for this group of learners and decisions about how to meet their needs are made at the individual school level. Since very few schools have policies relating to gifted children, O'Reilly (2012) reported that out-of-school programmes are the most common type of provision for these students: "The message within the Irish system seems to advocate including gifted students within the regular classroom and school. Acceleration is rarely practiced in schools in Ireland, with many schools pointing to the potential negative social consequences of such practices" (p. 112).

In contrast, the Eurydice (2006) report provided snapshots of other countries where inclusion has been very successful. For example, although there are no official policies for gifted students in any of the Nordic countries, the education system encourages flexibility and facilitates special provision for this group of learners. In Finland, which is consistently ranked amongst the top performing countries in international assessments of student achievement, current educational policy stresses individuality and freedom of choice (Tirri & Kuusisto, 2013). Parents have the right to choose the school their children attend and there is some discretion regarding the age at which children can start school. While acceleration is permitted, it does not appear to be utilised frequently in schools and provision for gifted students is centred on differentiated programmes in the regular classroom. However, at the upper secondary level, most schools offer 'ungraded' classes that allow students to move through their studies at a flexible pace. Finnish students are also permitted to choose subjects for elective classes and design their own individual weekly lesson plans. Similarly, in Denmark, recent educational reforms have facilitated the removal of grade-based classes to make way for "open

instruction for students with specialised ability regardless of their age and stage of instruction" (Sękowski & Łubianka, 2015, p. 82).

Segregated approach

At the other end of the continuum, education policy for gifted students tends to be highly selective. In this approach, an official term is often used to denote talented young people collectively. According to Eurydice (2006), the criteria for determining who is gifted are clearly defined and generally based on demonstrated performance and achievement. For example, the Czech Republic, Latvia, and Poland provide a wide range of measures for gifted students and separate schools have been developed that specialise in different fields of talent, particularly at the secondary level. Hoogeveen (2015) reported that academic acceleration is used extensively to meet the needs of gifted students in the Netherlands and many German-speaking countries also offer systematic educational programmes for high-ability students. For example, in Switzerland, "enrichment and acceleration dovetail with one another and time is created for deeper and broader learning options. The possibilities for acceleration are open, either as a complement to the enrichment activities offered, or in combination with them" (Hoogeveen, 2015, p. 218).

Many Asian countries have also adopted a separatist approach to the education of gifted students, with a sustained focus on science, technology, engineering and mathematics (STEM) education. In part, this move has been driven by globalisation and the imperative for smaller nations with fewer natural resources to become more competitive economically. For example, over the past 20 years, Hong Kong has developed a comprehensive three-tier gifted education strategy for high-ability students (Phillipson, Phillipson, & Eyre, 2011; Tommis, 2013). A number of options for enrichment and acceleration are available at both the primary and secondary level, and formal guidelines have been developed to assist schools with decision making in relation to acceleration (Curriculum Development Council Committee-Gifted Education, 2008). According to Tommis (2013), grade skipping is the most common form of acceleration in Hong Kong, although dual enrolment and

early entry to university are also permitted for exceptionally gifted students on an individual basis.

In Singapore, the main aim of gifted education programmes is to identify and nurture talent and creativity across a broad range of domains (Neihart & Teo, 2013). All students are screened in third or fourth grade and those who show outstanding ability can choose to enter specialised classrooms or after-school enrichment programmes (Finn & Wright, 2015, September 30). At the secondary level, there is strong competition for places at 'super-selective' public high schools that provide enriched and accelerated courses in STEM subjects, sports, or the arts. Neihart and Teo (2013) reported that "all programs for high-ability youth offer a differentiated curriculum aimed at developing targeted cognitive and social-emotional abilities as well as specific character traits" (p. 303).

However, in Taiwan, enrichment is the preferred method of gifted education and very few students are accelerated. According to Kao (2012), there are two main types of provision for gifted students: (1) part-time withdrawal programmes; and (2) full-time self-contained classes for students who excel in the arts. Entry into these special programmes is highly competitive and students go through a rigorous selection process to gain admission.

Decentralised approach

The Eurydice (2006) report acknowledged that many European countries lie between these two extremes and opt instead for a combined approach. This may include measures for integration at the individual school level, as well as the development of separate groups, particularly for non-school based activities. O'Reilly (2012) also noted that provision for gifted students in countries with decentralised educational systems, such as Canada, England, and Australia, may vary considerably depending on local and regional priorities. Since the New Zealand education system has much in common with each of these countries, the next section will outline their approach to acceleration in greater detail.

Canada

Kanevsky (2010) surveyed 163 public school districts in Canada to find out which types of acceleration were permitted and/or had been utilised during the previous school year. The results indicated that most school districts allowed a range of accelerative options, with enrolment in correspondence courses cited as the most frequently-used approach (77%). Another strategy that received considerable support was early graduation from high school, with 76 per cent of school districts reporting that this was permitted. However, only 32 per cent of school districts indicated that they had engaged in this practice during the previous 12 months.

The findings also demonstrated a clear preference for content-based strategies, such as individual subject acceleration and curriculum compacting, rather than grade-based options that involve learning with older students. For example, even though grade skipping was permitted in 64 per cent of school districts, it had only been implemented in 30 per cent of districts and very few school districts (11%) allowed multiple grade skips. Similarly, early entry to various levels of schooling (i.e., kindergarten, first grade, middle or secondary school) did not appear to be a 'popular' approach. Kanevsky (2010) noted that "a larger student population appears to generate a critical mass of advanced learners and the demand needed to support a wide range of options" (p. 8). In a follow-up study, Kanevsky and Clelland (2013) found that provinces which had developed explicit policies on gifted education (i.e., Alberta, British Columbia, Newfoundland, Nova Scotia, and Brunswick) were more likely to permit school districts to use a wider range of accelerative options.

England

Between 1997 and 2010, the Labour Government implemented a raft of policy initiatives for gifted students in England, including the Excellence in Cities programme, the Widening Participation scheme, and the Aim Higher: Excellence Challenge. According to Koshy, Pinheiro-Torres, and Casey (2010) these initiatives were designed to increase social mobility by raising aspirations and supporting gifted young people from low-income families to enter university education. In 2002, the National Association for Gifted and Talented Youth (NAGTY) was established at the University

of Warwick to provide national coordination and support for high-ability students aged from 11 to 18 years who were identified as being in the top five percent of students nationally.

According to Casey and Koshy (2013), the 2008 global recession and the return of the Conservative Party to power led to widespread changes in policy direction. Targeted funding for gifted students was withdrawn from schools, NAGTY was closed down, the nine regional partnerships and the university-based Excellence Hubs were disestablished, the national strategies team was disbanded, and most local education authority (LEA) advisory services were cut or transferred to other priority areas. As a result, government support for research and educational programmes for gifted children was reduced and the focus shifted more towards inclusion. However, Casey and Koshy (2013) noted that many schools have limited capability to meet the needs of this group of learners:

> Having begun the journey along the gifted and talented education policy highway, practitioners in England find themselves at a crossroads whereby central government policy has been abandoned in relation to direct funding and support, yet schools are still expected to provide evidence of appropriate provisions for their higher ability students. (p. 62)

Several commentators have reported that academic acceleration is rarely implemented in England and Wales; instead, the preferred approach is for students to work at their own level within their age group class. Significantly, the most recent Effective Primary Teaching Practice Report (Teaching Schools Council, 2016) recommended a mastery approach to teaching and advised schools that "extension for the highest attainers comes through greater depth rather than breadth or acceleration" (p. 21). However, Hoogeveen (2015) reported that curriculum compacting occurs in some schools and selected students are permitted to take their General Certificate of Secondary Education (GCSE) examinations at 16 years of age, one year earlier than usual. Other accelerative strategies, such as

home schooling and dual enrolment at university, are also allowed in individual cases (Freeman, 2011).

Australia

The Australian Curriculum and Reporting Authority (ACARA) (2013) states that "gifted and talented students are entitled to rigorous, relevant and engaging learning opportunities drawn from the Australian Curriculum and aligned with their individual learning needs, strengths, interests and goals" (para. 1). In its policy advice for schools, ACARA suggests that the flexible design of the Australian Curriculum can be used to adjust teaching and learning programmes to better meet the needs of diverse learners. As a result, all Australian states and territories have developed policies on gifted education, some of which include formal guidelines for acceleration (Young, Rogers, Hoekman, van Vliet, & Long, 2015). However, a number of commentators have pointed out that there is still considerable variation between education sectors and individual schools in terms of how acceleration is implemented across Australia (e.g., Gross, Urquhart, Doyle, Juratowitch, & Matheson, 2011; Jarvis & Henderson, 2012; Maher & Geeves, 2014; Young et al., 2015).

In New South Wales, various forms of acceleration may be utilised to provide appropriate intellectual challenge for gifted and talented students, including grade skipping, radical acceleration, and early admission to university (Young et al., 2015). Public schools in New South Wales also offer opportunity classes (OC) for gifted and talented students in years five and six and there is a selective high school network (Jolly, 2016, September 29). In Western Australia, all children are screened in third or fourth grade and students who excel academically have the option to enter specialised classrooms or after-school enrichment programmes; selective public high schools are also available (Finn & Wright, 2015, September 30). South Australia has also developed a "partially-separate provision" for students with high intellectual potential (SHIP), where different forms of acceleration (e.g., curriculum compacting and early entry to examinations) are used to supplement mainstream provision (Freeman et al., 2010, p. 18).

A growing body of research has focused on the outcomes of academic acceleration in Australia (e.g., Diezmann, Watters, & Fox, 2001; Geake & Gross, 2008; Larsson, 1990; Mackenzie-Sykes, 1997, 2006; Merrotsy, 2003, 2006; Vialle et al., 1997; Vialle, Ashton, Carlon, & Rankin, 2001). In addition, two annotated bibliographies, one synthesising the international research on radical acceleration (Gross & van Vliet, 2003) and the other reviewing Australian studies on acceleration (Vasilevska & Merrotsy, 2011) have been published, as well as a comprehensive report on the attitudes and beliefs of key stakeholders (i.e., school administrators, teachers, and parents) towards academic acceleration (Gross et al., 2011). The increased interest and awareness in this topic is also evidenced by the number of theses and dissertations that have investigated various aspects of acceleration in Australia (e.g., Eddles-Hirsch, 2009; Gallagher, 2010; Jaggar, 1999; Merrotsy, 2002; Young, 2010).

Of particular interest in this context is Young's (2010) comprehensive three-part investigation of early admission to university in Australia. The findings suggested that, while early entrance to university is still not common in Australia, there is some flexibility around admission processes based on the individual needs of students (c.f., Young, Rogers, & Ayres, 2007). However, this tended to vary between states and, at the time of writing, only one institution, the University of New South Wales, had set up a formal programme for early entrants (c.f., Young, Ayres, & Rogers, 2009). Individual interviews with accelerated students who had entered university early indicated that, in general, they coped well with challenging academic course work and that any hurdles were mostly short-lived (Young, 2010). Participants in this study mentioned that social friendships and participation in extra-curricular activities were significant factors that helped them to adjust and respond positively to university life.

2.5 New Zealand context

In New Zealand, the Education Act 1989 states that children aged between six and 16 years must be enrolled at school and attend full-time. In practice, however, most children start school at the age of five and remain

at school until they are 18. Although there are some exceptions, it is highly unusual for students to enter university early on a full-time basis. The 2016 tertiary education participation statistics for domestic students attending New Zealand universities show that out of a total of 141,945 students who were enrolled in bachelor-level qualifications or higher, only 180 students (0.13%) were under 18 years of age (Ministry of Education, 2017a).

Admission to university is regulated by the New Zealand Qualifications Authority (NZQA) and normally requires students under the age of 20 years to have gained University Entrance (UE). However, Section 224 of the Education Act 1989 allows each university to set a minimum age for enrolment or minimum entry requirements, although any such minimums may be overridden by the university's council on an individual case-by-case basis. A university may also set minimum entry qualifications for selective programmes, such as medicine, engineering, or law (Universities New Zealand, 2016).

In contrast to most other Western countries, New Zealand does not have a national policy on gifted education. Instead, the Ministry of Education (2012) recommends that schools employ a continuum of approaches to meet the needs of gifted students, including both enrichment and acceleration. However, in practice, provision for this group of learners is firmly centred on enrichment in the regular classroom programme (Education Review Office, 2008a; Moltzen, 2011; Riley et al., 2004). Although there is legislative provision for flexible progression through the school system, McDonald (1988) reported that, "in reality, virtually no children are accelerated in New Zealand schools" (p. 2). Data from schools' annual roll returns showed that *Māori*[5] students, particularly Māori boys, were less likely to be accelerated in junior classes and that, overall, girls were more likely to be promoted out of the junior school at an earlier age than boys, regardless of their demonstrated level of academic achievement. Although this research was conducted 30 years

[5] *Māori* are the indigenous people of Aotearoa New Zealand.

ago, it appears that little has changed in the interim. A national survey of schools' provision for gifted students found that only 2.7 per cent of schools which responded to a comprehensive questionnaire (N = 1,273) reported a preference for acceleration (Riley et al., 2004). Similarly, early entry to different levels of schooling was not common, with only 8.3 per cent of schools stating that they utilised this form of provision for gifted students (Riley et al., 2004). A follow-up study conducted a decade later also found that acceleration options, such as dual enrolment and early entry, were less likely to be adopted by schools (Riley & Bicknell, 2013).

It has been suggested that New Zealand educators tend to take a more conservative approach towards acceleration because the positive findings in the research literature are not as widely known in this country (Easter & Moltzen, 1997). While subject acceleration is regarded as an effective means of providing for able secondary school students who excel in specific subject areas, it would appear that principals and teachers are generally unaware of the potential benefits that other forms of acceleration can provide for gifted students (Anthony et al., 2002; Macleod, 2004). Townsend (2011) argued that it is highly unlikely that this situation will change unless teachers know how to recognise the characteristics of gifted students and understand how to use appropriate educational strategies, such as enrichment and acceleration, to meet their special learning needs.

A survey of New Zealand teachers' attitudes toward acceleration, measured in a sample group of 152 experienced classroom practitioners and 140 teacher trainees, provides additional support for this view (Townsend & Patrick, 1993). In this study, the majority of teachers, including those who had prior experience in working with gifted students, were apprehensive about certain features of acceleration programmes for young gifted children, especially with regard to the psychosocial outcomes. Furthermore, only 9 per cent of New Zealand teachers, compared with 66 per cent of teachers in a similar study conducted in the United States (Southern et al., 1989), believed that retaining gifted children with their same-age peers might have possible negative consequences.

Other New Zealand research, conducted in an independent girls' school (Y1–Y13), reported similar findings (Watts, 2006). In this exploratory case study, teachers were surveyed about their attitudes to gifted students and aspects of their education using a questionnaire developed by Gagné and Gagnier (2004). The results showed that while teachers generally held positive views about the needs of gifted students they did not support the use of acceleration and were opposed to having separate classes for this group of learners: "An interesting outcome from this survey is the contradiction between teachers' view that the gifted should be better provided for and their apparent lack of enthusiasm for some of the methods by which this can be achieved" (Watts, 2006, p. 14).

A possible explanation is that New Zealand teachers have limited access to specialist training in gifted education, both at the pre- and in-service levels (Working Party on Gifted Education, 2001). Research commissioned by the Ministry of Education found that while gifted education content was included by all six of the university-based initial teacher education (ITE) providers, there was considerable variation between institutions in terms of coverage, ranging from between two and five hours within compulsory inclusive education papers to optional full semester specialised papers at both undergraduate and postgraduate levels (Riley & Rawlinson, 2006). A national evaluation of 315 schools carried out by the Education Review Office (2008a) also highlighted the need for high quality teacher professional development as a critical factor in building schools' capability to cater effectively for gifted students. However, recent budget cuts to gifted education advisory support to schools have significantly reduced opportunities for school-based professional learning programmes.

Interestingly, there is some evidence to suggest that teachers' beliefs about acceleration may be starting to change. In a more recent study that surveyed practicing secondary teachers, tertiary education students, and student teachers, Wardman (2009) found strong support for full-year acceleration as an appropriate educational strategy for gifted learners. Despite the fact that 68 per cent of teachers ($n = 264$) and 83 per cent of

students (n = 191) who responded to this survey stated that they had no direct experience of acceleration, in general the participants were very supportive of this practice.

To date, only a small number of studies have looked at the outcomes of academic acceleration for students in New Zealand schools. Martin (2006) followed the transition of three gifted girls, aged nine and 10 years, who had been accelerated by one year. The research also sought the views of teachers and parents over a six-month period as the girls adjusted to their new classes. In two cases, the school had initiated the acceleration process, while one student had been accelerated at the request of her parents. Martin (2006) reported that the participants in her study were all extremely positive about their experiences of acceleration. An interesting feature of this study is that participants were invited to document their experiences by compiling a portfolio of artifacts made up of items that held personal significance for each individual (Martin & Merrotsy, 2006). The researcher used the portfolios as a tool to facilitate ongoing dialogue with the participants and to encourage deeper reflection about their experiences (Martin, 2006).

In another small-scale study, Kirby and Townsend (2005) used conversational interviews to explore the personal perspectives of eight gifted children, aged from 11 to 13 years, about their school experiences. Four of the children had been accelerated at primary school, while the remainder had not. Overall, the participants expressed a very positive attitude toward acceleration, regardless of whether they had actually experienced it or not. The main reason given was that acceleration alleviated the boredom that these gifted students typically experienced at school by providing greater intellectual challenge and rigour (Kirby & Townsend, 2005). When asked about social and emotional issues associated with being gifted, participants also responded unanimously as a group. In particular, they mentioned feeling different from other children and said that they often felt misunderstood, both by peers and teachers. In their concluding remarks, Kirby and Townsend (2005) suggested that teachers need to adopt a mentoring role in order to

facilitate the social inclusion of gifted students within the wider school culture and recommended that greater attention should be given to student voice:

> These insights have the potential to be instructive for teachers and parents. In particular, the positive attitude toward acceleration, coupled with the ubiquitous dissatisfaction with the challenges offered at school, provide clear evidence of the need for differentiated instruction for gifted children. (Conclusion, para. 1)

An earlier study undertaken by Rawlins (2000) also highlighted the need for schools to consider the long-term implications of acceleration for individual students. This study utilised focus group interviews to explore the perceptions of gifted students from four different secondary schools who had been accelerated by one year in mathematics. Overall, participants viewed the process as beneficial to their learning and reported increased confidence and self-esteem as a result of their participation in these programmes (Rawlins, 2000). Positive factors mentioned by students included: greater challenge in their mathematics learning; early completion of secondary schooling; increased opportunity for higher examination results; and the option to broaden subject choices by completing secondary school mathematics sooner than expected. However, some participants also expressed concern that early entrance to university (by one year) might cause problems further down the track (Rawlins, 2000).

Additional support for the benefits of academic acceleration at the secondary level from the perspectives of students, their parents and school administrators is provided by Wardman (2010) in her doctoral research. As part of a series of studies, 12 students who had participated in a planned programme of full-year acceleration at high school were interviewed about their experiences seven years later, along with a control group of six equally able siblings who had not been accelerated. The findings indicated a high level of satisfaction with this programme from the students, their parents and school administrators, with the latter two

groups crediting the mentoring/academic coaching of accelerated students as being a key factor in its success (Wardman, 2010). The majority of students went on to enter university at 16 years of age and appeared to be very successful in their academic studies, with no major long term adverse social or emotional effects identified as a result of being accelerated.

Despite an extensive search of the literature, I could only find two other studies that have looked at the experiences of students who have entered university early in this country. Horsley (2013) investigated perceptions of students with experience in either dual enrolment at school and university, or early enrolment at university. Participants ($N = 90$) were drawn from three New Zealand universities and included 40 students who had entered university early. The data for this mixed-methods study were gathered through an online survey ($n = 81$) and semi-structured telephone interviews ($n = 12$). The results indicated that dissatisfaction with school processes (e.g., subject choices, timetables), limited teacher subject content knowledge, and poor student-teacher relationships were contributing factors in students' decision to enter university early. In particular, participants reported feeling frustrated by the slow pace of instruction and the lack of academic rigour that they experienced at secondary school (Horsley, 2013). Interestingly, despite the fact that some students had not demonstrated 'strong performance' in their NCEA exams prior to enrolling at university, Horsley (2013) reported that they had all been successful in their tertiary studies. These findings highlight the need for teachers to design curriculum that will motivate and challenge high-ability students to ensure that they remain engaged in their learning at school. As Horsley (2013) pointed out, the results of this exploratory study also suggest that many more students may be capable of achieving at an advanced level, if they have access to appropriate opportunities for acceleration.

The second study (Yeo, 2016) explored issues of academic self-concept and belonging in a cohort of gifted adolescent males ($N = 30$) who had been placed together in a Year 13 accelerate class at a large, urban single-sex

secondary school. As part of their academic programme, the students were concurrently enrolled in first-year courses at a local university that had strong community links with the school. The participants were studying a wide range of subjects, with science and mathematics being the most popular choices: calculus (63.3%); physics (46.7%); and chemistry (40%). Although Yeo (2016) did not focus on the participants' experiences of attending university, the findings of this exploratory study suggest that academic acceleration and dual enrolment contributed positively to their overall sense of well-being at school. Consistent with the results of other studies (e.g., Gross, 2004a; Merrotsy, 2002; Tapper, 2014; Young, 2010), Yeo (2016) also reported that participation in extra-curricular sporting activities facilitated greater social acceptance by non-accelerated peers.

Another recent doctoral dissertation (Crawford, 2016) also demonstrates the effectiveness of acceleration at the secondary level. In this mixed-methods study, Crawford investigated acceleration as an educational intervention for gifted girls who attended single-sex secondary schools (Y9–Y13). Responses to a national survey ($N = 40$) showed that almost all girls' schools, regardless of school size, decile rating, or school type, reported that they provided acceleration in one or more forms. Both content-based and grade-based accelerative options were offered to individual students, groups of students, or whole classes. Most schools provided accelerative options in one or more subjects and one-third used grade skipping. Further evidence from three in-depth case study schools showed that flexible timetabling, adaptive school systems, and the inherent flexibility of NCEA for multilevel assessments were key factors in facilitating ongoing educational pathways through secondary school to university.

As can be seen from the studies discussed above, most of the research on acceleration in this country has focused on students in the compulsory schooling sector. However, a retrospective study, which investigated the life stories of gifted New Zealand adults offers an alternative perspective (Moltzen, 2005). Only four of the 28 participants in Moltzen's research mentioned being accelerated during their schooling but "not one of them

was positive about being advanced, with two claiming it was detrimental to their development" (p. 251). In particular, participants reported that they found it difficult to develop friendships, both with their same-age peers and with older, non-accelerated students, because they did not 'fit in' to either social group. However, Moltzen (2005) noted that this research was conducted many years after the participants had left school and suggested that these findings might have been different if the participants had been asked about their experiences of acceleration at the time, or shortly after it occurred, rather than in hindsight.

2.6 Implications of the research

The evidence from the literature would appear to paint a very positive picture of acceleration; however, there is a need to view these findings with a degree of caution. For example, most of the key studies use the generic term 'acceleration' but, in fact, the evidence presented is based on only two forms of acceleration: early entry and grade skipping (Easter & Moltzen, 1997). Mackenzie-Sykes (1997) warned against overgeneralising the positive outcomes reported for these two approaches to all forms of acceleration. Bailey (1997) also expressed concern that a dominance of research based on the findings from groups of accelerated students may mask some of the difficulties experienced by individuals. While acknowledging that the findings from groups are important, he believed that case study research may offer a truer picture of the effects of acceleration. The reluctance of schools to accelerate gifted students may have some basis in fact, and it could be the exceptions to the rule that teachers have encountered that colour their attitudes towards the practice (Hoogeveen, van Hell, & Verhoeven, 2005). The literature suggests that further research may help to develop more effective guidelines for the implementation of accelerative practices.

Although teachers may be guilty of holding unjustifiably conservative attitudes towards acceleration, no one would advocate for this option without careful forethought and planning, especially where it involves grade skipping. A number of authors have offered practical guidelines for making decisions about the appropriateness of academic acceleration (e.g.,

Assouline, Colangelo, Lupkowski-Shoplik, Lipscomb, & Forstadt, 2003; Culross, Jolly, & Winkler, 2013; National Work Group on Acceleration, 2010). The literature suggests that potential candidates for acceleration should undergo a comprehensive psychological, academic, social and emotional evaluation to ascertain their suitability for advanced placement. Consideration should also be given to a child's physical development, as both physical size and psychomotor abilities may be critical elements in 'fitting in' with older peers. The parents should have positive attitudes towards acceleration, but the child should feel under no pressure from parents to move ahead. Furthermore, it is important that the teacher/s receiving the accelerated student is also positively disposed towards the practice and is willing to assist him or her adjust to the new situation. Some authors advise advancing the child at the beginning of the school year on a trial basis for six weeks and recommend that, if possible, more than one child should be advanced at a time. In the early stages, teachers and parents should take care to avoid placing excessive expectations on the accelerated child.

Rogers (2007) also highlighted the need for additional programme modifications in order to realise the full benefits of acceleration. In fact, if this does not occur, the gains achieved from the advanced placement may be short lived. Vialle et al. (1997) reported that the academic needs of the students in their study were not met prior to acceleration but, following acceleration, there was some improvement. However, they concluded that acceleration was only a temporary solution to addressing the needs of gifted students: "Without a differentiated curriculum which challenges the students and a teacher who is knowledgeable about the needs of gifted students, acceleration will not satisfy the gifted student" (p. 5).

This is not just an issue associated with grade skipping. The same researchers surveyed 50 students who had been accelerated in one or more subjects, but remained at the same grade level as their chronological peers. After an initial 'honeymoon period' these students expressed dissatisfaction with the pace at which the 'advanced' class was moving. Some of this resulted from being placed in a class at a higher level, but

with a significant number of less capable students; however, the main problem was related to the use of teaching strategies that were inappropriate for more able students (Vialle et al., 1997).

2.7 Chapter summary

The studies outlined in this review of the literature provide considerable support for the value of academic acceleration as an appropriate intervention for highly able students. However, despite these findings, there is an obvious discrepancy between what the research says and what actually happens in practice (Assouline, Colangelo, & VanTassel-Baska, 2015; Assouline, Colangelo, VanTassel-Baska, et al., 2015; Colangelo et al., 2004a, 2004b). The research also raises some interesting questions about the different pathways that accelerated students take. For example, some studies recommend that acceleration should begin as early as possible and is more effective at the primary school level when peer friendships and social groupings are less well established (e.g., Heinbokel, 1997, 2002). Other studies suggest that the basis on which decisions are made about whether or not to accelerate a child is of critical importance. Indeed, Freeman (1991) argued that one of the reasons why the participants in her study held negative views about their experiences of acceleration was because they were not consulted about being moved ahead of their same-age peers.

The focus of the current study is the lived experiences of students who were accelerated at school and entered university full-time in Aotearoa New Zealand at a comparatively young age. Early entrance to university is arguably the most controversial form of acceleration, since students are often much younger than their peers and, therefore, more visible. While the literature suggests that early entrance can work well for high-ability students, little is known about the outcomes of this approach in a New Zealand context. It is hoped, therefore, that this study will add to our knowledge and understanding of some of the issues surrounding acceleration in this country. In particular, this study aims to explore the different pathways by which the participants entered university early, some of the factors that contributed to this decision, and their lived

experiences of 'being at' university. It also seeks to uncover the impact of the experience of early admission to university, as perceived by the participants themselves.

The following chapter describes the methodological approach that was adopted for this study and the way in which the research was carried out.

Chapter Three:
Methodology

3.1 Introduction

This chapter describes the underlying philosophical assumptions that informed the research methodology and outlines the specific methods chosen for the current study. It provides a sound rationale for the use of interpretative phenomenological analysis (IPA) (Smith, 1996; Smith et al., 2009) as the most appropriate epistemological framework to explore the research questions. The research design, selection of participants, methods of data collection, and procedures for data analysis are explained. Ethical considerations are also discussed, along with issues of credibility and trustworthiness in qualitative research.

3.2 Research questions

This exploratory study sought to investigate the phenomenon of early entrance to university in Aotearoa New Zealand. In particular, I was interested to explore some of the issues that the young people in this study had experienced as a result of being admitted to university at a comparatively young age. The research also set out to understand the participants' experiences in relation to some of the major themes identified in the literature on early entrance to university, such as the transition from secondary school to university, academic challenges and opportunities, social and emotional adjustment, and future career aspirations.

In reviewing the literature, it also became apparent that information about the participants' family life and upbringing, their educational experiences prior to entering university, and their attitudes towards acceleration were important factors that might lead to a better understanding of their decision to apply for early admission. As a result, the initial research questions were modified to include an additional question:

- What are the lived experiences of accelerated students *prior* to entering university?
- What are the lived experiences of accelerated students *during* their time at university?
- How do accelerated students perceive/make sense of their lived experiences of early entrance to university?

3.3 Methodological approach

Creswell (2013) maintains that the selection of an appropriate research methodology should be informed by the philosophical assumptions that the researcher brings to the inquiry, as well as by the specific methods or procedures that are best suited to answer the research questions. Since the current study had an explicit focus on lived experience, it called for a qualitative approach that would enable me to obtain rich, descriptive data from participants about their experiences of early entrance to university. Gall, Borg, and Borg (2007) suggest that "researchers make different epistemological assumptions about the nature of scientific knowledge and how to acquire it" (p. 31), which influence their choice of methodology.

The general philosophic assumptions underlying this research are based on a relativist constructivist ontology, which holds that there is no single objective reality (Krauss, 2005). Instead, reality is viewed as a social construct based on individual interpretations (Guba & Lincoln, 2005). Qualitative research is often grounded in constructivism, in that it is concerned with understanding a phenomenon from the perspective of those who live it (Denzin & Lincoln, 2005). In my work as a classroom teacher, initial teacher educator, and professional learning facilitator, I have always tried to acknowledge and understand the different social and cultural worlds of my students and to co-construct shared meanings with them.

Interpretative phenomenological analysis (IPA)

Interpretative phenomenological analysis (IPA) was considered the most appropriate framework for the current study because it has a central focus on lived experience and the ways in which people attempt to make sense

of that experience (Smith et al., 2009). IPA was developed by Jonathan Smith at Birbeck, University of London, in the mid-1990s and is described as "an experiential qualitative approach to psychological research in the human, health, and social sciences"(Smith, n.d., para. 1). In a seminal paper, Smith (1996) argued for a new approach to psychology that would enable researchers to capture the qualitative aspects of human experience, yet still maintain "a fruitful dialogue with the dominant social-cognitive tradition" (p. 270). Although much of the early research using IPA was in the field of health psychology, it has become increasingly popular as a qualitative method of data collection and analysis and is now used by researchers in a wide range of disciplines, including health, education, management, and the humanities (Smith, 2017).

IPA is primarily concerned with exploring the ways in which individuals perceive the world. It is interested in participants' subjective experience of the phenomenon under investigation, rather than the objective nature of this experience. It also assumes that experience is mediated by the thoughts and beliefs, expectations, and judgements that the individual brings to it and recognises that participants can experience the same events in different ways (Willig, 2013). In other words, people attribute particular meanings to events that then shape their experiences of these events. As such, IPA also draws on aspects of symbolic interactionism (Blumer, 1969) for its theoretical framework in that both the life worlds of the participants and how meaning occurs, and is made sense of, in social interaction are considered important.

This approach was appropriate for the current study because it assumes that social behaviour is motivated by the meanings that people create to explain and understand their world. Symbolic interactionism holds that one can best understand social behaviour by grasping the meanings people apply to events, organisations, and objects, and attempting to consider their points of view as 'actors' from within. Unlike other analytical approaches to qualitative research, IPA attempts to describe the 'authentic' experiences and feelings of the participants and it is these subjective cognitions that the current research is interested in revealing.

Therefore, IPA is used in the current study to explore how participants experience their life-world, and hence enable an insider's perspective of the phenomenon of early entrance to university. According to Smith et al. (2009), IPA represents a distinct epistemological position, which is informed by three key areas of knowledge: phenomenology, hermeneutics, and idiography. The following section outlines each of these influences and considers the implications for the current study.

Phenomenology

IPA draws heavily on the work of Husserl and other phenomenological philosophers, such as Heidegger, Sartre and Merleau-Ponty, to inform its theoretical framework (Smith et al., 2009). In the broadest sense, phenomenology is both a philosophical tradition and a qualitative method of inquiry. Giorgi and Giorgi (2008) assert that phenomenological research is concerned with clarifying events as they are directly experienced by individuals in the context of their everyday lives. Phenomenological studies have an explicit focus on the consciousness of human experience, and what is essential to understand the meaning of that experience, rather than attempting to produce a theorised perspective. It is the lived experience itself, as described by the participants, which provides a detailed account of the phenomenon under investigation.

Edmund Husserl (1858–1939) was a German mathematician and philosopher who founded the school of phenomenology. Husserl rejected the positivist scientific and philosophic tradition that was prevalent at the time and believed that human experience is the source of all knowledge. He argued that, in order to study lived experience, it is necessary to step back from the 'natural attitude' and examine what is customarily assumed or taken for granted. To achieve this, Husserl proposed a new way of looking at everyday experience – a 'phenomenological attitude' – which involves an intense process of meditative self-reflection and phenomenological reduction. This process requires the researcher to 'bracket' or set aside the natural world so that the 'essence' or invariant qualities of the particular phenomenon under investigation can be revealed 'in the manner in which they appear'.

In his writing, Husserl identified three main steps that are involved in the phenomenological reduction: (1) the *epoché,* which includes the bracketing or suspension of scientific theories and preconceptions; (2) the *transcendental reduction*, a radical procedure which involves setting aside one's subjective experiences and ego in order to be able to focus on pure consciousness; and (3) the *eidetic reduction,* which involves an intuitive procedure for reducing a phenomenon to its essence (*eidos*) so that its invariant characteristics and meanings can be described (Finlay, 2008).

Martin Heidegger (1889–1976) was a former student of Husserl and later succeeded him as rector at the University of Freiburg in Germany. Heidegger's early philosophical work followed that of Husserl but their paths diverged when he began to question the basic phenomenological assumption of the relationship between subject and object. Like Husserl, Heidegger was interested in the conceptual basis of existence, but he approached this from a 'more worldly' perspective: "Heidegger questioned the possibility of any knowledge outside of an interpretative stance, whilst grounding the stance in the lived world – the world of things, people, relationships and language" (Smith et al., 2009, p. 16).

Heidegger's main concern was ontology, or the study of being (*Dasein*), and he came to reject the idea of a fixed human essence. In his major work, *Being and Time,* Heidegger (1927) proposed that time and human existence were inextricably linked and that we, as human beings, are always looking ahead to the future. From this perspective, Heidegger argued that *being* is really just a process of *becoming* and that the concept of *being-in-the-world* situates human existence within a particular historical, social and cultural context: "For Heidegger, Dasein is 'always ready' thrown into this pre-existing world of people and objects, language and culture, and cannot be meaningfully detached from it" (Smith et al., 2009, p. 17).

Even though Heidegger disputed Husserl's notion of 'pure' description (i.e., that human experience could be 'reduced' or 'laid bare' to reveal its essential qualities) he still employed a variant of the phenomenological reduction in his work. In order to understand and make sense of the

participant's personal world, Heidegger believed that it was necessary for the researcher to first examine their own preconceptions through a process of interpretive inquiry. This idea will be explored further in the section on hermeneutics below.

The phenomenological project initiated by Husserl and Heidegger was continued by Maurice Merleau-Ponty (1908–1961), a French philosopher. His main interest was in the constitution of meaning in human experience and he wrote widely on perception, art, and politics. His major work, *Phenomenology of Perception* (1945), explored the embodied nature of our relationship to the world and the way in which the body shapes the fundamental character of our knowing about the world. Merleau-Ponty believed that the body was not just an object, but our means of communication with the world. He argued that consciousness is embodied (in the world), and equally the body is infused with consciousness (with cognition of the world).

Another French philosopher, Jean-Paul Sartre (1905–1980), also contributed to the project of existential phenomenology. Like Heidegger, Sartre recognised the situated nature of human experience and his famous expression "existence comes before essence" (1948, p. 26; cited in Smith et al., 2009) emphasises that we are constantly in the process of 'becoming' ourselves. In *Being and Nothingness* (1943), Sartre also explored the idea that things which are absent are just as important as those which are present in defining who we are and how we see the world. He reiterated Heidegger's view that the worldliness of our experience is significant and that our perception of the world is inevitably shaped by the nature of our relationships with others.

Smith et al. (2009) maintain that the various approaches to phenomenology outlined above are fundamental for researchers using IPA. The transcendental phenomenology of Husserl provides a rich source of ideas about how to examine and comprehend lived experience, while IPA also looks to other existential phenomenological philosophers that

conceptualise human experience as embodied and situated in the world. Smith et al. (2009) summarise their contributions to IPA as follows:

> Husserl's work establishes for us, first of all, the importance and relevance of a focus on experience and its perception. In developing Husserl's work further, Heidegger, Merleau-Ponty and Sartre each contribute to a view of the person as embedded and immersed in a world of objects and relationships, language and culture, projects and concerns. (Smith et al., 2009, p. 21)

Hermeneutics

The second major theoretical underpinning of IPA is derived from hermeneutics the theory of interpretation. According to Smith et al. (2009), hermeneutics was used originally in the interpretation of biblical texts but subsequently provided a philosophical foundation for the interpretation of other texts, such as historical documents and literary works. IPA draws on the work of three major hermeneutic theorists to inform its methodological approach: Schleiermacher, Heidegger, and Gadamer.

Friedrich Schleiermacher (1768–1834) was a German theologian, philosopher, and classical scholar whose work had a significant influence on the field of philosophical hermeneutics. Schleiermacher emphasised the role of the writer in the interpretative process and believed that the systematic analysis of texts enables the author to develop a 'psychological' understanding of what the 'utterer' is saying, which goes beyond the actual words themselves. From an IPA perspective, Schleiermacher's work acknowledges the role of the researcher in 'adding value' to the participants' individual accounts by providing a more detailed, nuanced interpretation of the phenomenon under investigation. Smith et al. (2009) maintain that this analysis is further enhanced by connections that emerge from having access to a larger data set, as well as from dialogue with psychological theory:

> Schleiermacher bridges the essentialist and discursive divide: he suggests that there is something unique about the techniques and intentions of a given writer, which will impress a very particular

> form of meaning upon the text they produce. This meaning is available for the interpretations of a reader, but those interpretations must also be accommodated to the wider context in which the text was originally produced. (p. 22)

Hans-George Gadamer (1900–2002), a German philosopher of the continental tradition, disagreed with Schleiermacher's view that the writer can come to know the author better than they know themselves. However, Gadamer makes a clear distinction between understanding the meaning of a text and understanding the person. He argues that understanding is primarily concerned with understanding the content of what is being said, rather than the person. Gadamer also believed that interpretation was a dialogue between past and present and was sceptical of Schleiermacher's position that it was possible to recreate the intention of another person, due to the 'historical gap'. Instead, Gadamer maintained that "the aim should not be to relive the past but rather to learn anew from it, in the light of the present" (Smith et al., 2009, p. 27).

As noted in the section on phenomenology above, Heidegger diverged from Husserl's notion of pure phenomenological description, which posits that experience can only be known and understood through bracketing one's own pre-suppositions. In *Being and Time*, Heidegger (1927) argues that we each bring our own 'fore-conception' to the phenomenon under investigation and cannot avoid looking at things through the lens of our prior assumptions and experiences. For Heidegger, the 'fore-conception' is always there and the different 'horizons of understanding' from which one views something necessarily inform our interpretation. Heidegger also distinguishes between visible meanings that clearly show themselves 'in the manner of their appearing' and those which are hidden or concealed and, therefore, much less obvious.

Similarly, IPA recognises that, in order to understand and make sense of the participant's personal world, it is necessary for the researcher to first examine their own pre-conceptions by practicing critical self-awareness. Smith and Osborn (2008) contend that this involves a two-stage process, or

a 'double hermeneutic': "The participants are trying to make sense of their world; the researcher is trying to make sense of the participants trying to make sense of their world" (p. 53). Smith et al. (2009) argue that this illustrates the dual role of the researcher who, like the participant, is drawing on their own experience of *being-in-the-world* to understand the participant's account of their individual experience.

Idiography

Idiography constitutes the third theoretical underpinning of IPA and is concerned with the detailed examination of each particular case, before moving on to the next case or attempting to make more general claims. According to Shinebourne (2011), "an idiographic approach aims for an in-depth focus on the particular and commitment to a detailed finely-textured analysis" (p. 22). Eatough and Smith (2008) point out that this approach has two main advantages: first, it allows the researcher to learn more about each participant, thus providing greater insights into their experience; and second, it enables the researcher to focus on the connections between emotions, cognitions, and behaviour, which tends to produce a more holistic account of the participant's experience.

Smith et al. (2009) also maintain that an idiographic focus contributes to a deeper understanding of "how particular experiential phenomenon have been understood from the perspective of particular people in a particular context" (p. 29). However, the phenomenological view of experience is complex and they stress that this emphasis on the particular should not be confused with an explicit focus on the individual:

> On the one hand, experience is uniquely embodied, situated and perspectival. It is therefore amenable to an idiographic approach. On the other hand it is also a worldly and relational phenomenon, which offers us a concept of the person which is not quite so discrete and contained as the typical understanding of an 'individual'. (p. 29)

Smith et al. (2009) further argue that human experience should always be understood *in-relation-to* the particular phenomenon under investigation. Although the participants in the current study can offer unique personal

perspectives on their experiences of early admission to university, IPA acknowledges that this experience does not actually belong to the individual per se. Rather, lived experience comes from being "thoroughly immersed and embedded in a world of things and relationships" (p. 29).

Potential limitations of IPA

As a relatively new qualitative methodology, IPA has been the subject of much critical debate amongst phenomenological researchers who hold divergent theoretical and methodological positions (Shinebourne, 2011). Writing from a descriptive phenomenological perspective, Giorgi (2006; 2010; 2011) argued that IPA lacks scientific rigour and does not adhere to the basic tenets of phenomenology, especially in relation to its treatment of the *epoché* and the reduction. Similarly, Sousa (2008) highlighted the importance of clarifying the different assumptions that exist between philosophy, psychology, and psychotherapy in the application of the phenomenological method. In a more recent article, van Manen (2017), a leading proponent of hermeneutic phenomenology, questioned whether IPA is, in fact, "genuine phenomenological inquiry" and suggested that it would be more appropriate to describe this approach as "interpretive *psychological* analysis"(pp. 778-779, italics in original).

In response, Smith et al. (2009) pointed out that the various methods of phenomenological inquiry tend to produce different research outcomes. For example, the particular version of descriptive phenomenology developed by Giorgi (1997; 2009) aims to establish the eidetic structure of the particular phenomenon under investigation and the findings are usually presented in the form of a normative third-person account. However, as noted by Finlay (2009), individual perspectives are often discarded or generalised in the process of developing the final summary statement. In contrast, Eatough and Smith (2008) maintained that the idiographic nature of IPA is a key feature of this approach:

> IPA has a more microscopic lens arising from its idiographic commitment, emphasizing the way in which the study of how psychological meanings are constituted can be very usefully

> pursued through the detailed examination of unique individual lives. (p. 182)

Several authors have reflected on the practical application of various phenomenological approaches in their work. In writing about her experience of using descriptive phenomenology, Willig (2007) believed that something important was lost by the absence of the participants' voices in the final statement and wondered whether her analysis was "capable of capturing the quality of participants' experience of the phenomenon" (p. 217). Similarly, Davidsen (2012) explored the process of analysing the same dataset using three different phenomenological approaches, ranging from pure description to those informed by a more interpretive stance. Her research aimed to gain insights into how general practitioners (GPs) understand patients with emotional problems or mental disorders and was originally designed as a phenomenological analysis, following the procedures described by Giorgi and Giorgi (2003). However, Davidsen found that this method "did not fully grasp the complexity of the participants' accounts" (p. 328), especially in relation to the multi-faceted nature of the interactions between patient and GP. Instead, she undertook a second structural analysis using IPA, explaining that "concomitantly, I realized a need for a more idiographic approach with greater emphasis on each individual case" (p. 329).

The articles discussed above had a significant influence on my thinking and helped to shape my understanding of what it means to undertake phenomenological research. In particular, the work of Finlay (1999, 2002, 2005, 2006, 2008, 2009, 2013, 2014a, 2014b) was instrumental in my decision to use IPA as the method of data analysis in the current study because it provides a framework that acknowledges the individual voices of participants. In addition, IPA draws on hermeneutic approaches that present opportunities for interpretive analysis by contextualising the participants' experiences and reflections into narrative accounts, therefore making it possible to link the findings to relevant literature (Shinebourne, 2011).

3.4 Research design

Recruitment process

The purpose of the current study was to investigate the lived experiences of a group of young people who entered university early in Aotearoa New Zealand. Prior to enrolling in my doctorate, I had avidly collected news reports and articles about students who had been accelerated at school and then went on to achieve their undergraduate degree at a much earlier age than is usual. These students had all attended different universities but, early in the research process, I decided that I would focus on young people who had studied at the University of Waikato, since I was based there and had an in-depth knowledge of the institutional context.

IPA studies typically focus on a small number of participants, each of whom has personal experience of the phenomenon under investigation. Purposive methods of sampling are used to locate participants who can provide rich insights into the research questions. The main aim in recruiting participants is to select a relatively homogeneous sample group for whom the research questions will be meaningful. Smith et al. (2009) contend that this enables the researcher to examine similarities and differences between individual cases in greater detail. For doctoral research projects, they suggest that a sample size of between four and ten cases is realistic: "The issue is quality, not quantity, and given the complexity of most human phenomena, IPA studies usually benefit from a concentrated focus on a small number of cases" (p. 51).

Ethical consent for the current study was granted by the Faculty of Education Research Ethics Committee in October 2010 (see Appendix A) and my doctoral enrolment was confirmed in January 2011. Formal approval was then obtained for a senior administrator in the Student and Academic Services Division (SASD) at the University of Waikato to search the student enrolment database to locate potential research participants. The inclusion criteria were set as students who were aged 16 years or under when they were first enrolled in a full-time programme of academic study during the previous five years. In total, 29 students were identified

who matched the search criteria, significantly more than I had originally anticipated.

The only information I was given about potential participants was their date of birth, gender, ethnicity, and programme of study. In consultation with my supervisors, I decided to focus on the youngest students because I felt that their experiences of early entrance to university would be of most interest. During the recruitment process, deliberate efforts were made to ensure a relatively even gender balance amongst the sample group and to select students from a range of academic disciplines; however, it should be noted that no attempt was made to establish whether the participants were 'gifted'.

Once a group of potential participants had been identified, SASD contacted each student individually on my behalf with further information about the research, including: an introductory letter (see Appendix B); a participant information sheet (see Appendix C); a participant consent form (see Appendix D); and a proposed interview schedule (see Appendix E). Students who expressed interest in taking part in the study were then asked to contact me directly to discuss any further queries they might have about the research and to arrange a suitable time and location for an individual interview.

Participants

Ten young people who had attended the University of Waikato between 2004 and 2010 agreed to take part in this study; eight participants were recruited via the methods described above and two participants were located through my own personal contacts. The final sample group comprised six males and four females, ranging in age from 16 to 23 years. At the time of their interview, one participant had dropped out of university, four participants were still completing their undergraduate degrees, four participants were engaged in postgraduate studies, and one participant had completed a Master's degree and further professional training and was working full-time.

As shown in Table 1, the young people in this study came from diverse cultural and ethnic backgrounds; five participants identified as New Zealand European, one as New Zealand Māori, three as Asian, and one as South American. Three participants were born overseas and seven participants had at least one parent who grew up overseas. Further information about the participants, including a detailed analysis of their family backgrounds and schooling experiences, is presented in Chapter Four: Pathways to University.

Table 1

Participant Demographic Data

Name[a]	**Gender**	**Ethnicity**	**Age at entry**[b]	**Age at interview**	**Programme of study**
Brad	Male	NZ Māori/ European	13y 9m	21y 5m	Science
Matt	Male	NZ European	14y 5m	19y 11m	Mathematics Engineering
Carlos	Male	South American	14y 7m	16y 3m	Arts
Ryan	Male	NZ European	15y 4m	20y 9m	Engineering
Kevin	Male	Asian	15y 10m	22y 4m	Arts
Ricky	Male	NZ European	15y 11m	18y 6m	Science
Stella	Female	NZ European/ European	16y 4m	17y 2m	Social Sciences
Kat	Female	Asian	16y 4m	18y 3m	Arts
Tenille	Female	Asian	16y 6m	22y 3m	Science
Evelyn	Female	NZ European	16y 7m	23y 5m	Arts

[a] Pseudonyms have been used throughout this thesis to maintain participant confidentiality.

[b] Age at entry was calculated as at 1 January of the year in which participants were first enrolled in a full-time programme of university study.

3.5 Research methods

Data gathering

A range of methods was used to collect data for this study, including in-depth interviewing, document analysis, and reflective journaling. These research tools were chosen because I felt that they were consistent with a hermeneutic phenomenological approach. A number of authors suggest that the use of multiple data sources lends greater credibility to the

research findings (e.g., Creswell, 2013; Yardley, 2000; Yin, 2009). In the current study, the main reason for this was to gather as much information as possible about each participant so that I could develop a better understanding of their experience of early admission to university and the particular meaning they attributed to them.

Semi-structured interviews

The primary means of gathering data for this study was through individual, semi-structured interviews. Semi-structured interviews use open-ended questions and language that participants are familiar with to obtain rich, detailed responses. The interview schedule acted as a guide for the interviews, but was flexible and did not control the direction of discussions or the emergent themes. Elliott and Timulak (2005) contend that 'open-endedness' requires flexible methods of inquiry that are carefully adapted to the individual participant's particular experiences and ability to communicate those experiences. According to Breakwell (2006), this is a crucial factor in producing meaningful theoretical and conceptual accounts of the phenomenon under investigation.

A major advantage of using semi-structured interviews is that it allows the researcher to explore unplanned areas of interest that emerge during the conversation, which tends to result in richer data (Smith & Osborn, 2008). This also affords the participant some control over where the interview leads, so that they are encouraged to 'tell a story' rather than simply responding to a set of ordered questions. Eatough and Smith (2008) maintain that the skill of being able to move away from the interview schedule to follow the participants as they recount their personal experiences is an essential component of IPA.

The research interviews were conducted over a period of 10 months in 2011 and ranged in duration from 45 to 90 minutes. The time and location of each interview was chosen by the participants to fit around their personal commitments. Four interviews took place at the University of Waikato, two interviews were conducted at participants' homes, and four interviews were carried out via Skype (an online video conferencing tool). Although I would have preferred to interview each of the participants

face-to-face, this was not feasible because two of the young people in this study were currently studying overseas and two participants had moved to other parts of New Zealand. However, from my perspective, there did not appear to be any significant differences in terms of the quality of responses obtained from participants using either of these methods. In fact, Hanna (2012) notes that the use of Skype (and other web-based technologies) may enhance opportunities for sustained dialogue because it offers participants greater flexibility and control over the interview process and encourages a 'more equal' positional relationship with the researcher.

The individual interviews were audiotaped using an Olympus digital recorder and transcribed verbatim into a Microsoft Word document. Although this was a lengthy process, I found it very useful to listen to each interview multiple times. As I went through the tapes, I became more aware of subtle inflections in tone and developed a better understanding of each participant, within the context of their interview. Care was taken to note down any long pauses or gaps in the conversation, as well as other linguistic features (e.g., laughter, sighs, or repetitions). The audiotapes were transcribed as soon as possible after each interview and individual transcripts were sent back to the participants for review. The majority of participants suggested only minor amendments to the transcript, typically to correct the spelling of names. However, two participants retracted sections of the transcript and requested specific measures to ensure that their identity would not be disclosed in the published research.

Although some participants gave permission for their real names to be used in the research, I decided to use pseudonyms to maintain the confidentiality of the information that was shared with me. Consistent with the guidelines for IPA research outlined by Smith et al. (2009), I have used the participants' own words extensively to ensure that their voices are heard and acknowledged. These extracts were selected either because they provided the most insightful expressions of any given recurrent theme or because they presented a unique, alternative perspective (Smith et al., 2009). On occasions, quotations have been edited for readability and

clarity of expression but the essential meaning has been retained. Any changes made to the excerpts (e.g., grammatical corrections and ellipses) were identified using square brackets. Emphases within the quotes (e.g., exclamations or words that were accented) came from the participants themselves. Throughout this thesis, the first use of a non-English word has been italicised and its English meaning given, either in parentheses in the body of the text or in a footnote.

Document analysis

Due to their outstanding accomplishments, some of the young people in this study had received widespread media coverage prior to enrolling at university. Other participants (e.g., those who had been awarded scholarships or who had graduated from university at an early age) also featured in news articles and press releases published internally by the university. These reports provided interesting background information about some of the participants, especially if the stories contained direct quotes from their parents or lecturers that illustrated various aspects of their experience. It should be noted that while some of this material has been used in this thesis, the original source of information has been withheld to protect participant confidentiality. Some participants also gave permission for me to view a copy of their official university transcript (see Appendix F). This enabled me to check the accuracy of the information gathered during the individual interview regarding their programme of study and formal admission status.

Further anecdotal data was also obtained via ongoing email contact with participants throughout the research process. As stated in my ethics application, I made provision to keep in touch with each of the participants following their interview, mainly for the purpose of returning and checking their transcripts. Over the past six years, I have maintained informal contact with many of the participants on an intermittent basis. Some of the young people in this study have now left university and are in the emerging stages of their professional careers. In some cases, I have been able to continue to follow their progress via status updates on various social media sites, such as Facebook and LinkedIn, which has provided a fascinating glimpse into their adult lives.

Reflective journaling

Finlay (2003) urges researchers to incorporate a reflexive dimension into their proposed research design. She argues that engaging in phenomenological research should involve "a continual process of reflecting upon our interpretations of both our experience and the phenomena being studied" (p. 108). Willig (2008) expands on this notion by describing two different kinds of reflexivity: personal and epistemological. She maintains that personal reflexivity involves "reflecting upon the ways in which our own values, experiences, interests, beliefs, political commitments, wider aims in life and social identities have shaped the research" (p. 10), whereas epistemological reflexivity requires the researcher to engage with the following questions:

> How has the research question defined and limited what can be 'found'? How has the design of the study and the method of analysis 'constructed' the data and the findings? How could the research question have been investigated differently? To what extent would this have given rise to a different understanding of the phenomenon under investigation? (p. 10)

In line with these suggestions, I kept a reflective journal to document my personal assumptions and epistemological understandings throughout the research process. Initially, I made handwritten notes of my reflections but found that some of my best 'thinking' came when I was driving or at work and did not have ready access to my research diary. I decided that it would be more efficient to record voice memos and electronic notes that could be imported directly into a database. This meant that my research notes were all stored in one place, which made it easier to retrieve relevant information during the data analysis process and to make coherent links with my own learning. Vicary, Young, and Hicks (2016) also maintain that keeping a reflective journal *within* a software package can enhance the interpretive process and lend greater credibility to the analysis by permitting the researcher to take a more 'critical stance'.

Table 2 provides an overview of the timeframes and nature of the data collected over the course of the study.

Table 2

Overview of Data Gathering Process

Timeframe	**Stages of data collection**	**Nature of data collected**
2011 March – April	*Recruitment phase* Search of UoW student database from 2004–2010 to locate potential research participants	29 students identified who were aged 16 years or younger when they were first enrolled in a full-time programme of academic study
	Initial email contact with potential participants: • the five youngest students (all male) • the three youngest female students • two other students recruited through personal connections (one male, one female)	All of the students who were contacted agreed to take part in the research (N = 10)
2011 May – December	*Data collection phase* Individual, semi-structured interviews with participants: • 6 face-to-face interviews • 4 Skype interviews	Verbatim transcripts of recorded interviews
	Interview transcripts sent to participants via email for review	Interview transcripts returned with amendments (if any)
	Document analysis	Newspaper articles, media releases, and other published sources of information about the participants
	Reflective journaling	Observational notes from interviews with participants and critical reflections about the research process
2012 – Present	*Follow-up phase* Ongoing, informal contact with participants via email, text, and social media (e.g., Facebook, LinkedIn)	Updated personal information about participants from emails, text messages, and web pages

Data analysis

The current study utilised a six-step data analysis process based on the guidelines for IPA research described by Smith et al. (2009). However, it is important to note that the procedures outlined below are not intended to be prescriptive and the authors stress that there is no definitive method of analysing data in IPA studies:

> In reality, analysis is an iterative process of fluid description and engagement with the transcript. It involves flexible thinking, processes of reduction, expansion, revision, creativity and innovation. Overall, the analytic process is multi-directional; there is a constant shift between different analytic processes. As such, analysis is open to change and it is only 'fixed' through the act of writing up. (Smith et al., 2009, p. 81)

Step 1: Reading and re-reading

In keeping with the idiographic focus of IPA, each case was analysed individually before moving on to the next. The first step was to read and re-read the interview transcript. I found it helpful to listen to the audiotape again throughout this process. Selected passages, which appeared to reveal something interesting about the research questions, were highlighted so I could examine them more closely in subsequent readings.

Step 2: Initial noting

As suggested by Smith et al. (2009) additional columns were added to the interview transcript to record my initial notes and exploratory comments. At this stage, the main aim was to immerse myself fully in the data, while attending to various features within the text. These included: *descriptive comments* (i.e., focused on describing the content of what the participant has said); *linguistic comments* (i.e., focused on exploring the specific use of language by the participant); and *conceptual comments* (i.e., focused on engaging with the narrative at a more integrative level (Smith et al., 2009, p. 84).

Step 3: Developing emergent themes

The interview transcript and exploratory comments were then imported into a customised database. As shown in Table 3, highlighted sections of the transcript were extracted and labelled to develop emergent themes and subthemes. Keywords and phrases were identified to describe various aspects of the participant's experience and the emergent themes were constantly refined and adapted using an inductive process.

Table 3

Sample Data Analysis

Interview transcript	Exploratory comments	Emergent themes
B: So, yeah, where was I? We started doing home schooling when I was nine because I was getting really badly bullied at school and schools weren't doing really much about it … Schools just weren't the right fit for me. Looking back, that's something mum and dad identified. [Looks over to his father for confirmation]. **J:** [Nods his head in agreement]. **A:** So why were you being bullied at school?	Was badly bullied at school but teachers did not seem able/willing to address this issue Additional emphasis Reflected that 'schools just weren't the right fit for me', something that his parents had also identified *Mainstream schools not flexible enough to meet his needs?*	**Bullying** **Alienation** *'Finding the right fit'*
B: I was like about that big [holds out his hands wide to indicate his height] but about yay wide [holds out his hands nearly as wide] so I was kind of a pretty big kid. They used to blood me – it wasn't the old bullies, it was the new bullies coming through. They used to blood them on me and then move on to more serious targets. So, yeah, schools didn't want to do anything much about it …And, also, I wasn't being entertained at regular school, so mum and dad decided yeah to do that [home schooling].	Bullied at school because he was 'kind of a pretty big kid' Perceived as an easy target for new bullies Learning needs were not being met at school	**Physical size** **Boredom** *'Not being entertained'*

Table 2 continued next page…

Interview transcript	Exploratory comments	Emergent themes
A: Entertained? As in, you found school quite boring?		
B: Yeah, well when I was going to school up here, they always said I was one of the slowest in the class. I didn't do much, like [they said] "He always looks away with the fairies and stuff".	Regarded as 'one of the slowest in the class' because he 'didn't do much' Third person	**Low teacher expectations** *'Away with the fairies'*
J: [Laughs].		
B: But I remember when I was that age, seven or eight, I was reading at a 14- to 15-year-old level and doing these kinds of things in class. And so my teacher was like, "Oh, I don't understand. You're so slow and you don't do all the work but then you can do this".	*Apparent contradiction between what his teachers observed in class (slow to complete work) and what else they knew about him (reading at an advanced level)* Third person	**Lack of challenge** *'You don't do all the work but then you can do this'*
A: So they didn't really do anything to extend you at school?	Didn't have any opportunities for extension	
B: No, they just kind of … I suppose just [expected me to] fit in with the crowd, as most schooling is … You know, it caters for the masses.	Perception that schooling just 'caters for the masses'	**Underachievement** *'Fitting in with the crowd'*
J: [Laughs].		
B: So there's no time for one teacher with a class full of 30 to pay attention to one student.	Teachers often don't have time to pay attention to just one student, with so many other students in the class	**Teacher-student relationships**
A: And I suppose, if you were bored, you probably weren't finishing your work and so they didn't think you were capable?	*Possibly setting up a classic cycle of underachievement? B didn't complete work in class because he found it boring and, therefore, teachers didn't think he was capable of high achievement.*	
B: Yeah, exactly.		

Step 4: Searching for connections across emergent themes

The database enabled me to search for connections across emergent themes by extracting any records that had been linked to a particular theme or subtheme within the transcript. I could add or delete keywords and link them back to specific sections of the transcript so the original data could be retrieved later. Since it was feasible for the same extract to contribute to more than one theme, I handled this by duplicating records in the database and attaching different labels to each passage.

Step 5: Moving to the next participant

Once the first transcript had been analysed in this way, I moved to the next participant and repeated the same process. New keywords and descriptive phrases were added inductively and all the previous transcripts were re-checked against the emerging themes to ensure internal consistency. As noted by Smith et al. (2009), this was an iterative process, moving backwards and forwards through the data, as I tried to better understand the meanings that each participant attributed to their lived experiences.

Step 6: Looking for patterns across cases

The final step was to look for patterns and connections across the individual narratives. This was where the power of the database really became apparent. By searching for a specific phrase or keyword, I was able to view all of the quotes that had been extracted across the entire corpus relating to that particular theme or subtheme. A major advantage was that, although the excerpts were still in the participants' own words, the data could be retrieved and sorted in different ways. By examining similarities and differences across accounts, it was possible to identify shared patterns of meaning, as well as unique perspectives, in the participants' descriptions of their lived experiences.

Development of themes

Smith et al. (2009) argue that this analytical practice requires a close interaction between the researcher and the text, and draws upon the researcher's own interpretative resources. The final list of themes was the result of merging themes together across transcripts, and deleting poorly supported themes, or themes that were not well represented in the analysed transcripts. Smith (2011a, 2011b) recommends that themes should contain extracts from more than half of the participants, although he acknowledges that subthemes may reflect a more idiographic focus (see Appendix G).

As shown in Table 4, three superordinate themes were identified in the current study. Each of these themes was related to a distinct temporal phase of the participants' experiences: (1) 'Pathways to University' i.e., contributing factors that led to early admission; (2) 'Being at' University i.e., the experience of entering university early; and (3) 'Critical Reflections' i.e., the perceived impact or meaning of the experience.

Table 4

Superordinate Themes, Subthemes, and Contributing Ideas

Themes	**Subthemes**	**Contributing ideas**
Pathways to University	Family background	'A family of artists and musicians'
	Schooling	'Finding the right fit'
	Special provision	'Bridging the gap'
'Being at' University	Academic adjustment:	
	Challenges	'A big step up'
	Disappointments	'Easier than school'
	Opportunities	'Freedom to choose'
	Social relationships:	
	Barriers	'Not standing out'
	Enablers	'Love of family'
Critical Reflections	Impact of early entrance	'Time on my side'
	The road ahead	'Making a difference'
	Looking back	'No regrets'

3.6 Quality and credibility in IPA research

Yardley (2000, 2008) argues that the traditional conventions and standards used to evaluate the quality and validity of quantitative studies (e.g., random sampling, standardized measurement, statistical data analysis) are not appropriate for qualitative methods of research. Instead, Yardley (2000) proposes four general principles for assessing the quality and credibility of qualitative research that can be applied, irrespective of the specific theoretical orientation of the study: (1) sensitivity to context; (2) commitment and rigour; (3) transparency and coherence; and (4) impact and importance. Other researchers (Brocki & Wearden, 2006; Finlay, 2006, 2009; Shinebourne, 2011; Smith, 2003, 2011a, 2011b; Smith et al., 2009; Vicary et al., 2016) have also provided useful suggestions about how these criteria can be utilised in IPA studies.

Sensitivity to context: Yardley (2000) maintains that sensitivity to context can be shown in various ways, including sensitivity to relevant theoretical literature, to the socio-cultural context of the study, and to the participants involved in the study. In the current study, sensitivity to context was a major consideration throughout the research, beginning with the initial review of the literature and the choice of IPA as the preferred methodology to investigate the research questions. During my interactions with participants, I attempted to remain sensitive to their individual experiences and understandings. Sensitivity to context was also evident in the careful attention given to analysing the stories provided by participants. As recommended by Smith et al. (2009), a considerable number of verbatim extracts were included to ensure that the interpretation remained grounded in the participants' accounts and to allow the reader to check the credibility of the arguments being made.

Commitment and rigour: Yardley's (2000) second criterion, commitment and rigour, can be demonstrated through prolonged engagement with the topic and immersion in the data of the research. Rigour in IPA "refers to the thoroughness of the study, for example in terms of the appropriateness of the sample to the question in hand, the quality of the interview and the completeness of the analysis" (Smith et al., 2009, p. 181). In the current

study, commitment and rigour were demonstrated in all aspects of the research process, from selecting potential participants through to engaging with participants with sensitivity and respect, and commitment to detailed and meticulous analysis.

Transparency and coherence: In Yardley's (2000) third criterion, transparency refers to the clarity of the description of the stages in the research process. Shinebourne (2011) suggests that, in IPA research, this involves providing specific details of the process of selecting participants, constructing the interview schedule, the conduct of the interview, and the stages in data analysis. The aim is to present a compelling argument by finding ways to include ambiguities and contradictions inherent in the data in a coherent way. According to Yardley (2000), "coherence also describes the 'fit' between the research question and the philosophical perspective adopted, and the method of investigation and analysis undertaken" (p. 222). In the current study, I tried to remain consistent with the underlying principles of IPA by attending closely to participants' experiential claims while interpreting the data in a way that made intuitive sense, both to myself and to the 'imagined' reader. Smith et al. (2009) also suggest that IPA researchers maintain an audit trail to demonstrate the validity of their interpretations. I attempted to adhere to this principle by making initial notes about the research questions, the research proposal, and the proposed methodology. Interview transcripts were annotated to trace the process of establishing the thematic analysis, tables of themes, interpretation and writing up. This process was shared with my thesis supervisors and reviewed at different stages of the research process.

Impact and importance: Yardley (2000) argues that impact and importance constitutes "the decisive criterion by which any piece of research must be judged" (p. 223). However, she also acknowledges that "there are many varieties of usefulness, and the ultimate value of a piece of research can only be assessed in relation to the objectives of the analysis, the applications it was intended for, and the community for whom the findings were deemed relevant" (ibid). Similarly, Smith et al. (2009) point out that the real test of validity lies in whether the reader finds something

interesting, useful, or important about the published study. This aspect of the research will be discussed further in Chapter Seven: Conclusions and Recommendations.

3.7 Ethical considerations

Qualitative researchers face a number of ethical issues, particularly during data collection and in the analysis and dissemination of research findings (Creswell, Hanson, Clark Plano, & Morales, 2007). This research was guided by the following ethical guidelines: (1) informed consent; (2) right to privacy and confidentiality; (3) protection from harm; and (4) sensitivity and duty of care. Each of these issues is discussed in further detail below in relation to the current study.

Informed consent: Ethical approval for the current study was sought and received from the Faculty of Education Research Ethics Committee at the University of Waikato. Potential participants were advised that their participation in the research was voluntary and that all possible measures would be taken to maintain confidentiality. The consent process ensured that participants were fully informed about what the research involved and understood their rights as a participant. Participants were advised that they could decline to answer particular questions and that they had the right to withdraw from the study up until the time their interview transcript had been returned. Once the data analysis process had been completed, participants were given a summary of the research findings (see Appendix H) and were made aware of how to access the full thesis through the University of Waikato Research Commons.

Right to privacy and confidentiality: To safeguard the privacy of participants, any information that could possibly lead to identification was changed or excluded. All data were stripped of identifying characteristics and any information or quotations that might disclose identity were omitted. Interviews were conducted at a time and place mutually agreed upon between the researcher and the participant and were recorded digitally to preserve the accuracy of the text. The audiotapes were stored on a password protected computer drive. All participants were given

pseudonyms and had the opportunity to delete and/or modify any material that they felt uncomfortable with. Hard copies of transcripts, consent forms and other identifying material were kept in a locked filing cabinet in my office. Sensitive electronic data were password protected and stored on a dedicated drive.

Protection from harm: To minimise the risk of potential harm, time was set aside to discuss any concerns that the participants might have about the research, prior to undertaking the individual interviews. Since most of the participants had been recruited through the university, it was critical to ensure that staff were not told which students had agreed to participate in the research. Due to my position as a long-serving staff member at the University of Waikato, it was also important to make explicit my own assumptions and personal motivation for conducting the research.

Sensitivity and duty of care: Although it was not anticipated that the research topic might cause emotional distress, I was cognisant that, for some participants, the interview process might re-surface difficult experiences that they had not thought about for some time. This highlighted the need to be sensitive to any issues that were raised during the interviews and to provide appropriate follow-up support for participants, where necessary. These precautions helped to ensure that the research was conducted in a safe and ethical manner.

3.8 Chapter summary

This study set out to explore the lived experiences of 10 young people who had been accelerated through the compulsory schooling system and gained early admission to university at a much younger age than is customary in Aotearoa New Zealand. A qualitative research methodology was considered the best approach for gaining a detailed understanding of the phenomenon under investigation. Data were collected through in-depth individual interviews and semi-structured open-ended questions were utilised to guide discussion. The narrative accounts gathered from participants were analysed and interpreted using a hermeneutic phenomenological framework. Interpretative phenomenological analysis

(IPA) was selected as the most appropriate method of data analysis because it has an explicit focus on the idiographic nature of lived experience. A key ethical consideration was the issue of confidentiality, since some of the participants had already received extensive media publicity, while others were still current students at the university where the research was conducted.

The next three chapters present the results of this study, beginning with information from participants about their family background and experiences of school prior to entering university, and culminating in rich description that aims to capture the essence of what it is like to enter university early in Aotearoa New Zealand. Each chapter concludes with a discussion section, which locates the findings in relation to other research on acceleration and early entrance to university. The final chapter draws these findings together and offers some tentative conclusions in response to each of the research questions.

Chapter Four: Pathways to University

Findings and Discussion

4.1 Introduction

This chapter sets the scene for the main research question by introducing the 10 young people who participated in this study. In order to better understand some of the factors that contributed to the participants' decision to enter university early, individual biographies were constructed describing their family background and experiences of school. The different pathways that the participants took to university are explored and analysed to identify similarities and differences in their experiences. The chapter concludes by discussing the findings from their individual stories, both in relation to relevant literature and the emerging themes identified across participants.

4.2 Participants

At the beginning of each interview, participants were asked to describe their family background and experiences of school prior to entering university. These stories were then crafted into a series of individual biographies, each of which followed a similar format to enable comparisons to be made across participants, while still preserving the integrity of their unique experiences.

Brad

Brad was born in the Auckland region where his parents ran a successful advertising business. His father is English but Brad said he identifies more closely with his mother's side of the family. His mother is Māori, of Ngāti Maniapoto, Tainui, and Ngāpuhi descent, and his great-grandfather was a renowned orator within his *iwi* (tribal group). Brad's parents moved to the Waikato region before he started school so his mother could complete a Master of Business Administration (MBA) degree. An only child, Brad was brought up in an extended *whānau* (family) setting with four younger cousins who he regards as his siblings.

Brad attended *kōhanga reo* (Māori immersion preschool) and Montessori early childhood settings and did not begin primary school until he was six years old. Brad recalled that he was a prolific reader and had an insatiable passion for learning from a very early age:

> When I was a kid, I used to be really obsessed … it was probably bordering on obsessive compulsive. I would pick one thing and learn everything about it. It was dinosaurs when I was between three and five. Then, about five and seven, it was astronomy. So I would pick up astronomy books and just read them cover to cover, you know, x amount of times.

Between the ages of six and nine years, Brad attended two different primary schools. Even though he had learned to read before he went to school, Brad felt that his abilities were not recognised by his teachers. As a result, he said that he spent most of his time in class daydreaming and often failed to complete set tasks:

> When I was going to school up here, [my teachers] always said I was one of the slowest in the class. I didn't do much, like [they said] "He always looks away with the fairies and stuff". But I remember when I was that age, seven or eight, I was reading at a 14- to 15-year-old level and doing those kinds of things in class. And so my teacher was like, "Oh, I don't understand. You're so slow and you don't do all the work, but then you can do this".

Brad also mentioned that he experienced frequent episodes of bullying at primary school and was very unhappy. He explained that he was always "a pretty big kid" and said that other children teased him about his size. His parents decided to take him out of school and he spent the next eight months living with his Nan (maternal grandmother) in another town. During this time, he attended a *kura kaupapa Māori* (Māori immersion primary school), along with several other members of his extended whānau. In retrospect, Brad agreed with his parents' view that regular

schools were not the "right fit" for him:

> We started doing home schooling when I was nine because I was getting really badly bullied at school and schools weren't doing really much about it … Schools just weren't the right fit for me, looking back – that's something Mum and Dad identified.

For the next two years, Brad's father, who was semi-retired, was his main teacher. Together, they designed learning experiences built around his emerging interests and passions; each day was a new adventure. The excerpt below, taken from a conversation between Brad (B) and his father (J), who was also present during our interview, illustrates how they decided what to do each day:

B: Yeah, it was kind of cool because Dad was like, "Oh, what can we do? What do we like to do?"
J: Are you interested in anything, Brad?
B: Dad would teach me a bit of Italian some days… I remember we drew out all the maps of the world. We did this whole geography thing. So we drew quite detailed maps of all the regions in the world…
J: Don't forget dinosaurs.
B: Dinosaurs, yeah. It was just kind of whatever I wanted to do, whatever we felt like.
J: That's right. "What are you interested in today, Brad?"
B: Dad would be like, "Oh, you know, we should do this today or we'll do that". And if we wanted to, we would carry it on for a week or so. Or, if it got boring, we were just like, "This is dumb!"

Apart from one day at intermediate school, which he described as "a complete disaster", Brad did not go back into mainstream schooling. When he was 10 years old, he attended a university-based bridging course in mathematics with his aunt one afternoon per week. The following year, his uncle arranged for him to attend night classes at university. According

to Brad, the tutor was initially reluctant to admit such a young student but finally agreed to give him a chance:

> My uncle knew a guy up at uni that was doing these kind of night bridging courses in science. So this was in 2002. And he asked, he said, "Technically, bro, in the criteria, there's no age limit". And [the tutor] said, "Oh, I don't know. I don't know if I can let a kid in". And [my uncle] said, "Just give him a chance. Let him go up until the first test and you'll see the first test marks and, if he's okay, you can walk away". And it was about $200 a class and I did maths, chemistry and biology. So that was one night each week. So I did that and nailed it. I got A pluses, I think, across the whole thing.

By the time he was 12 years old, Brad had gained enough credits for University Entrance. However, staff in the admissions office felt that he was too young to start university and advised his mother to wait until he turned 16. His parents investigated other options and decided to enrol Brad in an undergraduate Certificate in Science at another tertiary institution:

> Mum was going around seeing people. I remember, we went to a person, a lady that mum knew up at the uni, and said, "What are the chances?" And they said, "Oh, you know, he's young. Just wait until he's 16, then he can go in". And Mum said, "No, that's three years away. He's going to lose an advantage". So, I couldn't go to university that year, 2003. But what Mum got me into, what you guys worked on, was getting in to [name of tertiary institution] … which was true seventh form, getting in to first year level chemistry, maths, physics and biology. So that was full-time. (Brad)

The following year, Brad became the youngest student ever accepted to study full-time at the University of Waikato when he was granted special dispensation to enrol in a Bachelor of Science (BSc) degree at the age of 13 years 9 months.

Carlos

Carlos was born in South America and has an older sister who is studying music in the United States. He explained that he comes from "a family of artists and musicians" and that both of his parents are professional musicians. As a child, Carlos demonstrated a precocious interest in music and started formal lessons when he was four-and-a-half years old. He performed in a national competition at the age of five and played his first concerto with a professional orchestra when he was just six years old.

Carlos completed all his schooling overseas and his first language is Spanish. In his home country, the school day begins at 8:00 am and often does not finish until 5:00 pm. Carlos attended a regular primary school for the first three years but was enrolled in a "virtual school" for the remainder of his schooling. This involved independent learning at home four days a week, similar to the process of dual enrolment with Te Kura: The Correspondence School in New Zealand. On the remaining day, students went back to their regular school where they were tested on their progress and achievement:

> What you had to do in that school was you still had to go one day and, the days that you didn't have to go, you had to do like homework and stuff. So when you went to the school you had to have tests on each homework that you did. So basically I think it was harder than a normal school because we had like 10 tests per week.

Attending virtual school enabled Carlos to devote significant periods of time each day to practise music. He performed solo in his first international competition at the age of 11 years, competing against professional musicians, some of whom were more than 20 years his senior. At secondary school, Carlos completed "two years in one" and left school early at the age of 14 years. He studied a range of subjects but admitted that he did not particularly enjoy school: "I didn't like most of the subjects. I didn't like maths or science. I mean, I know they're important but they're not really my thing".

While Carlos was still at school, his music tutor, who he had been studying with for eight years, went back to his country of birth. His mother contacted one of her former music teachers, who was now living in New Zealand, and he invited Carlos to study with him. Over the next three years, Carlos and his mother made several trips back and forth to New Zealand, which culminated in him giving a series of recitals throughout the country. After a successful audition, Carlos received special dispensation to enrol in a Bachelor of Music (BMus) Performance degree. He was awarded a number of prestigious scholarships and entered university at the age of 14 years 7 months.

Evelyn

Evelyn was born in the Waikato region and grew up with her younger brother on a small lifestyle block just outside the city boundary. Evelyn's father used to run his own marketing and advertising business but has since retired. Her mother has a Bachelor of Management Studies (BMS) degree and worked in the clothing industry for many years. She went back to university when Evelyn was young and completed a Bachelor of Arts (BA) degree in Music and then retrained as a teacher.

Evelyn was identified as a gifted student at primary school and was accelerated through the junior classes, skipping Year 3 entirely. In Year 5, she attended the One Day School, a privately funded one-day-a-week offsite withdrawal programme for gifted students. She was also involved in school-based mathematics and science extension programmes in her final year of primary school. At intermediate school, Evelyn participated in a wide range of extracurricular activities and was placed in a newly-established accelerate class in Year 8. She recalled that this was a very positive and affirming experience:

> The best thing about intermediate was that, in Year 8, they used our Year 7 PAT results and stuff and, for the first time, they made an extension class. Most of our classes were composite Year 7/8 and this one was just Year 8. We were the top 30 Year 8s in the school basically. They took it off PAT results and it was awesome! I made

> so many good friends that year that I still kind of keep in touch with. We just had the best time – it was so much fun!

Evelyn's younger brother passed away when she was only 12 years old and she reported that his death affected her deeply. As a result, she did not do very well in her secondary school entrance tests and missed out on selection for the top-stream Year 9 class. Evelyn admitted that she lacked motivation and did not enjoy her first term at secondary school:

> I remember being so bored in maths. I used to sit by this air vent and I'd fly little paper balls by it because the work bored me … because I didn't want to focus on it. And I really, really hated PE … I really didn't enjoy it. I loved all the extracurricular stuff I was involved with, like the junior Shakespeare club and stuff, but I didn't like the school.

Evelyn's parents decided to withdraw her from school temporarily and she was enrolled with the Correspondence School for the reminder of Year 9. In addition to the core curriculum subjects, she also studied Year 11 Spanish and continued her jazz ballet lessons. The following year, Evelyn was enrolled at a different school and completed the remainder of her secondary schooling there. However, she said that she found it difficult to get to know people at her new school and felt that she never really belonged:

> It was quite hard because I came in and [name of town] is quite insular in some ways. And most of my friends and classmates had all gone to like preschool together and everything in between and so they knew each other really well. Like I got to know my friends and obviously people in my classes but, if they weren't in my classes, or they were the year above me, unless they were music students, I didn't really get to know them.

Evelyn's position as 'an outsider' was compounded by the fact that her mother also taught at the same school. During her time there, the school

attracted widespread negative media publicity, which polarised both staff and students. Instead of changing schools again, Evelyn decided to leave school at the end of Year 12, by which time she would have gained NCEA Level 2 and University Entrance. Although her parents were supportive of this decision, Evelyn reported that some teachers opposed her plans to enter university early:

> I remember being called up in front of [the deputy principal] and getting like the third degree about why I wanted to go to university and having to lie about it not being about the school but being other things – which weren't lies, they just weren't the whole truth.

Evelyn was granted discretionary entrance to university and enrolled in a Bachelor of Communication Studies (BCS) degree at the age of 16 years 7 months.

Kat

Kat was born in Southeast Asia and has an older sister. Her parents are divorced and her mother is the sole caregiver. Kat attended an international school in her own country for two years and came to New Zealand with her mother and sister when she was seven years old. They lived in Auckland for a short time, then moved to a small provincial town before moving back to Auckland again, and finally settled in the Waikato region. Kat's mother used to work as a real estate agent but now has her own computing business.

Kat attended a number of different primary schools before going to an all girls' secondary school. She was identified as a high-achieving student and was placed in the gifted and talented education (GATE) class in Year 10, but remained with her age peers throughout her schooling. She said that she enjoyed school and always tried hard to do her best but found science quite difficult. Her main interests were art and photography:

> I actually enjoy the sciences but it's just like I felt, "Oh, I'm not as good as I hoped to be". But I love arts as well so I decided to do more art. And I find it challenging at times but it's like it's typical –

> it's going to be a challenge each time. But, yeah, I think I handled it pretty well and I pretty much enjoyed school.

Kat also excelled in physical education and was a regional representative in two different sporting codes. At secondary school, she made the difficult decision to give up playing one sport so that she could focus solely on the other. To advance her plans of turning professional, Kat decided to leave school early, a decision that was actively supported by her mother:

> I think it was kind of a bit of my mum and then a bit of me… We had both heard of some people that had [entered university early] and we were like, "I think I could do it". And so that's why we planned from like … about Year 10 or Year 11 … we started planning that I would try and get good grades and stuff – just planned it from there.

Kat left school at the end of Year 12 with NCEA Level 2 (UE) and was granted discretionary entrance to enrol in a Bachelor of Arts (BA) degree at the age of 16 years 4 months. Her older sister entered university at the same time and is also completing a BA degree, majoring in a different subject.

Kevin

Kevin was born in East Asia and has a younger brother. His father was a commissioned army officer and his mother owned a music academy. Kevin was exposed to music from an early age and began having lessons at the age of three years. His family moved to New Zealand when he was 11 years old and settled in the Bay of Plenty region. His parents later divorced and Kevin's mother has since remarried.

Kevin completed the majority of his schooling overseas and only attended school in New Zealand for three-and-a-half years. He spent six months at intermediate school and then went to an all boys' secondary school. Kevin openly admitted that he didn't enjoy school; he was a habitual truant and was frequently in trouble due to his antisocial behaviour. Kevin said that

he and his brother experienced significant family violence from his father when they were growing up and he saw some of the same behaviours in himself:

> When I was in high school, I was called to the deputy principal's [office] because of my violent behaviour. I think I was sort of like bullying kids, you know, one of those, because I was pretty big in high school compared to other kids. I was bullying other kids, not that I'm proud of [it]. Not a happy boy and didn't do his work, he's been wagging … I only went to like two days of school during the week and the only thing I did was my [music] practice.

Kevin believed that the school tolerated his behaviour because he was a talented rugby player and a promising musician. He had won several national competitions and was often asked to perform musical items at school events. However, Kevin said that he found the English language demands of school difficult and did not put any real effort into any of his subjects, except for music:

> To be honest, all my school works *[sic]* were pretty bad. I played truant … Yeah, I was just lazy and not doing any homework … The only time I actually studied was before I entered university … I needed to have at least achievement in every course, like in every subject. So for two months I studied at the end of age 15, just before university. I think that was the only time I actually did like serious study.

After a successful audition, Kevin was accepted into the Bachelor of Music (BMus) (Performance) programme at the University of Waikato and left school at the end of Year 11. He was awarded a Sir Edmund Hillary Scholarship (for the Arts) and entered university the following year at the age of 15 years 10 months.

Matt

Matt was born in the Bay of Plenty region and has an older sister, an older brother, and a younger adopted sister. His older sister also entered

university early. Matt's mother retrained as an early childhood teacher when he was growing up and his father, who is semi-retired, used to work in the dairy technology industry. In a media interview[6], his mother recalled that Matt was interested in electronics from a very early age: "When he was little he had a lot of stuff to keep him stimulated. He was working with Lego at two and had his own computer at three" (Newspaper article, 2005, October 5).

Although Matt completed most of his schooling in regular classes, he was radically accelerated in mathematics and science. While he was at primary school, he also attended the School for Gifted, a privately funded one-day-a-week withdrawal programme for gifted students, based at a local college. At intermediate school, Matt completed NCEA Level 1 mathematics and Year 10 science through dual enrolment with the Correspondence School. The school also explored the possibility of him completing papers in computer science at the local polytechnic but this did not eventuate.

During his first year at secondary school, Matt completed NCEA Level 2 mathematics and NCEA Level 1 English, science, and history. The following year, he completed Scholarship calculus, statistics, and physics, as well as NCEA Level 2 English, chemistry, and economics. Matt also participated in a wide range of extra-curricular competitions, including regional and national science fairs and the International Mathematics Olympiad. In Year 9, he was awarded a medal for being the top New Zealand student for his age group in the Australian Mathematics Competition. The following year, he became school dux and, since he already had the requirements for UE, Matt decided to leave school, although some of his teachers were not entirely supportive of this idea:

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[6] Due to their outstanding achievements, several of the young people in this study had already received extensive media coverage. In order to protect the privacy of the participants, the original sources of media articles are not included in the list of references.

> I think the school that I went to wanted me to stay longer … There were some interesting moments when one of the deputy principals kept on calling me up trying to convince me to stay on at high school, but in the end I decided just to go ahead and go to university … If I stayed at high school I was probably not doing everything I could … I just wanted to keep on moving ahead at my pace, so that was the motivation.

Matt received special dispensation to enrol in conjoint Bachelor of Science (BSc) and Bachelor of Engineering (BE) degrees at the age of 14 years and five months. Unlike the other participants in this study, Matt was referred for psychological assessment as part of the admission process to ensure that he had the necessary skills and attributes to succeed at university.

Ricky

Ricky was born in the Waikato region and has two younger brothers. His parents are both medical doctors; his father is an anaesthetist and intensive care specialist and his mother works part-time at the local hospital and is also a General Practitioner (GP) in private practice.

Ricky attended his local primary school for 12 months and then spent the next year in the United States with his family. He was placed in a first-grade class but was older than most of the other children in his year level. When he returned to New Zealand, Ricky was enrolled at a private co-educational preparatory school (for students in Years 1–8) but found that he was repeating material that he had learned previously:

> So even though I was in, I think I was in Grade 3 and I had done Year 3, so I was doing pretty much the same work. I did Year 3 for like two years because they dragged me back and when I went to [name of school] they dragged me back to my own age group again.

The following year, the school responded by moving Ricky into a Year 6 GATE class for mathematics. In Year 6, he was further accelerated into a Year 8 GATE class for mathematics. However, he still found the work

"ridiculously easy" and convinced his parents to let him skip the final year of intermediate school:

> If I get bored, I have a tendency towards almost a clinical depression type state. And in Years 6 and 7, I was in one of my downturns and the change was really quite needed … They originally put me into Year 5 and then I just said, "No, it's not challenging enough". So they put me into Year 6 for maths … I was always doing [maths] way ahead of my age group. And that was one of the things that made me move from [name of school]. Because in Year 7, I had already done the Year 8 GATE maths class for two years – what was I going to do next year?

At secondary school, Ricky was placed in a Year 10 class for mathematics and English but his other subjects were all at Year 9 level. This pattern of acceleration continued throughout his time at secondary school. By the end of Year 12, he had achieved Scholarship statistics, NCEA Level 3 English and computer science, and NCEA Level 2 biology, chemistry and physics and, therefore, had the necessary requirements to enter university. With support from his parents, Ricky enrolled in two first-year computer science papers at summer school, passing both with an A+ grade, and decided not to return to school for his final year. He applied for discretionary entrance to university and subsequently enrolled in a Bachelor of Science (BSc) degree at the age of 15 years 11 months.

Ryan

Ryan was born in a rural Waikato town and is the youngest of five children. He has three older brothers, and an older sister who also entered university early. Ryan's parents are both secondary teachers and his father took up a teaching position with an international aid agency when he was five years old. For the next eight years, Ryan lived in the Pacific Islands and completed the majority of his schooling through the Correspondence School under his mother's supervision. He said that he has always enjoyed the outdoors and "spent a lot of time surfing because there's not much else to do on a Pacific Island".

Ryan's family returned to New Zealand when he was 14 years old and he continued studying with the Correspondence School. The following year, he went to a mainstream school for the first time. He acknowledged that it was "a huge culture shock" to go straight into Year 11 at a large, all boys' secondary school. Ryan did not particularly enjoy his time there; he said that he found high school "very boring" and admitted that he "failed to connect socially" with his peers:

> I think it was part of my culture of growing up overseas. I had a different expectation of stuff like education because, in places like [name of Pacific Island], I knew people who were illiterate because they didn't go to school. They didn't have the opportunities to go to school because their parents couldn't afford it. So, for me, you know, here's a whole bunch of people who go to school because this is what you do. They don't have that wider perspective of the value of education. I think that was the main thing.

Ryan decided that he did not want to go back to school and his parents encouraged him to enter university early. He had studied an eclectic range of subjects in Year 11, including NCEA Level 3 statistics and Level 2 mathematics and computer science, but did not have the necessary literacy credits for university entrance. He completed NCEA Level 2 English through the Correspondence School over the summer break and was granted special admission to university, conditional on achieving high marks in his statistics paper. As part of the entry requirements, Ryan also had to complete a four-week bridging course prior to the start of the academic year for students who did not have NCEA Level 3 in mathematics and physics. He subsequently enrolled in a Bachelor of Science (BSc) degree and entered university at the age of 15 years 4 months.

Stella

Stella was born in the Waikato region and is the second of four children. She has an older brother, a younger brother, and a younger sister, all of whom have been accelerated at school. Her older brother also entered university early and is two years ahead of her. Stella's mother is a

receptionist in an accounting firm and her father is an operations manager. Her mother's family are Dutch and her father grew up in Ireland.

Stella changed schools several times during her primary schooling and also had extensive periods of time where she was home schooled. Stella and her older brother both learnt to read at a very early age and she reported that the first school they attended was not very responsive to their needs:

> I started out at [name of school] and that lasted for a couple of months before my parents got sick of the teachers that were there, that were teaching me, because two of them, they weren't very good. Both my brother and I were having troubles in school … My brother was moving ahead very quickly and we had different needs to the other students, so teachers weren't very accommodating for that kind of thing.

For the next 18 months, Stella and her brother were taught at home by their mother. She described this as being a very happy time in her life: "She just educated us to our needs, so she would go as fast or slow through things as it would take for us to learn them – she didn't really mind". Stella went to another primary school when she was in Year 3 and, with the support of the principal, skipped Year 5 entirely. As part of the individual education plan (IEP) that the school put in place for her in Year 6, she also attended a Year 7 class each afternoon to assist with the transition to intermediate school.

She enjoyed her first year at intermediate school in a Year 7 accelerate class but said that changed when her teacher left at the end of the year. Stella only spent one week in Year 8 before moving to another school, where both of her younger siblings were enrolled. However, this change was not successful and Stella reported that she was very unhappy there:

> In Year 8, I'd been in a school, which I'd had a lot of problems – our family had had a lot of problems – with. And there was a lot of bullying and things like that, just because of the people and the kind of atmosphere. They weren't very accepting of our family in general.

Once again, Stella was withdrawn from school and taught at home by her mother. She entered secondary school the following year at the age of 12 and spent the next five years there. She was interested in a broad range of subjects and found it very difficult to decide which areas to pursue at the senior secondary level – the sciences or social sciences:

> I took a very broad range of subjects, just in case, you know. I took, of course, English and maths because those are needed and required but I took, you know, geography and history and I took chemistry and biology and things like that.

Although she had a close circle of friends, Stella explained that she did not really enjoy her high school experiences:

> I found it particularly constricting. I don't know, somehow it became quite difficult to go from day to day. And I found myself – because I draw quite a lot – I used to just draw in classes in high school. I didn't actually really listen.

Despite this, she achieved good results and her teachers actively encouraged her to think about the possibility of going to university when she left school. However, Stella reported that, in some ways, this placed additional pressure on her, which she resented:

> And though I can be a high achiever sometimes, I wouldn't say I'm an accelerate sort of student. Because, in school, I always got achieved and merits – I didn't necessarily get excellences that often – because my motivation wasn't to get high grades, it was to enjoy what I was doing.

Stella left secondary school at the end of Year 13 with NCEA Level 3 and enrolled in a Bachelor of Social Science (BSocSci) degree through the normal admission process at the age of 16 years 4 months.

Tenille

Tenille was born in the Canterbury region and has an older sister. Her parents are South Asian but they moved to New Zealand before Tenille was born. Her father is a university lecturer and her mother was a dentist in her own country. However, her mother's qualifications were not accepted in New Zealand and she retrained as a clinical psychologist when Tenille was growing up.

Tenille was the only participant in this study who had attended school continuously from Year 1 to Year 13. The primary school she went to had a long-established programme for gifted children and Tenille was identified at an early age. She only spent five months in Year 1 and was accelerated again at the end of Year 2. As a result, she was almost two years younger than most of her peers when she entered intermediate school:

> To be honest, I actually had no idea about what was going on! And I don't know if that was true at the time but I think I went through a lot of primary school just completely clueless about what was happening around me … I can just remember I was younger than everyone else and the rest of it is stuff I heard from my parents afterwards.

Tenille was placed in an accelerate class at intermediate school and studied mathematics through the Correspondence School with the intention of sitting School Certificate[7] mathematics in Year 8. However, this did not eventuate because her family went overseas for a period and she entered secondary school along with her age peers. In Year 11, Tenille sat NCEA Level 1 English, mathematics, science, history, geography, and

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[7] The School Certificate examination, which students used to sit at the end of Year 11, was replaced by NCEA Level 1 in 2002.

Japanese. She reported that she had a very clear idea of what she wanted to do when she left school:

> When I was about 12, we were doing an earth sciences unit in fourth form, and we were drawing pictures of volcanoes and it all looked quite cool and so I told everyone that I wanted to become a volcanologist. And I think my friends thought it was really cool and my parents didn't take me seriously at all. Until then, I'd wanted to be a marine biologist but my science teacher was really encouraging and he thought it was great.

The following year, Tenille changed her subject choices and took both physics and chemistry. In her final year of secondary school, she was enrolled in NCEA Level 3 physics and Japanese and Scholarship English, mathematics and chemistry. She also attended mathematics classes at university two afternoons a week, funded through the Secondary Tertiary Alignment Resource (STAR)[8]. Tenille left school at the end of Year 13 and enrolled in a Bachelor of Science (BSc) degree through the normal admission process at the age of 16 years 6 months.

4.3 Discussion

While all of the young people in this study had been accelerated at some point in their schooling, their individual stories show that they took very different pathways to university. In this section, I will outline three recurrent subthemes that emerged from their experiences prior to entering university and discuss these findings in relation to the research literature in this area. Table 5 summarises the subthemes and key ideas that contributed to Theme 1: Pathways to University.

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[8] The Secondary Tertiary Alignment Resource (STAR) provides funding for senior secondary students to be enrolled concurrently at a tertiary institution and complete higher qualifications while they are still at school.

Table 5

Theme 1: Pathways to University

Subthemes	**Contributing ideas**
Family background: *'A family of artists and musicians'*	Early childhood Family/whānau Personal characteristics
Experiences of school: *'Finding the right fit'*	Lack of challenge/boredom Lack of motivation/engagement Bullying/alienation/social isolation
Special provision: *'Bridging the gap'*	Home schooling School-based provision Community-based provision Early entrance to university

Family background: *'A family of artists and musicians'*

Although it was not my intention to explore the participants' family circumstances in any depth, it was apparent that they shared some common characteristics, which may have influenced their decision to enter university early. In general, the young people in this study came from stable, middle-class professional families, with well-educated parents who were in full-time paid employment. Three participants (Bobby, Evelyn, Matt) mentioned that their fathers were semi-retired and, therefore, had more time to spend with them as they were growing up. Four participants (Brad, Evelyn, Matt, Tenille) reported that their mothers had either retrained or undertaken postgraduate studies as adult students, which provided them with a positive role model and enabled them to gain a better understanding of the demands of tertiary study.

These trends are consistent with the results of previous research (e.g., Campbell & Verna, 2007; Dubow, Boxer, & Huesmann, 2009; Gerrity, Lawrence, & Sedlacek, 1993), which has found that academic achievement tends to be positively correlated with higher socioeconomic status (SES). Dubow et al. (2009) pointed out that other factors related to SES, such as academic home environment, parental educational attainment and occupational success, also play an important role in determining educational outcomes. Other studies have shown that higher levels of

maternal education also have a strong predictive effect on children's academic achievement. Harding, Morris, and Hughes (2015) suggested that well-educated mothers are more likely to feel confident about communicating with schools and teachers, due to the 'cultural capital' they have built up through their own successful experiences of the education system. As a result, they are in a stronger position to advocate for their children throughout their schooling.

However, other demographic factors commonly associated with academic achievement, such as family type and birth order (e.g., Wichman, Rodgers, & MacCallum, 2006) did not appear to be significant in the current study. As shown in Table 6, four participants (Brad, Evelyn, Kevin, Ricky) were the eldest in their family, four participants (Carlos, Kat, Tenille, Ryan) were the youngest, and two participants (Stella, Matt) were in the middle. Although the majority of participants came from traditional nuclear families with both parents living at home, other family types (e.g., extended, blended, single) were also represented in the sample group.

Table 6

Family Demographic Data

Name	**Place in family**	**Parents' occupations**		**Family type**
		Father	**Mother**	
Brad	1/1	Semi-retired	University lecturer	Extended
Evelyn	1/2	Semi-retired	Secondary teacher	Nuclear
Kevin	1/2	Army officer	Business owner	Blended
Ricky	1/3	Medical specialist	Doctor (GP)	Nuclear
Carlos	2/2	Musician	Musician	Nuclear
Kat	2/2	N/A	Self-employed	Single
Tenille	2/2	University lecturer	Clinical psychologist	Nuclear
Stella	2/4	Self-employed	Personal assistant	Nuclear
Matt	3/4	Semi-retired	Pre-school teacher	Nuclear
Ryan	5/5	Secondary teacher	Secondary teacher	Nuclear

Many of the young people in this study exhibited precocious behaviour in their domain of talent from an early age. For example, Brad, Stella, and Ricky had all learned to read before they went to school; Ryan was building complex Lego structures at the age of two and had his own

computer by the time he was three; and Carlos gave his first public recital at the age of five. Numerous studies (e.g., Bloom & Sosniak, 1985; Clark, 2008; Freeman, 1991, 2001, 2013; Gross, 1993, 2004a; Moltzen, 2005; Taylor & Collins, 2015; Witte, Kiewra, Kasson, & Perry, 2015) have acknowledged the role of parents and families as key stakeholders in the development of talent across a wide range of domains, a finding that is reinforced in the current study.

Experiences of school: *'Finding the right fit'*

In contrast to their positive early childhood experiences, many of the young people in this study reported that they did not enjoy school. For almost all the participants, school was far too easy; they described frequent feelings of boredom and spoke about the lack of intellectual rigour and challenge they encountered in many of their classes. According to Sztabnik (2015, May 7), "rigour is the result of work that challenges students' thinking in new and interesting ways. It occurs when they are encouraged toward a sophisticated understanding of fundamental ideas and are driven by curiosity to discover what they don't know" (para. 13). Unfortunately, this was not the experience of most of the young people in the current study. Several participants admitted that they deliberately underachieved or resorted to other methods of distraction, such as acting out, doodling, or daydreaming in class, simply to make it through the day. For example, Brad recalled that his primary school teachers were at a loss to understand why he failed to complete set tasks when he was clearly very capable and described him as "being away with the fairies". Similarly, Evelyn said that she found Year 9 mathematics so boring that she resorted to flying little paper balls past the air conditioning vent to pass the time in class.

These findings mirror the results of previous research, which has identified lack of curriculum challenge as the most frequently cited cause of boredom for gifted students in schools, both in New Zealand (e.g., Horsley, 2013; Kirby & Townsend, 2005; Tapper, 2014; Wardman, 2010) and overseas (e.g., Csikszentmihalyi, Rathunde, & Whalen, 1993; Gallagher, Harradine, & Coleman, 1997; Hammond, McBee, & Hébert, 2007; Jung, Young, & Gross, 2015; Kanevsky & Keighley, 2003; Mendaglio,

2013; Young, 2010). A landmark study of regular classroom practices in the United States undertaken by Archambault et al. (1993) found that third and fourth grade teachers made only minor adaptations to meet the needs of high-ability learners in core academic subjects. In an accompanying report, Westberg, Archambault, Dobyns, and Salvin (1993) concluded that, "Across all five subject areas, the target gifted and talented students experienced no instructional or curricular differentiation in 84% of the activities in which they participated" (p. x).

Similarly, Gallagher et al. (1997) surveyed 871 academically gifted students from nine school districts in North Carolina. Half of the participants in this study reported that they were not challenged in their core subjects (i.e., science, language arts, and social studies). Recurring themes mentioned by these students included: being forced to wait for other students to catch up; having to sit through content they had already mastered; not being allowed to follow their interests and move ahead at their own pace; and getting into trouble at school because they had too much time on their hands.

In another exploratory study, Kanevsky and Keighley (2003) sought to better understand the meaning of boredom for a group of 10 gifted high-school students who had gradually disengaged from classroom learning. They identified five interdependent factors that distinguished boring from authentic learning experiences: control; challenge; choice; complexity; and caring teachers. According to Kanevsky and Keighley, the extent to which each of these five factors were present (or not) determined how engaged and productive students were in their learning at school.

More recently, Makel, Matthews, Peters, Rambo-Hernandez, and Plucker (2016) examined the results from five criterion-referenced data sets that are commonly used to measure student achievement in American schools. The findings showed that large numbers of students were consistently performing above their grade level on these assessments: "We estimate that 20–40% of elementary and middle school students perform at least one grade level above their current grade in reading, with 11–30% scoring

at least one grade level above in math (Makel et al., 2016, Conclusions, para. 3).

For some participants in the current study, the inability of schools and teachers to meet their academic needs resulted in a lack of motivation and engagement that, in turn, affected their emotional well-being. Ricky admitted that he had "a tendency towards depression" when he felt he was not being challenged in his learning, something that his parents also recognised. Other participants talked about 'coasting along' at school and said they had been able to excel academically without any real effort because the work was so easy.

These findings are consistent with the results of a national survey of 42,754 high school students (Grades 9 to 12) in the United States undertaken by the Centre for Evaluation and Education Policy (CEEP), which reported that nearly half of the respondents (49%) indicated that they were frequently bored at school. Of those students who claimed they were bored, the major reasons given related to lack of interest (81%), lack of relevance (42%), and lack of challenge (33%) in the material being taught (Yazzie-Mintz, 2010, p. 6).

There is considerable evidence to suggest that lack of intellectual challenge can lead to long-term issues of underachievement for highly gifted students (e.g., Hansen & Toso, 2007; McCall et al., 1992; Neihart, 2006; Renzulli & Park, 2000; Rimm, 1986; Schulz & Rubel, 2011). In her ground-breaking research on achievement and success, Dweck (2006) reported that students who are not challenged in their learning, or given regular opportunities to learn from their mistakes, can develop a 'fixed' mindset. As a result, they tend to avoid situations where they may not excel due to a perceived fear of failure and, therefore, do not learn to appreciate the importance of effort and hard work in achieving their goals. Similarly, Mendaglio (2013) argued that gifted students who have never experienced the struggle of trying to master difficult concepts often "hit the wall" (p. 8) when they are exposed to challenging new content and ideas at higher

levels of education because they have not developed appropriate problem-solving strategies.

Bullying, alienation, and social isolation

Many of the participants in the current study had also experienced significant episodes of bullying, alienation, and social isolation at school. Brad was physically mature for his age and was frequently teased about his appearance by other children. Stella, along with her older brother who was similarly advanced in his learning, also reported being ostracised at school. She reported that her whole family was treated unjustly and their concerns dismissed by teachers, resulting in frequent changes of school. Evelyn, too, felt socially isolated during her first year of secondary school and ended up moving to another school where she did not know anyone.

A recent report on students' well-being, published by the OECD (Organization for Economic Cooperation and Development, 2017), found that New Zealand had the second-highest rate of bullying amongst 72 countries surveyed as part of the 2015 PISA[9] study. More than a quarter (26%) of 15-year-old students in New Zealand schools reported experiencing at least one of six individual bullying behaviours a few times a month or more. This finding is similar to the results of the 2014/15 TIMMS[10] study in which 60 per cent of New Zealand students at Year 5 and 45 per cent of students at Year 9 reported being bullied at school on a recurring basis (Ministry of Education, 2017c). Even more concerning, new evidence suggests that bullying tends to begin early, often during the preschool years, and is a frequent and persistent experience for some

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[9] PISA (Programme for International Student Assessment) is an international study administered by the OECD every three years to assesses how well 15-year-old students are prepared to meet the challenges of today's society. It assesses three key areas of knowledge and skills – reading literacy, mathematical literacy, and scientific literacy – and has a specific focus on one of these learning areas in each cycle.

[10] TIMMS (Trends in International Mathematics and Science Study) is a large-scale assessment designed to inform educational policy and practice by providing an international perspective on teaching and learning in mathematics and science. It is administered by the International Association for the Evaluation of Educational Achievement (IEA) every four years to students in Year 5 and Year 9.

children. Data collected from various sources as part of a longitudinal study, *Growing Up in New Zealand* (Morton et al., 2017), showed that more than a third of the cohort children (n = 2,170, 36%) had been bullied or picked on by other children by the time they were four years old.

Research conducted overseas (e.g., Coleman, Micko, & Cross, 2015; Foley-Nicpon & Assouline, 2015; Pelchar & Bain, 2014; Peters & Bain, 2011; Peterson & Ray, 2006a, 2006b) has also demonstrated that bullying is a relatively common experience for many gifted children. For example, Peterson and Ray (2006b) found that more than two-thirds (67%) of the gifted students in their study (N = 432) had been victims of bullying by eighth grade, with prevalence rates peaking during the middle school years. Similarly, Young (2010) reported that half of the participants in her study of 10 young people who had entered university early in Australia did not feel socially accepted at school and had experienced repeated instances of bullying, ongoing intellectual frustration and boredom, and feelings of alienation.

In a recent synthesis of research focusing on the lived experience of gifted students within the context of school, Coleman et al. (2015) posited that bullying may be related to the social stigma that comes with being labelled as gifted (c.f., Berlin, 2009; Cross, Coleman, & Terhaar-Yonkers, 2014; Massé & Gagné, 2002), leading to feelings of alienation and 'differentness'. While all children are affected adversely by bullying, Peterson and Ray (2006a) noted that intellectually gifted students differ qualitatively from other children and this may make them more vulnerable to the psychological effects of bullying. Pertinent characteristics that are frequently cited in the literature include heightened sensitivity and emotional intensity (Piechowski, 1997), asynchronous development (Silverman, 2002), non-stereotypical gender behaviour (Hebert, 2002), and a strong sense of morality and social justice (Gross, 2002), all of which can lead to consequent anxiety and interpersonal problems.

Peterson and Ray (2006b) also found that gifted students who are bullied at school may develop negative coping behaviours to overcome the

trauma of this experience. They reported that 16 per cent of the gifted students in their study defined themselves as bullies and 29 per cent had experienced violent thoughts. In the current study, Kevin found academic work difficult due to his limited English language skills and admitted that he was a habitual truant who only came to school to 'hang out' with his friends and to play rugby. He reported a lack of engagement at high school and said that he bullied other students in an effort to bolster his low self-esteem. In part, Kevin's behaviour may be explained by family violence; both he and his younger brother were beaten regularly by their father when they were growing up, a situation that was only resolved when his parents divorced during his teenage years. Although Kevin was the only participant in this study who reported being physically abused at home, he is certainly not alone in this experience. A national survey of 2,077 New Zealand children undertaken by the Ministry of Social Development (Carroll-Lind, Chapman, & Raskauskas, 2011) found that nearly two-thirds (63%) of the sample group had experienced some form of physical violence from parents/caregivers by the time they were 13 years old.

Types of special provision: *'Bridging the gap'*

As shown in Table 7, some of the primary and secondary schools that the young people in this study attended had implemented special programmes to meet their identified needs. The most common types of school-based provision mentioned by participants were year-level acceleration ($n = 5$), followed by accelerate classes, competitions and dual enrolment ($n = 4$), and subject acceleration ($n = 3$). The reported use of various accelerative strategies is interesting, given that Riley and Bicknell (2013) found that only five schools (1.8%) in a national survey of 327 New Zealand schools indicated a strong preference for acceleration (T. Riley, personal communication, September 20, 2016). These figures are backed up by the most recent statistics compiled by the Ministry of Education (2017d), which show that very few students are accelerated in New Zealand schools, especially at the primary level (see Appendix I for further details).

Table 7

Types of Special Provision

School-based provision	**Names of participants**	***n***
Accelerate classes	Evelyn, Kat, Ricky, Stella, Tenille	5
Competitions	Carlos, Evelyn, Kevin, Matt	4
Curriculum compacting	Carlos	1
Dual enrolment	Carlos, Evelyn, Ryan, Tenille	4
Withdrawal programmes	Evelyn	1
Subject acceleration	Matt, Ricky, Tenille	3
Year-level acceleration	Carlos, Evelyn, Ricky, Stella, Tenille	5
Community-based provision		
Bridging courses	Ryan	1
Home schooling	Brad, Carlos, Evelyn, Ryan, Stella	5
Night classes	Brad	1
One Day School	Evelyn, Matt	2
Polytech courses	Brad	1
Private tuition	Carlos, Evelyn, Kat, Kevin, Ricky, Stella	6
Summer school classes	Ricky	1

However, other studies suggest that more secondary schools are beginning to consider acceleration as a valid option for gifted students by using the flexibility that is inherent in NCEA to develop personalised learning pathways (Crawford, 2016; Horsley, 2013; Russell & Riley, 2011; Wardman, 2010). Another factor which may have contributed to the apparent willingness of schools to accelerate some of the young people in this study is that several participants (Carlos, Matt, Ryan, Stella) had older siblings who had also been moved ahead at school and went on to enter university early. As noted by Gross (2004a), it is likely that their successful experiences set a precedent within the school, resulting in a greater acceptance of acceleration as an appropriate educational strategy for highly gifted students.

Several participants (Evelyn, Kat, Matt, Ricky) also reported that they had been placed in accelerate classes and withdrawal programmes at some point in their schooling. Ability grouping, whereby gifted students are placed in separate classes with other students of similar ability for instruction on either a full- or part-time basis, is a contentious issue that

has been widely debated, both in New Zealand and overseas. Opponents of ability grouping (e.g., Hornby & Witte, 2014; Hornby, Witte, & Mitchell, 2011; Oakes, 1985; Sapon-Shevin, 1994) argue that this practice is discriminatory and elitist and merely serves to perpetuate the 'advantages' that gifted students already have in their schooling. However, other researchers (e.g., Adams-Byers, Whitsell, & Moon, 2004; Neihart, 2007; Robinson, Shore, & Enersen, 2007; Rogers, 2007) maintain that the opportunity to interact with other students of 'like mind' provides unique social and emotional benefits for gifted students, beyond what can ordinarily be provided in regular mixed-ability classroom settings.

For some participants in this study, being placed in an accelerate class at school enabled them to experience a sense of belonging and to make friends for the first time in their lives. For example, Evelyn described the joy of learning with intellectual peers in a Year 8 accelerate class at intermediate school, exclaiming that "We had so much fun that year!" Evelyn and Ryan had also attended part-time community-based withdrawal programmes for gifted and talented students while they were at primary school. One Day School programmes[11] are only available to students in certain regions of New Zealand and are run by not-for-profit organisations that charge a set fee to recover costs. Although very little research has looked at this type of provision in New Zealand, there is some evidence to suggest that these programmes are beneficial for gifted students, particularly in relation to social and emotional outcomes (e.g., Bate & Clark, 2013; Clark, 2009; Niederer, 2011; Riley & White, 2016).

A phenomenological study by Eddles-Hirsch, Vialle, Rogers, and McCormick (2010) found that students in schools that emphasised socioemotional needs, along with academic excellence, reported feelings

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[11] At the time this research was conducted, there were two main providers of One Day School programmes in New Zealand: The Gifted Education Centre and Gifted Kids. These organisations amalgamated in 2014 to form the New Zealand Centre for Gifted Education (NZCGE). Currently, NZCGE offers the MindPlus one day programme for gifted students in Years 2 to 8 in partnership with local schools in selected regions of New Zealand.

of community and acceptance of diversity. The gifted students in these schools described their classrooms of like-ability learners as one of "challenge, motivation and relationships" (pp. 115–116). However, students who attended a school that had a specific focus on high academic development and offered a withdrawal programme for their gifted students perceived their school's social support system as lacking. These students voiced their experiences of being gifted students in this school as "socially stigmatizing" (p. 110). Furthermore, in a related study (Eddles-Hirsch, Vialle, McCormick, & Rogers, 2012), gifted students also gave examples of changing their behaviour to mask their abilities in order to fit in with their peers and gain social acceptance. All students deserve to feel a sense of belonging and connection to peers within school and these findings highlight the importance of considering the social context of learning environments.

The young people in the current study were clearly atypical students and the nature and extent of their intellectual and creative abilities required schools to think 'outside the box' when considering how best to cater for their learning needs. For some participants, this had resulted in dual enrolment at another academic institution, such as Te Kura: The Correspondence School (Evelyn, Ryan), virtual school (Carlos), or university (Tenille), where they could access advanced course material and progress at their own rate. Several participants were also heavily involved in extra-curricular activities and had private tuition in their areas of talent e.g., music (Carlos, Kevin, Ricky, Stella), dance (Evelyn), and sport (Kat, Ricky, Ryan).

Another interesting finding is that Brad, Stella and Evelyn were all home schooled for significant periods of time during their primary and/or secondary school years because of their negative experiences of school. Although the Ministry of Education does not keep formal statistics about the number of gifted students who are home schooled in New Zealand, anecdotal information from other sources, such as the parent discussion forum on the New Zealand Association for Gifted Children (NZAGC) website (http://www.giftedchildren.org.nz) suggests that home schooling

is reasonably common amongst this group of learners. Evelyn and Stella eventually went back to school to complete their secondary education but Brad continued to experience most of his education outside of the regular school system. His pathway to university was, therefore, highly unorthodox (i.e., home schooling, attending night classes at university, enrolling in an undergraduate course at a local technical institute) and was facilitated largely through the efforts of his parents and whānau. Similarly, Gross (2004a) also found that early entrance to university would not have been possible for many of the young people in her study of exceptionally gifted students without sustained advocacy and proactive support from their parents.

Early entrance to university

Since most of the young people in this study had been accelerated at some point during primary and/or secondary school, early entrance to university was the next logical step. In the gifted education literature, early entrance to university is typically defined as the commencement of a full-time programme of academic study at an age that is younger than usual (Brody & Muratori, 2015). In their review of research on early entrance to university in Australia, Jung et al. (2015) reported that there were three possible pathways that may lead to early admission: "(a) acceleration by one or more years during elementary and/or secondary schooling; (b) dual enrollment, or simultaneous enrollment in a secondary and tertiary education institution; and (c) early departure from, or the noncompletion of, secondary schooling" (p. 19).

In New Zealand, students under the age of 20 years must normally achieve University Entrance (UE) to gain admission to university. At the time this study was conducted, the majority of students were eligible to receive UE in Year 12 upon completion of NCEA Level 2. However, due to concerns that many first-year students were not adequately prepared to succeed at university after just four years of secondary schooling, the entrance qualifications were reviewed in 2010, resulting in significant changes. Currently, in order to gain UE, students need to achieve 14 credits in each of three approved subjects at NCEA Level 3, as well as meet increased literacy and numeracy requirements (New Zealand

Qualifications Authority, 2017b). As shown in Table 8, only half of the participants had achieved NCEA Level 3 (or its equivalent) and would have been eligible to enter university through the normal admission processes, if these new requirements had been in effect when they left secondary school.

Table 8

School-leaving Qualifications and University Admission Status

Name	Highest year of school	School-leaving qualifications	University admission status
Brad	N/A	N/A	Discretionary entrance
Matt	Year 10	UE / NCEA L3 NZQA Scholarship	Discretionary entrance
Kevin	Year 11	UE / NCEA L2	Discretionary entrance Audition
Ryan	Year 11	UE / NCEA L2	Discretionary entrance Bridging course
Carlos	Year 12	Overseas qualifications	*Ad eundem statum*[a] Audition
Evelyn	Year 12	UE / NCEA L2	Discretionary entrance
Kat	Year 12	UE / NCEA L2	Discretionary entrance
Ricky	Year 12	UE / NCEA L3 NZQA Scholarship	Discretionary entrance
Stella	Year 13	UE / NCEA L3	Normal admission
Tenille	Year 13	UE / NCEA L3 NZQA Scholarship	Normal admission

[a] Admission *ad eundem statum* is the means whereby students may qualify for entrance level admission to a New Zealand university on the basis of having been awarded an overseas school qualification, which is deemed to be equivalent to university entrance, or having completed previous tertiary study.

New Zealand universities are permitted to set their own admission criteria for selective degree programmes and the regulations also allow some flexibility for individual students who do not meet the normal academic requirements for university entrance (Universities New Zealand, 2016). In the current study, those participants who had not completed Year 13 typically received discretionary entrance to university. In some cases, participants had a formal admission interview (Matt) or an audition (Carlos, Kevin), while others were asked to provide a letter of

recommendation from their secondary school principal attesting to their suitability to cope with the demands of tertiary study (Evelyn, Kat). As a condition of his enrolment, Ryan was also required to undertake a four-week bridging course in mathematics and physics, since he had not achieved NCEA Level 3 in these subjects at secondary school.

These findings are consistent with the results of another exploratory study that investigated the status of early admission to university in Australia (Young et al., 2007). Although most universities reported that they were willing to admit younger students on a 'one-off' basis, only one institution had developed a formal early admission policy. A major issue emerging from this research was the notion of 'duty of care', with some university administrators expressing the view that younger students may have difficulty adjusting to the demands of tertiary study. While part of their apprehension was based on popular misconceptions of the term 'gifted', Young et al. (2007) also noted that university administrators were genuinely concerned that admitting younger students might be detrimental to their healthy social and emotional development.

Similar concerns have been raised in New Zealand, especially since the introduction of the Vulnerable Children Act 2014 (Public Act 2014, No. 40). Under this Act, employees of state service organisations who have regular contact with children under the age of 17 years (e.g., teachers, teacher aides, social workers, psychologists and other health professionals) must be vetted by police every three years to ensure that they are fit to work with young people. Although tertiary institutions are not defined as state services under the terms of this legislation, the Act has important implications for staff members who provide services that are regulated by the government (e.g., student health and counselling services, university crèches). Similarly, tertiary institutions that offer programmes whereby students undertake practicum placements as part of their vocational training (e.g., in schools or hospitals) must also ensure that they have undergone the appropriate safety checks (Universities New Zealand, 2015). An unintended outcome of this Act could be that university administrators are less willing to admit students under the age

of 17 years into full-time degree programmes due to increased compliance costs, thus reducing another potential pathway for high-ability students.

4.4 Chapter summary

This chapter examined significant aspects of the participants' family life and upbringing and their educational experiences, prior to entering university. The findings were presented in the form of constructed biographies to enable the voices of the young people in this study to be heard and acknowledged. Although the participants came from diverse family backgrounds and took many different pathways to university, three major sub-themes were identified that appeared to capture the essence of their experiences during this phase of their lives: (1) 'A family of artists and musicians'; (2) 'Finding the right fit'; and (3) 'Bridging the gap'.

All the participants came from families/whānau that actively supported their emerging talents and abilities. In general, their parents were successful and well-educated and several participants had mothers, or other close family members, who had gone back to university to retrain as mature students. In some cases, parents adopted the role of advocates when they felt that their children's needs were not being catered for appropriately at school. It is significant that half of the young people in this study were home schooled for lengthy periods of time, prior to entering university. Interestingly, only one participant was enrolled in school continuously from Y1–Y13, albeit with a number of accelerative interventions.

For most participants, school was an unhappy experience, characterised by lack of intellectual challenge, persistent bullying, and social isolation. Although the schools they attended had attempted to meet their academic needs through a range of special provisions, many of the participants struggled to 'fit in' and gain peer acceptance. Interestingly, the timing of acceleration appeared to make a difference, with students who were moved ahead of their age peers during primary school reporting that it enabled them to progress through secondary school as part of a cohort

without attracting undue attention. Early entrance to university was viewed as a logical outcome of being accelerated, with the majority of participants leaving school as soon as they gained the necessary qualifications to enter university. Most of the young people in this study left school at the end of Y12, once they had acquired NCEA Level 2, which was the minimum requirement for university entrance at the time. Only four participants gained NCEA Level 3, which is now the standard exit qualification for school leavers who plan to go on to university. It is regrettable that this pathway is no longer available to high-ability students, unless schools are willing to accelerate students in far greater numbers than they do currently.

This shift in practice would seem unlikely, since some of the younger participants in this study faced strong disapproval from teachers and peers in making the decision to apply for early admission. Others took the path of least resistance, leaving school at the end of Y12 without informing anyone of their intentions. In some cases, participants were asked to obtain letters of support from their school principal and others were required to attend bridging courses in subjects where they had not achieved NCEA Level 3 to demonstrate their suitability for tertiary study. In general, however, the young people in this study found the admission process relatively straightforward and the university appeared willing to enrol exceptional students based on their individual abilities, rather than solely on age and entry qualifications. Whether this remains the case is a matter for debate with the introduction of the Vulnerable Children's Act (2014), which places additional responsibilities on universities in relation to students under the age of 17 years.

The next chapter explores the experience of entering university early, as perceived by the young people in this study.

Chapter Five: 'Being at' University

Findings and Discussion

5.1 Introduction

This chapter describes what it was like for the young people in this study to enter university at a comparatively early age. The findings are structured around two major subthemes that appeared to highlight key aspects of the participants' experiences in relation to the overarching theme of 'Being at' University: (1) 'Academic adjustment'; and (2) 'Social relationships'. Each subtheme is intrinsically interwoven and supported by a number of contributing ideas. The second part of this chapter presents an analysis of the findings, with a particular focus on how the results of the current study align with other research on early admission to university. The chapter concludes by synthesising the major trends and patterns across cases and offering some tentative conclusions.

5.2 Findings

Academic adjustment

The following section outlines some of the academic challenges, disappointments, and opportunities that were experienced by the young people in this study during their time at university. As shown in Table 9, three contributing ideas were identified by participants in relation to the subtheme of academic adjustment: (1) 'A big step up'; (2) 'Easier than school'; and (3) 'Freedom to choose'. These ideas are presented below, with illustrative extracts.

Table 9

Theme 2: 'Being at' University – Academic Adjustment

Academic adjustment	**Contributing ideas**
Academic challenges: *'A big step up'*	Programme of study/subject choices Navigating university systems/processes English language proficiency/basic skills Expectations/pressure to succeed Hard work/effort/intensity/self-discipline Academic coping strategies
Academic disappointments: *'Easier than school'*	Lack of challenge/boredom/repetition Lack of motivation/enjoyment/engagement Expectations of university versus reality
Academic opportunities: *'Freedom to choose'*	Autonomy/personalised learning/flexibility Increased challenge/motivation

Academic challenges: *'A big step up'*

Making decisions about which degree to enrol in at university, and what subject(s) to select as their major, appeared to be a common dilemma for many of the young people in this study. Although some participants had taken subjects at school with a specific programme of study in mind, others said that they found it very difficult to decide because they had such a wide range of interests. In fact, several participants mentioned that they probably "could have done anything" and still been successful at university. In the extract below, Tenille describes how she resolved this tension by choosing a degree that would enable her to pursue her own interests but would also benefit others:

> I considered maths and Japanese and a few other things as well. I really enjoyed geography and history. I really enjoyed English. It was almost like I could have done anything and enjoyed it a lot. But [science] is something that I thought would be useful to other people, as well as myself.

Stella also talked about her internal "struggle" to choose between the arts and the sciences. Although she had decided to enrol in a BSocSc degree, she was concerned that she might lose her knowledge of science and not

be able to get back into this field later if her plans did not work out. In hindsight, Stella recognised that this was probably just a normal process that most students tend to go through when they first enter university:

> So that was my biggest fear, that I wouldn't be able to go into [science] if I decided I didn't want to do social sciences. But after this kind of struggle between the two, I kind of decided that I should just go with what I felt like doing … I think it's just what anybody goes through when they go to university.

A number of participants reported that they had deliberately chosen subjects that would stretch them intellectually. For example, Kat said that she decided to enrol in a political science degree, even though she had never taken history or geography at school, simply because she thought it would be more challenging:

> It was more like, for me, I like a challenge. So, I was like, I want to choose something that is going be a challenge. And political science was a challenge and I've never learnt it before. I never took history before or anything related to it. And so, yeah, that's why I chose it.

Some participants who were enrolled in degrees that had a structured programme of study mentioned that they felt constrained by a lack of choice and wished that they had been able to pursue subjects from a wider range of disciplines. For example, Ryan had been advised to enrol in a BSc degree initially because it was perceived as being 'less challenging' but switched to a BE degree at the end of his first year. However, his undergraduate studies consisted mainly of compulsory papers and he was unable to take any elective papers until his fourth year (honours). Ricky also said that he felt pressured into taking particular subjects because the university was reported to have a "good" reputation in those areas:

> I was almost kind of shoehorned into doing what this university is good at – which is psychology, computer science, teaching – which I enjoy, but I have the feeling that I could have enjoyed anything.

Navigating university systems/processes

Several participants commented that university systems and processes were sufficiently flexible to enable them to change their degree programmes part-way through their studies. For example, Evelyn reported that she had not been looking forward to the marketing papers that were a compulsory part of her BCS degree and decided to switch to a BA degree during her second year of university:

> I decided to enrol in a Bachelor of Communication Studies… to take a double major in linguistics – because it just sounded so fascinating – and English. I lasted a year-and-a-half in the communications degree before I changed into a BA because I had fallen in love with linguistics and I wanted to pursue that further.

Matt also said that the Dean of his faculty of study went out of the way to make it possible for him to complete a conjoint degree in less time than usual. He recalled that the Dean took a personal interest in his studies and they had several meetings to discuss his proposed academic programme prior to enrolment:

> Before I started, I had a few meetings with the Dean of Engineering and we figured something out where I could do a conjoint BE/BSc. So there were a few issues that they hadn't sorted out, like how much you could cross credit, what papers you would have to do in each course. Because I remember I still had to do all the engineering papers but I could cross credit some engineering papers to mathematics.

Matt also received recognition of prior learning (RPL)[12] for several of his first-year papers and was permitted to take additional papers each semester and at summer school. This enabled him to complete a conjoint BE/BSc degree with First Class Honours in just three and a half years,

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[12] RPL gives high-achieving students the opportunity to reduce the amount of time required to achieve a university level qualification by recognising prior learning that has not already been credited towards a formal qualification.

instead of five. Tenille also completed her BSc degree in less time than usual because she had gained direct entry into some second-year subjects. However, she did not want to enrol in a Master's degree, so decided just to take additional papers in other subjects that interested her. She went on to complete a fourth-year honours programme and graduated with a double major in earth science and Japanese. This was not the typical pathway for students who were enrolled in a science degree at this university.

However, other participants reported that they were not aware of these options. For example, Ricky said that he had met with faculty administrators on several occasions to discuss his subject choices. He complained that he had been to see four different people and, each time, he had been required to explain his situation all over again because "nobody knows me". Ricky felt that it would be helpful for students who were not enrolled in a standard programme of study to have a specific person to guide them through the course selection process: "Having someone there [who] would be steady throughout the uni timetable, especially for someone like me who's doing multiple programmes, just almost a mentor type thing, but just someone steady".

Brad, the youngest student in this study to be enrolled full-time at university, had transferred from another tertiary institution where classes were much smaller and lecturers were on a first-name basis with students. Like Ricky, he found it very difficult to navigate his way through complex university systems and processes and would have liked greater support, especially during his first year:

> Yeah, it was definitely a step up because I was used to having a lot more one-on-one time with the tutors and then, all of a sudden, it was classes of 200 people and all this other stuff, like really official labs. Yeah, it was a big step up so I wish I could have had a bit more mentoring going into that.

Kat also reported that the number of students in her first-year classes was "overwhelming" and said that she struggled to cope with the sheer amount of information that was presented to new students:

> I knew what the lecture rooms were like but being there was just really scary. And I was like quite tentative, I was like trying to focus, trying to be a good student, you know. It was overwhelming in a way because there was so much information they put at you, especially on the first day.

However, it was interesting to note that some participants did not think that early entrants required additional support. Tenille believed that the university was very good at providing information about services that were available to support students on campus. She questioned the need to have a mentor and wondered if this might single out younger students and draw undue attention to their age:

> I don't know, it might be useful just knowing there was someone we could talk to. I don't know if I would have had any benefit from actually being shepherded into a group of young students – you're all young students so you should go and meet up with a staff member or something. I think I would have found that a bit of a nuisance maybe.

Ryan also said that he did not think younger students needed any special support or mentoring: "I don't think I would have wanted that support. I don't know how [the university] could have supported me any more. I felt quite adequate – I think it was good to feel normal".

English language proficiency/gaps in basic skills

Some participants, particularly those for whom English was not their first language, said that they found the literacy demands of university study quite challenging. Carlos and Kevin were both enrolled in a BMus (Performance) degree and had received most of their schooling overseas. Although they were highly talented musicians, their university papers also required advanced reading, research and essay writing skills, which

they found difficult. Carlos explained that his main problem was learning how to expand on his ideas to meet the expected word count for written assignments:

> English is not hard, I mean, I can speak all right. It's just, even in Spanish, I'm not very good at writing. So I sort of struggle to find … just enough words. Like to make an essay 1500 words, I could just write it in 300.

The challenges associated with having English as a second language were more pronounced for Kevin. He told me that he left this university at the end of his second year and went to another tertiary institution in the hope that his grades would improve. However, Kevin said that he did not enjoy living in a bigger city and found that he was doing even less study than before. The following year, he returned to this university again but eventually dropped out after four years of study with one paper (10 points) left to complete his bachelor's degree. Kevin admitted that he struggled with the literacy requirements of his papers, due to his limited vocabulary:

> My English is not up to the standard so I had to like pull out. I'm reading a lot of books because I need to graduate and there's no point in me trying to rush into it. So I'm waiting probably a year or two to get my English standards up … There's lots of essays, lots of reading, which I always have problems with because I just can't get through one page because I – just – don't – know – the – words [spoken slowly for emphasis]. My vocab was pretty short.

Another participant, Kat, who had been born overseas but had completed most of her schooling in New Zealand, also mentioned that she did not think most first year students were well equipped to cope with the academic demands of tertiary study. She believed that many young people entering university (not just those who had been granted early admission) lacked basic research and essay writing skills and would benefit from a more structured induction programme:

> It was a very big step up because they expect that you can write properly. But one thing that I think that they expected a bit too much was knowing how to reference and things like that – like knowing how to set up your work. Because, for me, I wasn't taught that at high school and I'm pretty sure we weren't taught that [in] seventh form either. And so, things like that, that they expected of you, that was a bit of a challenge.

Academic coping strategies

A few participants mentioned that they had developed specific strategies to overcome some of these challenges. Carlos said that he usually asked his friends for help and Ryan belonged to a study group that met regularly to prepare for upcoming tests and assignments. He said that it was "a lot easier" to understand the lecture material when everyone collaborated to share their ideas. Ryan also explained that he had developed a personal philosophy that enabled him to achieve a better work-life balance:

> Basically what I did was I always aimed to get 85%, which is just enough to scrape through to get an A+ and often I'd find I would fall short of the mark. But that was the least amount of work to get the highest return and still have a life. So, yeah, that was basically what I aimed for and sometimes I'd get an A+ and that would be cool. But I didn't try and bust myself out.

Other coping strategies mentioned by participants included downloading lecture notes to review later, making sure they always attended tutorials and laboratories, checking that they had completed all the required assessment tasks, and clarifying any questions they had with lecturers/tutors at the time to make sure they understood the material being presented. However, a few of the young people in this study reported that they did not feel confident to ask questions or to approach their lecturers for advice or guidance about courses. For example, Ricky said that he hardly ever spoke to his lecturers, "Most of my subject choices have been done online. Just fill them in, go to lectures, get your grade, come back the next day".

Hard work/effort/self-discipline

The findings presented above suggest that some of the young people in this study perceived their first year of university to be "a big step up". In particular, participants who had entered university without NCEA Level 3 qualifications reported that they had to work much harder than their peers in order to catch up on material that was normally covered in the final year of secondary school. As Ryan pointed out, this meant that he had less time to spend on other activities:

> It definitely was much harder. Compared to my friends, I was actually working at nights so I had a lot less free time because obviously I was catching up, you know, basically seventh form and a bit more.

Brad also talked about the need for hard work and self-discipline during his first semester at university. He had already completed an undergraduate qualification at another tertiary institution but found the transition to university much more difficult. For the first time in his life, Brad found that he needed to put considerable effort into his studies:

> Before I went to uni, I don't want to sound skity but … I kind of just did those [name of institution] courses without trying, I suppose. I just kind of did them, I didn't really work that hard in them but I seemed to do really well anyway. But then university came around and it was a different kettle of fish.

Compared to other disciplines, Brad believed that science was a very demanding programme of study. He recalled writing up 60-page lab books and being "really meticulous" to ensure that he achieved good marks:

> And we used to have, you know, 10am till 2pm lectures and then 2pm till 6pm labs. So you'd have 8 hours, 9 hours of class a day, three days a week, plus lectures on Thursdays and Fridays, and that was just kind of the norm. And you got used to always doing

> tests, like tests worth 10 to 15%… It was kind of working hard for a little. You worked a lot, like you'd have assignments worth two-and-a-half percent and they might take a day to do.

Brad said that these experiences helped him to realise how much work was involved if he wanted to go on to higher study. He noted that his grades actually improved at the graduate level, once he understood the amount of effort that was required to be successful:

> Certainly, it's a lot of work but I suppose it's good because it kind of weeds out those who aren't prepared to do that much work. Because you've got to understand that there's that much work involved if you want to do your own research projects and stuff.

Matt also said that he used to spend "hours and hours and hours" studying when he first entered university: "At that age, I was very focused on my academic work. Everything else was secondary, I guess". Although he found it relatively easy to achieve high grades at the undergraduate level, Matt admitted that he had to work much harder when he began his doctoral studies:

> It's interesting because in undergrad you're just learning knowledge that already exists, which I found quite easy – just regurgitating information, I guess. But I think the paper I didn't do quite so well on was the research paper and also I'm doing my PhD now, which is not just regurgitating information. It's of course creating new information, which is probably the reason why I'm not doing quite as amazing as when I first started, if that makes sense.

Tenille also commented on the difference between what was expected of students at the undergraduate level, compared to honours. She felt that lecturers provided a great deal of direction for students during their initial degree but then expected graduate students to manage their own learning without any scaffolding: "When I started doing my honours, and now my

PhD, it was quite a shock to go back to just being on your own and having to figure out what you needed to learn".

Expectations/pressure to succeed/competition

A number of the young people in this study talked openly about the pressure they experienced to be successful in their studies. In some cases, participants admitted that this pressure was self-imposed. For example, Evelyn explained that going to university was an expectation, something that she had always assumed she would do: "Even if it wasn't an expectation from anyone else, it was an expectation of myself". Tenille also said that her family always expected that she would go to university. For her, there was never any doubt that she would be successful: "Maybe just the assumption that I could do it, partly just from having an academic family, but not really thinking that there was a possibility that I might <u>not</u> be able to do it". Similarly, Matt asserted that he had never contemplated giving up:

> Oh no, there was never any doubt about stopping. I was always wanting to keep on going and keep on doing it. There was no turning back or anything like that. I had made myself do it, so I might as well keep on doing it.

However, some participants mentioned that they felt pressured to achieve in order to live up to the expectations of others. As described in Chapter Four, Brad's extended whānau had been actively involved in his schooling and family members had helped to facilitate his early entry to university. As a result, Brad said that he felt a strong sense of obligation to his whānau to do well in his studies. He reported that he had learned to cope with this pressure by "turning it around" and viewing it as an opportunity for personal growth:

> It was an issue when I was at uni first. Because you know I had all the family and stuff saying, "Oh, you're doing this". And everyone was telling everyone and everyone knew in the family and friends. [They would say], "Oh, you've got so much to do. So much hard work". But I just saw it as that was what differentiated me from

> other kids. I was like, this is the opportunity I've got, so I might as well just take it.

Kat also said that she felt an obligation to her family to do well in her studies. She explained that she had been born eight weeks prematurely and weighed just 900g at birth. Kat believed that she had only survived infancy due to the love and support of her family and this had been a huge motivating factor throughout her life:

> I was born premature *[sic]* when I was young and so everyone [was] quite supportive and they worry about me … [I was] that sick, I kind of turn it back around and it's like I have to work hard because I think I have all these weaknesses that I have to overcome basically.

For some participants, the pressure to do well came from tutors and lecturers. For example, Stella recalled an occasion during her first semester at university when she was asked to collect an assignment in person from the lecturer's office. Thinking that she must have done something wrong, she was relieved to find out that the lecturer just wanted permission to use her essay as an exemplar for other first year students. During their discussion, it became apparent to Stella that the lecturer was "expecting big things" from her now and she felt quite uncomfortable about this: "I think, once you do something well, people expect you to do well again and again".

Academic disappointments: *'Easier than school'*

However, some of the young people in this study offered a completely different perspective. In general, participants who had achieved NCEA Level 3 or NZQA Scholarship qualifications prior to entering university reported that their first year was less demanding academically than high school. For example, Tenille had already completed two stage one mathematics papers at another university through the STAR programme while she was still enrolled at school. Although she was granted direct entry to second year mathematics and chemistry, she said that she was

disappointed with the lack of challenge she encountered during her first year at university:

> I was quite bored for a lot of my first year because I had done maths before. And I was repeating about half of the maths course that I had done as an accelerated first year in the second year papers that I was taking at [name of university]. It was just that the systems didn't quite correspond, I think. The chemistry paper was a bit more challenging but most of the time I was quite bored.

Stella also said that she found her first semester at university to be "easier than seventh form". She explained that she had chosen basic social science papers (psychology, philosophy, sociology) to give herself time to adapt to university study but did not find them intellectually stimulating. As a result, she decided to switch her focus to organisational psychology and take papers that were outside of her comfort zone:

> Well, I finished that semester and I decided that that wasn't really what I wanted to do because I didn't think it was challenging enough for me. So I figured I should do something which would be more useful later on. And I did three management sort of papers this semester and I did my second psychology paper … and it was a lot harder!

Ricky had completed two stage-one papers at summer school prior to enrolling full-time at university. He reported that he enjoyed the fast pace of lectures and the compressed time frames for completing assignments in that environment. In contrast, Ricky said that he found the normal programme of study in his first year to be extremely tedious:

> I find uni boring simply because it's really slow. Like my first year at university … well the first half of the year was fine, but the second half of the year I would be having like two hours a day, go home, snooze, eat, snooze, and I just wound up flunking out, simply spiralling out, simply because there was nothing to do.

For Ricky, this experience set up a vicious cycle of underachievement; he was unable to cope with the slow pace of university study and became clinically depressed. As a result, he did not complete some of his papers in the second semester and was required to repeat them the following year. This led to a downward spiral and prompted Ricky to question whether he really wanted to continue with his studies:

> Last year, I suffered from clinical depression, which I'm still on medication for, but that caused me to get a whole bunch of [incomplete courses]. Partly, that was because I just stopped going to things. And that's been a bit of a challenge. Because, if you look at my grades, a lot of them have been fine but a lot of them have been less than spectacular and that just makes it a lot harder to convince not only other people but also myself that it's worth pursuing.

Lack of motivation/enjoyment/engagement

A few of the young people in this study reported that their experiences of university did not match their prior expectations. For example, Kevin was enrolled in a BMus (Performance) degree, which included a mixture of theoretical and practical papers. He admitted that he frequently skipped lectures and did not do any study, apart from his music practice, which he enjoyed. For Kevin, there seemed to be a disparity between his expectations of university and the realities of full-time study. He told me that he had wanted to enter university early because he saw it as a way of escaping from school. He thought that being at university would mean that he could focus solely on music performance, but soon found out that this was not the case:

> I thought when I get into university, I would only practice [name of instrument], nothing else. But it wasn't like that. It was a lot of school work, more school work, which at that time I didn't find very necessary you know. I didn't think I needed that. I just skipped all the lectures.

For some participants, these tensions did not begin to surface until their graduate years. Evelyn told me that she completed her BA degree without any difficulties and had aspirations of going overseas to Harvard or Stanford University for further study. However, in order to gain admission, she was required to complete a fourth-year honours programme, which meant moving to another university. Evelyn admitted that she did not cope with this change very well: "It was a hard year in a lot of ways. It was my first year flatting, it was my first year living away from home, it was my first year in a new city". Evelyn was also very disappointed that there were no other full-time students enrolled in the same programme and said that she did not really enjoy the papers she was studying:

> I don't think I was particularly happy that year. I mean, I loved living in [name of city] and I loved being down here and I wouldn't have changed that. But it wasn't the best year in terms of academic results … I didn't do that much work because I didn't enjoy it that much. I mean, I got upper second division honours, which was not what I was aiming for, so I was quite angry with myself.

This was a very difficult time for Evelyn; she shared with me that she was also dealing with personal identity issues, which finally culminated in her decision to come out as a lesbian. With the support and encouragement of her supervisor, Evelyn went back to university again the following year and completed an MA (Honours) degree in sociolinguistics, gaining distinction for her thesis. She said that it had been very important for her academic self-concept and sense of personal well-being to demonstrate that she was capable of achieving at a high level:

> I wanted to complete my Master's because I wanted to prove to myself that I could. I wasn't happy with what I'd done in honours – I was really, really unhappy that I had been so stupid to let myself <u>not</u> get first class honours. I was quite cross with myself and I wanted to prove that I could.

Academic opportunities: ***'Freedom to choose'***

Despite the challenges and disappointments outlined above, the majority of the young people in this study were very positive about their academic experiences at university. In particular, several participants reported that they enjoyed the freedom and autonomy of university study, compared to the rigid structure of school. Ryan and Stella both commented that having the flexibility to decide whether (or not) to attend classes had helped them to adjust to the academic demands of university:

> It was nice to have the freedom to choose if you wanted to turn up. Even though 90% of the time I did turn up, well 99% of the time I did show up, but it was nice to have that choice that if I don't want to be here, I don't have to be. So that was good. (Ryan)

> I think it's better that it's quite flexible… It gives you more time to kind of get used to things and adapt, rather than having full on, you know 9 till 3, or whatever it was, of study. (Stella)

Increased opportunities for self-directed learning were another aspect of university study that a number of participants mentioned positively. In contrast to her experiences of school, Tenille said that she enjoyed taking responsibility for her own learning and being able to study at her own pace:

> Well, I guess it's the subject material, obviously, and maybe the independence. So in some ways it's nice not to having to do what everyone else is doing. Like at school, everyone has the same textbooks, you get the same classes, you get the same homework. I think, at university, there's a lot more chance to think for yourself and figure out what you need to learn … So I quite enjoyed that self-directed part of it, that you could go at your own pace. And that definitely helped with the first couple of years at university.

Kat also believed that entering university early had enabled her to become more autonomous in her learning: "I find that I am able to learn more by

myself – for example, having more confidence, say to speak to your lecturers and stuff like that, and being more independent basically". She said that having a range of presentation formats (e.g., lectures, tutorials, group assignments) was beneficial for her learning:

> Apart from the learning – a lot of learning – I've enjoyed just being able to participate in different things. Like, I think, at my high school, we wouldn't have had any actual formal group work and, yeah, I enjoyed meeting new people that way. And then I enjoyed the different format of learning, so lecture rooms are like quiet, which is good because at high school people don't listen in class.

Stella also felt that the university environment catered well for different learning styles and enabled students to personalise their learning in ways that had not been possible at school:

> We kind of do a lot of theory and you do a lot of talking and listening and, being an audio learner, that's been a lot better for me. And I'm also quite visual, so that's fine – just going to lectures. And all I had to do was sit in a lecture and, even if I wasn't listening to the lecture – well, I was kind of listening to the background – I would still learn. So I would take it in and then, later on, I would study over it again and it was quite easy for me to take in. So university, as an environment, is quite good for my learning, as long as the lecturer is interesting.

Greater challenge/motivation

Apart from Kevin and Ricky, the majority of participants reported that they were highly motivated to succeed in their studies. Even though it had been more than six years since she first entered university, Evelyn recalled vividly the excitement and anticipation she had experienced before classes started:

> I can't necessarily remember my first day but I can remember my first week. I was so ridiculously eager! I already had my textbooks and I'd read my linguistics textbook from cover to cover … I'd

> already walked around the campus a lot – I was so excited – and I'd found out where everything was and I'd been to the library and all that stuff well before uni started.

Many of the young people in this study described themselves as "straight A" students during their undergraduate years. Although no attempt was made to check the accuracy of these statements, it was obvious that most of the participants set out to achieve excellence. For example, Evelyn said that "Mostly, I got As all the way through". Similarly, Stella told me that her first semester results had been "A to A- on average". She commented that she thrived on challenge and put more effort into studying subjects that she found difficult to master: "I don't know what it is but, the harder a subject is, the more motivated I am to do well in them". Stella also said that she looked forward to examinations and viewed them as a positive opportunity to test her knowledge and understanding:

> It's funny because I have always actually found exams exciting! [Laughs]. People seem to think that's weird but I like a challenge and anybody challenging my ability. I always love trying to do that and seeing how much I can remember for an exam and things like that. So, that, I found interesting.

Other participants also commented that they just took examinations in their stride. As Bobby explained, "I suppose it's been a regular thing in my life since I was 11, so it's kind of been 10 years of continually taking tests and essays and stuff. So you've just got to deal with it!"

Most of the young people in this study worked very hard to succeed in their studies. For example, Carlos devoted a minimum of three to four hours a day practising in order to realise his ambitions of becoming a world-class soloist. The week before our interview, he had spent three full days in a music studio recording the repertoire for his first solo album. During his time at university, Carlos had also participated in several prestigious international music competitions and received a number of awards, a major accomplishment for someone of his age. Although he

often competed against people who were considerably older than himself, Carlos said that this provided additional impetus for his achievements and encouraged him to perform at a higher level:

> There was a lot of pressure but it's not like … I wasn't thinking of it like, "I'm young, so I'm going to be playing worse than everyone else". It's actually better to be young. I don't know, you feel more special because you're so young and you're still doing what they're doing.

Kat also mentioned that she felt it was an advantage to be young, both in her chosen sport and at university: "I think, in a way, people have a lot more respect for you because it's something that is not maybe normal or typical".

Social relationships

The following section outlines some of the barriers and enablers to social acceptance that were experienced by the young people in this study during their time at university. As shown in Table 10, two main ideas were identified by the participants in relation to the subtheme of 'Social Relationships': (1) 'Not standing out'; and (2) 'Love of family'.

Table 10

Theme 2: 'Being at' University – Social Relationships

Social relationships	**Contributing ideas**
Barriers to social acceptance: *'Not standing out'*	Age restrictions/lack of independence
	Negative attitudes/reactions of others
	Making friends/relationships with peers
	Social isolation/missing out
Enabling factors: *'Love of family'*	Extra-curricular interests
	Personal growth/maturity
	Support from parents/family/whanāu
	Support from peers/lecturers/mentors

Barriers to social acceptance: *'Not standing out'*

The young people in this study were adamant that their experiences of being at university should be as 'normal' as possible. They told me that they did not want or expect any special consideration from their peers or lecturers because they were younger and said that they felt embarrassed when other people commented on their age:

> Even now, I generally shut up about my age. I tried to keep it as quiet as possible when I was at university … I wouldn't tell anyone my age … As soon as basically people found out that I was young, you could tell they thought "Oh, that guy!" (Ryan)

Evelyn said that most people were unaware of her age but, if they guessed, she would not try to hide the fact that she was younger. However, she admitted that the reactions she received from other students when they found out she was only 16 were a constant source of irritation during her first year of university:

> I got so sick of the whole "Oh my God! You're only 16?" thing because, I mean, I never lie about it so, if someone asked me, I told them the truth. I mean, I wouldn't necessarily volunteer that information but I got sick of that and sick of everyone making a big deal of that.

Stella also reported that people tended to make stereotypical assumptions about her based on age. She described an experience that happened in her first year of university when the person sitting next to her in class casually asked how old she was:

> I told him I was 16, and it's not common that it happens but he said, "Oh, so you're one of <u>them</u>!" And that's kind of the only problem that I find with being younger … If somebody ends up finding out that you're younger, they kind of treat you as like somebody weird, you know, a bit of a nerd and stuff like that.

The majority of participants reported that they tried hard to blend in at university so as not to draw attention to their age. Ricky explained that it was relatively easy to remain anonymous during his first year at university, since classes tended to be larger and more diverse. From his perspective, age was not really an issue because there were limited opportunities for social interaction with other students:

> I went to my first lecture and you've got 200 people in a cycle in the [name of lecture theatre] and you've got person, empty seat, empty seat, person, person, empty seat, empty seat, empty seat. It's very, very impersonal so [my age] didn't even come up.

Similarly, Tenille observed that it was difficult to make new friends when she first started university, due to the informal nature of her social interactions with peers:

> I didn't have too many friends in my first couple of years, apart from people I met in classes. Like we'd meet there in class and go and study together or have lunch together or something but we didn't socialise outside of university.

The transition to university was particularly hard for Tenille. Having grown up in the South Island, she had always expected to go to university in her hometown. However, her father took up a new position in the North Island towards the end of her final year of secondary school and her parents decided that she should go and live with him. Tenille said that her father was very protective of her and would not allow her to take a part-time job because he did not like her going out by herself at night. She found herself in a new city, not knowing anyone, and admitted that she was quite lonely during her first year of university. Looking back, Tenille believed that she should have been more assertive:

> I think, in my case, I wouldn't have moped around for my first year or so at [name of university] feeling sorry for myself that I had ended up in a different city to what I had planned. But, again, that's

> more specific to my situation. Yeah, I think I would have sort of got out there and taken more initiative with my social life if it was the other way around.

Social relationships/making friends

It was more difficult for participants to hide their age in tutorials, especially if they were required to work in groups. Matt, who was one of the youngest students in this study, shared his experience of a first-year engineering project where students worked collaboratively in teams to design and build a model boat:

> I think I had some problems working with the group. I don't think I worked with the group very well. I'd never had any experience of working in a group and I didn't really fit in. So there were some issues about the group work assignment – I just did my own thing and made a few parts. I wasn't sure if they were right or not. I didn't really feel like I was in sync with them. I might still have had those problems I guess but I think that, because I was so young, it didn't help the issue.

Kevin also admitted that he encountered difficulties with peer acceptance, partly due to the selective nature of the programme he was enrolled in. As noted in the previous section, Kevin was completing a BMus (Performance) degree. This qualification is highly sought after and prospective candidates are required to pass a formal audition before they are accepted into the programme. Although he was very familiar with performing in front of an audience, Kevin said that he found it hard to deal with the negative attitudes of his peers backstage:

> Because competition is right there, everywhere in [name of instrument], just any classical music … But they were very 'nice' people and they would smile in front of you but they were so extremely competitive that you would get a lot of subtle messages. They're clever people, classical musicians, they give you bad psyche, I don't know, mind attack [laughs].

Participants who had been radically accelerated at school and entered university at a very young age appeared to find it more difficult to gain peer acceptance. Brad, who was only 13 years old when he was first enrolled at university, talked openly about some of the difficulties he experienced. Even though he was tall for his age, Brad was acutely aware of the differences in maturity between himself and his peers at the undergraduate level:

> I suppose dealing with 18-year-olds, dealing with your supposed peers in class, that was probably the hardest. Because you know it's real hard trying to relate to an 18-year-old [as] a 14-year-old – it seems like an eon in age difference. You could kind of talk to people but, at the same time, it wasn't an 18-year-old talking to an 18-year-old. It was a 14-year-old trying to talk to an 18- or 19-year-old. So it was hard, you know, because certainly I wasn't anywhere near as mature or had the same life experiences, I suppose, that they had.

Brad said that he got most of his "social education" outside of university. His family had a large house and all his friends would congregate there after school and at weekends. However, he felt torn between the desire to socialise with his age-mates and the need to keep up with his university work. Brad described this as a constant source of tension and said that, on occasions, he wished that his friends would just go home so that he could concentrate on his studies:

> It got to the point when I was at uni and doing all these courses, I was always thinking, "Man, I just want all these kids to go so I can do some study!" Because they were always hounding me to come out and play, because our house was kind of the social gathering place of the neighbourhood. But, up at uni, it was kind of divorced from that.

Brad admitted that he did not have many friends at university during his first year. However, he observed that differences in age tended to become less important the further he progressed through his studies:

> I knew a couple of guys in first year. Generally, if we had lab partners, you'd get talking to them but I suppose I didn't really have that many mates. I didn't really have study buddies or anything. It wasn't until I got to Master's and got a bit older that I did.

Romantic relationships

Differences in age and maturity also made it more difficult for the young people in this study to form romantic attachments. In particular, this was noted as an issue by the male participants, who tended to be considerably younger than the female participants when they first started university. Kevin told me that he had entered into a relationship with a girl who was much older than himself during his first year at university but said that this was not a happy experience. He admitted that he did not have the life experiences or emotional maturity at 16 to sustain an intense relationship and things ended badly between them:

> I met a girl who was like four years older than me and I was pretty happy because she was my first girlfriend ever. [It made me] feel all grown up, which I wasn't [laughs] and she wasn't a very nice person. She was sort of like harsh-mouthed so during the relationship we didn't get along very well.

Most participants were philosophical about this aspect of their lives and recognised that things would improve as they got older. For example, Ryan commented wryly, "My love life is kind of abysmal, but I kind of accept that [laughs]. I mean, it's gotten better as I've caught up with the age". Similarly, Brad told me that his girlfriend was still at school, since most female students at university were not interested in going out with someone younger. However, dating was hardly mentioned by the female participants and did not appear to be a major issue for them. A common

response was that they were more focused on their studies and were content just to have a few close friends (of both sexes).

Age restrictions/social isolation/missing out

It was evident that age restrictions also posed a number of practical difficulties for many of the young people in this study. When they first started university, most of the participants were not old enough to hold a full driver's license, live in the university halls of residence[13], enter licensed premises, or receive the minimum adult wage. Several participants commented that not being able to go out socialising with other students during orientation week was a significant barrier to making friends in their first year:

> It's kind of hard when you have to say, "No, I sort of can't. I'm not allowed. I'm not old enough to go to a bar," or things like that. But that's where I think first year's more of a problem because, in the first year, everyone's turned 18 and all they want to do is go drinking because, you know, they've never had the opportunity to do that before. (Stella)

> About the only thing that really I noticed was that if I did meet someone, they'd always invite me into town and I'd have to say no, simply because I was 16 … no way of going to town for the next two years. So, like I never got to go to any of the O-Week, sort of things like that, which I've noticed, especially this year, is a place where you meet a lot of people. (Ricky)

For some participants, this appeared to increase their sense of social isolation and made them feel as if they were missing out on the 'typical' student experience:

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[13] University regulations state that students must be aged 16 years or over (as at 1 January in the year that they enrol) to be eligible for on-campus accommodation.

> I remember going to the parties but obviously I couldn't go to the pubs and the nightclubs because I was too young. I think I was always the one, you know, who had to go home when they all left off for the pub. (Matt)

> It was weird, like I remember Mum in first year saying you know I could go to parties as long as there wasn't like sex, drugs or alcohol. So I kind of just said, "Well, I might as well go to church!" (Brad)

Participants reported different ways of coping with this issue. Kevin had friends who were much older than himself and said that it was "pretty easy" to get into night clubs with them because of his physical size:

> I was going to clubs with [my] university identity card. You know how it doesn't have any birth date? So I just took it and I went to clubs and I would meet people. It was good fun [laughs]. I think, yeah, I was full of it, alcohol, because they didn't ask my age.

Ryan also said that he would go to bars with older friends, even though he was underage. However, he was careful to make sure that he did not get caught buying alcohol: "You just never buy beer. So you always just get [your friends] to shout the round".

However, drinking did not appear to be a significant issue for other participants. Stella reported that she had "never been into the bar scene" and "was not really a big alcohol drinker". Similarly, Tenille said that she was "mainly friends with people who didn't really go out and drink - mature students or people who lived out of town" and Evelyn and Kat both described themselves as not being "party types". Carlos also mentioned that he found other ways to have fun when his friends went out to night clubs:

> We still hang out. I mean, whenever they go to town, I just have to go back to my house. But it's okay because we sometimes just hang out at someone's house, so it's fine. And like I said, I've met so

> many cool people here that my age doesn't really matter. We just have fun.

Lack of independence

Except for Kevin and Carlos, all of the young people in this study lived at home with their parents during their first year of university. This was a pragmatic decision for most of the participants; they simply could not afford to go flatting and many were not eligible for entry to the university halls of residence because of their age. Although they were grateful to their parents, some participants felt that living at home was a potential barrier to making new friends when they first started university:

> Obviously, because I wasn't in the halls of residence, I wasn't around new people and going to all the parties. But obviously I did meet other people who were still living at home and obviously other people who were also in the halls of residence. (Ryan)

This lack of independence also extended to other areas of their life. Since most of the participants were too young to drive, they had to find alternative ways of getting to and from university:

> I was on a Learner's License, so I couldn't really drive anywhere either. So it's only this year I've started driving to uni. The last couple of years, it's been an hour-and-a-half bus ride home. Well, an hour's bus ride, followed by half-an-hour's walking. (Ricky)

Matt, who lived in another city more than an hour away from the university, told me that his father (who was semi-retired) drove him over and back to classes every day for the first two years until he was old enough to move away from home. This was a major commitment and highlights the importance of practical support from family and whānau during the transition to university, as discussed in the next section.

Although some participants had been awarded scholarships to university, or had taken out student loans, most of them still relied heavily on their parents for financial assistance. Ricky explained that, even though he was

living at home, his parents still expected him to contribute towards living expenses:

> I was 16 when I joined the uni. I didn't particularly want to move out of home. If I moved out dad will, well even now, my dad will help me with uni course costs and petrol to get me here and back, but he doesn't help me with anything else. So I would have to get a full-time job to pay for food, clothing, etc. I wasn't prepared to do that. I'm still not prepared to do that.

In order to help make ends meet, many of the young people in this study had part-time jobs throughout their time at university. For example, Kat waitressed in a takeaway restaurant, Ricky tutored students in mathematics, and Evelyn worked as a teacher aide and learning support tutor. Several participants had also been employed as research assistants or been awarded internships with various government organisations during their summer breaks. However, due to their age, they were often paid less than the minimum wage, which made it very hard to save enough money to cover their living and tuition costs. According to Ryan, this was a form of age discrimination:

> I managed to have technical jobs every time. So the first time I managed to find a job at the computer science department. At the time, I was only 16 and the minimum youth wage hadn't gone up. So basically I was on $10 an hour, which was less than the minimum wage … Obviously, I liked the fact that I was in a technical job but it was kind of annoying that, because I was young, I got paid less, even though I had the same qualifications as other people.

The demands of balancing a part-time job with their academic studies also meant that participants had to be very self-disciplined and develop good time management skills. Kat, who was working towards becoming a professional athlete in her chosen sport, explained that juggling all her

extra-curricular commitments required considerable planning and organisation:

> I handle it quite well, I think. It's like, sport – I think if you play sport at a high level, you're already committed to a certain schedule already so [it] won't be a concern for juggling with academic. You just have to be really committed and like – what's that word? – [have] really good time management actually, like not procrastinating.

As an elite athlete, Kat experienced additional financial pressures. In order to be selected for national representative teams, she was required to play in a number of qualifying events throughout the year. As well as her academic tuition costs, Kat also needed to budget for other expenses, such as membership fees, coaching and training, and travel and accommodation to attend tournaments.

Enabling factors: *'Love of family'*

A number of participants were heavily involved in extra-curricular activities throughout their time at university. They commented that their off-campus friendships were very important and enabled them to cope more effectively with the challenges of entering university early. For example, Ricky and Ryan were both members of Youth Search and Rescue (YSAR), a voluntary organisation that carries out land-based search and rescue operations. As part of their commitment to YSAR, they attended regular training sessions and spent every second weekend out in the field. Ryan had utilised his computer engineering skills to develop an online system for tracking equipment and Ricky was hoping to undergo further training to become a New Zealand certified search and rescue instructor (SARINZ).

At the time of their interviews, Ricky and Ryan had recently returned from Christchurch[14], where YSAR had been assisting with disaster relief. Ryan commented that his involvement with YSAR provided a welcome break from his studies and helped him to stay grounded:

> I'm definitely into the outdoors. I think also part of what helped me through the first year of uni is that I became a member of what's called Youth Search and Rescue … [It] was great to go out in the bush every other weekend and basically have a great time with good friends and not have to think about work or study.

Ricky also mentioned that, compared to other universities, there appeared to be very few clubs on campus that he could join. He said bluntly that he 'did not like university at all', mainly due to the lack of challenge and limited opportunities to develop close friendships. For Ricky, there appeared to be a mismatch between his perceptions of what university would be like, compared to the reality:

> I like bouncing ideas off people and I just find that uni's way too impersonal. And I've been here, what? It's my third year and I still haven't met anyone … I've met people through my existing friends but my main social interactions have definitely been through Search and Rescue. I haven't met anyone here that I consider a close friend at all, which is disappointing. It's not what I was led to believe was the big exciting uni lifestyle.

Evelyn also had a number of voluntary commitments. At secondary school, she had been an active member of a charitable trust that supports young people who are living with cancer. When she entered university, Evelyn decided to join an international aid agency that provides humanitarian support for people in need. In her role as national youth president, she represented New Zealand at overseas conferences and was

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[14] On 22 February 2011, Christchurch (the largest city in the South Island of New Zealand) was devastated by a 6.3 magnitude earthquake, which killed 185 people and injured thousands more.

involved in policy development and implementation. Evelyn was also a member of the editorial team for the university's student magazine and wrote a regular book review column. In addition, she volunteered at a local ethnic homework centre for refugee students. Giving back to others was very important to Evelyn and it was clear that she derived a great deal of personal fulfilment from these experiences:

> I love being involved with [name of organisation] for its values – for the neutrality and the independence and the non-discrimination and, of course, the humanity and the voluntary service. It's something I really love and it so closely aligns with my own values. I think that's a huge part of why I'm there.

Support from parents and whānau

Parents and whānau were another critical source of support for the young people in this study. As mentioned above, the majority of participants lived at home with their family during their first two years of university, mainly due to financial necessity. However, a number of participants commented that their parents also took an active interest in their studies. Brad said jokingly that his mother helped him to stay on track by limiting his gaming time: "Mum would always be the one out there shouting, 'Get off the play station and do some study!'" Similarly, Matt and Ryan reported that their parents monitored their progress carefully during the first semester. Interestingly, they both had older siblings who had also entered university early and said that their parents relaxed once it became apparent that they were achieving good results. As Ryan explained, "I really did enjoy the fact that after I got my first A semester results, my parents no longer basically asked me about assignments or anything so basically I was free to do whatever I liked".

Stella also mentioned that her family was an important source of social and emotional support. Although she described herself as being "quite independent", Stella was very close to her family and said that her mother did not want her to move away from home when she first started university:

> At 16, my mother didn't really want me moving away from home because she was afraid of me moving into halls in a strange place and things like that. And she didn't want me to be far away from her or the family if we were having problems. Not because she thought that we would have problems but because emotionally, you know, you need somewhere to go and being amongst people that you completely have no idea who they are, she didn't think they'd be very good at that age.

However, living at home was not an option for some participants. For example, Kevin's family lived in a provincial city some distance away. Since he had already turned 16, he was accepted in to the university halls of residence. According to Kevin, this was not a positive experience; he started associating with "older mates" who took him out drinking and gambling and introduced him to smoking hemp. Kevin attributed his anti-social behaviour to immaturity and said that he bitterly regretted having to move away from home to attend university. He missed his parents and younger brother and felt that they would have provided a stabilising influence in his life:

> If you don't have family, there is no warmth in your life, everything is negative. You want to look, like people our age call it 'bad ass', like you want to look mean – you want to behave bad. Even if you have your family, when you're 16 you still go wrong, just because you're a teenager. You really need family. I think 16-year-olds really need family.

Carlos also lived away from his family but his experience was completely different. As an international student, he was not eligible to live in the halls of residence during his first year of university. Instead, his mother arranged for Carlos to board privately with a long-time family friend. Although he admitted to being homesick at times, Carlos was very happy in this environment. His life revolved around music and their home had a dedicated practice room and rehearsal space. Carlos said that his

'adopted' family supported him with the transition to university, both personally and professionally: "They pretty much look after me".

Support from peers

Although some of the young people in this study encountered negative attitudes from their peers, other participants reported that their classmates were a valuable source of support. In particular, tutorials appeared to provide authentic opportunities for participants to develop positive social relationships with peers. Stella reported that, once other students got to know her better, they were able to look beyond first impressions and accept her as an individual:

> Tutorial groups were the best for me. In one tutorial group, they were very down to earth sort of people. A lot of them weren't very well off – they were definitely students. They were really nice people … they didn't judge you by your appearance or anything like that. I've always been quite a messy dresser and I looked kind of like a bit of a hobo [laughs] but I made some friends in that class.

Kat also commented that having smaller classes in some of her subjects enabled her to develop friendships with other students who shared similar interests:

> Mostly my [subject] class because I think it's a small class, everyone needs to interact, and it's because we share much of the same interests – like really deeply. But, with my other classes, not really, just because I think everyone basically keeps to themselves and the opportunity to make friends is usually if you have a group assignment. And, yeah, that's just the way it is.

Similarly, Ricky mentioned that group work was an effective way to break down age barriers. He described one class where the lecturer had designed an assessment task that required students to work together in small groups:

> He made you go into research groups, so you had to research a certain topic. It was like a team of four or five and you would have to meet up and actually discuss the topic and that was quite good. Like, my group, they were all adult learners, so I was with four or five adult learners. They really knew their stuff, they'd all come back for postgraduate study kind of and it was very interesting just to bounce ideas off them.

A number of participants said that they tended to have friends who were considerably older than themselves. In a way, this is not surprising since most of the young people in this study had been formally accelerated at school and were used to working with older students. As Ricky explained, being younger at university was nothing out of the ordinary for him:

> I've got plenty of friends in my age group but simply because my classmates were usually a lot older, or a little older, that would be the main people I grew up with. So, for example, if I placed the average age of my friends at the moment, I'd say 19, 20, and I'm 18. And that's simply because all through school I was either a year or two years ahead.

Kat also mentioned that she was very confident about interacting with older students, as a result of her sporting experiences: "At my club particularly, I'm pretty much the only girl there. And so every time I play [my sport] there, I play with adults, so I'm very used to adults". Carlos had also been exposed to older people from an early age and was very used to working with adults. In fact, one of the things that he found "strange" about being at university was that many of his lecturers were also his contemporaries. Carlos felt that it was an advantage being younger in his field because it enabled him to observe and learn from other, more experienced peers:

> The very first international competition that I did was in Mexico when I was 11. I got accepted and then I went there and the age limit was 34 years old. So pretty much everyone that was there was

> already a professional, had done all their studies, were playing for a career. It was great to do a competition that young because you know what to expect now.

Interestingly, Ryan reported that he had "a really good group of friends", who had remained constant throughout his time at university. Although he attributed this in part to "luck", Ryan said that he went out of his way to look for opportunities to socialise with his peers. From his personal observations, this was not always the case with other students who had entered university early:

> The other people I know who are young, who have gone to university young, don't seem to have fitted in socially quite so well. I don't like to talk about myself like I'm so awesome, but they don't seem to have quite made that same social connection with people at university.

Support from lecturers/mentors

Some of the young people in this study also reported that lecturers were a valuable source of support, particularly at the postgraduate level. As mentioned previously, Evelyn struggled during her fourth year at university and was bitterly disappointed that she did not achieve first class honours. However, her supervisor encouraged her to carry on and complete her Master's thesis, which she achieved with distinction:

> Fortunately, my wonderful supervisor, [name of lecturer], obviously saw that I had more potential than I had displayed the previous year. And she said as much to me and let me go on to a thesis, which they wouldn't have done normally.

Brad also reported having a good relationship with his master's supervisor. He said that they shared similar interests and got on well together: "He was really good, really laid back, kind of the same attitude as me, just really laid back, always good for a laugh". Similarly, Tenille mentioned that her lecturers went out of their way to find a suitable research project for her to work on during her fourth-year honours

programme. She was also grateful that her supervisors supported her to apply for postgraduate scholarships to overseas universities.

5.3 Discussion

Academic adjustment

The findings outlined in this chapter were structured around two major subthemes: academic adjustment and social relationships. These concepts were identified by the young people in this study as being essential aspects of their experience of entering university early. However, it is acknowledged that there was considerable overlap between these key ideas and many of the participants talked about their academic adjustment and social relationships interchangeably, often within the same story. Other research on early admission to university (e.g., Boazman & Sayler, 2011; Brody & Muratori, 2015; Dai et al., 2015; Hertzog, 2015; Muratori, 2011) has also noted the dynamic effect that academic adjustment can have on social relationships and personal well-being, and vice-versa.

As described in Chapter Four, the young people in the current study took many different pathways to university. It is not surprising, therefore, that their experiences of 'being at' university also varied considerably. For some participants, the transition to university was quite challenging and they regarded it as "a big step up". In general, students who had left school without completing NCEA Level 3, and those for whom English was not their first language, found it harder to adjust to the academic demands of university. Common issues reported by these participants included: difficulty in making decisions about their subject choices and programme of study; lack of familiarity with complex university systems and processes; not knowing how to study and take notes effectively or how to write and reference assignments correctly; and having limited time management and personal organisational skills.

These findings are consistent with the results of other studies that have examined factors contributing to academic success amongst early entrants (e.g., Hoggan, 2008; Meadows, 2017; Muratori et al., 2003; Schmit, 2011). In

a recent review of the literature on early admission to university, Brody and Muratori (2015) found that high levels of achievement at secondary school was the strongest predictive factor for academic success at university. The use of appropriate learning strategies and study skills (e.g., time management, being able to select main ideas in texts, and test/class preparation) have also been linked to successful outcomes for early entrants (Balduf, 2009). Brody and Muratori (2015) concluded that students who were not well-prepared for tertiary study tended to experience greater difficulties in adjusting to the academic demands and challenges of university. These findings may help to explain why some of the participants in the current study struggled initially, although it is likely that personal attributes, such as motivation, perseverance, and resilience also played an important role. These aspects will be discussed in greater detail later in this chapter in the section on affective outcomes.

In contrast, some participants were disappointed that their first year of university was 'easier than school'. Most had already gained NCEA Level 3 and/or NZQA Scholarship and some had successfully completed university-level papers while they were still at school. Having to sit through lectures and tutorials that covered material they already knew made it difficult for these students to maintain high levels of academic motivation. For example, Bobby and Ricky both reported that the polytechnic and summer school papers they had completed prior to entering university posed little intellectual challenge and they achieved excellent results without any real effort. Similarly, Gross (2006a) noted that several of the highly-gifted students in her longitudinal study had ongoing difficulties at university, not from lack of ability but because undergraduate study was not challenging enough:

> These young people had consoled themselves through the wilderness years of repetitive and undemanding school curriculum with the promise that university would be different – exciting, intellectually rigorous, and vibrant – and when it was not, as the first year of university often is not, it seemed to be the last straw. (p. 417)

Other researchers (e.g., Balduf, 2009; Jung et al., 2015; Mendaglio, 2013; Siegle, McCoach, & Roberts, 2017) have published similar findings. For example, all the participants in Balduf's (2009) study of college freshmen had been high achievers at secondary school, yet they experienced significant academic difficulties and failures during the transition to university. In part, Balduf attributed their underachievement to lack of challenge at school: "Not needing to do much to earn the success they wanted, these students were never taught, nor ever taught themselves, how to work through challenging issues. When these participants encountered challenging coursework in college, they were unprepared to deal with it" (p. 275). Mendaglio (2013) refers to this phenomenon as "hitting the wall" and suggests that it is a "predictable crisis" (p. 7) for gifted students who have never had to work hard to succeed academically. Based on his experience in counselling gifted students at the tertiary level, Mendaglio contends that there are two main factors that appear to hinder successful transition to higher levels of study: lack of knowledge of the reality of first-year university; and innate motivational characteristics that are unique to gifted individuals (i.e., heightened sensitivity, 'unbridled' analytical attitude, and relentless self-criticism).

However, the results of the current study suggest that, in some cases, university systems and processes were flexible enough to allow programmes of study to be tailored to meet the needs of individual students. Four participants changed their degree programme part-way through their studies to follow their emerging interests and passions. While this might seem like a backward step, a recent large-scale cross-institutional research project (Venit, 2016), which tracked the progress of American college students over a six-year period, found that 75 – 85 per cent of students in the sample group (N = 78,000) switched majors at some point during their time at university, without any negative impact on graduation rates. The report concluded that having flexibility to change majors may, in fact, contribute to higher levels of student retention and engagement in learning and, therefore, these results should be viewed positively:

> It could be that the act of switching is not indicative of indecision but is actually an affirmation of a commitment to earn a degree. By going through the trouble to change their official major, students are making a statement that they intend to continue their education. (Venit, 2016, p. 4)

Numerous studies have demonstrated that young people who pursue careers that are closely aligned with their personal interests tend to be more satisfied with their work and generally enjoy better professional outcomes (e.g., Jung, 2017; Muratori & Smith, 2015; Perrone-McGovern et al., 2011; Rinn & Bishop, 2015; Wright, Jenkins-Guarnieri, & Murdock, 2013). Allen and Robbins (2010) also found a similar relationship between student choice of majors and academic outcomes. Students with interests closely aligned with their field of study performed better academically and were more likely to graduate on time. The key message from these studies is that secondary schools need to ensure that students who intend to carry on to university have opportunities to take a wide range of subjects to keep their future study options open. At the same time, high-achieving students who have diverse interests and abilities also need personal guidance and counselling to identify potential career pathways. Many of the participants in the current study found it difficult to make informed decisions about their choice of major and programme of study and believed that they could have enrolled in any degree at university and still been successful.

As noted in Chapter Two, the majority of the research on early entrance to university has been undertaken in the United States, predominantly at the University of Washington (Halvorsen, Hertzog, & Childers, 2013; Hertzog, 2015; Hertzog & Chung, 2015; Noble & Childers, 2008) and the Texas Academy of Mathematics and Science (TAMS) (Jones, 2011; Sayler, 2015). Accelerated students who are selected for these programmes are usually admitted in cohort groups and intensive support is provided to assist with their transition to university. In addition, some early entrance programmes, such as the Program for the Exceptionally Gifted (PEG) at Mary Baldwin College (Connell, Dobyns, Heilbronner, & Reis, 2010;

Heilbronner, Connell, Dobyns, & Reis, 2010) and the Advanced Academy of Georgia (AAG) at the University of West Georgia (Boothe et al., 1999; Sethna et al., 2001) offer on-campus residential programmes for early entrants.

In contrast, the young people in the current study gained early admission to university on an individual basis and most participants did not receive any formal mentoring or academic guidance. In this respect, their experiences of academic adjustment were more like the participants in Young's (2010) doctoral research, which investigated early admission to Australian universities. Although the majority of early entrants in Young's study thrived in the university environment, two of the 12 participants experienced ongoing mental health issues. This finding is similar to the results of the current study and reinforces the concerns expressed by Brody and Muratori (2015) that early entrants who are less well-prepared for university may encounter greater academic, social, and/or emotional difficulties, especially during the transition period.

A mitigating factor in the current study was that most participants lived at home with their parents, at least for the first two years of their studies. While this decision was largely pragmatic, it was apparent that ongoing support from family/whānau was perceived as a critical factor contributing to positive adjustment to university. Participants mentioned a variety of ways in which their families had helped them, including financial support, assistance with travel, and personal guidance when things got tough. These findings are consistent with the results of previous studies that have highlighted the importance of parents/whānau in the talent development process (e.g., Bloom & Sosniak, 1985; Cullaty, 2011; Freeman, 2013; Garn, Matthews, & Jolly, 2010; Huey, Sayler, & Rinn, 2013; Taylor & Collins, 2015; Witte et al., 2015).

However, while living at home was convenient, it also meant that some participants were not able to attend their first-choice university. Three of the young people in this study reported that other universities offered academic programmes that were more suited to their future career

aspirations but they lacked the financial resources to be able to live independently. This appears to be a growing trend in other Western countries as well. For example, a recent study (Eagan et al., 2017), designed to establish national norms for students in the United States who were entering university for the first time ($N = 137,456$), found that greater numbers of first-year students were planning to live with parents or relatives (18.5%) and/or attend university closer to home (37.9%). The authors suggested a number of possible explanations for this finding, such as rising costs associated with travel, living expenses and tuition fees, and strong familial ties.

In contrast, one of the young people in the current study did not have close family support during his time at university. It is significant that he was the only participant who dropped out and did not complete his undergraduate degree. Despite his obvious talent, Kevin appeared to lose his way; he admitted that the university environment was not what he had expected it to be like and he was 'seduced' by the freedom and opportunities that were available to students living in the halls of residence. It was apparent that the lack of adult supervision and parental guidance had a detrimental effect on his academic studies and personal well-being. As a result, Kevin turned to 'older mates' for support, a path that ultimately led to his engagement in a range of problematic behaviours, such as underage drinking, online gambling, and illegal drug use.

Although Kevin's experience was not typical of the other young people in this study, one of the strengths of using IPA as a methodological framework is that it enables researchers to 'drill down' and uncover individual experiences that provide an idiographic perspective on the phenomenon under investigation. While most of the research on early entrance to university has reported mainly positive academic outcomes, Brody and Muratori (2015) noted that "poor performers may not be included in many of the studies if they leave the program before completing it. In addition, the importance of a few students' encountering academic difficulties may not be stressed enough in studies where the

majority of participants do well" (p. 163). The findings of the current study support this view and suggest that early entrance to university is not necessarily the most appropriate option for high-ability students, especially if they have a demonstrated history of underachievement at school (c.f., Muratori, 2011).

However, despite the challenges noted above, most of the participants were very successful in their academic studies. They enjoyed the flexibility of being able to choose their own papers and construct a programme of study that allowed them to follow their emerging interest and passions. Except for Kevin, all the young people in this study went on to complete their undergraduate degrees and/or were planning to undertake further study in their chosen field. Three participants were enrolled in doctoral programmes at selective overseas universities and another had been awarded a prestigious internship with a major international organisation. These findings indicate that early admission to university may be a viable option for high-ability students who choose not to continue to Year 13 in high school (c.f., Horsley, 2013).

Social relationships

It should be acknowledged that entering university early posed some practical difficulties for the young people in this study. As mentioned previously, most of the participants still lived at home with their parents and were too young to drive or enter licensed premises. It was apparent that age restrictions limited their opportunities for social interaction with older peers. In New Zealand, orientation week is commonly viewed as a 'rite of passage' for students in their first year of university and many of the social activities that are organised involve alcohol. While a few of the young people in this study hid their age to gain entry to licensed premises, most participants found other ways to socialise with their peers. In general, they appeared quite philosophical about the dilemmas of 'dating, driving, and drinking', issues that have been identified as problematic for early entrants in previous international research (e.g., Jung et al., 2015; McClarty, 2015b; Noble et al., 2007; Young, 2010).

A common experience, shared by all participants, was their desire to fit in to the university environment and just be treated as a 'normal' student. However, many of the young people in this study admitted that they actively tried to hide their age to minimise their visibility and gain social acceptance. In some instances, participants reported that they encountered negative reactions from others when their true age was revealed, leading to feelings of alienation and social isolation. Coleman and Cross (1988), drawing on the seminal work of Goffman (1963) in relation to social stigma theory, referred to this dilemma as the "stigma of giftedness" (p. 42). They argued that being perceived as 'different' can have a negative impact on the everyday lives of high-ability students.

In a later study, which explored the school-based social cognition of gifted adolescents, Cross, Coleman, and Stewart (1993) found that participants (N = 1,465) used various coping strategies to influence how they are viewed by others. As in the current study, these strategies included: limiting the information others have about them; not identifying as being gifted; maintaining a low profile; and creating an alternative social persona. Other researchers (e.g., Berlin, 2009; Gross, 1999; Silverman, 1993; Tapper, 2014) have also written extensively about the 'forced choice' dilemma and the loss of self-identity that many high-achieving students experience in order to gain peer acceptance.

Many of the young people in this study reported that they derived most of their social interaction outside of the university environment, through participation in sport, dance, music, clubs, and voluntary work. As noted by Young (2010), involvement in extra-curricular activities provided authentic opportunities for the early entrants in her study to construct a positive sense of self-efficacy and belonging. Similarly, Hébert and McBee (2007) found that out-of-class experiences enabled gifted students enrolled in an undergraduate honours program to develop caring, supportive relationships that promoted healthy social and academic adjustment to university.

Another significant finding of the current research was that engagement with like-minded peers appeared to be a critical factor in the development of positive social relationships (c.f., Bate & Clark, 2013; Clark, 2009; Riley & White, 2016; Young, 2010). Many of the young people in this study reported having a range of peer groups that they interacted with in different settings and situations. Some participants mentioned that they found it easier to make friends with adult students because they were perceived to be more tolerant and accepting of difference. In contrast, other participants reported that they were more likely to form positive social friendships with intellectual peers at the graduate level (c.f., Jung et al., 2015).

The Cope-and-Grow model, developed by Dai and Speerschneider (2012), provides a useful theoretical framework for interpreting the findings of the current study in relation to personal growth. This model of affective curriculum for talent development is based on "a dual process theory of expanding one's personal agency and horizon (Grow) while dealing with stressful events and negative emotions (Cope)" (p. 185). The authors contend that, while high-ability students may have greater potential for growth, they also have to cope with unique issues related to their personal ambitions (e.g., high expectations, pressure to succeed) and negative affects (e.g., social alienation, self-doubt).

Many of the young people in the current study demonstrated high levels of coping; they were open to new experiences and seized the opportunity to develop new horizons of understanding. At the same time, they were mindful of the need to cultivate their inner strengths to maintain their sense of identity and self-worth. As noted by Dai and Speerschneider (2012), "successful coping with stressful situations and negative affects can become a growth experience in terms of gaining personal strength" (p. 185). Intrapersonal characteristics, such as motivation, drive, and resilience appeared to distinguish those participants who grew the most in terms of their personal agency (c.f., Ballam, 2013; Miller, 2015; Moltzen, 2005). However, the most important influences identified by the young

people in this study were a strong sense of self-belief and unconditional love and support from their family/whānau and friends.

5.4 Chapter summary

Although considerable research has been conducted overseas on transition to university, very few studies have focused solely on the experiences of high-ability students (Abeysekera, 2014; Mendaglio, 2013). The process of entering university involves significant change as students transition from the familiar environment of secondary school to one where they are expected to take much greater responsibility for their own learning and behaviour. This can pose significant challenges for accelerated students who choose to leave school early, both in terms of their academic adjustment and their social relationships with others.

Expecting all students who have entered university at a young age to be highly successful academically and socially is not realistic, since many regular-aged university students experience varying levels of difficulty adjusting to the tertiary environment (Brody & Muratori, 2015). With younger students, parents and educators often worry about their readiness to be independent, their maturity to make sound decisions, and their ability to interact socially with older students.

However, the findings of the current study suggest that many of the challenges experienced by participants were typical adjustment issues that might be expected in any group of young people entering university directly from secondary school (c.f., Jung et al., 2015; Sayler, 2015). Furthermore, most of these challenges were relatively minor and short-lived and most participants did not appear to find the academic adjustment to 'being at' university especially difficult.

Social adjustment was viewed as more problematic by the young people in this study, especially during their first year. Participants reported that it was hard to develop close friendships with other students, due to the impersonal nature of their classes. Gaining early admission to university also meant that the participants could not legally take part in social events

that involved alcohol, something that is viewed almost as a 'rite of passage' in New Zealand. Instead, the young people in this study derived most of their social interaction from extra-curricular activities outside of the university environment.

The final findings chapter discusses the impact of entering university early, as perceived by the young people in this study.

Chapter Six: Critical Reflections

Findings and Discussion

6.1 Introduction

This chapter discusses the impact of entering university early, as perceived by the young people in this study. The findings are structured around the superordinate theme of 'Critical Reflections', which explores the way in which the participants sought to make meaning of their experiences. Three major subthemes were identified: (1) 'Time on my side'; (2) 'Making a difference'; and (3) 'No regrets'. Each of these subthemes will be discussed in relation to the literature, with a particular focus on how the findings from this study align with other published research. The chapter concludes by outlining the major trends and patterns across these subthemes and offering some tentative conclusions.

6.2 Findings

Table 11 summarises the major subthemes and key ideas that contributed to Theme 3: 'Critical Reflections'. These will be discussed below with illustrative extracts.

Table 11

Theme 3: Critical Reflections

Subthemes	**Contributing ideas**
Impact of early entrance: *'Time on my side'*	Early career exploration Exposure to prestigious scholarships Opportunities for further study
The road ahead: *'Making a difference'*	Career/sporting goals Family aspirations Giving back
Looking back: *'No regrets'*	Advice for others Personal satisfaction Unique perspectives

Impact of early entrance: '*Time on my side*'

Towards the end of each interview, participants were invited to reflect critically on their experiences of early entrance. Specifically, they were asked, "If you could go back in time, would you still make the same decision to enter university early?" A common response, shared by all of the young people in this study, was that early entrance had enabled them to achieve their academic goals in less time than is customary. For example, Matt believed that entering university early had been an "advantage" because he was able to bypass some of the normal academic requirements and experience greater challenge in his learning:

> The obvious advantage is that you get to where you want to be faster. I didn't have to waste as much time going through the normal process of what everyone else goes through – I could skip that. I still found the work easy but at least I was challenging myself more than what I would be doing otherwise. Overall, I think it was worth it. If there was someone else in my position, I would probably recommend doing the same thing as I did.

Similarly, Ryan and Tenille both commented that they had not enjoyed school due to the lack of academic rigour. In contrast, they felt that entering university early had been a positive experience because it had given them greater enjoyment and ownership of their learning:

> I think it's put me in the right place academically for the right time, if that makes sense. In terms of school was academically unstimulating … I think that's probably the best thing. (Ryan)

> Well, I feel like I have saved two years. It means I can get out earlier and do things. I don't know that I particularly enjoyed primary school and I don't feel I got all that much out of it. So maybe from having those two years to work in or something, I'll get more enjoyment from things than I would have, if I'd spent them at school. (Tenille)

Stella also perceived that entering university early had given her a significant time advantage, in comparison with peers of the same age:

> I see it as kind of an advantage because it means I've got two extra years to do whatever I want! I mean, I thought … I was going to take a gap year originally, but then I decided that I didn't want to forget anything because I'm paranoid that I'm going to lose all that knowledge. But it turns out I didn't really need it that much anyway because it's not really related to what I'm doing now.

Further study

Other participants mentioned that entering university early had enabled them to pursue higher degrees at a younger age than is typical. As noted previously, Evelyn had moved to another university for postgraduate study and then decided to complete a Graduate Diploma in Teaching. From her perspective, entering university early had been a positive experience because it gave her more time to explore different areas of interest:

> And I guess it sort of fast tracked me and it meant I could do a lot of things. Like I could have my Master's, I could graduate with my Master's at 21, after five years of study and how many people get to do that? I've done six years at uni and now I'm teaching and I'm only 23 and that's kind of cool. It means I've got a lot more time to do other things.

Brad had also completed a Master's degree with First Class Honours before he was 20. He commented that this had put him a good position when looking for jobs when he graduated, compared with other young people of the same age. Brad also felt that the experience of early entry had enabled him to develop greater maturity, which he regarded as a positive factor:

> Oh, advantages are obviously just getting it out of the road early on. Like I'm 21 and I suppose people aren't at my position until they're 24, 25, that kind of age … so I've certainly got a time period

> advantage. And it was good, living in that world – it certainly made me mature a lot earlier.

Early career exploration

Completing their undergraduate studies at a younger age than typical also provided some of the young people in this study with more time to travel and explore future career opportunities. For example, Brad decided to take a break from university after graduating with his MSc degree. He enrolled in some economics papers, purely out of interest, and then spent 12 months working in the field of public policy and research for two different indigenous Māori organisations:

> So I finished my Master's and then I kind of decided to take about three or four months off over that summer and then I was kind of deciding what to do … and then this opportunity came up … to do some research into public policy and economics. And I was like, 'Yeah, well, I've never given that a try. I wonder if I'd be able to do that?'

Although Brad enjoyed his work as a policy analyst, he said that having the opportunity to move away from home and experience the 'real world' made him realise that he wanted to continue his academic studies:

> I just wanted to give it a break and see if I could do something else and be good at it. Because I had just been living, eating, breathing [science] for so long and I thought, "Okay, I need a bit of a break and time away from the lab". And it also kind of served to really make me, you know, kind of think "Oh [science]. I miss it so much. I have to go and do my PhD now".

Brad decided to look for scholarship opportunities that would enable him to complete his doctorate overseas. He recounted an amusing experience where he contacted a prestigious university in the United Kingdom to find out more about their postgraduate research programmes:

> It was about 10 o'clock on a Tuesday night, I think. I just rang them, kind of out of the blue, and said, "Hi, I'm calling from the other side of the world. I was looking online and you've got some pretty interesting projects. I was just wondering if you've got any space for me?"

Matt also made a spontaneous decision to continue his postgraduate studies overseas. After completing a conjoint BE/BSc degree with First Class Honours at the age of 17, he decided to apply for a doctoral scholarship at a leading Australian university. At the time of our interview, he was part-way through his PhD studies and had recently returned from a scientific conference in Europe where he had presented a paper on his research.

Tenille had also been successful in gaining a scholarship to complete her postgraduate studies at a prestigious university in the United Kingdom. She mentioned that taking an extra semester to complete her BSc honours degree (with a double major in Earth Science and Japanese) had given her more time to think about future career and study opportunities without feeling pressured to make an immediate decision:

> I think I always had this feeling like I had to do as much as I could, as soon as I could. And that was partly why I ended up taking a lot of papers at university and it worked out fine. Like I didn't exceed their recommended maximum workload, and, for the most part, it didn't really impact too much on my life. But, I think, if I hadn't had that idea in my head, I probably wouldn't have bothered. And, partly because I had done the extra half year, I didn't feel so rushed any more.

Ryan had also decided to continue his studies and had been awarded a doctoral scholarship at a New Zealand university. During his second year, he was successful in gaining a Fulbright Science and Innovation Graduate Award to undertake postgraduate research overseas. However, he decided not to accept this award and, instead, took up a paid internship

with a major international corporation based in the United States. Due to the collaborative nature of the research project he was working on, Ryan also had opportunities to work at other prestigious institutions, both in the United States and the United Kingdom, during the time he was enrolled in his PhD. In a follow-up email, he noted that, "Being well qualified younger was great as it meant when I did go overseas I was able to work in a professional job rather than taking a job in a pub like most other Kiwis who travel". (Personal communication, 26 April, 2016)

The road ahead: *'Making a difference'*

A number of participants had changed their programme of study several times while they were at university, mainly due to uncertainty about their future career aspirations. For Evelyn, entering university early had given her more time to think about what she really wanted to do with her life. Although she admitted that she had taken "an unusual path", Evelyn believed that this experience had made her stronger as a person:

> I've changed my degree several times – I started off wanting to be a journalist, then a neurolinguist and now I'm a teacher – but that's just part of exploring who I am … If I'd gone to seventh form and stuff, I probably wouldn't have taken such an unusual path. I'd have done more what was expected and I'd be working as a policy analyst or I'd be doing my PhD or something, or on the road to doing my PhD now.

As mentioned above, Brad, Matt and Tenille had all been awarded postgraduate scholarships to prestigious overseas universities and Ryan was in the process of completing his PhD in conjunction with a paid internship at a major international corporation based in the United States. These young people were still in the early stages of their professional careers but most of them reported that they were intending to look for post-doctoral research positions when they graduated. Brad anticipated that it might take two or three years of post-doctoral research before he was in a position to embark on his own projects:

> So, 10 years, I suppose, I'll be 31. I'd like to be working, you know, doing some really nice research work, maybe my own projects, probably doing drug design. Like medical drug design and stuff like that – that's kind of where I see my interests lie.

However, Matt recognised that he would probably need to look for employment overseas because there were limited research opportunities in New Zealand in his specialist field:

> I don't think there's a very high chance that I'll come back to New Zealand. I don't think, especially with what I'm doing, there isn't a very strong background, at any of the universities. So I don't think that I could find a post-doc position in any of the New Zealand universities … There's a few companies that do high-tech electronic things but there's not very many. So I could, you know, try and get a job at one of those companies but I'll probably end up staying either in Australia or going somewhere else.

Carlos also planned to complete master classes overseas in pursuit of his ambition to become an international soloist. He was considering going to either Europe or the United States to study under some of the world's best classical musicians. For Carlos, it was vitally important that he had a close relationship with his teacher:

> I've had a lot of master classes with lots of people. And the people I really like as a teacher and [performer] … there's actually one in America . . . he's a famous [name of instrument]. I've played recitals with him. He's just a great person, a teacher and a player as well, so I really want to go study with him … We're pretty close and I feel like he would be a great teacher for me.

Participants who were not enrolled in a specific programme of study appeared to have less well-defined career aspirations. This is hardly surprising, since most of these young people were still completing their undergraduate degrees and had not yet had an opportunity to specialise.

For example, Ricky, who was in the final year of his BSc degree with psychology as his major subject, said that he was considering a broad range of career options:

> I literally have no idea what I want to do after uni, not a clue. Some of the areas I've been looking at would be postgraduate and applied psychology, either organisational or cognitive. The other thing I've been looking at is a postgraduate teaching degree to teach at secondary school level.

Stella, who was still in the first year of her BSoc Sc degree, was also unsure about what she wanted to do when she graduated. Although she was intending to carry on and complete a Master's degree in psychology, she had not yet decided on which particular field she wanted to pursue (i.e., clinical or organisational psychology). Stella admitted that she was quite pragmatic and was looking for a professional career that would provide her with a good quality of life:

> I think you're stuck between what you want to do and how much you can get paid for it. Because it's very important to a certain extent – you don't want to be stuck in a job where you can't live so much of a comfortable lifestyle. You know, I think everybody sort of aims for that.

Kat was also hoping to combine her studies with a professional career in sport. Although she was only in her second year of study for a BA degree, Kat had already decided on politics and public policy as her major subjects and was planning to complete a Master's degree and then continue to postgraduate studies. Her thinking was that these subject areas were broad enough to allow her to find employment that would fit in with her sporting ambitions:

> Having political science gets you to open your mind up to more like formal things in life. And I think that my job… I want something that [is] able to relate to my [name of sport] as well. And I thought

> that political science is like something of a higher like value. But also, because I think that a job for political science… there's not compulsory jobs that you have to go through, so I wanted something that was open.

Giving back

A number of the young people in this study also mentioned that they felt an obligation to "give back" to their family/whānau and the wider community when they graduated. As noted previously, Brad had been awarded a postgraduate scholarship from his iwi to complete his doctoral studies in the United Kingdom. He said that he owed a tremendous debt of gratitude to his extended whānau for giving him this opportunity and was very conscious of the responsibilities that had been placed upon his shoulders:

> I still want to come home. I definitely owe [name of] tribe and [name of] tribe, I owe them a lot. So I've kind of said I would love to come back and go around some schools and stuff and just talk, especially to Māori youth, about the potential that higher education has, especially science and stuff like that.

Kat also mentioned that another reason for choosing political science as a career pathway was that it provided opportunities to influence public policy for the benefit of others: "And it's something that's able to be used, like it can make a difference sort of subject, because political science [does] affect the way we live".

Family aspirations

Very few of the young people in this study had given much thought to having a family of their own one day. The two exceptions were Evelyn and Matt, both of whom were in established relationships. Evelyn and her partner had entered into a civil union and were intending to have children in the "not too distant future". Interestingly, they were both teachers and were planning to home school so they could be more involved in their children's education. Matt was already a father and had a child, who was

six months old at the time of our interview. He commented wryly that he had achieved "all the big milestones" before he was 20.

For some of the participants, it was apparent that their future career plans made it difficult to contemplate the possibility of having a family, at least in the short term. Tenille, the only female scientist in the current study, was involved in research projects that required her to be away from home for long periods of time. Some of the scientific fieldwork she was engaged in carried a significant element of risk and Tenille believed that it would be unfair to enter into a long-term relationship at this stage of her career, especially if there were children involved.

Looking back: *'No regrets'*

Overall, the majority of young people in this study were very positive about their experiences of entering university early. Although a few participants said that they might have done things differently in retrospect, not a single person expressed any major regrets about the path they had taken. When asked if they felt they had missed out on anything by being accelerated at school, participants were unanimous that it had been the 'right' decision for them at the time. In fact, Brad commented that not attending high school was a bonus: "I think I dodged a bullet there!"

Other participants explained that, while they missed out on some of the opportunities associated with senior high school, they were pragmatic about this and felt that it had been worthwhile:

> Well, there probably [were] some experiences I did miss out on but I don't think I really care too much. I don't think I mind that I did miss those experiences. I think I'm where I am now so it doesn't really matter how I got here. (Matt)

> I did regret it sometimes – like I didn't even have a school graduation - I did regret it, but it's just something that … I think I experienced [school] enough up to Year 12. (Kat)

Only two participants said that they might have taken a different path if they could have their time over again. Although they did not regret their decision to enter university early, Evelyn and Ryan both mentioned that it might have been worthwhile to wait for a year or two after leaving school. With the benefit of hindsight, they reflected that they might have considered enrolling at another university or taken a different programme of study if they were able to "wind back" time:

> It was the best thing I could have done, given where I was at and given what I'm like as a person. I have no regrets in doing it. I probably would have done a different degree and I probably would have studied different things if I had waited a year. And I might have gone down to [name of university] or something, but I have no regrets about it. I think it was absolutely the best decision for me at the time. (Evelyn)

> I had a great time but I think, again, it was a bit of luck getting in the right social networks and stuff. So I'd probably go on an AFS [American Field Service] exchange, maybe work down the South Island on fruit picking and do that kind of stuff for maybe a year or two, and then figure out which university and what degree programme I really wanted to do. (Ryan)

Although Kevin had dropped out of university with one paper still left to complete his degree, he too was adamant that leaving school early had been the right decision for him at the time:

> If I didn't enter university at 16, I don't think I would have gone to university. I would have dropped out [of school]. So in a way it was kind of better because I didn't wag, there was no need to wag. At university they don't control you, you control yourself. In a way it was good, in a way it was bad. I don't think it's a big deal really going to university at an early age.

Personal growth and identity

During her final year, Evelyn decided to give up her "fantasy" *[sic]* of completing a PhD in the United States and enrolled in a graduate diploma in primary teaching. She reflected that a lot of people were shocked at her eventual career choice, because they had expected her to go on and achieve "great things". However, Evelyn said that she never looked back and had absolutely no regrets about becoming a teacher:

> It was a really good decision for me. I don't know if teaching's a long-term thing but I love it – it challenges me in ways that nothing else has … Teaching encourages me in ways that are really good for me as a person and I like that about it. It makes me a more rounded person, I think.

Evelyn went on to explain that entering university early had enabled her to develop greater maturity and confidence in her own abilities, contributing to an enhanced sense of personal well-being:

> I guess it's let me make choices based on the kind of lifestyle I want. You know, my generation, we grow up, we get told you can be anything you want to be and, if you're bright, then the expectation is, "And you should want to be something very good". That's kind of that expectation and so, when I went teaching, I think that was a big shock for a lot of people because teaching is not seen as being "very good". I should be capable of doing other things.

Unique perspectives

While none of the young people in this study used the term 'gifted' to describe themselves, it was readily apparent that they all demonstrated exceptional abilities in their respective fields. Interestingly, the majority of participants tended to attribute their academic success to hard work and effort, rather than natural ability. For example, Kat and Ryan were quick to dismiss any suggestion that they were "smart":

> I really think that, for some of us, you are either a genius or you just work hard to, say, come to uni young. So I just think that we have

> to consider that. Like I know you probably ask in your interviews, "Do you think you're smart or do you think you work hard?" Well, for me, I just think I work hard. (Kat)

> A lot of people go, "Oh, you must be so smart to go to university so young!" And I go, "Nah, I'm not that smart. I've just managed to jump a few years, work a bit harder and catch up". (Ryan)

Similarly, Tenille said that the main reason why she had been able to enter university early was because she had been accelerated at primary school:

> I had the idea that because I'd skipped the years so young it didn't really mean I was any smarter. It was more that I'd just had the opportunity to, I guess, start learning at a more advanced level at a younger age.

Kevin also believed that tenacity and persistence were critical attributes for success: "The most important thing with [name of instrument] is that you carry on playing. You never give up, that's the big thing". While Kevin acknowledged the importance of not giving up, he admitted that he found it hard to develop this quality in himself. Throughout our interview, he spoke of his disappointment at dropping out of university before completing his degree and bitterly regretted that he did not have the strength to carry on with his studies: "I think I'm mentally quite weak".

Kevin was also skeptical about the notion of 'talent' in relation to music and the arts. In fact, he maintained that anyone could become a world-class musician if they were willing to work hard:

> There is no such thing as talent in music. In sport there is, because physique is very important but, with music, it's all about intelligence and discipline. That's the two big things. Discipline for the art, which is all about controlling emotion, which is very hard to do. And second is intelligence, just creativity. So, if you are

> educated, if you're from an educated background, anyone could play really good [name of instrument].

Ryan had also developed an interesting theory to explain why some young people who entered university early were more likely to be successful than others. He made a clear distinction between those students who had decided to skip the final year of high school, and those students who had completed their secondary education early and then went on to university simply because it was viewed as a logical progression:

> I think from my looking around at people who do early entrance, there are two types of people. There are people like me who go, "I hate school. I'm not going back. Ah, let's go to university". And then there's the other type of people who go, "I've finished high school early. What shall I do now?" So, there's two, if you like, there's two different people. There's the people who are, "I'm not going back to school. I hate school. Let's try university and see if it's any better". And then there's the type of people who go, "Oh, I've finished high school. What's the next step? Oh, it's university".

According to Ryan, young people like himself who went to university early to escape from school were more likely to do well because they had a different mindset to other early entrants. From his perspective, social relationships were much more important for success at university than academic ability:

> I think the first group do a lot better at university because they're motivated to blend in. They're motivated to basically have a social life and have fun, while the other group is more focused purely on academics. I mean they've finished school [early] because they're academically brilliant and now they're focusing on being academically brilliant at university.

Advice for others

While reflecting on their own experiences, a number of participants also offered words of advice for other young people who might be considering

early admission. Although their comments covered a wide range of areas, the general consensus appeared to be that entering university early was a personal decision that required very careful consideration. Some participants focused on the academic demands of university and highlighted the need to ensure that early entrants had access to relevant information that would allow them to make an informed decision about their programme of study. Brad and Matt, the two youngest participants in this study, both said that it was important for students to seek individual guidance and support from staff who were familiar with university systems and processes:

> I think because it's such an unusual thing, it was very important to actually talk to someone from the department about what I wanted to do and not just go ahead and enrol myself in the normal processes. (Matt)

> I suppose, for any young kid that wanted to go through uni, it would be essential that they have a mentoring regime, like quite an intense one, just to show them the ropes and what's required at uni, especially in science. (Brad)

Kat also believed that young people needed to plan ahead and make sure that they were aware of the requirements for early entrance to university in their proposed field of study:

> First of all, they should really know what subject they're going to do – that's pretty much the hard part. And if they're really committed to that, or really love those subjects, have a talk to many, many people … And then, after that you need to plan very well and get all the right people, right consent, whatever, and work really hard to get that grade that you need to get in there.

Other participants emphasised the need for young people to take into account the social implications of entering university early. In particular,

Kat and Evelyn both noted the potential negative impact that this decision can have on developing and maintaining existing friendships:

> You also need to reflect [whether] your maturity levels, or things like that, are up to it. And ask if you're willing to sacrifice basically – because it's pretty much sacrifice – that you might not be able to see your friends because they'll still be in high school and so on. (Kat)

> I think you've got to be really strong in yourself to do it. You've got to know that it's the right choice and you've got to be prepared for the fact that it can take a long time to make friends. (Evelyn)

Stella also mentioned that it was important to take a holistic view and look at the kinds of social support networks (e.g., friends, family/whānau) that might be available to young people who were considering early entrance:

> But I think, you know, it's very dependent on a lot of things. I think you need to look at like the person's support as a whole, their family support, their friends, how well they do socially … It depends on the kind of person you are as well. I mean, if you really depend on social stimulation and you really need to be close to your friends, and then you move from being in high school straight into university – especially if you've left early – that might be a bit hard.

Kat and Stella believed that young people needed to be very sure in their own minds about what they wanted so that they were not unduly influenced by what other people thought about their decision to enter university early:

> And if you really want to come to uni, like from my experience, like sometimes they'll say, "Oh, do you really want to go? It's too early" or "You're too young to go". But, sometimes, if you know you are ready to do it, just don't worry about what other people think. (Kat)

> Make sure you're doing it because you want to do it and not because someone else wants you to do it. I would also say… don't let people who are trying to influence you get in your way of going to university. So, at the same time as don't let people force you to go, don't let people tell you that you can't do it. Because if you think you can do it, then you might as well try it because there's nothing to lose. (Stella)

6.3 Discussion

The perspectives of the young people in this study appear to provide strong support for the potential benefits of academic acceleration. The participants were unanimous in their view that early entrance to university was the 'right' decision for them at the time and not a single person expressed any major regrets about leaving school early. In fact, consistent with the findings of other research (e.g., Brody & Muratori, 2015; Hertzog, 2015; Jung et al., 2015; Olszewski-Kubilius, 2002; Sayler, 2010; Young et al., 2015), many of the participants wished they had been accelerated sooner. The 'gift' of time was identified as a significant advantage by all the participants: time for further study and early career exploration; time to pursue extracurricular activities and opportunities to give back to others; and time to develop greater personal awareness and belief in their own abilities (c.f., Scheibel, 2010).

Many of the young people in this study had endured years of boredom and frustration at school and perceived it as a 'waste' of time. The findings presented in this chapter suggest that early admission to university allowed them to maintain their natural curiosity and love for learning. While the participants were at various stages of their academic studies, most of them planned to further their education at the graduate and/or post-graduate level. At the time of their interviews, four participants were already enrolled in doctoral degrees (three had been awarded scholarships to prestigious overseas universities and one was completing an internship with a global international corporation), one had completed a Master's degree with First Class Honours and a graduate teaching qualification, four were still completing their undergraduate degrees, and one had

dropped out of university with just one paper (10 points) left to complete. Overall, these results are impressive and it would be interesting to conduct a follow-up study in ten years' time to track their future achievements and career pathways.

As discussed in Chapter Four, numerous studies (e.g., Jung, 2017; Lubinski, Benbow, & Kell, 2014; McClarty, 2015a; Wai, 2015; Warne, 2017) have demonstrated a positive correlation between academic acceleration and future career and occupational success. It was evident that the search for vocation was a strong motivating factor for many of the young people in this study. As they explored various fields of study and became interested in different concepts and new ideas, they shifted their professional goals and made significant changes in their degree programmes (c.f., Hébert & McBee, 2007). However, for some participants, this change in direction prompted concern from their parents/whānau who held more traditional views and expectations of success. To provide better support for students who enter university early, this finding suggests a need for school counsellors and careers advisors to work closely with parents/whānau to help them understand that career decisions are not irreversible and that a vocational search requires time and patience.

As well as gaining a competitive edge on the job market, entering university early also provided the young people in this study with opportunities to 'give back' to others. For some participants, this was a cultural expectation, as well as a deeply-held personal belief that they wanted to make a difference to other people's lives. Three participants worked for voluntary organisations during their entire time at university. While this was a significant commitment, they felt that their extra-curricular experiences helped them to adjust positively to the academic and social challenges of entering university at a comparatively young age (c.f., Young, 2010). This finding aligns well with the Gifted and Thriving model of personal growth proposed by Sayler (2010), which emphasises the holistic nature of talent development throughout an individual's life span. In this model, Sayler highlights the developmental impact of

friendships and spirituality, catalysts which he argues are necessary for gifted and talented individuals to 'thrive', rather than merely 'survive'.

Many of the young people in this study spoke at length about the need to be challenged in their learning (c.f., Kanevsky & Keighley, 2003; Preckel, Götz, & Frenzel, 2010). In contrast to other first-year students, their reasons for entering university appeared to be more altruistic; in general, they were motivated by intrinsic interest, rather than financial gain, and were willing to make personal sacrifices to achieve their goals. It is interesting that many of the participants downplayed their academic achievements and attributed their success mainly to effort and hard work – or, in some cases, purely to 'luck'. A possible explanation for this attitude could be that it reflects their attempts to try and fit in by building an identity that is more like other 'typical' same-age peers. It could also be argued that in strongly egalitarian societies, such as New Zealand, ascribing success to natural ability, and all that implies, sits very uncomfortably as an explanation for high achievement (Moltzen, 2011).

The participants also offered practical advice for other students who might be considering early entrance to university. From their perspective, they believed that it was critical to make sure that prospective candidates (and their parents/whānau) were fully aware of the potential advantages and disadvantages of early admission, particularly in relation to social and emotional adjustment. Several participants mentioned that early entrants need to be prepared to work hard and be willing to make personal sacrifices, such as losing contact with school-aged friends, not being able to participate in social activities that involve alcohol, and having limited opportunities to pursue romantic relationships (especially for younger males) (c.f., Young, 2010). In general, the participants appeared less concerned about possible academic adjustment issues, although a few suggested that it would have been useful to have a mentor, or someone who acted as a formal point of contact, to help guide them through complex university systems and processes. Overall, the young people in this study stressed the importance of knowing your own mind, staying true to your own beliefs, and being prepared to advocate for yourself.

6.4 Chapter summary

The findings presented in this chapter suggest that early admission to university may provide unexpected benefits and opportunities by giving younger students more time to consider future career pathways and directions. When asked to reflect critically on their experiences of acceleration, participants reported having few regrets about their decision to enter university early. For most of the young people in this study, school had been an unhappy experience and they relished the freedom and autonomy of the university environment. It was apparent that many of the participants thrived on challenge and were prepared to work hard to achieve their goals. While early admission to university had enabled them to gain a competitive edge on the job market, the young people in this study were also motivated by intrinsic factors, such as the desire to 'give back' to others and to 'make a difference' in other people's lives. The participants also offered a number of practical suggestions for other young people who might be considering early entrance to university in Aotearoa New Zealand.

The final chapter summarises the research findings and considers what can be learnt from the stories shared by the young people in this study.

Chapter Seven:
Conclusions and Recommendations

7.1 Introduction

This chapter presents the conclusions of this study in relation to the research questions. It outlines how the study has clarified and extended the knowledge base reviewed in Chapter Two. The literature review presented contrasting views about the merits of academic acceleration and early entrance to university. However, most of the research on acceleration has been conducted overseas and little is known about early entrance to university in Aotearoa New Zealand. This study begins to address some of the identified gaps in the field and is unique because it used a phenomenological approach to investigate the experience of early entrance to university from the perspectives of young people themselves, voices that have not been heard previously. Some potential limitations of the study are acknowledged and implications for educational policy and practice are outlined. The chapter concludes by discussing the significance of this study and making recommendations for further research.

7.2 Overview of findings

The results of the current study offer a sound justification and rationale for the provision of accelerated learning opportunities for high-ability students in New Zealand schools. It is important and timely due to recent changes in the national qualifications framework, whereby students are now required to achieve NCEA Level 3 in order to gain admission to university. All of the young people in this study were academically accelerated at some point in their education and the majority of participants (80%) entered university without completing the final year of secondary school. From their perspective, school was typically an unhappy experience; it did not provide sufficient academic challenge or rigour and there were limited opportunities to develop meaningful social relationships with like-minded peers. Indeed, several participants mentioned that they would probably have 'dropped out' of school entirely if they had not been able to enter university early.

Although some of the schools that the participants attended put in place special programmes to meet their learning needs, provision between schools varied widely and did not appear to be well-coordinated. In some cases, parents/whānau were required to act as advocates in order to have their child's need for accelerated learning recognised. However, participants reported that little consideration was given to the long-term effects of academic acceleration, particularly in relation to career planning and early entrance to university. This lack of guidance and support was also evident in their experiences of 'being at' university.

The process of entering university typically involves significant change as students transition from the familiar environment of secondary school to one where they are expected to take much greater responsibility for their own learning and behaviour. For younger students, this can pose significant challenges, both in terms of their academic adjustment and their social relationships with others. Some of the young people in this study felt overwhelmed by the complexity of university systems and would have liked access to a designated staff member who could mentor them through these processes. Interestingly, other participants did not believe they were challenged enough during their first year of university and said that they found it 'easier than school'. A few of the young people in this study also changed their programme of study partway through their undergraduate degree when they realised that their interests and passions lay elsewhere.

As noted in Chapter Four, the young people in this study took many different paths to university. It is not surprising, therefore, that their experiences of 'being at' university also varied considerably. However, many of the challenges experienced by the participants in this study appeared to be typical adjustment issues that might be expected in any group of young people entering university for the first time straight from school (Jung et al., 2015; Sayler, 2015). For example, while an initial drop in well-being is regarded as normal for most first-year students, the young people in this study demonstrated high levels of resilience and personal coping skills that enabled them to develop greater confidence in their own

abilities. The participants identified several factors that contributed to their positive adjustment to university. Ongoing support and encouragement from their family/whānau and friends was seen as critically important, along with participation in extra-curricular activities outside of the university environment. Although it was difficult for some participants to develop close friendships in their first year of university, they were pragmatic about this and sought other opportunities to socialise with 'like-minded' peers.

Overall, the findings of this study suggest that early entrance to university can be very successful and may provide unexpected benefits and opportunities for accelerated students. In retrospect, the participants commented that early entrance had enabled them to complete their undergraduate degree at a much younger age than is typical for students in Aotearoa New Zealand. As a result, they had time to pursue different career and study options and perceived that this gave them a 'head start' on the job market. Several participants had been awarded postgraduate scholarships to overseas universities and were in the process of completing their PhD degrees. None of the participants regretted their decision to enter university early and were unanimous in their agreement that it was the best option for them at the time.

7.3 Potential limitations of the study

Like any research of this nature, the current study has certain limitations, some of which were dictated by the research design. The primary limitation was the small number of participants and the fact that the sample group was composed exclusively of students who were studying at the same university. While this approach is consistent with the guidelines for IPA research (Smith et al., 2009), it is recognised that including participants from different universities may have broadened the findings. However, early admission to university is relatively uncommon in New Zealand and it would have been difficult to gain access to this unique population of students in other institutions where I did not have a personal connection.

Another potential limitation of this study is that participants were selected purposively to meet specific inclusion criteria. Although attempts were made to ensure that the sample group included students of both sexes who were enrolled in a range of degree progammes, not all students who were eligible to participate in the research were interviewed. Therefore, the findings cannot be generalised to other students who gained early admission to university in New Zealand, since these experiences are distinctive to the young people who participated in the current study.

A further limitation of this study relates to the use of self-reports as the primary source of data. As noted by Creswell (2013), this approach is reliant on articulate and perceptive participants; however, this was not regarded as a significant issue in the current study, due to the particular nature of the sample group. It is also recognised that self-reports may be influenced by participants' motivation to portray an overly-positive image of themselves and their actions (Paulhus & Vazire, 2007). Despite these concerns, previous research looking at self-reports of students in higher education settings suggests that self-reports and actual abilities are positively related and social desirability bias does not appear to play a major role in participants' responses (Miller & Speirs Neumeister, 2017).

A related issue is that the participants' narrative accounts were gathered retrospectively and could be affected by hindsight bias, whereby people attribute their current thoughts and feelings to the past as if they thought and felt that way all along (Roese & Vohs, 2012). These effects were mitigated in part by the fact that the experience of entering university was still quite recent for most of the participants in this study. Finlay (2014b) also contends that "[phenomenological] researchers accept that what participants say about their own experience is their 'truth' and do not morally judge. Their focus is on the meaning of the situation as it is given in the participant's experience" (para. 4).

It should also be noted that this research did not attempt to control for ethnicity and, therefore, the results may not be transferable to other cultural groups. Dai (2015) points out that all experiences have a

sociocultural aspect, including some cultural characteristics of the education system, which may not be applicable to other cultures. However, it is interesting to note that the youngest student to enter university in the current study identified as Māori, a finding which highlights the need for schools to provide culturally relevant and challenging learning experiences for *all* students (c.f., Miller, 2015; Russell, 2013; Webber, 2011).

7.4 Significance of the study

Despite the caveats noted above, the current study is unique in that it is the only New Zealand research that has specifically investigated the experiences of young people who were accelerated at school and gained early admission to university. Many of the findings about the lived experiences of the 10 young people in this study are reasonably consistent with what we know from evidence gathered in other Western countries about accelerated students who enter university early (Brody & Muratori, 2015; Hoggan, 2008; Jung et al., 2015; Kruszynski, 2014; McClarty, 2015a; Muratori et al., 2003; Scheibel, 2010; Steenbergen-Hu, 2009; Young, 2010). However, there are some significant differences as well and it is hoped that the results of this research will contribute to our knowledge in the field by providing a comparative New Zealand perspective. The importance of cross-cultural research, and the extent to which the findings deepen our understanding of the phenomenon under investigation, is an area of need that has been highlighted in previous research (Dai, 2015; Heuser et al., 2017; VanTassel-Baska, 2013).

Implications for practice

In New Zealand, the National Administration Guidelines (NAGs) explicitly acknowledge that gifted and talented students are a group of learners who have special educational needs (Ministry of Education, 2015a). The recommendations outlined below provide examples of how these guidelines could be leveraged by key stakeholders (e.g., Ministry of Education, schools, universities, parents/whānau) to meet the identified needs of high-ability students. Each recommendation is written in the form of a proposed action, backed up with evidence from the current

study and other relevant research, and further informed by my own professional judgement as an experienced teacher and facilitator.

Ministry of Education

Recommendation 1: Establish a national policy on academic acceleration that removes administrative (age-based) barriers to learning.

- The results of this study show that acceleration strategies, such as allowing students to skip one or more year levels or advancing them in selected subjects, are an effective approach to educational provision.
- Schools should be given greater flexibility about how gifted students are grouped for instruction to ensure that appropriate acceleration interventions are available to meet their identified needs.

Recommendation 2: Monitor the progress and achievement of gifted students as part of current national assessment and reporting systems.

- International assessments of achievement (e.g., TIMMS; PIRLS, PISA) have shown that high-achieving students are not making as much progress in their learning as other groups of learners. This so-called 'attainment gap' highlights the fact that gifted students will not necessarily 'make it on their own' (Marcus, 2016; Xiang, Dahlin, Cronin, Theaker, & Durant, 2011).
- Schools should be required to include gifted students as a priority target group in their strategic planning and establish specific achievement targets for their continued progress and achievement. By doing so, the Ministry of Education will send a clear message that all children deserve to learn something new every day (Siegle, 2007-2009).

Recommendation 3: Reinstate targeted funding for in-service professional learning and development to enable teachers to develop a better understanding of the special needs and characteristics of gifted and talented students so that schools are better able to identify and support this group of learners.

- Educators need to be aware that gifted students are a group of learners who have special educational needs. Teachers should feel confident in their ability to cater for their most able students, beginning with curriculum differentiation in the regular classroom programme.

- The Ministry of Education could assist schools to access appropriate support for gifted and talented education by establishing partnerships with national organisations, such as NZAGC, giftEDnz, and NZCGE, for the delivery of cost-effective and evidence-based professional learning and development programmes.
- As noted by the Education Review Office (ERO) (2008a, 2008b), without such guidance, schools are often left to their own devices. This has created an uneven playing field, with few resources or provision available to gifted and talented students, especially those in isolated rural areas. It would also be timely for ERO to conduct another national evaluation of schools' provision for this group of learners, since it has been more than a decade since their last review.

School leaders

Recommendation 4: There is a clear need to develop more flexible models of school organisation that will facilitate appropriate opportunities for academic acceleration.

- Gifted and talented students are at-risk in an educational system that does not acknowledge or recognise their unique learning characteristics and/or needs for social and emotional support. This study establishes the necessity of providing challenging curriculum experiences for high-ability students to achieve their potential.
- Developing an authentic sense of belonging is critical for the affective well-being of *all* students; however, many of the participants in this research reported that they felt socially isolated at school and had few real friends who understood them. Greater consideration needs to be given to flexible methods of grouping within schools (e.g., clustering, accelerate classes, One Day School programmes) so that gifted students have regular opportunities to interact with like-minded peers who have similar interests and readiness levels (Riley, Sampson, White, Wardman, & Walker, 2015; Riley & White, 2016).

Teachers

Recommendation 5: Teachers at all levels of the education system (early childhood, primary, and secondary) need to be better informed about the extensive research evidence demonstrating the positive effects of academic acceleration and

encouraged to utilise a range of accelerative strategies to optimise curriculum delivery for high-ability students.

- This research demonstrates that high-ability students require a curriculum which includes, as formal and integral components, tailored accelerative options. Educators need to understand that academic acceleration is a valid, cost-effective educational option, which meets the intellectual, social, and emotional needs of many gifted learners (Woods, 2016).
- Curriculum instruction and programmes directed at the 'average' learner do not address the needs of high-ability students. Rather than exposing gifted students to material they have already mastered, academic acceleration helps to challenge this group of learners with more rigorous and stimulating content (Boazman, 2010).
- A flexible, tailored approach to teaching and learning allows high-ability students to access advanced content, skills, or understanding before their expected age or year level (Scheibel, 2010).
- Teachers should build upon the inherent strengths of the *New Zealand Curriculum* and the *New Zealand Certificate of Educational Achievement* to design individualised pathways for gifted and talented learners.
- Academically accelerated students need continuity in their curriculum. Gifted students should be informed about and actively involved in negotiating their learning and the way in which the proposed learning outcomes are assessed (Merrotsy, 2002).

Careers advisors and guidance counsellors

Recommendation 6: Gifted students and their parents/whānau need to be better informed about accelerated curriculum options and supported to make appropriate decisions on pathways that are available beyond the school.

- Gifted students who have been academically accelerated or have completed secondary school ahead of their age peers, need to be fully supported in gaining access to appropriate tertiary level courses, which should be seen as an integral component of their senior high school curriculum (Merrotsy, 2002).
- Making students aware of opportunities for accelerated learning should begin early, ideally through careers advice at intermediate

school, to ensure that high-ability students are challenged in their learning and motivated to attend school (Schmit, 2011).

- Those involved with high-ability learners need to teach them the benefits of identifying multiple pathways and how to work through the process of setting and attaining realistic goals. Having authentic opportunities to experience academic challenge at school would help students to develop high-level problem-solving strategies and study skills, which they need to be successful at university (Boazman, 2010).

Recommendation 7: Guidance counsellors should receive appropriate training about the affective needs and characteristics of gifted and talented students.

- Gifted students who are academically accelerated require an environment of understanding and acceptance and ongoing support from well-qualified professionals to achieve their potential.
- Guidance counsellors need to assist students who have been academically accelerated to be better prepared for the transition to university (e.g., by being aware of common adjustment issues relating to both the academic and social dimensions of their lives).

Universities

Recommendation 8: Universities need to develop clear policies and guidelines for the admission of early entrants and this information should be readily available to prospective candidates.

- All of the participants in this study were aged between 13 and 16 years when they first entered university fulltime. The findings clearly show that younger students who are motivated to achieve academically have the potential to be very successful in their studies, providing that they receive appropriate support.
- Universities could actively encourage gifted and talented students to consider early admission by providing relevant information on their institutional websites. In many instances, it is not clear or self-explanatory whether universities accept applications from students younger than 16 years of age.
- University administrators should also consider alternate pathways for high-achieving students who have already completed introductory

papers through the STAR programme, prior to entering university. Some participants felt that their first year of university was 'easier than school' and felt frustrated that they had to sit through content they had already mastered.

- The ultimate goal is student success. Support systems should be enhanced to ease the transition from high school to college. Intervention with at risk students should occur early in their academic careers (Schmit, 2011).

Recommendation 9: A designated staff member should be appointed to mentor young people who gain early admission to university, especially during the first year of their studies.

- The transition to university can be overwhelming and many of the young people in this study were unaware of complex university systems and policies, such as recognition of prior learning, that may have been beneficial in helping them to make informed decisions about their programme of study.
- Although they did not want to be 'singled out' for special attention, some participants commented that it would have been helpful to have a designated staff member who was aware of their circumstances and could provide individual support and guidance. This may be especially important at those points in their academic studies when gifted students are most likely to 'hit the wall' (Mendaglio, 2013).

Gifted students and their parents/whānau

Recommendation 10: There needs to be greater advocacy and support for high-achieving students who have been accelerated at school and are considering early admission to university. Extended family members should be included in these services so that parents/whānau are aware of the potential benefits and disadvantages for young people who decide to take this pathway.

- The findings of this study suggest that early admission to university can be a viable and successful pathway for high-ability students who have exhausted the resources available to them at secondary school. The lived experiences of the participants in this study could serve as a useful resource for counsellors and other professionals who provide

advocacy and support for gifted students and their families/whānau, such as the New Zealand Association for Gifted Children (NZAGC).

- A recurring theme in this study was that ongoing support and encouragement from parents/whānau were critical enabling factors in the participants' transition to university, especially during the first year of their studies. Other research on early entrants has also noted the benefits of being able to live at home, or in an extended family environment, in terms of students' academic success and personal well-being (Olszewski-Kubilius, Lee, & Thomson, 2014).
- None of the participants regretted their decision to enter university early and the majority felt that it had given them more time to pursue higher qualifications and explore different career options. Consistent with the findings of Young's (2010) research into early admission to university in Australia, any adjustment difficulties tended to be relatively minor and short-lived. This is a key message from the research that gifted students and their parents/whānau need to be aware of in making decisions about early entrance to university.

Suggestions for further research

While the findings of this exploratory study add to our knowledge in the field, the limitations and implications for practice outlined above suggest a number of areas where further research is still required. Firstly, it should be noted that the results were based on an interpretative phenomenological analysis of data obtained from a single interview with each participant and, therefore, only represent a 'snapshot' of their lived experiences. It was outside the scope of this study to investigate the perspectives of other significant people in the participants' lives (e.g., parents/whānau, siblings, peers, and teachers), but this would provide a useful direction for further research. It would also be interesting to conduct a follow-up study with the same cohort in 10 or 20 years to explore whether their views on acceleration and early admission to university have changed over time.

Further research with more diverse samples is also needed. As mentioned previously, the current study was conducted at a single institution, so

replicating the research with high-ability populations at other higher education institutions could be beneficial. It would also be useful to carry out research with gifted students who were *not* accelerated at school to identify similarities and differences in their experiences of 'being at' university. Although some preliminary work has already been undertaken in this area, there is a very little research about this group of learners in New Zealand universities (Davies et al., 2010; Rubie-Davies et al., 2015).

Academic acceleration is still relatively uncommon in New Zealand schools, although recent studies suggest that some strategies, such as dual enrolment (Horsley, 2013; Yeo, 2016), subject-based acceleration (Rawlins, 2000), and year-level acceleration (Crawford, 2016; Wardman, 2010) are being utilised more frequently to meet the needs of gifted students, especially at the secondary school level. However, there is very little information available to guide parents/whānau and educators in making decisions about the timing and effectiveness of these interventions. The results of the current study indicate that students who were accelerated at primary school and entered university early with NCEA Level 3 qualifications found it easier to manage the transition process; however, further research is obviously needed to confirm these findings.

Another potential area for research could be to replicate studies that have investigated the status of early admission to university in other Western countries, such as Australia (Young et al., 2009; Young et al., 2007; Young, 2010) and Canada (Kruszynski, 2014). These findings could be used to clarify and define what criteria are currently used to allow (or disallow) accelerated students to enter university early in New Zealand and to develop evidence-based guidelines for evaluating early admission candidates.

7.5 Final thoughts

As mentioned in Chapter One, my interest in academic acceleration and early entrance to university is deeply personal, as well as being informed by my professional practice. I have been involved in the field of gifted and talented education for many years; firstly, as a regular classroom

teacher and schoolwide GATE coordinator, then as a lecturer and researcher in initial teacher education and, more recently, as a facilitator and project leader for several Ministry-funded GATE in-service teacher professional learning and development contracts. During the past 20 years, it has been my privilege to work with teachers, principals, and students in hundreds of schools throughout Aotearoa New Zealand. The process of researching and writing this thesis has enabled me to reflect critically on these experiences and given me greater insight into some of the challenges encountered by high-ability students within the current education system.

Many of the schools attended by the young people in this study had attempted to cater for their advanced learning needs through a range of provisions, including withdrawal programmes, subject acceleration, whole-year acceleration, dual enrolment, and specialist programmes beyond the school. However, despite these efforts, most participants commented that they lacked appropriate challenge in their learning and, in hindsight, perceived their schooling as a negative experience. Some participants also reported feelings of alienation and social isolation, which they attributed to their struggle to fit in and gain peer acceptance. As a result, all but two of the participants were withdrawn from school and taught at home by their parents for significant periods of time during their schooling.

For most of the young people in this study, early entrance to university allowed them to pursue their own interests and regain their love of learning. Although they faced a number of challenges and practical difficulties due to their age, the participants were unanimous that early admission had been the right decision for them 'at the time'. In fact, several participants maintained that they would have dropped out entirely, if they had not been able to leave school early. This finding suggests that our current education system is failing to meet the needs of high-ability students. There is a considerable body of research, which demonstrates that successful learning is most likely to occur when students are given learning opportunities at an appropriate level of

challenge. In a recent opinion piece in *The Age*, Masters (2018, March 25) raised important questions about the purpose of schooling and argued that it is time to rethink the way in which schools are organised:

> Given students' widely varying attainment levels in each year of school, how appropriate are age-based curricula in the 21st century? Is this the best way to support teachers' efforts to identify and address the learning needs of individual students? Would success at school be better measured not in terms of common year-level expectations, but in terms of the progress individuals make in a year, regardless of their starting points? (para. 11)

These comments are timely, given that the new Labour-led coalition government is currently undertaking a wide-ranging strategic review of the New Zealand education system as part of its three-year education portfolio work programme (Office of the Minister of Education, 2018). The accompanying cabinet paper outlines an aspirational vision for the future of education in New Zealand and notes that previous policy decisions, especially those aimed at ensuring public sector accountability and compliance, have been "rooted in a 20th century educational mindset" (p. 4). The cabinet paper also acknowledges that our current education system lacks personalisation and does not cater well for some groups of learners, including gifted and talented students. This statement is significant because it recognises that high-ability students will not necessarily succeed at school without appropriate educational support.

Other components of the education work programme, including the proposed reviews of the curriculum (in relation to student progress and achievement), the NCEA qualifications framework, and the Tertiary Education Strategy, could also benefit high-ability students and may lead to greater opportunities for accelerated learning and early entrance to university. A key feature of the review process is that it aims to engage in collaborative consultation with the education sector. Two national education summits have already been held and the advisory group charged with steering this process includes representation from gifted

education advocacy groups. In addition, a youth advisory group has been established and students have been invited to contribute their voices to the education conversation through a national youth summit. Public engagement in the future of education is also being sought via an online survey (Kōrero Mātauranga: https://conversation.education.govt.nz) and parents/whānau have been encouraged to voice their opinions on social media sites, such as Facebook and Twitter (#edconvo18).

It is hoped that the findings of this exploratory study will contribute in some way to the development of future education policy in Aotearoa New Zealand. A distinctive feature of the research was the underlying methodological framework, which sought to explore the lived experiences of accelerated students who had gained early admission to university from a phenomenological perspective. The use of interpretative phenomenological analysis (IPA) (Smith et al., 2009) as the main approach to data collection and analysis, also meant that it was possible to weave the participants' individual stories into the findings and discussion. As a result, this thesis prioritises the views of the 10 young people who agreed to participate in this study, voices that have not been heard previously.

Overall, the results of this study demonstrate that acceleration and early entrance to university is a legitimate pathway for high-ability students who are motivated to learn, willing to accept challenges, and prepared to work hard to achieve their goals. Parents/whānau, teachers, and other education professionals who interact with this group of students need to be aware of the substantial body of research that supports academic acceleration as an effective educational intervention. The long-standing myth that acceleration may have a negative effect on healthy social and emotional development also needs to be strongly refuted. Most of the participants in this study believed their experiences of acceleration and early entrance to university had enabled them to take control of their learning and contributed positively to their personal growth and self-actualisation. This is a goal that I believe our 'world class' education system should aspire to for *all* young people in Aotearoa New Zealand.

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Appendices

Appendix A: Ethical Approval

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THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

MEMO

To	**Ann Easter**	From	FOE Research Ethics Committee
cc	Dr David Giles	Date	13 October 2010
Subject	Supervised Postgraduate Research – Ethical Approval FOE091/10		

Ann,

At it's meeting today, the Faculty of Education Research Ethics Committee considered your application for ethical approval for the research proposal:

The lived experiences of students who enter university early in Aotearoa/New Zealand

I am pleased to advise you that your application has received ethical approval.

Please note that researchers are asked to consult with the Faculty's Research Ethics Committee in the first instance if any changes to the approved research design are proposed.

The Committee wishes you all the best with your research.

Professor Roger Moltzen
Chairperson
Faculty of Education Research Ethics Committee

Celebrating 50 TEACHER EDUCATION
1960-2010 UNIVERSITY OF WAIKATO

Appendix B: Introductory Letter to Participants

Department of Human Development and Counselling
Faculty of Education
The University of Waikato
Private Bag 3105
Hamilton 3240

[Date of letter]

I am currently studying towards a Doctor of Philosophy (PhD) at the University of Waikato and will be undertaking research entitled *'The lived experiences of students who enter university early in Aotearoa New Zealand'*. The purpose of this research is to better understand the personal experiences of students who begin their tertiary studies at a comparatively young age.

My interest in this area has grown from my own experiences as a parent, teacher and school advisor. However, early entrance to university is not common in New Zealand and very little research has been published on this topic. Interestingly, most of the research that has been carried out overseas does not take into account different sociocultural contexts and very few studies have investigated this topic from the perspective of young people themselves.

If you were aged 16 years or less when you first entered a full-time programme of study at a New Zealand university, I would like to invite you to take part in this study. You may be enrolled at university currently or you may have graduated now and be in the early stages of your career. Further details about what your participation in this research will involve, a participant consent form and a copy of the proposed interview schedule are attached to this letter, for your information.

If you would like further details about this study, please do not hesitate to contact me by email, phone, or letter. Alternatively, if you would like to

discuss the research with someone other than myself, please feel free to contact my chief supervisor, Professor Roger Moltzen, at the University of Waikato.

Our contact details are listed below:

Ann Easter (Researcher)	Professor Roger Moltzen (Supervisor)
Phone: 07 838 4466 x8242	Phone: 07 838 4695 (DDI)
Email: aeaster@waikato.ac.nz	Email: rim@waikato.ac.nz

I hope you see this study as worthwhile and will agree to participate in the research. I look forward to hearing back from you soon.

Yours sincerely

Ann Easter

Appendix C: Participant Information Sheet

Ethical approval:
Prior ethical approval for this research has been obtained from the Faculty of Education Research Ethics Committee at the University of Waikato (FOE091/10). The following information is provided to assist you to make an informed decision about your participation in this study.

Research procedures:
I would like to spend 60 to 90 minutes talking with you (either face-to-face or via Skype) about your experiences of entering university early. The interview will be audiotaped and transcribed by me and you will be given a copy of the transcript to review and edit. I would also like to remain in contact with you by email for a short period of time after the interview, in the event that I need to clarify any information you have given me. Some participants may also be invited to attend a follow-up interview at a later date, but you are under no obligation to accept this invitation.

Confidentiality and use of the interview data:
As a participant, you may choose to use a pseudonym and remain anonymous or be identified by your real name in this research. Your interview transcript will remain confidential and every effort will be made to maintain your anonymity, if you so choose. The consent forms will be stored in a locked filing cabinet in my office at the University of Waikato. The interview tapes will be erased once they have been transcribed. The written transcripts will be stored separately and pseudonyms will be used for any other person or organisation that is mentioned in the interview. Non-identifying information will be archived for a minimum period of five years, as required by the University of Waikato regulations for postgraduate research.

Publication of the findings:
Brief extracts from your interview transcript will be published in my doctoral thesis that will be held in the University of Waikato library and will become available electronically. These excerpts may also be used for

academic publications and conference presentations related to the research. A summary of general themes and findings will be made available to all participants at the conclusion of the research.

Your rights:
You may decline to participate in the research without giving any explanation and have the right not to answer specific questions, if you so choose. You are entitled to access and correct any personal information that is collected about you prior to publication of the final thesis. You may also withdraw from this study at any time, up until you have returned the interview transcript.

Informed consent:
A consent form is included with this letter, along with a stamped, addressed return envelope for your reply. If you are currently under the age of 17 years, a parent or legal guardian also needs to give consent for you to take part in this study. If you agree to participate in this study, I will make contact with you to arrange a convenient time and location for an individual interview. A copy of the proposed interview schedule is also attached, so you have an idea of what kinds of topics are likely to be discussed.

Further information:
If you have any questions or concerns about the research that you would like to discuss with someone other than me, you are welcome to contact my chief supervisor, Professor Roger Moltzen, at the University of Waikato: Phone: 07 838 4695 (DDI); Email: rim@waikato.ac.nz

Appendix D: Participant Consent Form

I have been informed about what is involved in the research and freely consent to take part in this study. I understand that this will involve a 60 to 90 minute interview with Ann Easter (either face-to-face or via Skype), followed by further email communication for the purpose of clarifying information. I am aware that some participants may be invited to attend a second interview, but have been advised that I am under no obligation to take part in this.

I understand that the individual interview will be audiotaped and transcribed by the researcher and that I have the right not to answer specific questions, if I so choose. I am aware that I can access and correct any personal information collected about me prior to final publication of the thesis and that I am able to withdraw from this study at any stage up until I have returned the interview transcript.

I consent to the use of brief extracts from the interview transcript in the written thesis and am aware that this will become available electronically. I also consent to this information being used for academic publications or conference presentations related to the research. I understand that I may choose to use a pseudonym to maintain my anonymity in the dissemination of the research.

Name: _____

Street address: _____

City: _____ Postcode: _____

Email address: _____

Phone: _____ Mobile: _____

Skype name (if applicable): _____

Signature of participant:

_____ Date: _____

Signature of parent or legal guardian: (if participant is aged under 17 years)

_____ Date: _____

_____ Name (please print)

Appendix E: Proposed Interview Schedule

Family background

- Can you tell me something about your family background? Parents? Siblings? Extended family members? Where did you grow up?

Growing up

- How would you describe your childhood? What were things like for your family when you were growing up?

School experiences

- What was school like for you? What schools did you attend? How would you describe yourself as a learner?

- What subjects did you enjoy most at school? What extracurricular activities were you involved in?

- Were you moved ahead of your age peers at school? How or why did this come about? How did you feel about being accelerated?

Leaving school

- When/how did you make the decision to go to university early? Who/what were the main catalysts and/or barriers to this?

- Did you have any concerns about leaving secondary school? What did other people think about you starting university early?

Early admission

- How old were you when you first started university? What was the process you went through to gain early admission?

- What is/was your programme of study? What factors influenced your decision about where to enrol and what courses to take?

Transition to university

- Describe what it was like for you when you first started university? How did you feel on your first day? What can you remember about your first lecture? First tutorial? First assignment? First exam?

- Were there any support systems at university to help you adjust to tertiary study? Special programmes? Other students? Lecturers? Mentors?

Adjustment to university

- How did you cope with the academic challenges of university work? How long did the adjustment take? Did you have any major setbacks?

- How did you adjust to being with much older students? Was it difficult to make new friends or to develop social relationships with other students?

- What skills did you have already that made your adjustment to university easier? What new skills did you need to develop?

- What have you enjoyed most about your university studies so far? Not enjoyed?

- Were there any particular factors or experiences at university that made you feel conspicuous because of your age?

- Were there any specific issues that had a significant impact during your first year or two at university?

- Which things were easy to deal with and which were more difficult? How did you resolve these issues?

Reflections about early admission

- In your view, what are the main advantages and disadvantages you have encountered as a result of entering university early?

- What factors do you attribute to your success/lack of success? What factors facilitated/hindered your progress?

- What has been the main outcome of early entrance for you? Biggest drawback?

- If you could go back in time, would you make the same decision to enter university early again? Why/why not?

- In hindsight, what advice would you offer other students who are considering early entrance to university?

Looking ahead

- What plans do you have for your future studies and career? What personal goals have you set yourself to accomplish?

- Where do you see yourself in 10 years time? What are your family aspirations?

Appendix F: Request to Access Academic Record

I give my consent for the researcher (Ann Easter) to have access to my University of Waikato Academic Record. I understand that this transcript may provide additional information about my programme of study that enhances and validates the data collected by the researcher during my individual interview.

I give my consent on the understanding that any information elicited from my academic record will remain confidential. I also understand that every effort will be made to ensure that information obtained from this transcript will only be used in such a way that I, or anyone associated with me, cannot be identified without giving prior consent.

Name: _____

Street address: _____

City: _____ Postcode: _____

Email address: _____

Phone: _____ Mobile: _____

Skype name (if applicable): _____

University of Waikato Student ID Number: _____

Signature of participant:

_____ Date: _____

Signature of parent or legal guardian: (if participant is aged under 17 years)

_____ Date: _____

_____ Name (please print)

Appendix G: Emergent Themes and Subthemes

Table G1

Theme 1: Pathways to University (260 extracts)

Subthemes	**Contributing ideas**
	Culture/ethnicity (5)
	Extended family (4)
	Parents (23)
	Physical abuse (1)
	Siblings (15)
Early childhood (21)	Advanced development (10)
	Born prematurely (1)
	Kohanga reo (1)
	Living overseas (8)
	Montessori preschool (1)
Primary school (19)	Boredom/lack of challenge (3)
	Bullying (3)
	Extra-curricular interests (3)
	Kura kaupapa Māori (1)
	Social and emotional issues (4)
	Transition/changing schools (5)
Secondary school (61)	Alienation (6)
	Boredom/lack of challenge (2)
	Bullying (1)
	Depression (1)
	Extra-curricular interests (5)
	Motivation (11)
	Peer group (8)
	Subject choices (14)
	Teachers (11)
	Transition/changing schools (2)

Table G1 continued next page…

Subthemes	Contributing ideas
Special provisions (70)	Acceleration (43)
	Competitions (6)
	Correspondence School (7)
	Dual enrolment at university (2)
	Extension/accelerate classes (4)
	Psychological testing (3)
	One Day School (5)
Methods of early entrance (41)	Auditions (2)
	Bridging courses/night classes (2)
	Home schooling (6)
	Polytech (3)
	Private tuition (1)
	Recognition of prior learning (1)
	Scholarships (5)
	Special dispensation (18)
	Summer School (3)

Table G2

Theme 2: 'Being at' University (245 extracts)

Subthemes	**Contributing ideas**
Academic adjustment: (119)	Boredom/lack of challenge (7)
• Challenges (83)	Competition/rivalry (2)
	Coping strategies (4)
	English language proficiency (3)
	Exams (1)
	Expectations of self/others (8)
	Gaps in basic skills (7)
	Group work (5)
	Hard work (12)
	Lack of motivation/enjoyment (10)
	Large classes (2)
	Subject choices (17)
	University systems (5)
• Opportunities (36)	Conjoint degree (1)
	Flexible learning (3)
	Greater autonomy (9)
	Increased challenge/motivation (15)
	Specialist programme (6)
	Wider range of subjects (2)
Social relationships (126)	Age restrictions (16)
	Girlfriends/boyfriends (8)
	Isolation/sacrifice (4)
	Making friends (28)
	Maturity/confidence (6)
	Media/publicity (2)
	Not standing out (28)
	Physical size (6)
	Relationships with peers (28)

Table G3

Theme 3: Critical Reflections (288 extracts)

Subthemes	**Contributing ideas**
Advantages of early entry (66)	Career exploration (15)
	No regrets (6)
	Not dropping out of school (1)
	Personal growth (10)
	Prestigious scholarships (5)
	Real world experience (12)
	Time for further study (17)
Disadvantages of early entry (27)	Alienation (4)
	Lack of job opportunities (1)
	Lack of independence (12)
	Missing out (8)
	Pressure to succeed (1)
	Socialising/making friends (1)
Enabling factors (88)	Careers advice (2)
	Extra-curricular interests (20)
	Family support (37)
	Mentors/supervisors (20)
	Self-belief (1)
	Teachers/lecturers (8)
Risk factors (25)	Antisocial behaviour (4)
	Depression (2)
	Distractions (1)
	Living away from home (6)
	Non-completion (3)
	Older mates (3)
	Personal dilemmas (2)
	Working part-time (3)
	Workload (1)
Unique perspectives (11)	Ability vs effort (1)
	Academic vs social focus (2)
	Gender issues (4)
	Gifted vs talented (3)
	Opportunities vs being smart (1)

Table G3 continued next page…

Subthemes	Contributing ideas
Advice for others (15)	Hard work (3)
	Making friends (2)
	Own decision (7)
	Time out/gap year (3)
Future aspirations (56)	Break from study (3)
	Career plans (33)
	Family life (9)
	Giving back (4)
	Sporting goals (7)

Appendix H: Research Summary for Participants

Thesis title: 'Time on my side': Experiences of accelerated students who entered university early in Aotearoa New Zealand[15]

Background: The research literature provides compelling evidence that academic acceleration is an effective educational intervention for high-ability students. Despite this, many educators are reluctant to move students ahead of their age peers due to misplaced concerns about the perceived negative effects of acceleration on their social and emotional development. However, most of the research on acceleration has been carried out in the United States and little is known about the experiences of students who have been accelerated at school and enter university early in Aotearoa New Zealand. The aim of this qualitative study was to explore the phenomenon of early admission to university from the perspective of young people themselves, voices that have not been heard previously.

Methodology: In-depth, semi-structured interviews were undertaken with 10 young people (six males, four females) who had entered university early in a large urban area in New Zealand. The research employed a hermeneutic phenomenological approach to capture the richness and diversity of the participants' unique experiences. Three basic, open-ended questions provided the structural framework for this exploratory study. Interpretative phenomenological analysis (IPA) was used as the primary method of data analysis because it has an explicit focus on the idiographic nature of lived experience.

Findings: The findings were structured around three superordinate themes, each of which represented a distinct temporal phase of the participants' experiences. The first theme, 'Pathways to University', looked at the participants' family backgrounds and experiences of school,

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[15] This thesis is currently under examination but will be available for electronic download from the University of Waikato Research Commons in due course. You can search within this collection by using the author name: Ann Easter https://researchcommons.waikato.ac.nz/handle/10289/2222

prior to entering university. Three major sub-themes were identified: 'A family of artists and musicians'; 'Finding the right fit'; and 'Bridging the gap'. The second theme, 'Being at' University, explored what it was like for the participants in this study to enter university at a comparatively young age. Two major subthemes were identified that appeared to illustrate important aspects of their experiences: 'Academic adjustment' and 'Social relationships'. The final theme, 'Critical Reflections', investigated the perceived impact of entering university early from the perspective of the young people in this study. Three major subthemes were identified: 'Time on my side'; 'Making a difference'; and 'No regrets'.

Conclusions: Despite the best efforts of their teachers, many of the young people in this study endured years of boredom and frustration at school, as well as ongoing issues with bullying and social isolation. Although some participants found the initial transition from secondary school to university difficult, the findings suggest that most of the challenges they faced were relatively minor and tended to be short-lived. Ongoing support and encouragement from family/whānau and friends, as well as active involvement in extra-curricular activities, were viewed by the young people in this study as critical enabling factors for positive adjustment.

Overall, the results of this exploratory study demonstrate that accelerated students who gain early admission to university can be very successful, not only in terms of their academic achievement but also in relation to their social and emotional development. With the benefit of hindsight, none of the participants regretted their decision to enter university early and most could identify significant advantages, such as being awarded prestigious international scholarships and having more time for early career exploration. The findings presented in this thesis highlight a need for parents/whānau and educators to be better informed about the potential benefits of academic acceleration and early admission to university as a legitimate pathway for high-ability students in New Zealand schools.

Appendix I: Retention and Acceleration Statistics for Students in New Zealand Schools (1 July 2017)

School sector	Age in years	Funding year level (FYL)[a]	Students below FYL		Students at FYL		Students above FYL		Total number
			n	%	*n*	%	*n*	%	*N*
Primary	5	Year 1	0	0	60,243	100	6	0	60,249
	6	Year 2	2,197	3.4	62,373	96.6	4	0	64,574
	7	Year 3	2,404	3.7	63,091	96.3	0	0	65,495
	8	Year 4	2,274	3.5	62,227	96.5	4	0	64,505
	9	Year 5	2,123	3.3	62,850	96.7	6	0	64,979
	10	Year 6	2,592	4.1	60,379	95.5	230	0.4	63,201
Intermediate	11	Year 7	1,472	2.4	58,685	97.2	223	0.4	60,380
	12	Year 8	10,755	18.1	48,338	81.4	279	0.5	59,372
Secondary	13	Year 9	11,111	18.7	47,890	80.7	320	0.5	59,321
	14	Year 10	11,008	19.0	46,611	80.3	420	0.7	58,039
	15	Year 11	11,436	19.7	46,121	79.4	509	0.9	58,066
	16	Year 12	12,243	21.6	43,871	77.5	476	0.8	56,590
	17	Year 13	12,333	25.4	36,272	74.6	0	0	48,605

Note. Figures adapted from Ministry of Education (2017d).

[a] The Funding Year Level (FYL) measures the number of years of schooling a student has received. For most students, this calculation is based on the date they first started school. It is independent of the way schools are organised and the programme of study that a student may undertake.